No. Coord-14/8/2021-O/o US (NLCPR) Government of India Ministry of Development of North Eastern Region

East Block-10, Level-IV, R.K. Puram, New Delhi-110066.

Dated the 13th January, 2023.

OFFICE MEMORANDUM

Subject: Minutes of the 37th meeting of Inter-Ministerial Committee of NESID Scheme held on 17.11.2022 at 02: 30 p.m. in Vigyan Bhawan Annexe, New Delhi under the Chairmanship of Secretary, Ministry of DoNER.

The undersigned is directed to forward herewith minutes of the 37th meeting of the IMC / NESIDS Committee held on 17.11.2022 at 02:30 p.m. in Vigyan Bhawan Annexe, New Delhi under the Chairmanship of Secretary, Ministry of DoNER and Co-Chairmanship of the Chief Secretaries of the concerned States for information and necessary action.

2. The minutes of the meeting/proposals contained therein have been duly approved by the Hon'ble Minister, Ministry of Development of North Eastern Region.

Encl. As above.

(N.K. Saha) Under Secretary to the Govt. of India Email id: <u>nitai.kumar@nic.in</u>

То

- i. Chief Executive Officer, NITI Aayog, Yojana Bhawan, Sansad Marg, New Delhi-110001.
- ii. Secretary (Home), Ministry of Home Affairs, North Block, New Delhi-110001.
- iii. Secretary (Expenditure), Department of Expenditure, Ministry of Finance, North Block, New Delhi-110001.
- iv. Foreign Secretary, Ministry of External Affairs, South Block, New Delhi-110011.
- v. Secretary, Ministry of Health & Family Welfare, Nirman Bhawan, New Delhi-110011.
- vi. Chief Secretary, Governments of Arunachal Pradesh, Itanagar, Arunachal Pradesh.
- vii. Chief Secretary, Government of Manipur, Imphal, Manipur
- viii. Chief Secretary, Government of Meghalaya, Shillong, Meghalaya.
- ix. Chief Secretary, Government of Mizoram, Aizawl, Mizoram.
- x. Chief Secretary, Government of Nagaland, Kohima, Nagaland.
- xi. Chief Secretary, Government of Tripura, Agartala, Tripura
- xii. Joint Secretary & Financial Adviser, Ministry of DoNER.
- xiii. Joint Secretary (NLCPR/NESIDS), Ministry of DoNER.

Copy also to:-

- i. PS to Hon'ble Minister, MDoNER.
- ii. PPS to Hon'ble MoS, MDoNER.
- iii. PPS to Secretary, MDoNER.
- iv. DS(SDM)/DS(AM)/DS(IFD), MDoNER.
- v. Executive Engineer (TW), MDoNER
- vi. Sr. Technical Director (NIC), MDoNER for uploading in the Ministry's website.
- vii. Web Manager, MDoNER

Minutes of the 37th meeting of Inter-Ministerial Committee (IMC)/NESIDS Committee held on 17.11.2022 at 2:30 PM under the Chairmanship of Secretary, Ministry of Development of North Eastern Region and Co-Chairmanship of Chief Secretaries of the concerned States through Video Conferencing (VC).

The 37th meeting of Inter-Ministerial Committee (IMC)/North East Special Infrastructure Development Scheme (NESIDS) Committee was held on 17.11.2022 at 02:30 p.m. to discuss project proposals received from State Governments of Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland and Tripura for consideration of projects for selection under NESIDS and other miscellaneous issues in respect of the projects under NLCPR/NESIDS. List of participants4 is at **Annexure-1**.

2. At the outset, Secretary, Ministry of Development of North Eastern Region (MDoNER) welcomed the representatives of State Governments and members of IMC/NESIDS Committee and line Ministries of the Government of India. He underlined the priority for capital projects and therefore the need to sanction and execute projects from the scheme outlay.

2.2 He also shared that the Ministry's schemes are being pursued for continuation of balance period of the 15th Finance Commission. In alignment with the same, he advised the State Government and other stakeholders to prepare new projects and to process for sanctions timely so that those can be expedited / frontloaded ; and to expedite implementation of the ongoing projects which will be paid for on first-come basis, following the CNA system introduced by the Ministry of Finance from the current financial year.

2.3 It was reiterated that the recommendations of the Committee for selection / sanction of the projects under NESIDS would be subject to approval of the continuation of NESIDS by the Cabinet. Thereafter, the Committee took up the proposals for detailed discussion and recommended as detailed below -

ARUNACHAL PRADESH

3. Project proposal "Construction of Multi Sports Facility Outdoor Stadium at Namsai HQ under Namsai District at a cost of Rs.38.00 crores"- for selection under NESIDS.

3.1 Chief Secretary, Arunachal Pradesh along with the officials of the State Government participated in the meeting through VC. Representatives of the State Government gave a brief presentation on the project. They informed that adequate Land is available with State Government for the said project in an institutional area that makes it an ideal land for the project.

3.2 Representative of Ministry of Youth Affairs and Sports supported the project proposal and advised to follow the guidelines of Ministry in this regard.

3.3 State Government was advised to provide output and outcome of the project including SDGs targeted in the DPR.

3.4 Copy of final checklist-cum-agenda notes, as placed before the Committee, along with all its enclosures, is at **Annexure-A**.

3.5 After due deliberation, the Committee recommended the project proposal of "Construction of Multi Sports Facility Outdoor Stadium at Namsai HQ under Namsai District at a cost of Rs.38.00 crore" for Selection under NESIDS.

4. Project proposal "Integrated Smart Drinking Water Supply to Basar Township and Peripheral Settlements (1.6 MLD) with Tourism components in Lepa Rada district at a cost of Rs. 49.47 crore" – for Selection under NESIDS.

4.1 Representative of the State Government gave a brief presentation on the project proposal.

4.2 Representative of the Department of Drinking Water and Sanitation advised seeking comments from Department of Housing and Urban Affairs (MoHUA). It was decided that the State Government would approach MoHUA for their comments and get the project cleared from MoHUA before placing the project before the IMC at the sanction stage.

4.3 State Government was asked to provide output and outcome of the project including the targeted SDGs at DPR preparation stage.

4.4 Copy of final checklist-cum-agenda notes, as placed before the Committee, along with all its enclosures, is at **Annexure-B**.

4.5 After due deliberation, the Committee recommended the project proposal of "Integrated Smart Drinking Water Supply to Basar Township and Peripheral Settlements (1.6 MLD) with Tourism components in Lepa Rada district at a cost of Rs.49.47 crore" for Selection under NESIDS, subject to clearance from Ministry of Housing and Urban Affairs, as per para 4.2 above.

5. Project proposal "Improvement of Water Supply System for Mechuka Township & Peripheral villages with Sewerage System and Riverfront development for boosting tourism in Mechuka Township" in Arunachal Pradesh under NESIDS – for condonation in delay in award of work.

5.1 The representative of the State Government informed that due to administrative reasons, issuing of the work order had got delayed in respect of the project "Improvement of Water Supply System for Mechuka Township & Peripheral villages with Sewerage System and Riverfront development for boosting tourism in Mechuka Township" albeit only by 6 days.

5.2 Copy of final checklist-cum-agenda notes, as placed before the committee, along with all its enclosures, is at **Annexure-C.**

5.3 After due deliberations, the Committee agreed to recommend condonation of the delay of 6 days, in issue of work order in respect of the project "Improvement of Water Supply System for Mechuka Township & Peripheral villages with Sewerage System and Riverfront development for boosting tourism in Mechuka Township" in Arunachal Pradesh under NESIDS.

MANIPUR

6. Project proposal "Infrastructure Development in and around the Polo Ground at Ibudhou Marjing, Heingang, Imphal East" – for Selection under NESIDS.

6.1 Chief Secretary, Manipur along with the officials of the State Government participated in the meeting through VC. Representatives of the State Government stated that the project **"Infrastructure Development in and around the Polo Ground at Ibudhou Marjing, Heingang, Imphal East"** was already sanctioned in the IMC / NESIDS Committee's 33rd meeting held on 18.01.2022 - subject to the condition that funding from this Ministry was limited to the available remaining Normative allocation of Rs.4.37 crore for the State for FY 2021-22 and balance funds shall be borne by the State Government from their own resources. The project was sanctioned in the financial year 2021-22 with an approved amount of Rs.30.40 crore against the balance available normative allocation of the State. The abstract of cost is same as earlier proposed by the State Government, which is also mentioned in the AFS dated 19.04.2022. Further, CS, Manipur stated that the central share for the sanctioned project was Rs.4.37 crore against the project cost of Rs.30.40 crore due to exhaustion of Normative Allocation of the State in 2021-22. The project being developed as a world class polo infrastructure to attract foreign and domestic tourists, is very important for the State.

6.2 Representative of Department of Sports supported the proposal for promotion of sports infrastructure with low impact on nature.

6.3 Copy of final checklist-cum-agenda notes, as placed before the Committee, along with all its enclosures, is at **Annexure-V**.

6.4 After due deliberations, the Committee recommended the project "Infrastructure Development in and around the Polo Ground at Ibudhou Marjing, Heingang, Imphal East" for revising the Central share for the project and enhancing it by Rs.26.03 crore against the Normative Allocation of the State for 2022-23 totaling to Rs.30.40 crore [i.e. Rs.4.37 cr + Rs.26.03 cr] under NESIDS.

7. Project proposal "Strengthening of 120 High & Higher Secondary School in Manipur" - for Selection under NESIDS.

7.1 Representatives of the State Government stated that the project proposal "Strengthening of 120 High & Higher Secondary schools in Manipur" is for the felt need of repairing and strengthening of new classrooms, as these Government schools were established many years back and are now in a dilapidated condition. Proposals for these schools are basically for infrastructural improvement like repair or renovation, supply of requisite furniture and providing computer enabled education system (Smart Classroom) to all 120 High & Higher Secondary schools of Manipur with estimated cost of Rs.150.00 crore. Maintenance of the created infrastructure is the responsibility of the State Government. Further, the State representatives informed that 120 schools have already been improved similarly from the State's own resources. In the instant proposal, the schools have been selected across various areas in the State of Manipur. It was pointed out that Sl. No. (e) of abstract of cost for Repairing of Existing Classroom mentioned per unit cost as Rs.28,71,874/-. However, amount against per unit cost was mentioned as Rs.5,00,000/-. Representative of the State Government confirmed that it is a typographical error, which will be rectified at the DPR stage. It was also decided that NESIDS, being Central Government Scheme, the proposed project has to be guided by the extant norms of Ministry of Education. The State Government was also asked to clarify as to whether the GST component included in the abstract of cost is also included in the latest SoR for the State or not. CS, Manipur clarified that Schedule of Rate (SoR) of State does not include GST and the norms of the Ministry of Education have been followed.

7.2 Representative of Ministry of Education stated that on the basis of concept paper, they are not able to respond and will offer comments in writing in consultation with their technical team, after receiving of DPR of the project.

7.3 After due deliberations, the Committee deferred the project proposal "Strengthening of 120 High & Higher Secondary Schools in Manipur" with a cost of Rs.150.00 crore under NESIDS; and advised the State Government to examine the proposal in line with norms of Department of School Education and Literacy and resubmit the same for consideration of the IMC / NESIDS Committee in its next meeting.

MEGHALAYA

8. Project proposal "Bulk Water Supply to Adjoining rural villages to Tura Town Water Supply Scheme at a cost of Rs. 98.50 crore" – for Selection under NESIDS.

8.1 Chief Secretary, Meghalaya alongwith the officials of the State Government participated in the meeting through VC. Representative of the State Government gave a brief presentation on the project for providing water supply to the adjoining rural areas to Tura Town.

8.2 The representative of the Department of Drinking Water and Sanitation informed that the said villages are already covered under Jal Jeevan Mission. During the presentation, it was also informed that adjoining rural areas were provided water supply under Jal Jeevan Mission out of water from Tura town. These villages are already covered with functional household tap connections. In response, the representative of the State Government informed that Source Finding Committee of the Jal Jeevan Mission had considered Tura Town as a source of water for the adjoining villages, which are provided water supply from it, thereby causing inadequate water supply to the population of Tura Town. The project now will mainly resolve the problems of the Tura Town apart from a few adjoining villages ; thus essentially ensuring water for urban area usage.

After detailed discussions, it was suggested the scheme may be designed exclusively for urban water supply to Tura town - as the service level proposed in urban areas is 135 LPCD vis-à-vis 55 LPCD as per JJM norms. The representative of the Department of Drinking Water and Sanitation also noted that as per the presentation made by the State, the availability of water is based on one-day observed discharged from the source. Hence, he advised that apart from seeking comments from Ministry of Housing & Urban Affairs, Water Availability Certificate should also be obtained from Department of Water Resources, Meghalaya.

8.3 State Government was advised to provide output and outcome of the project including the targeted SDGs at DPR preparation stage.

8.4 Copy of final checklist-cum-agenda notes, as placed before the Committee, along with all its enclosures, is at **Annexure-D**.

8.5 After due deliberation, the Committee recommended the project proposal "Bulk water supply to adjoining rural villages to Tura town Water Supply Scheme at a cost of Rs.98.50 crore" for Selection under NESIDS, subject to Water Availability Certificate from Department of Water Resources, Meghalaya and fulfillment of the conditions as advised by Department of Drinking Water & Sanitation & comments of Ministry of Housing & Urban Affairs, being obtained and duly addressed by the State Government at DPR preparation stage.

9. Project Proposal "In–situ Nallah Treatment Technology- Restoration of Nallah with Ecological Units (RENU) for the drains of Myntu River within West Jaintia Hills district, Jowai at a cost of Rs.19.42 crore"- for Selection under NESIDS.

9.1 Representative of the State Government made a brief presentation on the project.

9.2 The representative of the Department of Drinking Water and Sanitation stated that this is a sewage treatment unit using ecological unit for Jowai town. As it pertains to pollution treatment, comments may be sought from MoH&UA.

9.3 State Government was advised to provide output and outcome of the project including the targeted SDGs index at DPR preparation stage.

9.4 Copy of final checklist-cum-agenda notes, as placed before the Committee, along with all its enclosures, is at **Annexure-E.**

9.5 After due deliberation, the Committee recommended the project proposal "In –situ Nallah treatment Technology- Restoration of Nallah with Ecological Units (RENU) for the drains of Myntu River within West Jaintia Hills district, Jowai at a cost of Rs. 19.42 crore" for Selection under NESIDS, subject to comments of Ministry of Housing & Urban Affairs & Ministry of Environment, Forests, and Climate Change, being obtained and duly addressed by the State Government at DPR preparation stage. 10. Project proposal "Management of the Legacy Waste at Marten, Shillong" at a cost of Rs. 40.56 crore – for Selection under NESIDS.

10.1 Representative of the State Government made a brief presentation on the project.

10.2 The representative of the Department of Drinking Water and Sanitation advised to seek comments from Ministry of Housing & Urban Affairs. Ministry of H&UA in their written comments stated that the project is not under consideration of their Ministry and may be considered by MDoNER.

10.3 State Government was advised to provide output and outcome of the project including the targeted SDGs at DPR preparation stage.

10.4 Copy of final checklist-cum-agenda notes, as placed before the Committee, along with all its enclosures, is at **Annexure-F.**

10.5 After due deliberation, the Committee recommended the project proposal "Management of the Legacy Waste at Marten, Shillong at a cost of Rs.40.56 crore" for Selection under NESIDS, subject to comments of the Ministry of Housing and Urban Affairs & Ministry of Environment, Forests and Climate Change being obtained and duly addressed by the State Government at DPR preparation stage.

Project proposal "Development of Heliport at Shillong in Meghalaya at a cost of Rs.
 20.00 crore" – for Selection under NESIDS.

11.1 Representative of the State Government made a brief presentation on the project.

11.2 The representative of the Ministry of Defence suggested that the Heliport may be utilized for Air Force and Army as well.

11.3 Ministry of Civil Aviation supported the project proposal with the advice to follow the DGCA norms and the Greenfield airport policy guidelines.

11.4 State Government was advised to provide output and outcome of the project including targeted SDGs at DPR preparation stage.

11.5 Copy of final checklist-cum-agenda notes, as placed before the Committee, along with all its enclosures, is at **Annexure-G.**

11.6 After due deliberation, the Committee recommended the project proposal "Development of Heliport at Shillong in Meghalaya at a cost of Rs.20.00 crore" for Selection under NESIDS, subject to fulfillment of DGCA norms and compliance to Greenfield airport policy guidelines.

12. Project proposal "Implementation of Education IT Infrastructural in 240 Government Schools across Meghalaya at a cost of Rs.24.95 crore" – for Selection under NESIDS.

12.1 Representative of the State Government made a brief presentation of the project.

12.2 The representative of the Ministry of Electronics and Information Technology (MeitY) informed that the same facility i.e. Education Telecast via Satellite was provided to a number of schools in Meghalaya under the schemes of MeitY. In response, representatives of the State Government informed that V-SAT facility, Bharatnet is provided only for primary classes and it only covers the syllabus of CBSE. The project aims to provide education up to Higher Secondary classes and the content will be provided as per Meghalaya Board of Secondary Education.

12.3 State Government was advised to provide output and outcome of the project including the targeted SDGs at DPR preparation stage. It was also advsed to eamine and suitably incorporate if the same infratsructure can be convergently used for providing internet based services in health, pre-school learning / nutrition and skills etc. also

12.4 Copy of final checklist-cum-agenda notes, as placed before the Committee, along with all its enclosures, is at **Annexure-H.**

12.5 After due deliberation, the Committee recommended the project proposal "Implementation of Education IT Infrastructure in 240 Government Schools across Meghalaya at a cost of Rs.24.95 crore" for Selection under NESIDS, subject to the suggestions made as herein above by Ministry of EITY and MDoNER duly being addressed by the State Government at DPR preparation stage.

13. Project proposal "Construction of Girls hostel Building for Tribal Students at Balawan College Umsning, Ri-Bhoi at a cost of Rs.9.39 crore –for Selection under NESIDS.

13.1 Representative of the State Government made a brief presentation on the project.

13.2 The State Government was advised to ensure that the design of hostel building should be in line with requisite norms, if any, of the Ministry of Education.

13.3 State Government was advised to provide output and outcome of the project including the targeted SDGs at DPR preparation stage.

13.4 Copy of final checklist-cum-agenda notes, as placed before the Committee, along with all its enclosures, is at **Annexure-I.**

13.5 After due deliberation, the Committee recommended the project proposal "Construction of Girls hostel Building for Tribal Students at Balawan College Umsning, Ri-Bhoi at a cost of Rs. 9.39 crore" for Selection under NESIDS, subject to compliance with the norms/guidelines of Ministry of Education.

14. Project proposal "Upgradation of existing convention AIS grid system with Gas Insulated System (GIS) Replacement of Generator Transformer etc. Replacement of digital AVR and Governor System along with SCADA implementation/ installation of Umiam Stage- 1 Power Station, Sumer at a cost of Rs. 80.00 crore"– for Selection under NESIDS.

14.1 Representative of the State Government made a brief presentation of the project. In the presentation, it was brought out that upgradation of the new Technology was urgently required for the Power Station and that requisite norms of Ministry of Power would be followed.

14.2 State Government was advised to provide output and outcome of the project including the targeted SDGs at DPR preparation stage.

14.3 Copy of final checklist-cum-agenda notes, as placed before the Committee, along with all its enclosures, is at **Annexure-J.**

14.4 After due deliberation, the Committee deferred the project proposal "Upgradation of existing convention AIS grid system with Gas Insulated System (GIS) Replacement of Generator Transformer etc. Replacement of digital AVR and Governor System along with SCADA implementation/ installation of Umiam Stage- 1 Power Station, Sumer at a cost of Rs. 80.00 crore" subject to requisite guidelines/norms of Ministry of Power being followed in terms of technological design as well as implementation and being confirmed formally by the Ministry of Power.

15. Project proposal "Upgradation of existing convention AIS grid system with Gas Insulated System (GIS) for Umiam Stage-II Power Station Umsumer at a cost of Rs.15.00 crore"–for Selection under NESIDS.

15.1 Representative of the State Government made a brief presentation on the project. In the presentation, it was brought out that upgradation of the new Technology was urgently required for the Power Station and that requisite norms of Ministry of Power would be followed.

15.2 State Government was suggested to provide output and outcome of the project including targeted SDGs at DPR preparation stage.

15.3 Copy of final checklist-cum-agenda notes, as placed before the Committee, along with all its enclosures, is at **Annexure-K**.

15.4 After due deliberation, the Committee deferred the project proposal Upgradation of existing convention AIS grid system with Gas Insulated System (GIS) for Umiam Stage-II Power Station Umsumer at a cost of Rs.15.00 crore" subject to requisite guidelines/norms

of Ministry of Power being followed in terms of technological design as well as implementation and being confirmed formally by the Ministry of Power.

16. Project proposal "Up gradation of Meghalaya State Wide Area Network (MSWAN) at a cost of Rs.54.86 crore" – for Selection under NESIDS.

16.1 Representative of the State Government gave a brief presentation on the project.

16.2 The representative of the Ministry of Electronics and Information Technology requested to resubmit the proposal along with details of Band width requirement, number of users covered, number of offices covered and Implementation Model to examine the said project. Joint Secretary (Programme Division) clarified that the Operational Cost is not covered under NESIDS.

16.3 State Government was advised to provide output and outcome of the project including the targeted SDGs at DPR preparation stage.

16.4 Copy of final checklist-cum-agenda notes, as placed before the Committee, along with all its enclosures, is at **Annexure-L**.

16.5 After due deliberation, the Committee recommended the project proposal "Upgradation of Meghalaya State Wide Area Network (MSWAN) at a cost of Rs.47.30 crore only (excluding the non admissible operational cost components amounting to Rs.7.56 crore) for Selection under NESIDS, subject to the comments of the Ministry of Electronics and Information Technology, being obtained and duly addressed by the State Government at DPR preparation stage.

17. Project proposal "Setting up of Meghalaya State UAV & GIS Centre under the aegis of MBDA at a cost of Rs. 9.58 crore" – for Selection under NESIDS.

17.1 Representative of the State Government made a brief presentation on the project.

17.2 The representative of the Ministry of Civil Aviation supported the proposal with the request to finalize the Drone Policy in Meghalaya before starting this project.

17.3 The representative of the Ministry of Defence supported the project with a request to include the items like ceiling, payload carrying capacity and endurance at DPR stage. He further advised to take the technology from the repository available with Ministry of Defence instead of reinventing the Technology.

17.4 State Government was advised to provide output and outcome of the project including the targeted SDGs at DPR preparation stage.

17.5 Copy of final checklist-cum-agenda notes, as placed before the Committee, along with all its enclosures, is at **Annexure-M.**

17.6 After due deliberation, the Committee deferred the project proposal "Setting up of Meghalaya State UAV & GIS Centre under the aegis of MBDA at a cost of Rs.9.58 crore" for selection under NESIDS till the Drone Policy is finalized in Meghalaya.

MIZORAM

18. Project proposa: "Construction of Multipurpose Centre at Ramthar North, Aizwal" in Mizoram under NLCPR Scheme- for Change in Scope of Work.

18.1 Chief Secretary, Mizoram alongwith the officials of the State Government participated in the meeting through VC. Representatives of the State Government stated that the project was sanctioned at an approved cost of Rs.462.37 lakh on the recommendation of NLCPR Committee in its 122nd meeting held on 31.01.2014. The Administrative and Financial Sanction was issued on 18.02.2014. The representative of the State Government stated that the site and scope of the project was changed due to unavoidable reasons relating to the site and ownership of land. Hence, State Government was obligated to propose for change of site and the construction being made as per the available plinth area at the alernate site. 18.2 The original approved components of work contained for construction of G + 2 and Basement I, II III, and IV with the plinth area of 1604.69 sq. m whereas the revised DPR comprised floor area for construction of G + Basement I, II, III and IV with plinth area of 655.14 sq. m. Further, State Government informed that the matter was deliberated in the SLEC meeting and changes in scope of the work with the reduced cost was recommended by SLEC. The project is physically completed at a reduced cost of Rs.184.94 lakh, which is proportionate to the available plinth area at the alternative site. This reduced cost has been met out of the amount of released central fund plus State Share under NLCPR Scheme. Project is 100% physically completed and operationalized by Young Mizo Association.

18.3 Copy of final checklist-cum-agenda notes, as placed before the Committee, along with all its enclosures, is at **Annexure-U**.

18.4 After due deliberations, the Committee recommended the project proposal for change in the project site as per scope of work with the consequentially reduced cost of the project "Construction of Multipurpose Centre at Ramthar North, Aizwal" in Mizoram at a total cost of Rs.184.94 Lakh under NLCPR, which Scheme stood already closed.

NAGALAND

19. Project proposal "Construction of Wrestling Arena at Tsiesema in Nagland" – for Selection under NESIDS.

19.1 Additional Chief Secretary, Nagaland alongwith the officials of the State Government participated in the meeting through VC. State Representatives stated that Naga-Wrestling is one of the oldest and most popular traditional sports in Nagaland. Being a popular sport in the State, there has been a long standing need for a dedicated Naga-wrestling Arena. They stressed that the project aimed not only at promotion of Sports and Culture, but also to promote health and fitness of the local population. Besides, it also had the potential to improve tourism in the region. State Government also informed that total project cost is Rs.135 crore. Current proposal is under

Phase-I. Rest of the fund will be arranged by the State from their own resources or other sources. Land is available with State Government.

19.2 Representative of Department of Sports, Ministry of Youth Affairs and Sports, stated that they need to check whether traditional sports are covered in the Ministry of sports guideline or not; and that they will offer their comments in writing after consulting their guidelines in this regard. State Government was advised to provide output and outcome of the project including targeted SDGs at DPR preparation stage, and especially to bring out targeted SDGs in the Health Sector, to enable the Committee to consider the project under NESIDS.

19.3 Copy of final checklist-cum-agenda notes, as placed before the Committee, along with all its enclosures, is at **Annexure- N.**

19.4 After due deliberations, the Committee deferred the consideration of project proposal "Construction of Wrestling Arena at Tsiesema in Nagland" with a cost of Rs. 50 crores under NESIDS, in light of para – 19.2 herein above.

20. Project proposal "Up-gradation of transformation capacity at 132 kv substation Nagarjan, Dimapur (132/66 kV, 100 MVA & 66/33 kV, 50 MVA) in Nagaland"-for Selection under NESIDS.

20.1 Representatives of the State Government stated that the project proposal "**Up-gradation** of transformation capacity at 132 kV substation Nagarjan, Dimapur (132/66 kV, 100 MVA-1 no. & 66/33 kV, 50 MVA-1 No)" at Nagarjan is a national grid connected sub-station catering to supply of power to Dimapur and Peren districts. This sub-station consists of two 100 MVA transformers with voltage ratio of 132/66 kV, which caters the load of 66 kV system and other with the voltage of 132/33 kV, which caters the load of 33 kV distribution system. The downstream sub-stations fed by these two transformers at 66 kV and 33 kV are (a) at 66 kV voltage level and (b) at 33 kV voltage level. The situation in 66 Kv and 33 Kv will worsen, if any of the 100 MVA transformers becomes defective and might result in prolonged power outages which could even extend to months. Such situations will have enormous consequence with the potential of creating law and order problem.

20.2 Therefore, an intermediate transformer of 66/33 kV voltage ratio which can operate both in step-up & step-down modes is required to cater load either at 66 kV or 33 kV during the maintenance or defect of any of the 100 MVA transformer. Further, he stated that present load, the 132/66 kV transformer will have to cater to upcoming demands due to industrial start-up initiative by the Department of Industries through programs like the PM-Gati Shakti scheme at Ganeshnagar which is a Special Economic Zone of the State. The upcoming renewable power projects totaling to about 50 MV from Ganeshnagar area and Peren district shall be evacuating power from this sub-station at 66 kV in the near future.

20.3 Representative of Ministry of Power stated that proposal is in order and they have no objection at this stage. He stated that this project has not been funded by the Ministry of Power.

20.4 State Government was advised to provide output and outcome of the project including targeted SDGs at DPR preparation stage.

20.5 Copy of final checklist-cum-agenda notes, as placed before the Committee, along with all its enclosures, is at **Annexure- O.**

20.6 After due deliberations, the Committee recommended the project proposal "Upgradation of transformation capacity at 132 kV substation Nagarjan, Dimapur (132/66 kV, 100 MVA & 66/33 kV, 50MVA) in Nagaland" with an estimated cost of Rs.24.46 crore for Selection under NESIDS.

21. Project proposal "Construction of Short Landing Strips in 4 (four) District H.Q.s in Nagaland"- for Selection under NESIDS.

21.1 Representatives of the State Government stated that the project proposal "Construction of Short Landing Strips in 4 (four) District H.Q.s in Nagaland" is most important requirement of the State. They also clarified that these new short landing strips were proposed in districts HQs of Mokokchung, Mon, Kiphire and Zimheboto districts that are connected with road network only. Roads being the only means of transport in the entire State except Dimapur, any damage/blockades due to landslides results in the State being cut off from the rest of the country. Therefore, Short Landing Strips are required to be setup / developed for operation of

smaller Aircrafts of 18 to 20 seat capacity - to sustain and increase the activities of public, critical emergency and cargo transport within the State of Nagaland and also to provide connectivity to the flights at Dimapur and Guwahati.

21.2 Representative of Ministry of Defence supported the proposal and suggested that these Short Landing Strips may also be designed not only for small aircraft runway but also for highspeed multi-function aircraft and emergency landing of other aircraft also. Further, he stated that for these types of activities, ATC tower was also required for smooth function of such activities with high-tech engineering, so that, sensitive data does not go across the border. In view of their expertise in such activities, the State Government may also contact Indian Air Forc. State Government official stated that the project proposal does not require any ATC, since this is just a chopper based activity and these are not very high speed aircraft. Representative from Ministry of Civil Aviation stated that Short Landing Strips project are not covered under the purview of Ministry of Civil Aviation. However, DGCA guidelines along with statutory clearance like, Environmental Certificate, Land Availability Certificate etc. and others may be complied first before applying for DGCA approval.

21.3 State Government was advised to provide output and outcome of the project including targeted SDGs at DPR preparation stage.

21.4 Copy of final checklist-cum-agenda notes, as placed before the Committee, along with all its enclosures, is at **Annexure- AB**.

21.5 After due deliberations, the Committee recommended the project proposal "Construction of Short Landing Strips in 4 (four) District H.Qs in Nagaland" at an estimated cost of Rs.140 crore for selection under NESIDS subject to obtaining statutory clearances alongwith approval of DGCA prior to finalization of DPR at sanction stage.

22. Project proposal "Augmentation of Drinking Water Supply to Englan HQ and 5 (five) villages by Pumping in the Wokha District in Nagaland"– for Selection under NESIDS.

22.1 Representatives of the State Government stated that the project proposal "Augmentation of Drinking Water Supply to Englan HQ and 5 (five) villages by Pumping in the Wokha District in Nagaland" is a piped gravity water supply system, which existed in the early 1980 but could not be sustained for long owing to factors like severe depletion of water at source and frequent damages in the pipeline due to its long distance. All the habitations in this area are settled along the top of a particular mountain range viz. Englan Range. Due to its location and topography, no feasible gravity water source could be identified to date. For the common people, the accessibility to potable drinking water still remains a distant dream. Even today, the inhabitants have to travel long distances to fetch clean water for their daily uses.

22.2 Representative of Ministry of Jal Shakti stated that proposed project location/area is already covered and water tap available in each houses for 365 days under the flagship scheme Jal Jeevan Mission by the Ministry. State Government stated that under JJM scheme, source of water where pumping and distribution system was established at individual village level only, which is now exhausted due to very limited source of water available and not sufficient for villages. Now, the present proposal is for a larger source of water for all five villages. Further, they stated that earlier, change of existing water sources to another larger source could not be taken-up with JJM scheme due to some issues.

22.3 State Government was advised to provide output and outcome of the project including targeted SDGs at DPR preparation stage.

22.4 Copy of final checklist-cum-agenda notes, as placed before the Committee, along with all its enclosures, is at **Annexure- AA**.

22.5 After due deliberations, the Committee deferred the project proposal "Augmentation of Drinking Water Supply to Englan HQ and 5 (five) Villages by Pumping in the Wokha District in Nagaland" with an estimated cost of Rs.29.60 crore ; and advised for clearance from the JJM / Line Ministry and resubmit the proposal for consideration of selection under NESIDS.

TRIPURA

23. Project proposal "Haora Dam Project under West Tripura District" at a cost of Rs. 68.20 Crore – for Selection under NESIDS.

23.1 Chief Resident Commissioner, Tripura along with other officials attended the meeting physically. Representatives of the State Government also participated in the meeting through VC and made a presentation on the project.

23.2 The representative of the Department of Drinking Water and Sanitation informed that the said project is an irrigation project and requested to seek comments from Department of Water Resources, River Development and Ganga Rejuvenation & Ministry of Housing and Urban Affairs.

23.3 The Representative of Ministry of Jal Shakti, Department of Water Resources, River Development and Ganga Rejuvenation (DoWRRD&GR) informed that MoU has been signed between CWC and State Government and several tests for project were done by Central Water Power Research Station (CWPRS) who have provided their approval. Further, Systemic design parameters are also designed by CWPRS. He also informed that since this is a small project, DoWRRD&GR will not fund the project and supported the project being taken up from NESIDS.

23.4 The representative of the Ministry of External Affairs also supported the proposal.

23.5 State Government was advised to provide output and outcome of the project including targeted SDGs at DPR preparation stage.

23.6 Copy of final checklist-cum-agenda notes, as placed before the Committee, along with all its enclosures, is at **Annexure-P**.

23.7 After due deliberation, the Committee recommended the project proposal "Haora Dam Project under West Tripura District" at a cost of Rs.68.20 Crore –for Selection under NESIDS.

24. Project proposal "Construction of rain water reservoir on Champai Cherra near Champaibari" at a cost of Rs. 62.01 Crore – for Selection under NESIDS.

24.1 Representative of the State Government made a brief presentation of the project.

24.2 The representative of the Department of Drinking Water and Sanitation informed that the said project is an irrigation project and requested to seek comments from Department of Water Resources, River Development and Ganga Rejuvenation & Ministry of Housing and Urban Affairs.

24.3 The Representative of Department of Water Resources, River Development and Ganga Rejuvenation informed that MoU has been signed between CWC and State Government and several tests for project were done by Central Water Power Research Station (CWPRS), who have provided their approval. Further, Systemic design parameters are also designed by CWPRS. He also informed that since this is a small project so this Department will not fund the project and supported the project.

24.4 The representative of the Ministry of External Affairs also supported the proposal.

24.5 State Government was suggested to provide output and outcome of the project including targeted SDGs at DPR preparation stage.

24.6 Copy of final checklist-cum-agenda notes, as placed before the Committee, along with all its enclosures, is at **Annexure-Q**.

24.7 After due deliberation, the Committee recommended the project proposal "Construction of rain water reservoir on Champai Cherra near Champaibari at a cost of Rs.62.01 crore" for Selection under NESIDS subject to the comments of Department of WRRD&GR.

25. Project proposal "Tourism and Cultural Promotion Hub at Gandhighat, Agartala, West Tripura" at a cost of Rs.34.55 crore – for Selection under NESIDS.

25.1 Representatives of the State Government participated in the meeting through VC and made a brief presentation of the project.

25.2 The representative of the Ministry of Culture supported the proposal.

25.3 The representative of Ministry of Tourism stated that comments would be provided at the DPR stage.

25.4 After due deliberation, the Committee recommended the project proposal "Tourism and Cultural Promotion Hub at Gandhighat, Agartala, West Tripura" at a cost of Rs.34.55 crore for Selection under NESIDS, subject to the comments of Ministry of Tourism, being obtained and duly addressed by the State Government at DPR preparation stage.

The meeting ended with a vote of thanks to the Chair.

Annexure-I

37th meeting of Inter-Ministerial Committee (IMC)/NESIDS Committee held on 17.11.2022.

	List of Participants				
Sl. No.	Organization	Officers attended			
1	Committee/NESIDS	 Shri Lok Ranjan, Secretary, M/o DoNER (in Chair) Shri C. Rajasekhar, OSD (States), M/o External Affairs, on VC Shri Saurabh Endley, Joint Secretary, M/o DoNER Shri A.K. Dhyani, Director (NE), Ministry of Home Affairs, on VC 			
2	Other Special Invitees from Line Ministries	 Representative from Ministry of Defence Shri A. K. Gupta, SJC, Department Water Resource RD &GR Shri N.T. Paite, Director, Ministry of Culture Shri Goutam Ghosh, Director, Ministry of Power, on VC Shri Ashok Kumar, Director, Ministry of Power, on VC Shri Shivcharan Singh, Director, MeitY Shri Mritunjaya Sharma, DS, M/o Civil Aviation Shri Tejpal Singh, US, Deptt. School Education & Literacy 			
3	Government of Arunachal Pradesh	 Shri Dharmendra, IAS, Chief Secretary Shri Prashant S. Lokhande, IAS, Commissioner (Planning) Er. Tomo Basar, CE, PHED (EZ) Er. Tumto Kamsi, CE, PWD (EZ) Shri Tadar Apa, Director (Sports) Shri Okep Tayeng, i/c Director (Project Coordination) Shri Millo Pushang, Joint Director (Project Coordination) 			
4	Government of Manipur	1. Dr. Rajesh Kumar, Chief Secretary, Government of			

		Manipur, on VC				
		2. Shri V. Vumlunmang, Additional Chief Secretary,				
		Planning, on VC				
		3. Shri H. Gyan Prakash, Commissioner, Education, on				
		VC				
		4. Shri L. Nandakumar Singh, Director, School				
		Education, on VC				
5 Governme	ent of Meghalaya	1. Shri Donald Phillips Wahlang, IAS, Chief Secretary to the Govt. of Meghalaya, on VC				
		2. Dr. Vijay Kumar D, IAS, Commissioner & Secretary				
		to the Government of Meghalaya, Planning Departme on VC				
		3. Shri. Syed Md. A. Razi, IRTS, Commissioner and				
		Secretary to the Government of Meghalaya, PHE Department, on VC				
		4. Shri Pravin Bakshi, IAS, Commissioner and Secretary				
		to the Government of Meghalaya Power Department, on VC				
		5. Dr. B.D.R Tiwari, IAS, Commissioner and Secretary,				
		on VC				
		6. Smti Rosetta Mary Kurbah, IAS, Director School				
		Education & Literacy, on VC				
		7. Shri. K L Nongbri, MCS, JS , Transport and IT &				
		Communication Department, on VC				
		8. Smti. B M Lyndem, Additional Chief Engineer, PHE				
		Department, on VC				
		9. Shri E. Lyngwa, PC- SeMT, Information Technology & Communication Department), on VC				
		10.Shri F.B.S. Ramsiej, Deputy Director, Higher and Technical Education (DHTE), on VC				
		11. Shri M Kharkongor, Urban Affairs Department, on VC				
		12. Shri U.N Madan, OSD (T) Power Department, on VC				
		13. Shri B N Nengnong, Power Department (MePGCL), on VC				
		14. Shri B Saibon, Chief Engineer, Power Department (MePGCL), on VC				
		15. Shri Wankit Swer, OSD, Meghalaya Basin Development Authority (MBDA), on VC				
		16. Smti Porhi Kyndiah, Service Engineer UAV, MBDA, on VC				

6	Government of Mizoram	1. Dr Renu Sharma - Chief Secretary, Government of Mizoram, on VC				
		2. Shri Lalmalsawma Pachuau - Secretary, Planning & Programme Implementation Department, on VC				
		3.Smt C. Lalnunsiami, Sr Research Officer cum Unde Secretary, Planning & Programme Implementation Department, on VC				
		4. Er. Lalmalsawma, Executive Engineer, UD&PA Department, on VC				
		5. Er Lalrinawmi, Asst. Engineer, UD&PA Department, on VC				
7	Government of Nagaland	1. Shri. J.Alam, Chief Secretary, on VC				
		2. Shri. Amardeep S, Bhatia, Development Commissioner, on VC				
		3. Shri. E. Mhonbemo Patton, Pr. Secretary PHED,, on VC				
		4. Shri. Rajesh Soundararajan, Secretary, Transport, on VC				
		5. Er. Repangyangba Longkumer, Cl Engineer(PHED), on VC				
		6. Smt. Akumla Chuba,Director,Youth Resources & Sports, on VC				
		7. Shri. N.Nlumo Murry, Deputy Development Commissioner, on VC				
8	Government of Tripura	1. Shri Manoj Kumar, IAS, Special Resident Commissioner				
		 Shri Gitte Kirankumar Dinkarrao, IAS, Secretary , PWD & DWS 				
		3. Shri Abhishek Singh, IAS,				
		4. Shri A. Roy, IAS, Secretary, Urban Development				
		5. Dr. Pradeep Kumar Chakrabarty, IAS, Secretary, Planning				
9	Ministry of DoNER, GoI	1. Shri S. D. Meena, Deputy Secretary				
		2. Shri Ankit Mishra, Deputy Secretary				
		3. Shri Purushottam Verma, Deputy Secretary (IFD)				
		4. Shri N.K. Saha, Under Secretary				
		5. Shri S. K. Jain, Executive Engineer				
		6. Ms. Shimpy, Assistant Section Officer				
		7. Shri Viveka Nand, Senior Secretariat Assistant				

Annexure-A

Agenda Note for 37th meeting of the IMC/NESIDS Committee scheduled to be held on 15.11.2022

State: Arunachal Pradesh

1. Name of the Project: Construction of Multi Sports Facility outdoor Stadium at Namsai HQ under Namsai District

2. Estimated Cost: Rs. 3800.00 Lakhs

3. Sector: Sports

4. Objective: The objective of the project is to construct a Multi Sports Facility outdoor Stadium at Namsai HQ under Namsai District

5. Abstract of Cost:

SI. No.	Cost components	Amount (in Rs.)
i.	Natural Football field – Ground Development	20315123
ii.	Synthetic 400 mtr running track and Athletics field	66735456
iii.	Seating Stands with roof : Straight – 2 Nos.	220373104
iv.	Open to Sky seating stands –curved – 2 Nos.	23039827
٧.	RCC Road/Drive Way 1075 mtr x 5.0 mtr	21947308
vi.	Roof & Trusses for stands	14704150
	Front Boundary Wall and Gates – 2 Nos.	5442569
	Total cost of the project	372557537
	Add 1 % for contingencies	3725575
	Add 1 % for consultancy charges for Design Drawing etc	3725575
	Grand Total	380008687

- 6. Intended output and outcomes of the project- Not provided by SG
- 7. SDG, being targeted by the project- Not provided by SG
- Concept paper is attached.

10/11/22

(N. K. Saha) Under Secretary to the Government of India



344050/2022/NLCPR / NESIDS / SIDF/RIDF



DEPARTMENT OF PLANNING & INVESTMENT GOVERNMENT OF ARUNACHAL PRADESH BLOCK NO. 1, CIVIL SECRETARIAT ITANAGAR

GEOTAGGED REPORT

No.: Others/Public Works Departments/122484

Date of Geo-tagging: 2022-08-22 15:10:14

Project Details

Department Name: Public Works Departments

Project Name: C/o Multi Sports Facility Outdoor stadium at Namsai Ho under Namsai District, Arunachal Pradesh

Allocation Order No.: Not yet sanctioned

Funding Agency: Others

Type: Others

Geo Tagging Information

District Name		Circle Name	Geo Coordinates		
Namsai		Namsai	Latitude: 27.670178	Longitude: 95.873187	

Project Description



Field Executive Details

Name: nanak tangu	Mobile No.: 9862501423
Email ID: nanak.tangu@yahoo.in	

*** This Report is electronically generated and no signature is required.

Report Generation Date: Mon, Aug 22, 2022 3.12 PM

NON-DUPLICITY CERTIFICATE

This is to certify that the project "C/o Multi Sports Facility Outdoor stadium at Namsai Hq under Namsai District, Arunachal Pradesh" under NESIDS scheme is not sanctioned/taken up/proposed for taken up for funding under any other source of the Central or State Government or NEC or under any other Programmes and Plans.

Place : Namsai Date :

Signature of D.D.O

Executive Engineer

Namsai Division PWD neer Hamsai Division PWD AP Namsai Chai Pratenti

Superintending Engineer Tezu Circle, PWD, A.P., Tezu

Chief Engineer

Eastern Zone, PWD, A.P Namsai - 792103 83/89

344050/2022/NLCPR / NESIDS / SIDF/RIDF

GOVERNMENT OF ARUNACHAL PRADESH OFFICE OF THE DEPUTY COMMISSIONER: NAMSAI DISTRICT NAMSAI

CERTIFICATE OF AVAILABILITY OF ENCUMBRANCE FREE LAND

This is to certify that the land is available free of cost for the work "C/o Multi Sports Facility Outdoor Stadium at Namsai Hq under Namsai District ,Arunachal Pradesh" as the project is being proposed to be taken up on the existing playground at Namsai. The land is free from all sorts of encumbrances.

Place : Namsai

Date :

Ulululu ---

Deputy Commissioner Namsai District Namsai, AP

CERTIFICATE

It is certified that the project "C/o Multi Sports Facility Outdoor stadium at Namsai Hq under Namsai District, Arunachal Pradesh." for an amount of <u>Rs.3800.00 lakhs</u> (<u>Rupees Thirty Eight Crore</u>) only has been geo-tagged and project details entered into the MIS of Arunachal Monitoring web portal.

The geo co-ordinates of above project are latitude : 27.670178 and longitude : 95.873187 at <u>Namsai</u> under <u>Namsai</u> CD Block in District <u>Namsai</u> of Arunachal Pradesh.

Hence, Finance Department may accord concurrence / expenditure sanction/ LoCs against above project.

Executive Engineer NemeritiAveign. PeVP Namsha Deablor PWD Arunachal Pradesh

Superintending Engineer Tezu Circle, PWD, A.P., Tezu

Chief Engineer

Eastern Zone, PWD, A.P. Namsai - 792103

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344050/2022/NLCPR / NESIDS / SIDF/RIDF CONCEPT PAPER FOR THE PROJECT PROPOSAL FOR CONSIDERATION UNDER NESIDS DURING 2022-23

	SI. Particulars No.		Remarks			
1	Name of the Project & its Location	:	C/o Multi Sports Facility Outdoor stadium at Namsai Hq under Namsai District, Arunachal Pradesh			
2	Estimated Cost (Rs.in Lakhs) along with line estimate	:	Rs. 3800.00 Lakhs (Line Estimate allached)			
3	Proposed location with GPS reading	;	27° 66' 96"N 95" 87' 78" E			
4	Non-Duplicity Certificate	:	Attached			
5	Problem to be addressed through the project at local / state level giving the natures magnitude of the problems	κ.	Arunachal Pradesh is a sports loving state having Football, Wrestling, Athletics, Cricket, Judo as major sports. With a view lo promote sports at National and International Level, the State Government is pressing hard for improving the inadequade sports infastructure. This stadium will be a virtual goldmine for sports achivements. A state of all multi facility outdoor sports stadium will help in encouaraging the youths of not only Namsai District but whole eastern belt of Arunachal Pradesh to undertake sports activities to come to mainstream. A multi facility outdoor sports stadium with standard athletes track, Football pitch, discuss throw, Javelin throw, etc in Namsal will be the first and one of a Kind in the entire eastern belt of Arunachal Pradesh.			
6	Development objectives of the proposal	:	 Promoting outdoor Sports as Mainstream Career. Improving Sports Infrastrucutre of the District as well as the Eastern belt of Arunachal Pradesh Conduct National and State level events in the state. 			
7	Benefits likely to accrue quantified in term of population and parameters.	:	This Proposed Multi Facility outdoor Stadium will have a sealing capacity of 5300 nos and will be equpped with an Athletic track of 400 metres, Football Pitch, other track & Field events and indoor halls with hostel for Boys & Girts who can stay during events. The present state of sports infrastructure in the distict is inadequate. Once this propsed Facility is completed, it will serve as a major drive to promote sports and conduct state level events in this part of the country. This project once completed will offer a platform for aspiring athletes, sports persons from eastern areas of the state.Namsai district placed at the heart of eastern Arunachal Pradesh has good connectivity with rest of the part of state too.			
8	Ongoing initiative taken by the State Govf. and manners in which duplication will be avoided synergy created through the project		There is no any ongoing initiative under State / Cetoral scheme for the construction of this road.			
9	Economic paramaters justifying the project for funding and socio-economic evolution in page of entried infrastructure	;	The project is primarlily meant for development of sports infrastructure & promotion of Sports to bring the youths of the state to mainstream			

to mainstream.

analysis in case of social infrastructure

project.

344050/2022/NLCPR / NESIDS / SIDF/RIDF

- 10 Status of administrative and statutory clearances from State / Central govt.
- 11 Readiness for implementation of the project
- 12 Post completion sustainability including operations and mainenance of assets.
- 13 Anticipated time frame of completion of the project
- 14 Year wise Physical and Financial phasing.

Assistant Surveyor of Works Namsai Division PWD Namsai, A.P

Executive Engineer (Plg) Tezu Circle PWD Tezu, A.P

Surveyor of

0/o Chief Engineen (57), BWD Swryssi, A.R. W.J. S.F Eastern Zone, PWJ. S.F Namsai - 792103

All administrative and statutory clearances required from the State govt, shall be accorded without delay

The required DPR shall be submitted within the stipulated time frame for sanction & the process of tender formalities for award & execution shall be made accordingly.

The maintenance cost of this project after completion would be supported by the State Govt. Resources as it is being done in the State at present.

Three years subject to accord of sanction and availability of fund.

00 Lakhs 100%
<u>00 Lakhs 20%</u>
.00 lakhs 40%
.00 Lakhs 40%

Executive Engineer Namsai Division PWD Namsai, A.P

Superintending Engineer Tezu Circle PWD Superingending Engineer Tezu Circle, PWD, A.P., Tezu

Suptidg, Sufveyor of Works Of Citlef Engineer (FiZ)//RWD Easter Zanga, P.VD, Namsai - 752103 (A.P.)

Chief Edgineer.
 Eastern Zone PWD
 OntestEngineer
 Eastern Zone, PWD, A.P.
 Namsai - 792103

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344050/2022/NLCPR / NESIDS / SIDF/RIDF

State AP

(C.P.W.D) Code Para 330-332)

Division :- Namsai Sub-Division :- Namsai-I

Name of work :- C/o Multi Sports Facility Outdoor Stadium at Namsai Hq under Namsai District ,Aturachal Pradesh. (Based on APSR-2021 & DPAR-2021+cost Index))

SI, No,	Sub-Head	Amount (in Rs.)	Remarks
1	NATURAL FOOTBALL FIELD- GROUND DEVELOPMENT	20315123.00	Annexure - A
2	SYNYHETIC 400 MIr RUNNING TRACK & ATHELETICS FIELD	. 66735456.00	Annexure - B
3	SEATING STANDS WITH ROOF : STRAIGHT- 2 Nos	220373104.00	Annexure - C
4	OPEN TO SKY SEATING STANDS- CURVED - 2 Nos	23039827.00	Annexure - D
5	RCC ROAD/ DRIVEWAY 1075 Mir x 5.0 Mir	21 947308 .00	Annexure - E
6	ROOF & TRUSSES FOR STANDS	14704150.00	Annexure - F
7	FRONT BOUNDARY WALL & GATES- 2 Nos	5442569.00	Annexure - G

	Total Cost of Project	Rs.	372557537.00
	Add 1% for Conl	ligencies	3725575.00
Add 1% for Con	sultancy charges for Design Draw	ving, Etc.	3725575.00
			200000000 00

3800**08687.0**0

Say Rs. 3800.00 Lakhs

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Assistant Engineer (Plg) Tezu Circle PWD Tezu, A.P

Executive Engineer (Pig) Tezu Circle PWD Tezu, A.P

Survey on Works-II O/o Chartery Mar (21) Macks Eastnan ZDAD, PWD, A.P. Namsai - 792103

Chief Englinder Eastern Zone, PV. O. A.P Namsai - 192103

Assistant Surveryor of Works Namsai Division PWD Namsai ,A.P

ExecutiveEngineer Namsai Division PWD

Namsai "A.P

Superintending Engineer Tezu Circle PWD Tezu, A.P

> Supidg. Surveyor of Works O/o Chief Engineer (EZ), PWD, Supidg. Surveyor A By Eastern Zene, A By D, Namsai - 752103 (A.P.)

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General Abstract of Cost

Agenda Note for 37th meeting of the IMC/NESIDS Committee scheduled to be held on 15.11.2022

State: Arunachal Pradesh

1. Name of the Project: Integrated Smart Drinking Water Supply to Basar Township and its peripheral settlements (1.6 MLD) with Tourism Components.

2. Estimated Cost: Rs. 4947.00 Lakhs

3. Sector: Water Supply

4. Objective: The objective of the project is to provide drinking water supply to the township.

5. Abstract of Cost:

SI. No.	Sub-head and Item of work	Qnty	Unit	Rate (in Rs.)	Per	Amount (in Rs.)
1	2	3	4	5	6	7
1	Providing and fixing of Pipes complete with Fittings including trenching and refilling, Saddle support, thrust block etc complete.	1	Job	18,48,78,000	Each	18,48,78,000
2	C/o Drop Inlet Head work	1	Nos	48,43,000	Each	48,43,000
3	C/o Pre- Sedimentation tank	1	Nos	61,70,200	Each	61,70,200
4	C/o Sedimentation Tank	1	Nos	65,40,000	Each	65,40,000
5	C/O Aerator	1	Nos	6,06,000	Each	6,06,000
6	C/O high Rate Solid Contact Clarifloculator (HRSCC) capacity upto 1.60 MLD	1	Nos	1,62,00,000	Each	1,62,00,000
7	Design, Construction, Supply of Materials, Erection, Installation & Commissioning of Complete WTP Pressure filteration System Plant of average 1 Lakh Litre /hr capacity with SCADA compatible Pressure monitoring and back washing mechanism.	1	Set	68,50,000	Set	68,50,000
8	C/o RCC Clear Water Reservoir	1	Nos	59,46,000	Each	59,46,000
9	Design & Construction of Sludge Pit & Sludge Disposal System at WTP	1	job	13,30,452	job	13,30,452
10	UV, Activated Carbon Purifucation & Water Testing equipments, energy backup etc	1	Nos	1,41,56,000	Each	1,41,56,000
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11	WTP Automation by SCADA					
	Design, Supply, Installation, Commissioning of SCADA System for monitoring & operation of Water Treatment Plant, Water Transmission Lines & Town Water Distribution system with Min 100' Monitoring station, Wireless communication systems, Firewalls, LAN, Switch, internet connectivity, cables and required instruments, Electronics with complete trials training and handover including 1 year O&M.	1	Job	58,38,900	Job	58,38,900
12	Construction of Zonal Tanks with necessary arrangements for inlet, out-lets and Distribution networks complete staging.	1	Job	6,42,20,000	Job	6,42,20,000
13	Providing Supply & Laying- fixing of Fire hydrants and 20 mtr hose at strategic locations including knife/gate valves and civil chambers for maintenance.	2	Job	Rs. 2,95,000	Job	5,90,000
14	C/o Security wall around WTP and Zonal tanks	640	Rmt	Rs. 13,210	Mtr	84,54,400
15	Land development for WTP	1	Job	Rs. 84,35,000	Job	84,35,000
16	C/o Retaining wall at strategic locations to protect WTP area	1	Job	Rs. 1,58,08,900	Job	1,58,08,900
17	C/o all weather Approach road to WTP	0.82	Km	Rs. 1,80,00,000	Km	1,47,60,000
18	Formation cutting of hills for laying of main pipeline	1	Job	Rs. 3,18,12,000	Job	3,18,12,000
19	C/o C.C. pavement foot path from Nyodu Nyigam road to WTP area	1120	Mtr	Rs. 9,700	Mtr	1,08,64,000
20	Trekking/Natures trail from Galu to Head work	5100	Mtr	Rs. 3,000	Mtr	1,53,00,000
21	Wireless Surveillance security cameras including foot fall count, face recognition and Analytics etc.	6	Nos	Rs. 4,00,218	Nos	4,00,218
22	WTP Area Recreational, Park Development and nature's friendly water sports components along gravity main from Galu to Head work.	1	Nos	Rs. 5,81,00,000	Nos	5,81,00,000
23	Supply of required Electrical Transformer 250 Kva, Electrical Panels, Control Panels, Instruments, MCC box, JB's and other	1	Set	Rs. 18,50,000	Set	18,50,000

	accessories with cable & accessories etc.					
24	Supply and Erection of Silent Genset for 100 Kva with panel boards and Auto on/off system	1	Set	Rs. 10,50,000	Set	10,50,000
C	Total					48,50,03,070
25	Consultancy services		1%			Rs. 48,50,031
26	Add Contingency		1%			Rs. 48,50,031
					Total	49,47,03,131
					Say	49,47,00,000

- 6. Intended output and outcomes of the project- Not provided by SG
- 7. SDG, being targeted by the project- Not provided by SG
- 8. Concept paper is attached.

(N. K. Saha) 10/11/22

Under Secretary to the Government of India

GOVERNMENT OF ARUNACHAL PRADESH PUBLIC HEALTH ENGINEERING AND WATER SUPPLY DEPARTMENT **CONCEPT PAPER** FOR UNDER PHE & WS DIVISION BASAR LEPARADA DISTRICT, ARUNACHAL PRADESH ESTIMATED COST: Rs. 4947.00 Lakhs YEAR: 2022 - 2025

large of Work	Integrated Smart Drinking Water Supply to Basar Township and peripheral settlements (1.6 MLD) with Tourism
	Components

N

should elaborate the problems to be addressed through local/State level. Evidence regarding the nature and magnitude of the problems should be given. Clear evidence should be given regarding the nature and magnitude of the problems to be addressed.	Leparada is one of the newest Districts of Arunachal Pradesh with Basar Town as its Headquarters. With the joining of Deputy Commissioner and Superintendent of Police and Heads of the Departments and other officials and staffs, there has been tremendous increase in the population of Basar township. The last scheme implemented is already more than 15 years old. Hence, water crisis has become a huge challenge in the township. Besides, peri-urban settlements around Basar township have also got issues of shortage in water supply level. Hence, there is urgent need for a project for augmentation of drinking water for the township. For the purpose, two perennial streams are identified as sources located at an altitude of about 814 metres at Galu area namely Gachi-Gate having sufficient discharge for the proposed project. They are located at a distance of about 615 kilometres from proposed WTP site. The proposed WTP site is located at a beautiful hill top about 5 kilometres from Basar township at an altitude of 738.8 mts. There is an all weather road in the vicinity and hence approach road required upto WTP will involve less length. For the area has a potentiality for becoming a tourist destination with its scenk beauty of Basar Township and its peripheral villages. The area thas a potentiality for becoming a tourist destination for visit by the tourists, then a unique marathon namely Basar Rumting Ultra Trail Experience (BRUTE) in its proposed to integrate dourism components in the project with provisions for visit by the tourists, then a unique marathon namely Basar Rumting Ultra Trail Experience (BRUTE) in its proposed to integrate during water supply system. Due to rapid increase of population and expansion of township area particularly after creation of the district, the existing water supply system which is already more than 15 years old is not sufficient to supply required level of drinking water in the township. There is an affection of the state which is celebrated annually and has become another reason for wi
2. The development objectives proposed to be achieved should be given.	It would be one of an innovative project in the District, wherein, besides providing drinking water supply to the township and peripheral settlements tourism interventions would make the project sustainable.
3. Benefits likely to accrue quantified in	The scheme is designed to benefit about 10,254 people. It will also promote tourism and boost economic opportunities in the area with potable water which in turn will help in improving the health and efficiency of the people. The institutional needs and floating population needs shall also be taken care the project.
Initiatives taken by the State Govt. and the manner in which duplication will be avoided and synergy created through the project.	
parameters to be given to justify the project for funding and in case	

operation and maintenance of asset after project completion and related issues should be given.	and the community concerned shall be mobilsed for source sustainability.
administrative and Statutory clearance of	The project site is owned by the villagers of Nyigam,Galu and Nyodu village and they a ready to provide land for implementation of the project. Hence statutory administrati clearances is not required.An agreement would however be drawn with the land owners and Li thereof would be obtained.
8. Design and scope	Necessary preliminary survey and investigation related to the project has been completed by the Department and the preparation of preliminary DPR is under progress.
sustainability including	On completion of the project, the assets so created shall be maintained .by the departmen The community shall have also an important role to protect the catchment area for sour sustainability. The mobilization of the community is already on.
10. Specification.	<u>Specification</u> :-As per CPWD/CPHEEO Std.specification. <u>Rate</u> :-As per_PHESOR+Approved rate+ Applicable cost index. <u>Method</u> :-Departmentally/Contract/Land:-Available <u>Time</u> :-2022-2024
11. Estimated Cost, Physical and Financial Phasing.	Financial Phasing:
	2022-23 = 989.00 Lakhs
	2023-24 = 1731.00 Lakhs 2024-25 = 2227.00 Lakhs
	$r_{01a} = 4947.00$ Lakits
	Physical Phasing:
	,我们就是我们们的时候,我们就能是这些,我们就是我们的,你们就是我们的,你们就是你们的,你们就是你们的,你们就是你们的。""你们,你们不是你们的,你们就是你们的,
	2022.23
	2022-23 (1) Land development I/c Jungle Clearance
	2022.23
	2022-23 (1) Land development I/c Jungle Clearance (2) Procurement of pipes etc.
	2(122-23 (1) Land development I/c Jungle Clearance (2) Procurement of pipes etc. 2023-24 Construction of WTP ,Zonal Tanks, Retaining wall, Boundary wall and Laying, Fitting Fixing of mid

Chief Engineer PHED (E/Z) Itanagar

(E.E Barrow)

i U	<u>ABGTRACT OF COST</u> State - Ammachai Pradesh					U rision Baear
Bia Na	earch: PHEC Branch: PHEC Name of Work: Integreted Smart Drinking Water Supply to Basar township and its peripherial settlements with Tourism Components.	ettlemen	ts with	ı Taurism Campor	nents,	Sun-Criston Base
Hes	Head of Account: NESIDS					
SI. No.	Sub-head and Jugas of work	(ab)	Bni	ata te	į dais.	Anont
÷			S	6 10 10 10 10 10 10 10 10 10 10 10 10 10		
4	1 Providing and fixing of Pipes complete with Fittings including trenching and refiling. Saddle support, thrust block etc copmplete.		90	₹ 18,48,78,000	Each	₹ 18,48,78,000
2	C/o Drop Inlet Head work	F	Nos	₹ 48,43,000	Each	₹ 48,43,000
m	3 C/o Pre-Sedimentation tank		88 <u>7</u>	₹61,70,200	Each	₹ 61,70,200
4	C/o Sedimentation Tank		Nos	₹ 65,40,000	Each	₹ 65,40,000
in		.	Nos	600,000	Each	£ 6,06,000
ဖ	C/O High Rate Solid Contact Clarifloculator (HRSCC) capacity upto 1.60MLD	-	Nos	₹ 1,62,00,000	Each	₹ 1,62,00,000
	Design , Construction , Supply of Materials , Erection , Installation & Commissioning of Complete WTP Pressure filteration System Plant of average 1 Labh Litre/hr capacity with SCADA compatible Pressure monitoring and back washing mechanism.		.	000 0003393≩	3	7 68 ,50,000
80	C/o RCC Clear Water Reservoir	-	Nos	₹ 59,46,000	Each	₹ 59,46,000
σ	Design & Construction of Sludge Pt & Sludge Dsposal System at WTP		qof	E 13 30 452	Job	E13,30,452
9	UV, Activated Carbon Purifucation & Water Testing equipments, energy backup etc		Nos	₹ 1,41,56,000	Each	₹ 1,41,56,000
=	11 WTP Automation by SCADA					
	Design , Supply, Installation, Commissioning, of SCADA System for monitoring & operation of Water Treatment Plant, Water Transmission Lines. & Town Water Distribution system with Min 100" Monitoring station, Miteless communication systems, Finewalls, LAN , Switch, internet connectivity, cables and required instruments. Electronics with compete trials training and handover including 1 year O&M.		8	₹ 58,38,900	Job	₹ 58.38,900
12	12 Construction of Zonal Tanks with necessary arrangements for inlet, out-lets and distribution networks complete staging.		dol	₹ 6,42,20,000	dol	₹ 6,42,20,000

-			5			
12	13 Providing, Supplying & Laying-fixing of Fire hydrants and 20mtr hose at strategic locations including Knife/gate valves and civil chambers for maintenance.	2	ą	£2,95,000	33	4 5,90,000
4	14 C/o Security wall around WTP and Zonai tanks	640	Rmt	₹ 13,210	mtr	₹ 84,54,400
45	Land development for WITP		dob	₹ 84,35,000	dol	₹ 84.35.000
19	16 C/O Retaining wall at strategic locations to protect WTP area	-	Job	₹ 1,58,08,900	do	₹ 1,58,08,900
17	C/0 all weather Approach road to WTP	0.82	Ş	₹ 1,80,00,000	km	£ 1, 47, 60,000
18	Formation cutting of hills for laying of main pipeline	۲	dol	₹ 3,18,12,000	job	₹ 3,18,12,000
<u>5</u>	C/O C.C. pavement foot path from Nyodu Nyigam road to WTP area	1120	ant.	00 2′6 ≥	ŋu	₹ 1,08,64,000
20	Trekking/Natures trail from Galu to Head work	5100	Mtr	£ 3'000	mtr	₹ 1,53,00,000
7	Wireless Surveillance security cameras including foot fail count, face recognition and Analytics etc.	8	Nos	₹4,00,218	Nos	₹4,00,21B
22	WTP Area Recreational, Park Development and nature's friendly water sports components along gravity main from Galu to Head work.	F	son	₹ 5,81,00,000	Nos	₹ 5,81,00,000
Ň	23 Supply of required Electrical Transformer 250Kva. Electrical Panels, Control Panels, Instruments, MCC box JB's and other accessories with cable & accessories etc.		Šet	€ 18,50,000	3	R 18,50,000
N.	24 Supply and Erection of Silent Genset for 100Kva with panel boards and Auto on/off system	*	Set	₹ 10,50,000	Set	₹ 10,50,000
					Total	₹ 48,50,03,070
Ñ	25 Consultancy services		1%			₹ 48,50,031
ň	26 Add Contingency		÷ *			₹ 48,50,031
					Total	₹ 49,47,03,131
					Say	₹ 49,47,00,000
				Solution of		
				4		

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> PHE&WS Division, Basar Executive Engineer

Chief E рне 👫

37th meeting of IMC/NESIDS Committee scheduled on 15.11.2022

I. CHECKLIST-CUM-AGENDA NOTE FOR CONDONATION OF DELAY IN ISSUE OF WORK ORDER (to be submitted by Programme Division, MDoNER)

Agenda Item No.:

State: Arunachal Pradesh

Annexure -C

Name of Project: Improvement of Water Supply System for Mechuka Township & Peripheral villages with Sewerage System and Riverfront development for boosting tourism in Mechuka Township' in Arunachal Pradesh under NESIDS.

Project Description/Summary (not exceeding 200 words): The project involves mprovement of Water Supply System for Mechuka Township & Peripheral villages with Sewerage System and Riverfront development for boosting tourism in Mechuka Township.

1		Inter-Ministerial Committee (IMC)/NESIDS Committee in its 35th meeting held on 24.03.2022
2	Sector: (Physical infrastructure relating to (Water supply/Power/Connectivity - mention as applicable or creation of infrastrucrure in social sector in the areas of (Primary/Secondary Sectors of Education/Health - mention as applicable)	Water Supply
3	Date of receipt of proposal for condonation of delay in issuance of work order/extension of time period from State Government (SG)	State Government vide their letter dated 01.11.2022 submitted work order dated 26.10.2022
4	(a) Date of issuance of AFS by MDoNER	20.04.2022
	(b) Time limit for issue of work order by SG	Six months from date of sanction of the project
	(c) Period for which extension sought	Work has now been awarded by SG vide work order dated 26.10.2022
	(d) Reasons/justification for delay in issue of work order	Awaited from State Government
	(e) whether work order already issued by now	Yes
5	Is the proposal accompanied with fe	ollowing documents: (specify)
	(a) Work Order	
6	Comments of IFD/Technical Wing/C	Others in brief (attached as per Annexure)
7		of Prog. Division : The work order in respect of the instant project issued by delay of 6 days. The proposal is placed before the IMC/NESIDS Committee for on of delay in issue of work order.

(Dated Signature & Name of 10/11) 22-

Under Secretary concerned)

FILE NO. PLNG -25011 (17) 2/2022 -NESIDS-FOID 889

GOVERNMENT OF ARUNACHAL PRADESH DEPARTMENT OF FINANCE, PLANNING & INVESTMENT PLANNING & INVESTMENT DIVISION BLOCK NO. 1, 4th FLOOR, ROOM NO. 407 A.P. SECRETARIAT::ITANAGAR

Dated Itanagar, the 01st November,2022.

To.

Shri N.K. Saha, Under Secretary, Ministry of Development of NE Region, East Block-10, Level-IV, R. K. Puram, New Delhi- 110066 Email: <u>nitat.kumar#gov.in</u>

Sub: Forwarding of work awarding letter sanctioned under NESIDS.

Sfr.

The undersigned is directed to forward herewith the work awarding Letter in respect of project - "Improvement of water supply system for Mechuka township & peripheral villages with sewerage system and riverfront development for boosting tourism in Mechuka Township" under NESIDS in Arunachal Pradesh.

This is for your kind information and further necessary action.

Yours Faithfully,

Encl:- As stated above

2022

(Millo Pushahg) Jt. Director (Project Coordinator)

Copy to:-

- 1. PS to Commissioner (P&I). Govt. of Arunachal Pradesh, Itanagar.
- 2. PA to Secretary (P&I). Govt. of Arunachal Pradesh, Itanagar.
- 3. PA to Addl, Secretary (P&I), Govt. of Arunachal Pradesh, Itanagar.
- 4. Under Secretary, PH&WS Govt. of Arunachal Pradesh, Namsai.
- 5. Chief Engineer, PH&WS (EZ), Govt. of Arunachal Pradesh, Namsai.

GOVERNMENT OF ARUNACHAL PRADESH OFFICE OF THE SUPERINTENDING ENGINEER PHE & WS CIRCL BENE, AALO NE SUPERINTENDING

No:PHED/MKH/P8-20/2017-18/340

Dated 26" oct 2022

To,

M/S Tashi Sona Mechuka

Arunachal Pradesh

Sub: Work order

Ref. No:- 1) PHE/MKH/PB-20/22-23/09 dated 08" Sep 2022 (NIT floated)

2) PHED/MKH/PB-20/2017-18/924 Dated 25th oct 2022 (Agreement with the farm I.e. M/S TASHI SONA, MECHUKHA)

3) PHED/MKH/PB-31/2017-18/923 Dated 22 oct 2022 (work order to M/S TASHI SONA; MECHUKHA, A.P. To take possession of the site and start the work)

Dear Sir,

With reference to the letters issued to you by the Executive Engineer, PHE & WS Division, Mechukha for the work "Improvement of water supply system for Mechukha township & Peripheral villages with sewerage system and riverfront development for boosting tourism in Mechukha township "(NESIDS), You are hereby directed to take the possession of the site and start the construction works, as per the instruction of EE,PHE & WS, Mechukha. Following all the codal and technical specifications and item of works, given in the Schedule A of the bid document.

..... This is for your strict compliance and further necessary action......

Yours faithfully,

Superintending Engineer PHE & WS Circle, Bene, Aalo

No:PHED/MKH/PB-20/2017-18/ 340

Dated 26 oct 2022

Copy to:-

1) The Chief Engineer, PHE & WS Department, (E/Z), Namsal, for Information please. 2) The Executive Engineer, PHE & WS Division, Mechukha, for compliance. 3) M/S Tashi Sona, Mechukha, Shi-Yomi District, for compliance.

4) Office copy.

Yours faithfully,

Superintending Engineer PHE & WS Circle, Bene, Aalo

GOVT. ARUNACHAL PRADESH OFFICE OF THE EXECUTIVE ENGINEER, PUBLIC HEALTH ENGINEERING & WATER SUPPLY DIVISION MECHUKHA, DISTRICT WEST SIANG

No. PHED/MKH/28-20/2017-18/ 9.24

Date, 25th October 2022

AGREEMENT

This agreement, made on this the 25th day of October 2022 between EXECUTIVE ENGINEER PHE&WS DIVISION MECHUKHA (name of address of Employer) (hereinafter called ""the Employer") of the one part, and M/S TASHE SONA, MECHUKA PO/PS: MECHUKHA, SHE YOMI DISTRICT ARUNACHAE PRADESH (name and address of Contractor) (hereinafter called "the Contractor" of the other part).

Whereas the Employer desires that the Contractor execute Improvement of water supply system for Mechukha township & Peripheral villages with sewerage system and riverfront development for boosting tourism in Mechukha township (NESIDS) (hereinafter called "the Works") and the Employer has accepted the Bid by the Contractor for the execution completion of such Works and the remedying of any defects therein at a cost of RUPEES THIRTY FOUR CRORES AND SIXTY LAXHS NINETY THREE THOUSAND ONLY on Dated 19th October 2022.

NOW THIS AGREEMENT WITNESSETH as follows:-

- In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to, and they shall be deemed to form and be read and construed as part of this Agreement.
- 2. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all aspects with the provisions of the Contract and undertaking routine maintenance (applicable for, Full construction only) for 24 (twenty four) months.
- 3. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying the defects wherein the Contract Price or such other sum as may become payable under the provisions of the Contract at the time and in the manner prescribed by the Contract.
- The following documents shall be deemed to form and be read and construed as part of this Agreement, viz:
 - i) Letter of Acceptance;
 - ii) Notice to proceed with the works;
 - iii) Contractor's Bid;
 - iv) Contract Data;
 - v) NIT Special Conditions of contract and General Conditions of Contract;
 - vi) Specifications;
 - vii) Drawings;
 - viii) Bill of Quantitles; and
 - ix) Any other document listed in the Contract Data as forming part of the contract.

IN WITNESS WHEREOF, the parties hereto have caused this Contract to be executed in

accordance with their respective laws the day and year first above written.

	Marke	Executive Engine
	Signature of Employer	H.E Division Ic-huka (A. ^{pi}
	Signature of contractor	MIS TASHI SONA
		Proprietor
Signed, Sealed and Delivered by the said		
(For the Employer) in the presence of	J. G. MIRH	••••••••••••••••••••••••••••••••••••••
Signed, Sealed and Delivered by the said	- Home-	
for the contractor) in the presence of	National 1 anna	

letter for Commencement of work '(Reférence Para 20.4.9(2)

No PHED/MKH/P8-31/2017-18/92.3

From

The Executive Engineer, PHE Division, Mechukha, Shi Yomi Distt Arunachal Pradesh. Dated 22nd October 2022

То

M/S Tashi Sona Mechuka, Shi Yomi Ditrict Arunachal Pradesh

Subject : Improvement of water supply system for Mechukha township & Peripheral villages with sewerage system and riverfront development for boosting tourism in Mechukha township (NESIDS)

Ref: 1. Performance security/guarantee submitted by you vide your letter no NIL .dated 21/10/22. for the above work.

This office letter of intent/acceptance of your tender no PHED/MKH/2017-18/905-07 .dated 19th Oct 2022.

Dear Sir,

- 1 You are requested to contact the Assistarit Engineer, PHESD, Mechuka, Shi Yomi district, Arunachal Pradesh for taking possession of site and starting the work at once.
- 2 In continuation to the letters referred to above, you are requested to attend this office to complete the formal agreement within 10 days from the date of this letter.

Your faithfully,

Executive Engineer For and on behalf of Governor of Arunachal Pradesh PHE Mechuka Division

GOVT. ARUNACHAL PRADESH OFFICE OF THE EXECUTIVE ENGINEER, PUBLIC HEALTH ENGINEERING & WATER SUPPLY DIVISION MECHUKHA

No PHED/MKH/PB-20/2017-18/ Date: 19th Oct' 2022

LETTER OF ACCEPTANCE OF TENDER

From

The Executive Engineer

PHE Division, Mechukha

To: M/S Tashi Sona,

[Name of the Contractor]

Mechukha, Shi-Yomi Distt, Arunachal Pradesh

[Address of the Contractor]

Subject: Improvement of water supply system for Mechukha township & Peripheral villages with sewerage system and riverfront development for boosting tourism in Mechuka township

NIT No: PHE/MKH/PB-20/22-23/09 dated 08** Sep 2022

Dear Sir

- (1) Your tender for the work as mentioned above has been accepted on behalf of the Governor of Arunachal Pradesh vide letter No. PHED/EZ-24/Tender/2022-23/109 dated 18th octoer 2022 at your tender rate of Rs 34,60,93,000/ lakhs / (Rupees Thirty four crore and sixty lakhs ninety three thousand) only, which is 0.089% below the estimated cost of Rs 34,64,00,000/. (Rupees Thirty four crore and sixty four lakhs only.)
- (2) You are requested to submit performance guarantee of Rs 1,73,04,000/ (Rupees One crore & seventy three lakhs four thousand) only within 05 days from the date of issue of this letter. The performance guarantee shall be in the prescribed form as given in the bid document/CPWO General conditions of Contract clause 1 and shall be valid for a period of stipulated date of completion plus six months.
- (3) On receipt of prescribed performance guarantee, necessary letter to commence the work shall be issued and the work site handed over to you thereafter.
- [4] Please note that the time allowed for carrying out the work as entered in the tender shall be reckoned from the 15th day of issue of this letter.

Yours faithfully,

(Er. M Riba) Executive Engineer PHE & WS Division Mechukha

Мето по: РНЕД/ МКН / РЬ-20/2017-18/ 505- ФУ-Сору to:

Date: 19th Oct' 2022

- 1 Chief Engineer (E/2), PHE&WSD, Namsai, for kind information please.
- 2 The Superintending Engineer, PHEC, Aalo, for kind information please,
- 3 Office copy



(Er. M Riba) Executive Engineer PHE&WSDivn. Mechuka

GOVERNMENT OF ARUNACHAL PRADESH OFFICE OF THE EXECUTIVE ENGINEER PHE & WS DIVISION ::MECHUKA ::

No: PHED/MKH/P8-31/2017-18/

Date 26th Oct'2022

To,

M/S Tashi Sona Mechuka Arunachal Pradesh

Sub: Work order

Ref. No (i) PHE/MKH/PB-20/22-23/09 dated 08th Sep 2022 (NIT Floated) (ii) PHED/MKH/PB-31/2017-18/923 dated 22nd October 2022 (Letter of commencement) (iii) PHED/MKH/PB-31/2017-18/925 dated 19th October 2022 (Agreement with the firm)

Dear Sir,

With reference to letters issued to you for the work "Improvement of water supply system for Mechukha township & Peripheral villages with sewerage system and riverfront development for boosting tourism in Mechukha township "(NESIDS), you are hereby directed to take the possession of the site and start the construction works, as per the instruction of the site engineer, following all the codal and technical specifications and item of works, given in the Schedule A of the bid document.

This is for your strict compliance and further necessary action.

Yours faithfully,

(Er. M Riba) Executive Engineer PHE & WS Division, Mechuka

Memoino: PHED/ MKH / Pb-31/2017-18/935-37

Date 26th Oct 2022

Copy to:

- 1 Chief Engineer (E/Z), PHE&WSD, Namsai, for kind information please.
- 2 The Superintending Engineer, PHEC, Aalo, for kind information please.
- 3 The Assistant Engineer, PHESD, Mechuka, for Information & necessary action.
- 4 Office copy

(Er. M Riba) Executive Engineer PHE&WSDivn, Mechuka

GOVERNMENT OF ARUNACHAL PRADESH OFFICE OF THE EXECUTIVE ENGINEER PHE & WS DIVISION ::MECHUKA ::

No: PHED/MKH/PB-31/2017-18/

Date 25th Oct'2022

To,

M/S Tashi Sona Mechuka Arunachal Pradesh

Sub: Work order

Ref. No (i) PHE/MKH/PB-20/22-23/09 dated 08th Sep 2022 (NIT Floated) (ii) PHED/MKH/PB-31/2017-18/923 dated 22nd October 2022 (Letter of commencement) (iii) PHED/MKH/PB-31/2017-18/925 dated 19th October 2022 (Agreement with the firm)

Dear Sir,

With reference to letters issued to you for the work "improvement of water supply system for Mechukha township & Peripheral villages with sewerage system and riverfront development for boosting tourism in Mechukha township "(NESIDS), you are hereby directed to take the possession of the site and start the work construction works, as per the instruction of the site engineer, following all the codal and technical specifications and item of works, given in the Schedule A of the bid document.

This is for your strict compliance and further necessary action.

Yours faithfully,

(Er. M Riba) Executive Engineer PHE & WS Division, Mechuka

Memo no: PHED/ MKH / Pb-31/2017-18/935-37

Date 26th Oct'2022

Copy to:

- 1 Chief Engineer (E/Z), PHE&WSD, Namsai, for kind information please.
- 2 The Superintending Engineer, PHEC, Aalo, for kind Information please.
- 3 The Assistant Engineer, PHESD, Mechuka, for information & necessary action.
- 4 Office copy

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(Er. M Riba) Executive Engineer PHE&WSDivn, Mechuka

Agenda Note for 37th meeting of the IMC/NESIDS Committee scheduled to be held on 15.11.2022

State: Meghalaya

1. **Name of the Project:** Bulk Water supply to adjoining rural Villages to Tura Town Water Supply Scheme.

2. Estimated Cost: Rs. 9850.00 Lakhs

3. Sector: Water Supply

4. Objective: The main objective of the project to provide adequate safe drinking water to 41 (Forty one) habitations in Meghalaya as per prescribed norm of 135 LPCD.

5. Abstract of Cost:

SI. No.	Name of Items	Cost (Rs. in Lakh)
i.	Construction of Intake Reservoir, Pump house, Drawal of power line, Treatment Plant, Laying of Pipe line, Clear Water Reservoirs, etc. (14 nos.)*	9850.00
	Total =	9850.00

*Detailed component wise cost is not provided

- 6. Intended output and outcomes of the project-
- 7. SDG, being targeted by the project-
- 8. Concept paper is attached.

Annexure – D

(N. K. Saha) Under Secretary to the Government of India

Concept Paper on Prioritised Proposal of Bulk Water Supply to Adjoining Rural Villages of Tura Town.

A. General information about the project

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K	Contra musica nooni mi ha		
i.	Name of the project	:	Bulk Water Supply To Adjoining Rural Villages of Tura Town
ιĹ	Objectives of the Project	:	The Project's objective is to provide adequate safe drinking water to $41(\frac{1}{2}$ orty $\frac{1}{2}$ me) habitations namely 1. Agilang Songma 2. Agillanggre 3. Alotgre 4. Asibra 5. Badagonggre 6. Bokmagre 7. Changdagre 8. Mangganchi 9. Danak Kongbe 10. Ballonggre 11. Gambagre 12. Upper Danakgre 13. Lower Danakgre 14. Danakgre 15. Danak Bandua 16. Sonanpara 17. Lower Kongbe Ading 18.Robagre 19. Daldagre 20.Danak Dopgre 21. Lower Sangsanggre 22. Edenbari 23. Edenbari Lower 24. Soragre 25. Soragre Songgital 26. Masumatagre 27. Pagugre 28. Rongkon Boldam 29. Rongkon Boldangre 30. Dachimagre 31. Siltinggre 32. Silchotchigre 33. Ringgegre Songgital 34. Rongkhon Songma 35. Rongkhongre 36. Chikimilgre 37. Rougbakgre 38. Lower Rongbakgre 39. Upper Damalgre 40. New Upper Damalgreand 41. Wakka Akong with a suitable water supply system to provide service level as per the Government prescribed norm of 135 LPCD.
iii.	Estimate cost of the Project	:	₹. 98,50,00,000.00(Rupees Ninety Eight Crores Fifty Lakhs) only
iv.	Indicate sources and share of Funding (NEC State share and others sources wherever applicable)	;	NESIDS
¥,	Availability of land and land size indicate clearly whether owned by Govt. / leased / donated / community owned etc.	:	Donated by the Headman (Nokma)& the community
vi.	Location of Project	:	Under Rongram and Rerapara Block
vii.	Name of District and Sub-Division / Block where proposal project will be located	:	West Garo Hills and South West Garo Hills District, Tura PHE Sub-Division, Rongram & Rerapara Block
víii.	Proposing/ImplementingDepartment	;	PHED
ix.	Name of the Executing Department /Agency	:	PHED Tura Division
λ.	Enclosed Non-Duplication certificate.		-
xi.	Whether the project falls within the Thrust area of NEC, Vision recommendations specify.	:	No, presently does not fall under any of these programmes
xii.	If project is of regional nature, give name of state which would also benefit.		Does not arise.
xíti.	If state specific project give reason why it cannot be funded from the state plan.	:	At present these habitations are covered under Jal Jeevan Mission from Tura Urban Water Supply scheme by means of retrofitting. The Total no of Households of rural villages which are being benefited from Tura Urban Water Supply Scheme are 3888 nos as per IMIS 2020. Since there were no alternate sources for these habitations to prepare project separately, also due to cost restriction under JJM, the schemes for these habitations have been framedby retrofitting from Tura Urban Water Supply Scheme for Jal Jeevan Mission Programme. It is due to that reason Tura Water supply Scheme have affected badly in urban areas where many objections and homelains are granized in productions.

and complains are coming up from Urban residence for providing

Urban water to the rural villages.

In order to make water surplus villages, it is therefore required to find a solution to meet the water demand which will be safe and adequate for the entire population of Rural adjoining villages of Tura Town. Supply of Potable drinking water to every household of the State being, the priority and target of the State Government, however, with limited resources, insufficient budgetary allocation for taking up such schemes involving huge cost, may not be possible. Hence, funding from other sources, namely, NISIDS is necessary to achieve the target.

: Does not arise

No convergence with any other State schemes/CSS/CS Project.

: Does not arise

- xvii. Indicate sustainability of project OPERATION & MAINTENANCE-: The Scheme after implementation and completed in all respect will be maintained including operation and maintenance of by the PHED, Govt. of Meghalaya from intake to Treatment assets on completion of project. Plant, Feeder Mains and Zonał reservoirs, whereas whole distribution network will be handed over to communities for
- xviii. Give detailed of the existing : infrastructure and facilities available in Mission by means of retrofitting from Tura Urban water Supply Scheme where only distribution part is done to provide FHTC. the proposed project location and also in the district and sub-division / block.

B. Justification / Rationale for the project.

xiv. If project is cover under any CSS/

xv. Give details of convergence with other

xvi. Give detailed of synergy built into the

State schemes/CSS/CS built into the

project with other Govt. Scheme (e.g. technical and professional assistance).

ministry concerned.

project. If not, state why

Central Scheme, name the CSS Central Scheme and give reason why funding has not been obtained /sought from the

- i. State the nature and magnitude of the problem faced or the potential to be tapped. Elaborate the problems to be addressed or benefit that will accrue through the project. For social infrastructure project, also give the baseline of social-economic parameters / indicators to justify the proposal.
- ii. The Development objectives proposed to be achieved
- ìli. Indicate the section and number of a population to be benefited.

maintenance At Present the proposed villages are covered under Jal Jeevan

The capacity of Tura Urban Water supply scheme is 25 MLD. At present the total water required for adjoining rural villages from urban water supply scheme is approximately 4.5 MLD. It is due that reason Tura Town water supply is having a shortage of around 4.5 MLD and affecting in urban water supply. Survey has been carried out to find water sources that will be sufficient to feed around 3888 nos of rural Households of adjoining villages of Tura Town. The Proposed project will supply water in bulk to all the adjoining Rural villagesof Tura Town to ease providing water from Tura urban Water Supply Scheme which is affecting in Urban water supply.

In Addition to providing water supply to rural villages, many tourist places and institutional establishments in and around these villages will be benefited from the proposed project.

- To provide safe drinking water to the people residing in these villages and to all the institutional set up.
- Present Population (2022) :20753People
- Initials year of the Project (2025):22620 People
- Ultimate Population (2040):33931People

- iv. For income generating activities / Skills : development indicate the number of beneficiaries targeted and the methodology for selection of beneficiaries. Indicate nos. of female and male beneficiaries separately
- C. Project Description and Main Activities
- i. Sector under which project is proposed (See Annexure 1 of Guidelines)
- ii. Project description (provide brief write : up on the project)

Rural Water Supply

The habitations are as per 2020 IMIS. It is proposed to tap Ganol River having a dry weather discharge of 700.00 lit/sec. It is a pumping scheme and proposed to pump water from Ganol river by constructing Intake well. It is also proposed to construct Simplified Treatment Plant at Masumata village with C.W.R and the Zonal Reservoir to be constructed at Agilangre, Chandragre and Alotgre, so as to meet the demand of the entire population.

The schemes will provide distribution pipelines only upto village level from where water will be distributed to every household by already laid pipelines under Jal Jeevan Mission.

iif.	Component wise cost of	:
	Project / Main activities (e.g.	
	building and other civil	
	works, machineries,	
	miscellaneous, fixed assets	
	agriculture inputs, training	
	components etc.)	

- D. Physical Details
- Year wise phasing and Time : trame for completion of project.

Construction of Intake Reservoir, Pump house, Drawal of power line, Treatment Plant, Laying of pipe line, Clear Water Reservoirs, etc. (14nos.)	98,50,00,000.00
Total =	98,50.00,800.00

Year (As indicate in the project)	Physical Phasing	Remarks
2022 - 2023	30%	•
2023 - 2024	50%	-
2024-2025	20%	-

E. Financial Details

i. Year-wise Phasing

Year (As indicate in the project)	Financial Phasing (₹. in lakhs)	Remarks
2022 - 2023	2955,00	-
2023 - 2024	4925.00	-
2024-2025	1970.00	-

F. Indicate if any statutory ; Does not arise clearances including forest and environment clearances etc. are required

Executive Engineer (PHE) Tura Division, Tura

Superintending Engineer (PHE) Tura Circle, Tura

18 08 000

Add Chief Engineer, PHE Zone-II, Garo Hills, Tura

State Ĉ

Chief Engineer, PHE Meghalaya, Shillong

Annexure -E

Agenda Note for 37th meeting of the IMC/NESIDS Committee scheduled to be held on 15.11.2022

State: Meghalaya

1. Name of the Project: In-Situ Nallah Treatment Technology-Restoration of Nallah with Ecological Units (RENU).

2. Estimated Cost: Rs. 19.42 crores

3. Sector: Sewage Management

4. Objective: The main objective of the project to treat the sewage by installing in-situ treatment system in the Nallah by most natural and environment friendly way.

5. Abstract of Cost:

SI. No.	Name of Items	Capital Cost (in crores)	OPEX* (in Crores) (Not Admissible)	
i.	Syntuksiar (Near Myntwa Stream)	3.26	0.89	
ii.	Panaliar	0.62	0.45	
iii.	Caroline colony	1.07	0.35	
iv.	Ladthadlaboh (West)	0.90	0.39	
٧.	Khimusniang	0.92	0.38	
vi.	Umshangiar	1.69	0.57	
vii.	Lawmusiang	1.79	0.55	
viii.	Mynthong 1 (Near Dawki Bridge)	0.76	0.31	
ix.	Mynthong 2 (Near Dawki Bridge)	0.80	0.38	
Х.	Panaliar Mutong	0.59	0.41	
xi.	Loomiongkjam near Madan Ait Nar	1.77	0.53	
Total Cost in Crores (including GST)		Total Cost in Crores (including GST)	14.17	5.21
	Grand Total Cost in Crores (including GST)	Rs. 19.	38 crores	

6. Intended output and outcomes of the project- not provided by SG

- 7. SDG, being targeted by the project- not provided by SG
- 8. Concept paper is attached.

Nozeula 10/11/22

(N. K. Saha) Under Secretary to the Government of India

PROPOSAL

FOR

IN-SITU NALLAH TREATMENT TECHNOLOGY – RESTORATION OF NALLAH WITH ECOLOGICAL UNITS (RENU)

FOR

THE DRAINS OF MYNTDU RIVER WEST JAINTIA HULLS DISTRICT, JOWAI

ESTIMATED COST OF PROJECT ₹ 19.42 CRORES

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1 INTRODUCTION

The chapter provides background and preliminary understanding of the project requirements, project area context and overall methodology for achieving the objectives of the project. The methodology has been outlined to provide a clear understanding of activities to be undertaken at each stage of the project.

1.1 Context

There is an increasing need for environmental monitoring since there is higher pollution levels due to the increasing population and industrial development. Since there are no sewage treatment facilities available at present, the discharge of untreated sewage into the river/hallahs in Jowai, has led to the degradation of the quality of water. Environmental monitoring is therefore needed to assess the cleanliness of the polluted Myntdu River, since the river is disposed with untreated toilet wastes, solid wastes etc. For safety of human health and maintaining the sanctity of the river, cleaning the river and monitoring the water quality is required with respect to pH, Biological Oxygen Demand, Dissolved Oxygen, Fecal Coliform and Total Coliform to rejuvenate the river.

To conserve and rejuvenate Myntdu River cleaning of the drains which are falling into the Myntdu in identified stretches/ locations is an important step towards its improved cleanliness and also better aquatic habitat.

1.2 Project scope and objectives

The scope of the project is to propose a suitable intervention for in-situ cleaning of the drains (with outfall into the Myntdu river) and within Jowai Municipal Area with the help of new technology.

The main objective of the project is:

- To improve the river quality of the Myntdu river.
- To adopt modern technology for in-situ treatment of drains that will work in context of Jowal.

1.3 Baseline Assessment – existing situation in Jowai

As per the site visits and stakeholder consultations, the river bed is polluted with city wastewater and solid waste. The river has now become an urban backyard. The city has no sewerage system because of which the houses connect their waste outlets to open drains worsening the river water quality which over the years has degraded further with rise in population density.

1.4 Approach and methodology for preparation of the DPR

 The approach and methodology was derived based on key objectives of planning to rejuvenate and enhance the water quality of Myntdu River by site specific solutions and without effecting the natural environment.

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Area appreciation and Situation Analysis

Technical surveys and Analysis

Design & BOQ

Final Detailed Project Report

- Area appreciation and situation analysis would be conducted by reconnaissance survey for better understanding of existing site and environmental features
- To analyze various water quality parameters and flow of the nallah water quality tests and flow measurement surveys to be conducted for 11 drains falling in the Jowal Municipal area.
- Experience from stakeholder's discussions to be incorporated in final design and recommendations
- Detailed architectural design and BoQ to be finalized and layouts to be developed along with necessary site work to establish CAPEX and OPEX.
- DPR recommendations include Procurement method, institutional Mechanism and Project Structuring for successful delivery of the project.

2 JOWAI CITY PROFILE

2.1 About Jowai

Jowai City, the Headquarters of West Jaintia Hills District sits at an average altitude of 1365 meters above sea fevel. It was formerly the Head Quarters of The Jaintia Hills District before it was further divided into 2 more districts, namely, East Jaintia Hills District and West Jaintia Hills District. It sits on a plateau that is surrounded by Tthe Myntdu River from three sides. East, South and West. It is home to the *Pnars*, which are the sub-tribe of the *Khasis*.

Historically, Jowai was chosen as the Head Quarters during the colonial era, when, the then, Jaintia Hills was a sub-division of Khasi and Jaintia Hills District. With the further up-gradation of Jaintia Hills to a District in 1972, Jowai, for development purpose, stayed as the Head Quarters of the District, which later got bifurcated in 2012 into East Jaintia Hills and West Jaintia Hills District, and became the Head Quarters for the West Jaintia Hills District.

(DCHB, 1991)

2.2 Location and regional setting

The town has good roadways connectivity, and it lies on the National Highway 44, which connects the states like Assam, Mizoram, Manipur, Tripura, and Meghalaya. Since the district doesn't have any rail or air links, the nearest air connectivity of Jowai is Shiltong Airport, Umroi, about 80 km away, whereas the nearest rail connectivity is in Guwahati, Assam.



Figure 2:1 Map Showing the location of Jowai in Meghalaya's Context

Jowai City serves as an important hub for business and education, which caters to local students and as well as those coming from the neighbouring state like Assam and even Bangladesh. It is well equipped with Infrastructures like schools, schools, colleges, hospitals, and a postal service.

2.3 Demographic Profile

Jowai is a city and municipality that consists 13 wards. Jowai Municipality covers an area of 8 sq. km. The population of Jowai as per 2011 census is 28,430, out of which male population is 13675 and female population is 14755 with a population density of 3554 sq. Km. The city registered a decadal growth of 13.5 % from 2001-2011, it also has a literacy rate of 76 %, which is above the National Average Literacy rate, 59.5 %.

The following Table gives the details of the population in Jowai Municipality from 1961-71 to 2001-2011 and the decadal growth rate of Jowai Municipality

	Panulation	Decadal Growth	
144 6 3 4	Population	Absolute	Rate(%)
1961	6197	-	-
1971	8929	2732	44.1
1981	12923	3994	44.7
1991	20601	7678	59.4
2001	25057	4456	21.6
2011	28430	3373	13.5

Table 2-1 Population in Jowai Municipality

(Source: DCHB 2011)

2.4 Existing Road Network

Road network gives an idea of road density in different parts of the city.





2.5 Topography and development pattern of the project area

Jowal town lies on North Eastern Upland Zone of the Meghalaya plateau. The Meghalaya plateau is a part of the peninsular plateau separated from it by the Garo Rajmahal gap. It stretches in an east -west direction abutting between the alluviat plains of Bangladesh in the south and Assam plains in the north.

The town lies at an absolute altitude of about 1200-1400 m above mean sea level. It lies on the central plateau of the district and is encircled on it's three sides by the Myntdu River. The slope is usually at 10-15%¹ which is at a moderately sloping hill slope. The proposed project site and surrounding areas has irregular terrain with altitude ranging between 1000-1700 m. Tabletop Mountains, mountain slopes and gorges are characteristic of the area. The elevation of the proposed project site ranges between 1380-1580 msl.

2.6 Soil

Soil type of an area is dependent on factors like geology, relief, climate and vegetation. The plateau region of the Jaintia Hills are predominantly composed of metamorphic rocks and consists of a thick series of quartzite, schists with intrusions of granites, dolerites and periodites and thin embedded bands of argiillites. Loamy soil typically consists of soil solids, that composed 50% of sand, silt and clay, and 50% of pore spaces and water. The loamy soil contains more nutrients, moisture and humus. Clayey soil are formed where rocks are in contact with water, air, or steam.

The distinctive soil type that is found over the Jowal town are the loamy and clayey soil

3 KEY FINDINGS OF PRELIMINARY SURVEY

The first step involves conducting site visit to the city for understanding the site location and surrounding area. Further, the second step, outfall survey locations are identified based on the preliminary site visits. While identifying the locations, it has to be kept in view that detailed topographical surveys, Water quality & flow data are required for an optimum design.

3.1 Selection of Drains

11 drains that are having an outfall on the Myntdu River have been identified, are listed below and are being located on the map below.

Drain no.	Drain Namé 🔉
Drain No.1	Syntuksiar (Near Myntwa Stream)
Drain No. 2	Panaliar
Drain No. 3	Caroline Colony
Drain No. 4	Ladthadlaboh(West)
Drain No. 5	Khimusniang
Drain No. 6	Umshangiar
Orain No.7	lawmusiang
Drain No. 8	Mynthong 1(Near Dawki Bridge)
Drain No. 9 .	Mynthong 2(Near Dawki Bridge)
Drain No. 10	Panaliar Mutong
Drain No. 11	Liar Kdongtreriat Panaliar

Table 3-1 List of Identified Drains having outfall in Myntdu River

Project Report: Myntdu River Cleaning



Figure 3: Location of Drains and Outfall

3.2 Types of Treatment Technology

Treatment of drain (nallah) carrying sewage can be done in two ways – ex-situ treatment and in-situ treatment. Brief description of each treatment system is given in the following section

3.3 Ex-Situ treatment

Ex situ² sewage treatment can be done in two ways.

- 1. Laying of pipes across the town, collection & pumping of sewage to centralized STP for treatment.
- 2 Obstructing existing nallahs and pumping the sewage to decentralized STPs for treatment

Both processes either involves installation of a complex network of sewer pipes to collect sewage or pumping the same to a sewage treatment plant. According to CPCB, nearly 39% of existing STPs and pumping stations in terms of operation and maintenance are not confirming to standards prescribed under Environment (Protection) Rules, 1986 (CPCB, 2017). Moreover, ex-situ treatment has many associated challenges, such as

- 1. Space requirement
- 2 High capital cost (in terms of land, pipelines, machinery, construction, etc.)
- 3. High maintenance cost

² Here ex-situ is used in the sense that the nallah are the sites and hence any treatment is carried out outside the nallahs are termed as "ex-situ".

- 4. Electricity cost
- 5 Constant pumping
- 6. Odour issues

3,4 In-Situ treatment

Other way to treat the sewage is to install in-situ treatment system in the nallah by most natural and environment friendly way.

In-Situ treatment of Drains includes treatment at the site using aquatic plants and/or microbial remediation methods. In-Situ treatment systems can be commissioned in less lime period (few months only), is easy to operate, and requires less energy as compared to conventional treatment technologies. In-situ treatment, depending on effluent characteristics, site conditions, and type of treatment systems, may either provide desired quality of treated effluent or act as supplementary to conventional treatment technologies. In any case, wherever feasible, it can be used as an interim remedial measure, and help in reducing pollution load or polishing of treated effluent from Sewage Treatment Plants. The common in-situ treatment systems are Microbial Bioremediation, Phytoremediation, Constructed Wetland System and hybrid system (wherein one or more of the previous technologies are combined in an integrated manner). Appropriate flow is a general requirement for adoption of these technologies.

In-situ nallah Treatment system has the following characteristics,

- 1. Low capital cost
- 2. Low operation and maintenance cost
- 3. Very low consumption of electricity use (solar energy can also be utilized)
- 4. No need of extra land
- 5. Gravity flow (so no pumping)
- 6 No odour
- 7 Aesthetically pleasant (since the existing nallahs are lined, leading to visible improvement)

Based on the above advantages of In-situ nallah Treatment system and site suitability for the topography of Jowai, further In-situ options were explored.

3.5 Recommendation of suitable design alternative indicating the rationale

While selecting the best suited technology for the individual drains falling within Jowai Municipal Board, the following tentative parameters were considered

- In view of the fact that Jowai currently does not have a severage system it is of an immediate urgency that some mechanism is put in place to treat the waste water in the Nallahs, therefore it should be a rapid system having commissioning time of less than six to twelve months.
- The in-situ treatment system should have the ability to treat the sewage in a continuous manner throughout the year.
- The treatment system must have a well-defined inlet and outlet along with treatment length with minimum modification in natural drain structure.
- The treatment system should work on zero/negligible power consumption.
- The treatment system should have a designed life and minimum operational constraints.
- It should not have high capital cost and recurring cost as compared with conventional exisitutreatment technology currently in practice

- The treatment technology should also be modular, in the case of drains having comparatively higher flows or challenging terrain.
- The treatment system must be capable of degrading/reducing the soluble and insoluble organic materials
- Monitoring of such system shall also be carried out with respect to bacterial consortium count as well as with conventional parameters (pH, BOD and COD).
- The system must not hinder the flow and not result in ponding at the upstream site of the drain.
- Flow measuring device may be installed at the inlet/outlet of the treatment stretch so as to control the treatment based on flow and for calculation of daily treated volume for the cost calculation.
- Treatment system shall be installed such that the treated effluent quality at defined outlet shall be maintained throughout the entire downstream stretch of the drain till confluence with the river.

Given the scarcity of land, the option of "Constructed Wetlands" may be ruled out in Jowai. As regards Microbial Bioremediation and Phytoremediation, they have a lower efficiency against the incoming pollutant load.

The RENEU Technology is a hybrid technology and is combination of all major natural process, it fits in as the best possible alternative for the treatment of drains in Jowai.

With the purview of drain treatment in the challenging terrain Jowai, the RENEU technology fits in with its modularity, ruggedness, sustainable treatment approach, lower capital and operational cost and its beautiful aesthetics.

Note:

 As observed in Jowai, there are many difficulties in treating the drain due to hilly and steep terrain, multiple small sources in the between stretches. Treatment upto the standards and minimizing pollution load will be tried at best, but due to space availability and feasibility challenges, variation in effluent parameters might be observed.

5 PROJECT PROPOSAL AND SCOPE

This section will highlight the design considerations and details of the proposed design interventions for the Selected drain.

Design of In-situ naltah RENEU treatment for Jowai is site specific considering the varying topographical conditions. While designing a treatment unit, the main calculation is of the size of the treatment unit and space requirement to accommodate various units in a systematic sequence. In this regard for Jowai, treatment units are divided in sub-stretches as per land availability. The water quality parameters and flow rate will also influence system components and their size requirements which are further determined by interrelated factors such as flow, water quality, retention time, and other site specific dimensions derived from the surveys and investigations.

5.1 Design Interventions

The befow sections discuss in detail the various unit operations/processes installed in the nallahs are as shown in figure below. In each of the treatment unit separate gates with rectangular notches are provided to maintain a sufficient hydraulic retention time at each unit zone and for flow measurement.



Figure 5:1: Flow arrangement of RENEU

5.2 Treatment units

5.2.1.1 Screens

Screening was the first unit operation, which will prevent the entry of solid particles such as plastic cups, paper dishes, polythene bags, sanitary napkins, wood or any other floating matter. Screens are installed at an angle of 45 degrees to avoid clogging and damage of downstream treatment units and to ensure proper functioning of the equipment.

Two type of screens were installed in series:

- a. Coarse Screens: Larger floating matter, such as plastic bags, plastic bottles, debris, and other garbage, are removed using coarse screens with spacing of 20 mm which helped in preventing short circuit of further treatment units.
- b. Fine screens: Particles that bypassed the coarse screen, are removed using a fine screen which had a spacing of 10 mm. Fine screen prevents frequent clogging and cleaning of downstream unit zones.



Figure 5:2: Coarse and Fine Screens in the Nallah

5.2.1.2 Grit Chamber with scum removal system

Grit consisting of sand, gravel, or other, heavy solid materials and having specific gravity greater than organic solids in waste water are allowed to settle in this zone. Grit zones in the nallahs are developed to reduce formation of heavy deposits and excessive accumulation of grit in the downstream units. A top baffle is provided in the grit zone to provide sufficient retention time for grit and other particles to settle at the base of the grit zone as well as it helps the oil and scum to rise to the surface of the wastewater while the remaining wastewater flows out continuously under the baffles. The oil and scum that is collected on the surface of wastewater is later skimmed and disposed of along with other biodegradable waste.



Figure 5:3: Grit Chamber with scum removal system in the Nallah

5.2.1.3 Anoxic Treatment

In the anoxic zone, a cover is provided on top of the nallah along with the gates at the inlet and outlet. In this zone, nitrate in the wastewater is removed and converted into nitrogen gas by denitrifying bacteria. Also, phosphorus in the wastewater is effectively removed by the phosphorous accumulating organisms which reacted with the organic matter resulting in cell bonding and decay. After which it finally precipitates at the base of the zone as sludge. Due to the removal of major nutrients in the anoxic zone, algal bloom in the nallah can be avoided.



Figure 5:4: Anoxic Treatment Zone In the Nallah

5.2.1.4 Bio-curtain

It is a curtain like structure, where multiple chains made of coconut coir are suspended into the nallah, perpendicular to the flow of water. Bio-curtain acts as a filter media as well as provides higher surface area for growth of biofilm, which helps in decomposition of organic matter. Multiple segments of biocurtains are provided to reduce BOD and to enhance the treatment process.



Figure 5:5: Bio curtains installed in the Nallah

5.2.1.5 Aerobic zone

In the aerobic zone, aerobic bacteria take active part in the decomposition of organic matter. Aerobic treatment helps in the reduction of BOD, phosphorous and nitrogen. Aerobic environment is maintained



through continuous supply of oxygen in this zone. Diffused aeration system using solar energy is facilitated to provide aeration so that no electricity requirement from the main grid is minimized.

Figure 5:6: Aerobic Treatment zone in the Nallah

5.2.1.6 Bio-mat

Bio-mat is a cylindrical frame made of plastic mesh, wherein coconut coir is stuffed in the frame. Coconut coir provides higher surface area for biofilm growth, thus degradation of organic pollutants in water would take place helping in further reduction of BOD. These frames are suspended into the natian perpendicular to the flow.



Figure 5:7: Bio mat installed in the Nallah

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5.2.1.7 Coirvel Treatment Unit

Coirvel Treatment Unit (CTU) is a caged structure with different compartments, which are packed with coconut coir and different sizes of gravel media. CTU is placed as baffles along the water body and the flow of the wastewater takes place across the treatment unit, thus providing passive filtration. Moreover, gravels and coir provide higher surface area for biofilm formation and enhance the degradation of organic pollutants. CTUs are installed in baffling pattern to control flow velocity, which provided sufficient exposure time for decomposition. Absorption of organic pollutants on the surface of the media is observed, in addition to filtration and degradation



Figure 5:8: Phyto-traps in the Nallah

5.2.1.8 Floating Bed

In floating bed, the aquatic vegetation is not rooted in a solid substrate, but it grows on floating rafts. Selected plant species are grown on floating mats and their hanging roots would provide a large surface area for passive filtration (extensive roots entrap the suspended matter thus reducing the overall TSS of the system) as well as development of microbial consortium. In the floating wetlands, plants acquire nutrition directly from the water column for their growth and development, thus reducing the organic as well as inorganic pollutant.


Figure 5:9: Floating beds Installed in the Nallah

5.2.1.9 Disinfection

Disinfection helps in the removal of pathogenic microorganisms by damaging the cell wall, which results in cell lysis and death of microorganisms. Chlorine dosing in the treated wastewater removes around 98 to 99.999% of bacteria (Eddy, 2013). Sodium Hypochlorite is used as a disinfectant and dosing tank is installed immediately after the penultimate gate to provide proper mixing of the chemical and sufficient retention time after dosing. After disinfection, treated water is discharged into the River.



Figure 5:10: Disinfection unit installed in the Nallah

S.No.	🗧 Parameters 🕖	Units	Inlet Concentration	Outlet Concentration*
1	BÓD	mg/L	70-300	<20-50
2	00	Mg/L	1-10	>05

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S.No.	Parameters	Units.	Inlet Concentration	Outlet Concentration*
3	COD	mg/L	100-300	<50-80
4	TSS	mg/L	100-250	<30-50
5	pН	-	6.0-8.5	6.5-8.0
6	TN	mg/L	20-50	<7.5
7	TP	mg/L	5	<1
8	Faecai Coliform	MPN	10 ⁶ -10 ⁷	<1000

The above mentioned is the standard treatment efficiency of the In-situ Nallah Treatment (through RENEU technology). Intet and outlet Treatment parameters are subjected to the wastewater characterization and the effluent requirement as per regulatory bodies or government authorities. RENEU (NEERI IP) meets the effluent parameters as stated by Hon, NGT for in-situ drain treatment.

5.3 Assessment of Diversion Work

Interception & Diversion of the existing drains have been proposed in this DPR and the detailed estimate includes costs of diversion work.

5.4 Environmental Management Plan (EMP) and Mitigation Measures

The potential impacts identified in the above section are based on the nature and extent of various activities associated during implementation of the project. The proposed expansion activities will have impact of varying magnitude on environmental components both beneficial (positive) and adverse (negative) impacts. The following mitigation measures are proposed as environment management plan.

5.5 Water Quality

Mitigation Measures

- To schedule the construction work during non-monsoon season.
- To keep the drainage system, and the water bodies within the construction site free of obstruction.
- To avoid the piling of gravels, sands and stones and if necessary, cover it with plastic sheets or tarpaulin.
- Development of spill prevention and containment management plan and educate the construction labours about the plan.

5.6 Air Quality

Mitigation Measures

- Idling of delivery trucks or other equipment should not be permitted during loading and unloading
- All construction vehicles should comply with air emission standards and be maintained properly
- Spray of water on the construction site on a regular basis to contain the dust degenerated.
- Maintaining of the construction vehicles and obtaining of the Pollution control certificates from MPCB.
- Maintaining visual inspection in the site for ensuring no excess dust is emitted into the environment

5.7 Noise Quality

Mitigation Measures

- Restriction on the usage of noise generating activities and traffic movement in the Residential areas to day light hours to avoid high noise and steep disturbance to residents during construction phase
- Generator sets should be provided with noise shields around them.
- Vehicles used for transportation of construction material should be well maintained.

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- . Reduce the noise of the construction equipment's by using noise reducing mufflers.
- Avoiding loud noise of compressors and sirens etc.
- Follow the noise pollution regulation as amended. The day time noise regulation should not exceed 65 dB in the commercial areas. It should not exceed 55 dB in the residential areas and 50 dB in the sitent areas.
- Provision of sound barriers to restrict the noise flow to the surroundings

5.8 Waste generation

Mitigation Measures

- Coordination with the Municipal and local authorities for dumping of excavated materials, residual material, hazardous material etc.
- · Preparation of a waste management plan, and follow the standards of reduce, reuse and recycle.
- Recover the oil and chemical based product from the construction site and reuse it if reuse not
 possible then hand it over to municipal authority.
- To keep a vigilance for dumping any kind of human waste into the municipal drainage or any kind of natural water system.

Project Report; Myntdu River Cleaning

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6 SCOPE OF WORK AND SPECIFICATIONS

6.1 Scope of Work

Scope of work will include construction and 1 year O&M of In-situ RENEU treatment units at various locations in Jowai city, including but not limited to the following:

6.2 Nallah Diversion

- Site clearance
- Earthwork
- Shuttering and shoring
- Dewatering

6.3 Construction & Installation of RENEU treatment units

- Site clearance
- Excavation
- Soling
- Plain Cement Concrete work
- Centering and Shuttering
- Reinforced Cement Concrete (RCC)
- Supplying fitting and fixing G.L Pipes
- Providing and fixing in position of FRP Panel Sheet as per the drawing and specification provided by Engineer-in-charge
- Treatment unit as per the specification provided by Engineer-in-charge
- Wetland Plant species as per the specification provided by Engineer-in-charge
- Coirvel Treatment Unit (CTU)
- Backfilling & Fencing

6.4 Specifications

Specifications (Vol. 1 and 2), as published by the Central Public Works Department (CPWD), Government of India in 2019 and as amended from time to time will be applicable for the project, unless otherwise mentioned hereinunder. In case the CPWD specifications are not found applicable or inadequate, then the relevant IS/ BIS specifications (latest version) on the date of submission of tender shall be used. Further, in case, any of above two is not applicable, to particular/specialized works, then the manufacturer's specifications or their relevant instructions shall be followed. In case SMB or Water Resources Department has any specific Specifications/ Codes/ Standards/ Guidelines in Jowai/Meghalaya, the same will have to be adhered to.

The Technical Specifications mentioned below are the minimum required specifications and the Emptoyer/Client reserves the right to select products/material that exceed the specifications. Contractors are required to submit the manufacturer datasheets, wherever applicable.

6.5 Technical Specifications of civil works

For ready reference, relevant paragraphs of major works are mentioned below:

SI. No.	Type of work*	Reference Para in CPWD Specifications published in 2019
1.	Site Clearance	Para 2.4 of CPWD Spec. Vol 1
2.	Earth Work	Para 2.7 of CPWD Spec. Vol 1
3.	Filling	Para 2.10 of CPWD Spec. Vol 1
4.	Mortar	Para 3.1 of CPWD Spec. Vol 1
5.	Concrete Work	Para 4.2 of CPWD Spec. Vol 1
6.	RCC work (Reinforcements)	Para 5.1.3 of CPWD Spec. Vol 1
7.	Form Work (Centring and Shuttering)	Para 5.2 of CPWD Spec. Vol 1
8.	Brick Work	Para 6.2 of CPWD Spec. Vol 1
9.	Inspection Chamber	Para 19.18 of CPWD Spec. Vol 2
10.	Laying and Jointing of Pipes and Fittings	Para 18.4 of CPWD Spec. Vol.2

*Makes in works of all items should be standard & approved from the government/ PMC/ technology provider. All construction standards will be as per standard SOP in the state of Meghalaya and as approved by the government.

6.8 Specifications of Treatment Units including Wetland Plant species, Coirvel Treatment Unit (CTU), etc.

In accordance with CSIR-National Environmental Engineering Research Institute (CSIR-NEERI) developed In-situ Natlah water Treatment technology – RENEU (Restoration of Natlah with Ecological Units) and the design, drawing and specification provided by the Engineer-in-Charge.

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Note:

- Before implementation of any work, if there are any issues in construction/ design/ drawings/ or any work item, contractor should consult client and PMC before on sile execution.
- As observed in Jawai, there are many difficulties in treating the drain in the effective length of nallah due to hilly and steep terrain, multiple small sources in the between stretches. Treatment upto the standards and minimizing pollution load will be tried at best, but due to space availability and feasibility challenges, variation in effluent parameters might be observed.
- Maximum 60-70% treatment efficiency of inlet parameters can be observed in standard conditions for drains in Jowai due to its onsite site challenges. It should also be noted that In some stretches where there is minimum length available for treatment, treatment efficiency can reduce to as low as 20-25% too.
- In Rains, all drains would face flash flooding, so decommissioning of units before monsoon is highly recommended.
- Design Treatment efficiency will be observed after stipulated time duration after commissioning of all units in the drains.

Tentative challenges as faced in each drain for attaining treatment efficiency,

- <u>Drain 1</u>: Agriculture run off is observed in the vicinity of the drain, which might increase the nutrient loading (between the stretches) and disrupt treatment.
- <u>Drain 2</u>: Sufficient length for treatment not available in this drain due to topography, treatment might reduce to around 40-50%. Washing of clothes observed after the treatment stretch and intermediate.
- <u>Orain 3</u>. Sufficient length is available, variations in topography observed; oil was observed in the fields which might get carried to the drain as run off and disrupt treatment.
- <u>Drain 4</u> Sufficient length available, paddy fields observed in surrounding due to which sulphate was observed in water. Chances of run off in the middle of the treatment stretch observed.
- <u>Drain 5</u>: Steep terrain observed in the drain due to which sufficient channelization is not possible.
 Nearby landowners diverted the wastewater into ponds for faming. Pond treatment is proposed in the report. Although water treatment challenges differ as ponds becomes a separate concern.
- <u>Drain 6</u>: Topographical challenges observed, yet we have tried to take maximum possible length for treatment, Rocky strata and boulders are observed as it is close to river bank.
- <u>Drain 7</u>: Organic loading was on a higher side, possible stretch identified was near river, sludge depth was on higher side. In rains, water from nearby hills may flood the stretch.
- <u>Drain 8</u>: Sufficient length for treatment not available due to steep terrain, most feasible units in drain treatment are given in the stretch.
- <u>Drain 9</u>: Sufficient length for treatment not available due to steep terrain, most feasible units in drain treatment are given in the stretch.
- Drain 10: Sufficient length for treatment not available as it flows underground through residential area in many patches, after last observed point, it falls into the valley & later meets the river.
- <u>Drain 11</u>: Sufficient length and width available, but sewage discharge at the downstream of the stretch might be observed due to residential area. High hydraulic loading as observed might disrupt the balance of the biological treatment system

7 COST ESTIMATE

7.1 Abstract Bill of Quantities- CAPEX & 1-year OPEX

Drain- wise summary of cost estimate is as under:

Drain no.	Drain Name	Capital Cost (In Crores)	OPEX (In Crores)
1	Syntuksiar (Near Myntwa Stream)	₹ 3.26	₹ 0.89
2	Panalíar	₹ 0.62	₹ 0.45
3	Caroline Colony	₹1.07	₹ 0.35
4	Ladthadlaboh(West)	₹0.90 -	₹ 0.39
5	Khimusniang	₹ 0.92	₹ 0.38
6	Umshangiar	₹ 1,69	₹ 0.57
7	Lawmusiang	₹1.79	₹ 0.55
8	Mynthong I(Near Dawki Bridge)	₹ 0.76	₹0.31
Ş	Mynthong 2(Near Dawki Bridge)	₹0.80	₹ 0.38
10	Panaliar Mutong	₹ 0.59	₹041
11	Loomiongkjam near Madan Ait Nar	₹ 1.77	₹ 0.53
Total	Cost in Crores (including GST)	₹ 14.21	₹ 5.21
Total	Cost in Crores (including GST)	₹ 19.42	

Annexure - F

Agenda Note for 37th meeting of the IMC/NESIDS Committee scheduled to be held on 15.11.2022

State: Meghalaya

1. Name of the Project: Management of the Legacy Waste at Marten, Shillong.

Shillong.

2. Estimated Cost: Rs. 4056.34 Lakhs

3. Sector: Sold Waste Management

4. Objective: The main objective of the project to manage the continuous flow of solid waste on a daily basis.

5. Abstract of Cost:

SI. No.	Name of Items	Rate	Area/Volume /Length/Nos.	Amount (in Rs.)
i.	Excavation of slushy/marshy soil, decomposed organic matter mixed with brickbats, broken glass panes, broken earthen pots etc. removal of stumps and other deleterious matter in the proposed building for bailing out water as directed including return filling and ramming after completion of work with good quality earth.	780/m ³	155601 m ³	121368780.00
ii.		128/m ³	155601 m ³	19916928.00
ìii.		294/m ³	5763 m³	1694322.00
iv.		498/m ²	9605 m ²	4783290.00

	Synthetic Clay Liner			4005005 00
/.	Supplying and Laying of HDPE GEO membrane	441/m²	9605 m ²	4235805.00
vi.	Supplying and laying of Non woven Needle punch Polypropylene Geo textile.	104/m ²	9605 m²	998920.00
vii.	Supplying and Fitting of HDPE Pipes 315 dia	6288/m	2030 m	12764640.00
viii.	Supplying and Fitting of Perforated HDPE Pipes 160 dia	1739/m	1040 m	1982469.00
ix.	Supplying and dibbling of selected lawn grass after preparing the land by ploughing/working to a depth of 40-45 cm, removing of all unwanted debris (rubber, pebbles, plant roots etc.) mixing of organic manure (10- 15 kg/sq. m), leveling the surface and initial maintenance by proper and periodic rolling, mowing and irrigation etc. (as specified) including the application of recommended dose of fertilizers (N:P:K) mixture as specified and directed by department.	129/m ²	9605 m ²	1239045.00
х.		209 each	750	156750.00
xi.	Supplying and planting of ornamental trees (30cm height sapling) including pit making (60 cm x 60cm x 60 cm), filling the pit with appropriate soil media	253 each	1500	379500.00
xii.		1050/m ³	155601 m ³	163381050.00
xiii.	Baling of the municipal solid wastes into the groups of	50/m ³	46680 m ³	2334015.00
	recyclables wastes		Total	335235514

XV.	Add 18 % GST	60342390.90
xvi.	Add 3 % Contingencies	10057065.15
xvii.	Grand Total Cost	405634970.05

- Intended output and outcomes of the project- not provided by SG 6.
- SDG, being targeted by the project- not provided by SG 7.
- Concept paper is attached. 8.

(N. K. Saha) 10/11/22 Under Secretary to the Government of India

CONCEPT REPORT ON MANAGEMENT OF THE LEGACY WASTE AT MARTEN

Estimated cost of Project ₹ 40.56

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1. Introduction

The Shillong Urban Agglomeration population is 0.35 million, of which the Shillong Municipal Board (SMB) area consists of 0.14 million and is the major urban centre. The Greater Shillong Planning Area (GSPA) consists, besides SMB and Shillong Cantonment Board (SCB), ten urban centres and 26 villages covering an area of 174 sq km with a population of 0.41 million as per 2011 census. The Shillong Urban Agglomeration (SUA) comprises of SMB, SCB, and 10 town census with a population of 4,11,955 as per 2011 census. In addition to the above data, the composition of waste disposed at Marten, is also shown in figure 1 below.



Figure1: Waste Composition.

With a growing population along with the incremental growth of Municipal Solid Waste (MSW) and also decades of neglecting these open dumps at Marten, the open dumped have grown larger and higher, becoming point sources of pollution. Waste rotting in these airless heaps produces leachate, a foul dark liquid that kills vegetation and irreversibly pollutes underground water due to leachate generation. The heaps of garbage also produce methane, a greenhouse gas that causes 21 times more global warming than carbon dioxide. Besides, contaminating air quality, which further, worsens due to frequent fire incidences.

2. Present Status of Legacy Waste at Marten and its Environmental Impact

The 18 acre land at Marten has been used since 1938 for dumping of waste. Since then, MSW have been disposed at Marten but not in a scientific method but as an open dump until recent years. A sanitary landfill was developed in 2017 over an area of 15000 sq.m. The open dump is about 9605 sqm in area and 16.2m high. The estimated volume legacy of waste at present in Marten is approximately 1,55,601m3.

The average total waste generated by Shillong city as of 2022 is 190 TPD of which, 92.3 TPD is disposed to landfill, 36 TPD is recycled scrap, 30 TPD is treated at Compost plant, 3.7 TPD is treated at Waste Recovery Centre, 24 TPD used as kitchen garden or piggery and 4 TPD is un-accounted. On the basis of the average total waste generated in SUA, it can be deduced that in 2 to 3 years the current landfill will reach its design capacity. There are two major challenges of solid waste management in Shillong:

1. Managing the continuous flow of solid waste on a daily basis, and

2. Dealing with the legacy waste that was built up at the dumpsite.



Figure 2: Landfill with Legacy Waste at Marten.

This issue is further compounded by the fact that Shillong cities have grown the most in terms of area, and so these dumpsites, which were at one point located in the outskirts of the cities, are now standing tall in the middle, exposing a large number of people to the health hazard of open dumpsites. Moreover, these dumpsites are growing in size, becoming an eyesore for these cities, causing considerable social, economic and environmental losses to surroundings. In the absence of exposure to air, the high-rises of rotting mixed waste on these sites generate methane (a greenhouse gas) and other landfill gases, which contribute to global warming. They also produce leachate (liquid generated by waste) which pollutes groundwater. Frequent outbreaks of fire at the dumpsites lead to air pollution. The methane produced at solid waste disposal sites contributes approximately 3 to 4 percent to the annual global anthropogenic greenhouse gas emissions. Clearing and closing these mounds of years-old waste is necessary to reduce emission, and save surrounding villages from polluted water sources, smoke, flies and stench.

The generation of dry waste, especially plastic waste and packaging has increased at a tremendous rate over the years and this led to ever-growing dumping ground. The daily use of single used plastic as well as plastic products like bottles; food containers, etc. also contribute to this increase in waste generation. Some waste materials may or may not be recyclable and other might be too small to recover.

3. Methodology for Dumpsite Remediation

The treatment and disposal of legacy MSW can be done by Bio-remediation and Bio-mining. A total station survey or drone mapping of any landfill/dumping site must be done prior to start of the project. Hence, it is suggested to firstly study with history of the sites and compositional analysis of the waste. Site environment parameters such as baseline study of heavy metals in surface and subsurface soils and water, rainfall, soil type, surface hydrology, topography, wind direction, etc. shall be studied before and after bio-mining. Periodic study should also to be carried out after completion of bio-mining to check for any adverse effects in the surrounding area.

3.1. Bio-remediation, Bio-mining and Capping

Bio-remediation broadly refers to any process in which micro-organisms like fungi or bacteria is used to convert environmental contaminant or pollutants to less toxic forms while bio-mining is abio-remediation process but with technique used for extracting metals from ores and other solid materials typically using prokaryotes (unicellular organism), fungi or plants. On the other hand, capping involves placing a cover over contaminated materials such as landfill waste or contaminated soil. Such covers are called caps. Caps do not destroy or remove contaminants. Instead, they isolate them and keep them in place to avoid the spread of contamination. Capping of unlined dumps is in fact dangerous as it makes the waste even more airless, generating more leachate and also more methane and landfill gas, which leaks out below the edges of the capping. The option of capping of legacy waste which has huge environmental and health consequences, is no option at all, except for inert waste, which again is to be disposed in a scientific secured landfill. Where bio-remediation and bio-mining is possible, both exsitu and in-situ, such option can be exercised, which is not only environmentally safe but cost effective. There may be hardly any situation when bio-remediation is not possible.

The table below show the applicability of bio-remediation and capping:

Bio-remediation	Capping		
 Applicable where the ownership is well defined. Where working space is available in the dumpsite. Where linkage with utilization of remediation by-products are available. 	 Applicable only in cases having: Lack of resources Lack of working space Lack of linkage for utilization/disposal of segregated components. 		

3.2. Capping Model without Land Recovery

Capping, in developed countries like India, is the preferred means of closure of scientifically engineered landfills with bottom and side liners. These lines as well a drainage layers and leachate management are installed before using the site for waste placement. Capping is meant to keep the landfill from rain so as not to add to the internally generate leachate which is continually pumped out through pipes and drainage layers for treatment. The following are the advantages and disadvantages of capping.

Advantages:

- Can be completed fast.
- Process requires less environmental clearances.
- Relatively cheaper.
- Land capped can be developed into parks or recreational areas.

Disadvantages:

- No land recovery, no financial benefit from land capped (except parks or recreation).
- Regular operation and maintenance required, thus recurring expenditure.
- Capping gives only one-third of the base area as usable area at an inconvenient height for future use.
- Capping requires at least 15 years of continuous leachate pump-out and treatment in a dedicated effluent treatment plant nearby as a results capped sites are closed to the public for 15 years.
- Capping of open dumps required intake of fresh waste to be stopped and permanently diverted to a fresh site before capping begin.

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3.3. Bio-remediation and reclamation of part of land

In this process, approximately 50-60% of waste is excavated which is then processed as per CPCB guidelines. The useful fractions derived from this process can be sold to relevant buyers and the inert material with rest of the dumpsite will be capped to prevent further degradation of the environment. It is much cheaper and faster than 100% reclamation and help improvement in aesthetics and quality of life and health. In addition, land capped can be developed into parks or recreational areas. On the other hand, only partial recovery of land and compliance to SWM Rules and NGT orders. It is a time taking and extensive work process with limited industry expertise.

3.4. Bio-remediation and reclamation with complete Land Recovery

This refers to the excavation of old dumped waste and making windrow of legacy waste to stabilize of the waste through bio-remediation i.e. exposure of all the waste to air along with use of composting bio-cultures, followed by screening of the stabilized waste to recover all valuable resources (like organic fines, bricks, stones, plastics, metals, clothes, rags etc.) followed by sustainable management through recycling, coprocessing, road construction etc. In this process, 100% of the land is recovered resulting in increase in land value and improvement in aesthetics and quality of life and health. Like reclamation part of land, this process is also time taking and extensive work process which required expensive and heavy machinery with only little industry expertise in this field. Another challenge of this process is the disposal of the segregated portion which required transportation, man power, etc. It is also difficult to quantify the waste as it is expensive to weigh all recovered fractions.

The remediation of dumpsites has a number of benefits such as;

- Elimination of foul odour to benefit the citizen living nearby.
- Decline in vector borne diseases arising out of the dumpsite.
- Significant reduction in air pollution of the entire area.
- Elimination of dump fires and leachate generation.
- Uplifting of the environmental, aesthetic and social parameters of entire area.
- Reduction in Green House Gas Emissions, soil pollution and ground water contamination.
- Increase in nearby real state value and rental values.
- Dumpsite land becomes available for other use.

4. Environmental Risks of Bio-Mining

There are several potential environmental risks associated with bio-mining projects and therefore a plan addressing these potential risks should be kept ready. Majorly the risks would be associated with proper management of hazardous waste that may be uncovered during the operations of reclamation, managing the releases of gases, odours, its associated risks to human health and controlling any fire, subsidence or collapse. Environmental risks can be managed well if considered in advance of the operations and appropriate mitigation measures have been designed by the executing agency.

5. Proposal for legacy waste at Marten

Based on the site location and the limited space available, it is suggested that bioremediation of the legacy waste with part of land to be reclaimed should be exercise and should be done in a layer wise method. The height of the legacy waste at Marten is 16.2m,

so bioremediation should be done in 9 layers where each layer is 1.8m height. In this method only 50%-60% of the waste is excavated and the valuable fraction can be sold to appropriate buyers. The inert materials derived from this process together with the remaining legacy waste will be capped to stop environmental deterioration. As a result, the capped land can be used to develop parks, recreational area or be put to use for other activities.

6. Cost Estimate

The cost estimate for remediation of the 1,55,601m³ (area 9605sqm and depth 16.2m) legacy waste at Marten is show in table below:

SI No	Particular	Rate	Area/Volume /Length/Nos.	Amount
1	Excavation of slushy/ marshy soil, decomposed organic matter mixed with brickbats, broken glass panes, broken earthen pots etc. removal of stumps and other deleterious matter in the proposed building site including constant water pumping for bailing out water as directed including return filling and ramming after completion of work with good quality earth.	Rs. 780/m³	155601m³	Rs. 12,13,68,780.00
2	Extra for carriage including loading and unloading and all charges complete beyond the initial lead of 5 Km. Carriage of earth/ unserviceable material.	Rs. 128/m ³	155601 m ³	Rs. 1,99,16,928.00
3	Earthwork in filling (excluding rock) in trenches, plinth, sides of foundation etc in layers not exceeding 20 cm thick including breaking of clods, consolidating each layer by ramming and watering, lead up to 50 m and lift up to 1.5 m. With borrowed earth/stone dust carriage up to 5 Km.	Rs. 294/m ³	5763m³	Rs. 16,94,322.00
4	Supplying and Laying of Geo Synthetic Clay Liner.	Rs. 498/ m²	9605 m²	Rs. 47,83,290.00
5	Supplying and Laying of HDPE Geo membrane.	Rs. 441/ m²	9605 m²	Rs. 42,35 ,805 .00
6	Supplying and Laying of Non Woven needle punch polypropylene Geo textile.	Rs. 104/m ^ł	9605 m²	Rs. 9,98,920.00
7	Supplying and Fitting of HDPE PIPES 315 dia	Rs. 6288/m	2030 m	Rs. 1,27,64,640.00

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8	Supplying and Fitting of perforated HDPE PIPES 160dia	Rs. 1739/m	1140 m	Rs. 19,82,469.00
9	Supplying and dibbling of selected lawn grass after preparing the land by ploughing/ working to a depth of 40- 45 cm, removing of all unwanted debris (rubbles, pebbles, plant roots etc.), mixing of organic manure (10- 15kg/sq.m), levelling the surface and initial maintenance by proper and periodic rolling, mowing and irrigation etc. (as specified) including the application of recommended dose of fertilizers (N:P:K) mixture as specified and directed by the department.	Rs. 129/m²	9605m²	Rs. 12,39,045.00
10	Supplying and planting of ornamental trees (30cm height sapling) including pit making (60cm x 60cm x 60cm), filling the pit with appropriate soil media, manure and fertilizers as per specification and necessary maintenance complete as specified and directed.	Rs. 209 each	750	Rs. 1,56,750.00
11	Supplying and planting of ornamental trees (30cm height sapling) including pit making (60cm x 60cm x 60cm), filling the pit with appropriate soil media,	Rs. 253 each	1500	Rs. 3,79,500.00
12	Segregation of the municipal solid wastes into the groups of organic, inorganic, recyclables and hazardous wastes.	Rs. 1,050/ m³	155601m³	Rs. 16,33,81,050.00
13	Baling of the municipal solid wastes into the groups of recyclables wastes.	Rs. 50/m3	46680m ¹	R5. 23,34,015.00
			Total:	Rs. 33,52,35,505.00
			Add 18% GST:	Rs. 6,03,42,390.90
			Add 3% Contingencies:	Rs. 1,00,57,065.15
			Grand Total	Rs.

7. Conclusion

Legacy Waste has several ill-effects like generation of greenhouse gases, pollution of the entire ecosystem around the dump site, posing risk of uncontrollable fire, etc. Thus it is very critical to start working on clearing it today and ensuring that fresh waste is also handled accordingly. Various types of waste will be recovered from legacy waste like dry waste, hazardous waste, bio-medical waste, construction and debris waste, e-waste, etc. All these wastes should be disposed of as per the norms and guidelines issued by MoEF&CC under respective waste management and handling rules under the Environment

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Cost:

40,56,34,961.05

(Protection) Act 1986. ULB also needs to ensure that fresh waste generated in city is handled collected and processed separately as per the norms and guidelines issued by MoEF&CC.

Bio-remediation and bio-mining of MSW projects may not be economically viable but are mandatory to improve waste management ecosystems across India. Besides, land cleared by way of bio-mining and bioremediation of legacy waste, huge land area is evacuated, which can compensate the cost of its treatment.

Clearing of old dumps is meaningless unless the creation of fresh open dumpsites is stopped. This is best done by proper segregation of biodegradable waste and by processing the various categories through appropriate technologies and disposal of the inert waste in secured sanitary landfills.

Annexure -67

Agenda Note for 37th meeting of the IMC/NESIDS Committee scheduled to be held on 15.11.2022

State: Meghalaya

1. Name of the Project: Development of Heliport at Shillong in Meghalaya

2. Estimated Cost: Rs. 20.00 crore

3. Sector: Civil Aviation

4. Objective: The main objective is to address underdeveloped transportation services, urban congestion and mobility challenges in the region as well as help facilitate the growth potential of high value tourism.

5. Abstract of Cost: Detailed component wise cost is not provided by SG.

6. Intended output and outcomes of the project- not provided by SG.

7. SDG, being targeted by the project- not provided by SG.

8. Concept paper is attached.

Noz (N. K. Saha) 10/11/22

(N. K. Sana) Under Secretary to the Government of India

DEVELOPMENT OF HELIPORT AT SHILLONG IN MEGHALAYA

Proposal for funding under NESIDs

Meghalaya is situated in the North Eastern Region (NER) of India, an area rich in natural resources and strategically located between three major economics-China, East Asia and South Asia. To address such underdeveloped transportation services, urban congestion and mobility challenges in the region as well as help facilitate the growth potential of high value tourism, a proposal to develop Heliports in the citics of Shillong and Tura in Meghalaya State, India is conceptualized.

The State Helicopter service, under the management of Transport Department, uses the facilities of Eastern Air Command (EAC), IAF at Shillong, BSF ground at Tura and LGBI Airport at Guwahati to operate the state helicopter to connect Shillong, Guwahati and Tura with Guwahati as base of operation as it does not have any helipad of its own at present. In such a scenario, the need to develop a heliport at Shillong as the base of operation cannot be understated.

A Detailed Project Report (DPR) containing the Techno Economic Feasibility Report will be prepared for the development of above heliport at Shillong consideration of funding under NESIDS during 2022-23 on Civil Aviation projects.

The TEFR will take into consideration the physical and operational characteristics of commercial helicopter operations in India to identify the facility/infrastructure requirements of heliports, along with the estimated cost of the relevant infrastructure. The study will also include a needs assessment, target customers, major routes to be developed, air traffic forecast, Project appraisal and issues concerning the implementation of the project and an Environmental Assessment.

The scope of the work will encompass a Draft Master Plan based upon the following outline of the document with particular emphasis on the four Primary Components :

-Aviation Component

- -Engincering Component
- -Financial Component
- -Social Environment Component

The information contained in the Final Report of the Detailed Project Report will be exhaustive enough to provide the DONER with the initial findings for early decision making purposes, formulation of the project model, contracting a developer for construction, etc. All relevant studies will be conducted in accordance with good industrial practices, ICAO standards, Directorate General of Civil Aviation(DOCA), the Bureau of Indian Standards(BSI) and the guidelines of the NESIDS.

The proposed site is :

1. Shillong Heliport Site

The proposed site is located in the the Shillong Technology Park Campus at Umsawli, which is a part of the newly growing Shillong Township. The proposed site is approximately 10 km from the main Shillong city and approximately 32 km from the existing Umroi (Shillong) Airport by road.



The existing land identified for the Heliport development at Shillong is approximately 7 acres in size and is in possession of State Government.

The estimated cost for establishing Shillong Heliport is Rs.20.00(Rupees Twenty) crores approximately.

Joint Secretary to the Government of Meghalaya

Transport Department

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DEVELOPMENT OF HELIPORT AT SHILLONG IN MEGHALAYA

Proposal for funding under NESIDs

Meghalaya is situated in the North Eastern Region (NER) of India, an area rich in natural resources and strategically located between three major economics-China, East Asia and South Asia. To address such underdeveloped transportation services, urban congestion and mobility challenges in the region as well as help facilitate the growth potential of high value tourism, a proposal to develop Heliports in the cities of Shillong and Tura in Meghalaya State, India is conceptualized.

The State Helicopter service, under the management of Transport Department, uses the facilities of Eastern Air Command (EAC), IAF at Shillong, BSF ground at Tura and LGBI Airport at Guwahati to operate the state helicopter to connect Shillong, Guwahati and Tura with Guwahati as base of operation as it does not have any helipad of its own at present. In such a scenario, the need to develop a heliport at Shillong as the base of operation cannot be understated.

A Detailed Project Report (DPR) containing the Techno Economic Feasibility Report will be prepared for the development of above heliport at Shillong consideration of funding under NESIDS during 2022-23 on Civil Aviation projects.

The TEFR will take into consideration the physical and operational characteristics of commercial helicopter operations in India to identify the facility/infrastructure requirements of heliports, along with the estimated cost of the relevant infrastructure. The study will also include a needs assessment, target customers, major routes to be developed, air traffic forecast, Project appraisal and issues concerning the implementation of the project and an Environmental Assessment.

The scope of the work will encompass a Draft Master Plan based upon the following outline of the document with particular emphasis on the four Primary Components :

-Aviation Component

- -Engineering Component
- -Financial Component
- -Social Environment Component

The information contained in the Final Report of the Detailed Project Report will be exhaustive enough to provide the DONER with the initial findings for early decision making purposes, formulation of the project model , contracting a developer for construction, etc. All relevant studies will be conducted in accordance with good industrial practices, ICAO standards, Directorate General of Civil Aviation(DGCA), the Bureau of Indian Standards(BSI) and the guidelines of the NESIDS.

The proposed site is :

1. Shillong Heliport Site

The proposed site is located in the the Shillong Technology Park Campus at Umsawli, which is a part of the newly growing Shillong Township. The proposed site is approximately 10 km from the main Shillong city and approximately 32 km from the existing Umroi (Shillong) Airport by road.



The existing land identified for the Heliport development at Shillong is approximately 7 acres in size and is in possession of State Government.

The estimated cost for establishing Shillong Heliport is Rs.20.00(Rupecs Twenty) crores approximately.

Joint Secretary to the Government of Meghalaya

Transport Department

Annexure - H

Agenda Note for 37th meeting of the IMC/NESIDS Committee scheduled to be held on 15.11.2022

State: Meghalaya

1. Name of the Project: Implementation of Education IT Infrastructure in

240 Govt. schools across Meghalaya.

2. Estimated Cost: Rs. 2495.00 Lacs

3. Sector: Education

4. Objective: The main objective is to develop an advanced interactive virtual classroom platform in 240 Government Schools in Meghalaya.

5. Abstract of Cost:

SI. No.	Description	QTY	Total Price (Incl. of GST) (In INR)	
NON	-RECURRING COST			
1	Studio	90.00 lacs		
2	Virtual Classrooms	1,530.00 lacs		
3	Multimedia Content	As Needed	301.00 lacs	
4	Centralized Application Software	1	390.00 lac	
5	Capacity Building of Teachers	67.00 lac		
Tota	I Non-Recurring Cost (Incl. of GST)	2,378.00 lacs		
	URRING COST PER ANNUM*			
1	Managed Network Services	117.00 lacs		
Tota	Recurring Cost PER Annum (Incl.	117.00 lacs		
Tota	I Cost of the Project in INR (Incl. of	2,495.00 lacs		

*not Admissible

- 6. Intended output and outcomes of the project- Not provided by SG
- 7. SDG, being targeted by the project- Not provided by SG
- 8. Concept paper is attached.

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(N. K. Saha) Under Secretary to the Government of India •

DETAILED PROJECT REPORT PROJECT NAME: IMPLEMENTATION OF IT AND EDUCATIONAL INFRASTRUCTURE IN240GOVERNMENT SCHOOLS ACROSS MEGHALAYA FOR INTERACTIVEVIRTUALCLASSROOMS.

1. Project Summary

1.1 Introduction

The proposal details an advanced interactive virtual classroom platformin Meghalaya's240 GovernmentSchools. The projectshall create a LIVE learning environment ofhigh-quality teaching-learning with 01Virtual Classroom with interactivity in each school and improve the IT and Educational Infrastructure in the State. The connectivity required for interactivity will be supplied through satellite bandwidth. As a permanent teaching infrastructure, a broadcasting studio will be established at State HQ.

The proposed solutionwill empower all stakeholders of the education system to take control of everyday activities and students will be able to get the education from best teachers and digital content resources. Since the digital sessions will be telecast using satellite network which is independent of geography of schools, the problem of broadband non-feasibility or unstable connections in remote schools will not be a hurdle to introduce virtual education.

Through this project, a permanent training-learning-assessmenttechnology platform will be set up for the Education Department.

Main deliverables of the technology solution

- 1. Infra setup: 01 broadcasting studio, 240 Interactive Virtual classrooms, satellite connectivity for receiving sessions and interactivity, and solar powered electricity at schools for virtual classrooms.
- 2. Remote teaching sessions streamed live and interactively as per the time-table
 - Curriculum aligned special academic sessions on hard spots and important concepts for class 6 to 10
 - On-demand extra-curricular topics, career guidance, competitive test preparation
 - Training the trainers
- 3. Digital content specifically developed for Meghalaya State Board Education
- 4. Assessment tools and reports for every student at various levels
- 5. Online tracking and monitoring of performance of the project

2. Solution Overview

End-to-end Interactive Virtual Classroom solution for Meghalaya:

Project components: Infrastructure

- a) Broadcasting Studio at Shillong
- b) Interactive Virtual classroom setup at 240 Schools
 - 1. 240Virtual classrooms with connectivity and solar power
 - 2. Student assessment tools (50 transmitter tools, 1 receiver per school)
- c) Digital Content in selected subjects mapped to the State Board Education, topics selected by the Academic Committee

- d) Centralized Application Software:
 - 1. Web and mobile app based academic content management & distribution system

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- 2. Web Project Monitoring Application Dashboard
- 3. Student Analytics Dashboard
- e) Capacity Building of Teachers
- f) Connectivity at studio and virtual classrooms

3. Details of Project Deliverables

I. Broadcasting Studio

A multimedia studio at Shillong is planned to be the tecahing and training hub.The studio will have an interactive live streaming and/or recording facility.



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h-quality classes will be streamed LIVE and recorded to upload on central content management portal.

II. Setting up Interactive Virtual classrooms

One classroom in each school will be selected to be interactive virtual classroom. These can be used to connect to the studio sessions, as well as to use a digital teaching spaces for school teachers. The list of equipment at each school: Projector,Satellite interactive communication equipment (antenna, modern), Wi-Fi Modern,Application Software, Student Assessment devices,HD Camera & Mic for asking questions, UPS (solar powered)with necessary solar panel with stand, locking podium.

Interactive Virtual classroom for virtual remote sessions and virtual classroom sessions with student assessment devices

Student LearningAssessment Devices

Student learning assessment devices used in an ongoing class helpsin conducting objective tests from a remote multimedia studio - every LIVE session. This ensures during every class feedback and student answers are made available to project team for

analysis. Every classroom can be provided with 50 devices for assessing student engagement and performance in each session.

2.nh



- Studio teacher asks a question, creates quiz between groups, conducts polls
- Each student submits an answer to the question using the clicker assessment device which gets collected via receiver
- Server Software collects student answers produces graphs and other data immediately

Question Bank mapped to content:

Access question bank with Multiple Choice Questions mapped to State Board syllabus. Teachers may use the questions already available on the Question Bank or may create their own questions and add to the database.



During each session, a few questions will be asked by the teacher on the topic being taught at regular intervals and each student's understanding (and other factors needed to answer correctly) will be gauged in a comprehensive manner using these carefully prepared MCQs. This analysis can be used for introducing student level remedial teaching initiatives.

Some of the terminology in the reports:

Score: Refers to the overall score from the answers from the questions attempted (scale of 0 to 5)

ANS

Accuracy: Refers to the overall correct answers from all the questions attempted (Scale of 0 to 5)

Time: The response time taken to answer a question (the time is predefined for each question in the question authoring tool)

Difficulty: Refers to the difficulty level of specific questions asked over the sessions (the difficulty level is predefined for each question in the question authoring tool)

READ Velocity: An overall score generated by the Artificial Intelligence program based on the student's performance over across various aspects (intelligently modifies the score over a period of time)



Session AttendanceView

Subject-wise performance View



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All Subjects Performance View



Deep Dive report of every session & Question



All Students - performance view

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Only traditional mode of teaching with chalk & talk or basic text and images for making concepts understandable is not enough impactful. By digitizing content, it helps learning subject concepts in a more enjoyable, appealing, and memorable formats. By engaging a central academic team with in-depth expertise and high experience, the whole education system will get benefitted. This readymade content without narration can be used in the multimedia studio as teaching resource. The recorded sessions by experts thus become high quality beyond classroom learning resources.

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SCREENSHOTS





A curriculum is an important instrument to accumulate knowledge and to stimulate the creation of a shared understanding that encourages development and learning. Just like traditional classroom education, e-Learning also contributes in children's education as well as their cognitive, social, emotional, physical and linguistic development.

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All students are active and capable learners whose diverse competences are supported by the curriculum. At the same time the implementation of the curriculum needs to be planned within an open framework which acknowledges and addresses the diverse interests and needs of students in a holistic manner. Their experiences and their active participation are to be valued, so usage of interactive elements and feedback loops in the digital content will be helpful.

An agile integrated digital content development and accreditation framework is proposed with Discovery, Design, and Development Phases. In this process subject experts (identified teachers) and verification team (evaluators who are senior subject experts, text-book authors, industry experts) work in tandem.

These parameters guide the verification Team in selecting the appropriate contents and recommend additional contents, suggest modifications. To check the quality of the session plan and module, the evaluator needs to have the following knowledge & skills:

1. Mastery over subject matter

- 2. Understanding of pedagogy in terms of learner, methods of teaching, context etc.
- 3. Knowledge of subject related concepts, tools, resources and its use in education
- [understanding of using suitable multimedia elements]
- 4. Experience of Teaching
- 5. Understanding of evaluation tools
- 6. Skill of analysing, interpreting, and comprehending
- 7. Use of ICT for evaluating and documenting (Desirable)

Discovery Phase:

• Identification of topics and sub-topics for the assigned subjects in terms of subject, content, age group, method etc to design a session plan.

· Evaluating the content plan it as per the standard parameters.

• Verification team selects the appropriate examples and visual elements to suit the requirement of learners.

Design Phase:

• Based on the approved Session Plan, a script and storyboard will be prepared by subject experts and will be sent to the verification team.

Development Phase:

Based on the finalized script, subject experts will develop a content module for eachtopic.

• The Verification Team will provide inputs for final recording and will clear the module for uploading in the Learning Management System (e-learning Portal).

IV. Software Applications for Monitoring & Assessment Data Management

Dashboards for project monitoring and assessment datawith access at school/district/division/state levels. Web pased online project monitoring shall show where the Virtual classrooms are running on the map. The map shall show the live class run status.
Class Run Status: When class is running, system automatically updates the live status online.
 Dashboard-Summary: Detailed status report of any given day will be

gsc.

- Dashboard-Summary: Detailed status report of any given day will be available in the Dashboard.
 - a. Status of studio sessions, classes connected
 - b. No. of students benefitted
 - c. No. of queries asked by students
 - d. Student reports at School/Block/District/State levels
 - e. Incident Management
 - f. Asset Report
 - g. Training Report

Total Submissions

34%	100%	100%	93.9%	
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Submission Tim	eline			
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V. Capacity Building of Teachers

- Five teachers/admin staff per school should get trained on the virtual classroom platform.
- Utilization of hardware, software and how to do virtual classroom operations including usage of apps and desktop applications.
- Refresher Training

VI. Connectivity

- 1. Satellite bandwidth at studio and school
- 2. Dedicated Internet at studio
- 4. Commercial Proposal

NON- RECURRING COST

BROADCASTING STUDIO:

			Total
S.No.	BOM for Studio Description	QTY	including GST)
			(in INR)

1	Digital Video Camera with accessories	1	
2	Video Switcher with accessories	1	
3	Audio mixer with accessories	11	
4	Camera Tripod	1	
5	Microphone: Cordless Lavaliere	2	
6	Recording Server	1	
7	Digital SD/HD-SDI video distribution	1	
8	Transmission Server	1	90.00 lacs
9	Interactive Panel with laptop	1	
10	Laptop with HDMI output	1	
11	Satellite Receiving Antenna, Satellite Modem (Compatible with EDUSAT Network) and LNB Laptop with application software	1	
12	LED Studio Lights with ceiling Grid and mounting clamps/hooks	4	
13	Electrical networking and Studio cabling including all accessories	1	
14	Acoustic, Fabric Above Acoustics with Air Condition(20x20)	1	
15	Studio Management per annum	1	

INTERACTIVE VIRTUAL CLASSROOM:

S. No	BOM for Virtual Classroom set up Description	QTY	Total (including GST) (In INR)
1	Projector with ceiling mount	1	
2	Projector Screen	1	
3	Solar Hybrid Power Backup system	1	
4	Audio System	1	
5	Application Software	1	
6	HD Web Camera	1	A-1774
7	Microphone	1	
8	Communication equipment 2 Way-VSAT	1	6.40 lacs
9	Wi-Fi Modem	1	
10	Solar Panel	1	
11	Student Analytics system (50 handset and 1 receiver)	1	. –
12	Electrical networking and virtual classroom cabling including all accessories	1	
13	Laptop	1	
14 .	Monitoring, Evaluation, analytics and assessments (per Classroom)	1	

CAPACITY BUILDING OF THE TEACHERS:

S. No.	Items	 QTY	· Total
		 	(including GST)

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			(in INR)
1	Training of Teachers at Studio (1 Batch of 10 Teachers)	5 Batches	
2	Training of Teachers of Virtual Classroom (5 Teachers per school)	50 Batches (1 batch has 25 teachers)	67.00 lacs
3	Helpdesk / Tech Support / Nodal Officers	1	

CENTRALIZED APPLICATION SOFTWARE

S. No	ltems	Qty	Total (including GST) (in INR)
1	Centralized application Software	1	390.00 lacs

DIGITAL MULTIMEDIA CONTENT

S. No	ltems	Total (including GST) (In INR)
1	Digital e-Content development for Live teaching	301.00 lacs

RECURRING COST

MANAGED NETWORK SERVICES COST PER ANNUM

S. No.	Item of Work	Qty	Total per Year (including GST) (In INR)
1	Managed Network Services for Studio (Leased line of minimum 10 Mbps Bandwidth & Satellite Connectivity of minimum 2 Mbps Bandwidth)	1	117.00 lacs

COST OF THE PROJECT

S.No.	Description	QTY	Total Price (Incl. Of GST) (In INR)
NON-RE	ECURRING COST		
1	Studio	1	90.00 lacs
2	Virtual Classrooms	240	1,530.00 lacs
3	Multimedia Content	As Needed	301.00 lacs
4	Centralized Application Software	1	390.00 lacs

5	Capacity Building of Teachers	1	67.00 lacs
Total N	2,378.00 lacs		
RECUI	RRING COST PER ANNUM		
1	Managed Network Services	1	117.00 lacs
Total R	117.00 lacs		

Total Cost of the Project in INR (Incl. Of GST)	2,495.00 lacs

Terms & Conditions:

- Advance of 40% payment of the Non-Recurring cost shall be released along with work order.
- 60% payment of the Non-Recurring cost shall be released on completion of delivery of all the components at client site.
- · Recurring payment shall be released in advance at the start of every year.
- The centralised software can support up to 500 Classrooms.
- Training Payment shall be released after imparting the training. (As per actuals)
- In case of any change in Tax/GST rates or other levies by the Government of India/State during the project execution, then the same will be applicable.
- The above price is inclusive of three (03) years onsite warranty support excluding consumables.
- The above proposal is valid till 31.03.2023 from the date of submission of the proposal.

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Agenda Note for 37th meeting of the IMC/NESIDS Committee scheduled to be held on 15.11.2022

State: Meghalaya

1. Name of the Project: Construction of Girls Hostel Building for Tribal Students at Balawan College Umsning Ri-bhoi.

2. Estimated Cost: Rs. 9.39 crore

3. Sector: Education

4. Objective: The objective of the project is to provide the required education to the deprived section of the in and around the district.

5. Abstract of Cost: Not provided by State Government.

- 6. Intended output and outcomes of the project- Not provided by SG
- 7. SDG, being targeted by the project- Not provided by SG
- 8. Concept paper is attached.

Mr Staleg 10/11/22

Annexure -1

(N. K. Saha) Under Secretary to the Government of India

CONSTRUCTION OF GIRLS/110 BUILDING FOR TRIBAL STUDENTS AT BALAWAN COFFEGE, UMSNING, RIBHOF DISTRICT

Balawan College was established within the autor of the Organize - Edu-Wel Meshor Society (1-WMS), the mission of the organization started in a spirit to achieve its auns and objectives not expecting any profitable momentry gains but rather it is determined to extend the spirit of charity to the many fields of development and progress.

CONCEPT OF THE PROPOSAL

The concept of the proposal is to establish a strong sound and meaningful infrastructure for Girls" Hostel to eater the need of the tribat Cari Students through which a quality education to the youth of Emsning Block and its surrounding villages can be imparted. The college was established with a vision to carter the needs of the students of Umsning Block and subsequently the vision were further extended to cover the entire Ri-bhor District. The establishment of the Girl's Hostel in the compos will impact to a large extent to the Girl Students who are othen being deprived of for going outside the hometown for further studies.

PROBLEMS ADDRESSED BY THE PROJECT

the college established in a ratal background covering many villages where people are mostly from marginal tarmers and labourers' where people have poor socio cultural economic and educational condition. In this area a girl student is not motivated to go for higher studies since she have to leave the house and continue her higher studies in urban areas. In such a case a girl student drops out after completion of Secondary or Higher Secondary Level.

therefore, to facilitate the socio economically disadvantage groups, inhabitants of this area and the deprived Girls from Higher studies it is proposed to set up an adequate infrastructure on Hostel for Girls to address the problems face by them and by the society. The construction will be a multi-storied Building with Ground Floor, First Floor and Second Floor

Land documents and map of Balawan College and compound called Lain Roman. Unsamp measuring 4.6 acres and the estimate for construction of Girls' Hostel are enclosed for referral

	+ TEMS	Detailed Information
3	General information about the project	· Januar - Anna
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· .	e planting external and the englished property will be leaded.	Remove Distance
N10	Troposogy emplementing pepartories agreen	- Education densitivent
1 ⁵ .	Name of executing Department/Agency	MGG
A.	Enclose non-duplication certificate Whether the project falls within the Truss- areas of NEC, Vision 2020 or Working Group	No buph, acy Certonate to be enclosed Yes. The project talks under the NEC selective and
(4.	recommendations.	focussed sector "Higher Education" support to augment infrastructure of Higher Education
NI 	is state specific project, give reasons why a	Yes, Due to paucity of fund under the conversed
shi Mata	cannot be funded from the state plan. Indicate sustainability of project including operation and maintenance of assets po-	department. The infrastructure shall be maintained and look after by the Ede-Wel Mission Society an NGO which
	Completion of project. Give details of the existing infrastructure and	runs the College.
84. 1	facilities available in the proposed project location and also in the districts and sub- divisions/block	Detailed sup of the compass enclosed.
ß	Justification/ Rationale of the Project	
	State the nature and magnitude of the problem faced or the potential to be tapped. Elaborate the problems to be addressed or benefits that will accrue through the project, also give the baseline of socio- economic	The College was established within the ambit of the Edu-Wel Mission Society with a vision to carter the educational needs and requirements of the students in and around the villages in Umsning Block. The girl child in this area is often being deprived from continuing in Higher Studies. With a vision to encourage the under priviloged girls and deprived girls to continue in their studies a girls' hostel is required in the area. Therefore, the proposed new Guls' flostel buildings will help to encourage the girl child and the families and will not be deprived from education.
	The development objective proposed to be	The proposal to be achieved from this project is to the
	achieved	provide the required education to the deprived section of the mana around the definite.
·.;	papulation to be benefitted	Around Both students hailing months from the economically weaker section of the Society
€.	Project Description & Main Activities	Haman Recames Development and employment -
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	5	Tear wae phasing	In 2 instaments 19 Yean, Ru 325-57 Lakh 29 Yean, Ru 563-35 Lakh
:	I.	Indicate if any statutory clearances including forest and environmental clearance etc are reguired.	The project does not solvative any forest area and hence forest clearance is not required.

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Agenda Note for 37th meeting of the IMC/NESIDS Committee scheduled to be held on 15.11.2022

State: Meghalaya

1. Name of the Project: Project for Upgradation of existing convention AIS grid system with Gas Insulated System (GIS) Replacement of Generator Transformer etc. Replacement of digital AVR and Governor System along with SCADA implementation/installation of Umiam Stage-1 Power Station, Sumer.

2. Estimated Cost: Rs. 80.00 crore

3. Sector: Power

4. Objective: The objective of the project is to upgrade the existing convention AIS grid system with Gas Insulated System (GIS) of Stage-1 Power Station

5. Abstract of Cost: Not provided by State Government.

6. Intended output and outcomes of the project- Not provided by SG

7. SDG, being targeted by the project- Not provided by SG

8. Concept paper is attached.

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(N. K. Saha) Under Secretary to the Government of India tipe de

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CONCEPT PAPER

For The

PROJECT FOR UP-GRADATION OF EXISTING CONVENTIONAL AIS (AIR INSULATED SYSTEM) GRID SYSTEMS WITH GAS INSULATED SYSTEMS (GIS), REPLACEMENT OF GENERATOR TRANSFORMERS ETC, REPLACEMENT OF STATOR AIR COOLERS, REPLACEMENT OF DIGITAL AVR AND GOVERNOR SYSTEM ALONG WITH SCADA IMPLEMENTATION /INSTALLATION

FOR

UMIAM STAGE-1 POWER STATION, SUMER



MEGHALAYA POWER GENERATION CORPORATION LIMITED.

CONCEPT PAPER

	ITEMS	Detailed information
A,	General Information about the Project	
i.	Name of the Project	Project for Up-gradation of existing conventional AIS (Air Insulated System) grid systems with Gas Insulated Systems (GIS), Replacement of Generator Transformers etc. Replacement of Stator Air Coolers, Replacement of Digital AVR and Governor system along with SCADA implementation/Installation for Uniam Stage-1 Power Station, Sumer.
	Introduction	Umiam Stage-I Power Station, Sumer was commissioned in the year 1965, under the erstwhile ASEB. The Power Station was built and commissioned by M/s Toshiba Pvt. Ltd, Japan. After the machine were running for 36 years without any major overhauling work, the machines were finally Renovated and Modernized during 2001-2002 by Toshiba Company with funding from JBIC (now JICA). During the above R&M work, the up-gradation of conventional grid systems were not included in the scope of work due to constraint of loan. Umiam Stage-I Power Station has four hydro-generating Unit of 9MW each. Along with the generating Unit there are four Units of 10.6 MVA, 11/132 kV transformers for transmitting the Power to the grid. There are 7(Seven) Nos. of 132 KV Feeders and 1 (One) Nos. of Bus- Coupler.
ii.	Objectives of the project	 (A) Upgradation of existing conventional AIS grid systems with Gas Insulated Grid Systems for Stage-1 Power Station, Sumer is of utmost importance as a gas-insulated substation (GIS) uses a superior dielectric gas, SF6, at moderate pressure for phase-to-phase and phase-to-ground insulation. The high voltage conductors, circuit breaker interrupters, switches, current transformers, and voltage transformers are in SF6 gas inside grounded metal enclosures. This metal enclosures not only gives enhanced safety but is inherently reliable due its component being placed within a protective gas environment and prevent deterioration from exposure to atmospheric air, moisture, contamination, etc. Gas insulated grid systems aids in case of installation, accommodation of more bays within the same area, long life of equipment low maintenance cost and higher reliability compared to conventional grid station. The Generator Transformers are very old and bulky and had been operating for more than fifty years. Their cooling system occupies a lot of spaces with a lot of chronic problems. For parallel operations, the same type, equal percentage impedance are required to avoid over loading, heating and losses. So it is also proposed to replace all the four transformers with the latest design transformers. Hence Up-gradation of existing conventional grid systems with Gas insulated Grid Systems along with new Generator Transformers shall contribute greatly to reliability and stability of power supply in the state of Meghalaya& the North East Region. (B)Automation is the use of control systems, intelligent electronic devices, instruments and new communication technologies to enhance

	ITEMS	Detailed information
		the quality of work, better monitoring and controlling of the system to
		reduce the human interface with system. Automation plays an
		increasingly important role in the world economy. Automation has had
		a notable impact on power sector. Now a day's Power plant control
	,	systems have evolved from SCADA-contered platforms to
		communicate with industry standard hardware and software, and
		then to integrate power plant automation systems with almost
		unlimited connectivity. The system will embrace the latest information
		and communication technologies (ICT), and multiple communication
		channels (some traditional and some personal, such as instant
		messaging).
		Supervision consists of commanding a process and supervising its
		working. To achieve this goal, the supervisory system of a process
		must collect, supervise and record important sources of data linked to
		must conect, supervise and recold important sources of data insect data
		the process, to detect the possible loss of functions and alert the human operator .
		The main objective of a supervisory system is to give the means to the
		human operator to control and to command a highly automated
		process. So, the supervision of industrial processes includes a set of
		tasks aimed at controlling a process and supervising its operation
		SCADA system supervises, controls, optimizes and manages
		generation systems.
		The main component of these systems are RTUs (Remote Terminal
		Units) that collect data automatically and are connected directly to
		sensors, meters, loggers or process equipment. They are located near
		the monitored process and they transfer data to the controller unit
		when requested. They often include integral software, data logging
		capabilities, a real-time clock (RTC) and a hattery backup. Most of the
		RTUs are time redundant. These devices are complete remote terminal
		units that contain all of the transceivers, encoders, and processors
		needed for proper functioning in the event that a primary RTU stops
		working. Meter readings and equipment status reports can also be
		performed by PLCs (Programmable Logic Controllers).
		At present qualified personnel operated the equipment manually. The
		qualified personnel, to operate manually the complete hydropower
		plant equipments (Turbine, Generator, Breakers etc), must first take
		into account the situation of the equipment. Next, depending on the
		situation, the operator can undertake certain correction to modify on
		the situation that they have recognized as deficient on the equipment.
		This approach requests full time supervision by the operators.
		But with the automatic system the information on the equipment
		status operation, is read automatically and then activates commands
		to various equipment of power plant and responsible for Auto
		sequencing. However, this type of system will also need specialized
		personnel. The operator of the automatic system will still have to
		make the necessary changes to the commands or controls, based on
		the needs or production demands from time to time.
		The objective of automation of hydropower plant is to automate the

	ITEMS	Detailed information
		complete plant process. Such an operation will typically involve many
		operations and steps. Some of these steps would occur in series and
-		some would occur in parallel. Some events may involve discrete
		setting of states in the plant like valves open or closed, accessories on
		or off, and so on. Other events may involve regulation of some
		continuous variable over time or duration of operation. For example it
ļ		is very important to maintain constant speed of one machine to
Í		remain in synchronization with other machine. So operation of
[5. mm	hydropower plant is a combination of discrete as well as continuous
		processes.
		Hence we conclude that, the SCADA system is proposed to be used for
		monitoring and controlling of various processes from remote areas in
		a Hydro power plant. It allows an opérator to make a set point changes
		on remote controllers, to open/close valves/switches, to monitor
		alarms and to gather instrument information from a local process to a
		widely distributed process (SCADA) of Hydropower Plant. In the
		context of SCADA, it refers to the response of the control system to
		changes in the process and makes them similar to real-time control
		system in the virtual environment.
		The present Digital AVR and Digital Governor system installed in
		2001-2002 has become prone to malfunctioning due to damage of
		installed cards and modules which has led to frequent outages of the
		Units on several occasions. Further, the OEM has stated that the
		existing cards and modules have become obsolete and the
		manufacturing of these spare cards and modules have been
		discontinued and therefore it is evident that failure of these
		cards/modules will force the Generating Units into prolonged period
		of outages leading to huge generation loss.
		During the Renovation and Modernisation works, the Stator and
		coolers has not been replaced. In recent years, leakages from these
		coolers are very frequent which leads to shutdown of the machines
		and loss of generations especially during rainy season. To solve this
ŀ		problem, a complete new coolers were required.
		Hence replacement/Up-gradation of AIS switchgears with GIS
]		replacement of old Generator Transformers with new ones,
		Replacement of Air Coolers, Installation of SCADA, Up-gradation of
		obsolete AVR and Governor systems with new ones shall contribute
		greatly to reliability and stability of power supply in the state of
		Meghalaya, the North East Region as a whole since the failure of these
		will force the Generating Units into prolonged period of outages which
		will also lead to cascading prolonged shutdown of the downstream
		power stations also as they depend on the water released by Stage I
		Power Station thus leading to tremendous generation loss to MePGCL
		as a whole.
	Particular of Carton Carton 4	Rs80.00 Crores.
iii.	Estimated Cost of project	NS00.00X-JD1CS.
	Indicate sources and share of funding. (NEC,	
1		
iv.	State share and other	Funding from NEC is proposed (90:10).

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	ITEMS	Detailed information
	applicable)	
	Availability of land and land size. Indicate clearly whether owned by Govt/leased/donated/com- munity owned etc.	This is the renovation and Upgradation of the existing Power Station. Hence, requirement of land does not arise.
vi.	Location of project	Umiam Stage I Power Station, Sumer, Ribhoi District, Meghalaya.
vii.	Name of district and sub- division/block where proposed project will be located	Sumer No. 4 village, Umsning Block, Ribhoi District, Meghalaya.
viii.	Proposing/Implementing Department	Director Generation of Meghalaya Power Generation Corporation Ltd. (MePGCL)
ix.	Name of the executing Department/Agency	Office of the Executive Engineer, Generation -1, MePGCL, Sumer.
x.	Enclose non-duplication certificate	
xi.	Whether the project falls within the Thrust Areas of NEC, Vision 2020 or Working Group recommendations. Specify.	NA
xii.	If project is of regional nature, give name of States which would also benefit.	Regional. This project will bring stability to the North East Grid and thereby bring the quality power supply to the North East. (Meghalaya in particular and the North Eastern States Power supply System as a whole)
xiii.	If State specific project, give reasons why it cannot be funded from the State Plan	NA
xiv.	If project is covered under any CSS/Central scheme, name the CSS/Central scheme and give reasons why funding has not been obtained/sought from the Ministry concerned.	NA
XV.	Give details of convergence with other	NA
xvi.	Give details of synergy built in to the project with other Govt. Schemes (e.g. technical and professional assistance).	NA
72.		The newly proposed Gas insulated systems along with new Generator Fransformers once replaced will normally have the operational life of pround 40 to 50 years. GIS are highly reliable and maintenance free. No inspection is required before ten years, and this will bring great stability to the Power System as a whole. Generator Transformers shall be maintained

<u></u>	ITEMS	Detailed information
·		regularly as per Standard Maintenance procedure of MePGCL which is
		generally practiced throughout the years.
		The implementation of SCADA along with new Digital Governor and
		Digital AVR and Air coolers will improve the reliability, stability and
		availability of the all the Generating Units of the Power Station with very
		little maintenance over the years.
		Umiam Stage-I Power Station, Sumer was commissioned in the year
		1965, under the erstwhile ASEB. The Power Station was built and
		commissioned by M/s Toshiba Pvt. Ltd. Japan. After the machine were
		running for 36 years without any major overhauling work, the
		machines were finally Renovated and Modernized on 2001-2002 by
		Toshiba Company with funding from JBIC (now JICA).
		During the above R&M work, the up-gradation of conventional grid
		systems were not included in the scope of work due to constraint of
	1 1 1	ioan. Umiam Stage-I Power Station has four hydro-generating Unit of
		9MW each. Along with the generating Unit there are four Units of 10.6
		MVA, 11/132 kV transformers for transmitting the Power to the grid.
		There are 7(Seven) Nos. of 132 KV Feeders and 1 (One) Nos. of Bus-
		Coupler.
		The existing switchyard of Stage I Power Station is of conventional AIS
		Grid Systems. It was built in the year 1965 and although many
		equipments were replaced, the bus Bar arrangement remain the same.
		The operation were sluggish and lead to the frequent tripping of the
		machines and ultimately lead to the unwanted interruptions/Grid
		collapse.
	Give details of the	At present there is no SCADA System in Stage I Power Station. The
	existing infrastructure and	SCADA system is proposed to be used for monitoring and controlling
xviii.	facilities available in the	of various processes from remote areas in a Hydro power plant. It
	proposed project location	allows an operator to make a set point changes on remote controllers.
	and also in the district	to open/close valves/switches, to monitor alarms and to gather
	and sub-division/block	instrument information from a local process to a widely distributed
		process (SCADA) of Hydropower Plant. In the context of SCADA, it
		refers to the response of the control system to changes in the process
		and makes them similar to real-time control system in the virtual
		environment
		The present Generator Transformers are very old and bulky. Their
	1	cooling system occupied a lot of spaces with a lot of chronic problems
		due to age related issues. For parallel operations, the same types,
	· •	equal percentage impedances are required to avoid over loading
	•	heating and losses. So it is proposed to replace all the four
		transformers with the latest designed transformers.
		The present Digital AVR and Digital Governor system installed in
		2001-2002 has become prone to malfunctioning due to damage of
		installed cards and modules which has led to frequent outages of the
	:	Units on several occasions. Further, the OEM has stated that the
		existing cards and modules have become obsolete and the
		manufacturing of these spare cards and modules have been
1	:	discontinued and therefore it is evident that fadure of these
		cards/modules will force the Generating Units into prolonged period

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	TEMS	Detailed information
		of outages leading to huge generation loss.
		During the Renovation and Modernisation works, the Stator a
		coolers has not been replaced. In recent years, leakages from thes
		coolers are very frequent which leads to shutdown of the machine
		and loss of generations especially during rainy season. To solve th
		problem, complete new coolers were required.
		Hence Up-gradation of existing conventional systems etc. as propose
	•	in the Objective of the Projects shall contribute greatly to reliability
		and stability of power supply in the state of Meghalaya, the North Ea
		Region.
		Umiam Stage 1 Power Station is very near to Umsning Bloc
		Development Office and is one of the most vital power stations t
		Ribhoi District and Meghalaya in particular.
в	Justification Rationale fo	
	the Project	In addition to the details as stated in the Objectives of the Project
		is to further state that the Conventional grid system at Stage I Powe
		Station has been in service since the time of commissioning i.e. 196
		which is almost 57 years. With the passage of time, most of the
		terminal equipments had been replaced from time to time. Hence wi
		the advanced of technology up-gradation of existing AIS grid system
		with Gas insulated conventional grid systems has become necessary
		the conventional grid systems at present are subjected to freque
		maintenance, short operating life, open enclosures increasing the ri
	State the nature an	of outages caused by lizards and vandalism.
	State the nature an magnitude of the problem	hib-disgragation of existing conventional VI2 due systems with o
	faced or the potential to k	insuraced grat systems for starge 1 for a batton, ounce to be unit
		minuments as a gas instrated substands (and) uses a subset
	problems to be addresse	dielectric gas, SF6, at moderate pressure for phase-to-phase a
í.	through the project. For	breaker interrupters, switches, current transformers, and volta
		alansionation and that of gas more chounded metal enclosured in
	project, also give th	metal enclosures not only gives enhanced safety but is inheren
	baseline of socio-econom	a mane the has compositive prints prace within a proceeder
		¹⁰ environment and prevent deterioration from exposure to atmosphe ³¹ air, moisture, contamination, etc. Gas insulated grid systems aids
	justify the proposal.	
		 ease of installation, accommodation of more bays within the sa area, long life of equipment low maintenance cost. At present there
		no SCADA System in Stage I Power Station. The SCADA system
		proposed to be used for monitoring and controlling of vario
		proposed to be used for momoning and controlling of variation processes from remote areas in a flydro power plant. It allows
		operator to make a set point changes on remote controllers.
		operator to make a set point changes on remote components, open/close valves/switches, to monitor alarms and to gat
		instrument information from a local process to a widely distribu
		process (SCADA) of Hydropower Plant. In the context of SCADA
	:	refers to the response of the control system to changes in the proc
		a subset of some state of some some some some some some some some

	ITEMS	Detailed information
	Υ.	and makes them similar to real-time control system in the virtual environment. The Generator Transformers are very old and bulky. Their cooling system occupy a lot of spaces with a lot of chronic problems. For parallel operations, the same type, equal percentage impedance are required to avoid over loading, heating and losses. So the it is proposed to replace all the four transformers with the latest design transformers. The present Digital AVR and Digital Governor system installed in 2001-2002 has become prone to malfunctioning due to damage of installed cards and modules which has led to frequent outages of the Units on several occasions. Further, the OEM has stated that the existing cards and modules have become obsolete and the manufacturing of these spare cards and modules have been discontinued and therefore it is evident that failure of these cards/modules will force the Generating Units into prolonged period of outages leading to huge generation loss. During the Renovation and Modernisation works, the Stator air coolers has not been replaced. In recent years, leakages from these coolers are very frequent which leads to shutdown of the machines and loss of generations especially during rainy season. To solve this problem, complete new coolers were required. Hence Upgradation of existing conventional systems etc. as proposed in the <u>Objective of the Projects</u> shall contribute greatly to reliability and stability of power supply in the state of Meghalaya, the North East Region as a whole since the failure of these conventional grid
ù,	The development objectives proposed to be achieved	systems shall crippled and bring instability to the Power supply System of Meghalaya which in turn will affect greatly the socio- economic activities of the people on the state of Meghalaya. Reliable and stable power supply in North East and the state of Meghalaya will be achieved which will contribute greatly towards uninterrupted power supply, thus assuring continuous Socio-economic
jii.	Indicate the sections and number of population to be benefitted.	and business activities and growth in various spheres of life. The project will benefit almost the whole population of Meghalaya in particular and North East in general.
ix	For income generating activities/skill development indicate the number of beneficiaries targeted and the methodology for selection of beneficiaries. Indicate nos, of female and male beneficiaries separately.	As the project will contribute greatly towards reliable and stable power supply in Meghalaya in particular and the North East in general it may be said that this project shall assure continuous flow of power/energy for various Socio-economic and business activities of the people of Meghalaya thas sustaining income generation to the people of the State.
C	Project Description & Main Activities	

ITEMS	Detailed information
Sector under which project	
i. is proposed (see Annexure-	Power
1 of guidelines)	
1. is proposed (see Annexure- I of guidelines)	Umiam Stage-I Power Station, Sumer was commissioned in the yea 1965, under the erstwhile ASEB. The Power Station was built an- commissioned by M/s Toshiba Pvt. Ltd, Japan. After the machine wer running for 36 years without any major overhauling work, th machines were finally Renovated and Modernized on 2001-2002 b Toshiba Company with funding from JBIC (now JICA). During the above R&M work, the up-gradation of AIS conventional gri systems were not included in the scope of work due to constraint of loan. Umiam Stage-I Power Station has four hydro-generating Unit of 9MW each. Along with the generating Unit there are four Units of 10, MVA, 11/132 kV transformers for transmitting the Power to the grid There are 7(Seven) Nos. of 132 KV Feeders and 1 (One) Nos. of Bus Coupler. The existing switchyard of Stage I Power Station is of conventional AIS Grid Systems . It was built in the year 1965 and although man equipments were replaced, the bus Bar arrangement remain the sam The operation were sluggish and prone to problems which lead to the irequent tripping of the machines and liable to Grid collapse. At present there is no SCADA System in Stage I Power Station. The SCADA system is proposed to be used for monitoring and controllir of various processes from remote areas in a Hydro power plant, allows an operator to make a set point changes on remote controller to open/close valves/switches, to monitor alarms and to gather

	ITEMS	Detailed information
		and loss of generations especially during rainy season. To solve this problem, complete new coolers are required.
	· · ·	Hence Upgradation of existing conventional systems etc. as proposed in the Objective of the Projects shall contribute greatly to reliability and stability of power supply in the state of Meghalaya, the North East Region.
iiî.	works, machineries, tools &equipments,	Double Bus arrangement GIS for7 Nos of 132 KV Feeders, 4 Nos Feeders of GTs, Bus PT feeder, 1 No of Bus Coupler, GIS Hall, Bus Duct, HKV Cables, Generator Transformers, Generator Air Coolers, SCADA System, Digital Governor and Digital AVR etc.
iv.	List out basic Indicators for measuring achievement / Success of the Project	Tendering, Supply, Instaliation and commissioning.
D	Physical details	
	Year-wise phasing & Time frame for completion of project	2(one) Years (24 Months) from the date of received of the first installments.
	Financial details	
E	Year-wise phasing	1 st Year: Rs 40.00 Crores 2 ^{sd} Year :Rs 40.00 Crores.
ł	Indicate if any statutory clearances including forest and Environmental Clearances etc. are required.	

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(R. L. Kharkolgor) Executive Engineer Generation-1. MePGCL Sinner

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UB. Saiboli Superintending Engineer Generation Circle-1, MePGCL Uniam

Signature of Concept Paper preparing authority

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(M. Mårdaniang) Chief Engineer (Generation) MePGCL Shillong

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Annexure - Agenda Note for 37th meeting of the IMC/NESIDS Committee scheduled to be held on 15.11.2022

State: Meghalaya

1. Name of the Project: Project for Upgradation of existing convention AIS grid system with Gas Insulated System (GIS) for Umiam Stage-II Power Station, Umsumer.

2. Estimated Cost: Rs. 15.00 crore

3. Sector: Power

4. Objective: The objective of the project is to for upgrade the existing convention AIS grid system with Gas Insulated System (GIS) of Stage-II Power Station.

5. Abstract of Cost: Not provided by State Government.

6. Intended output and outcomes of the project- Not provided by SG

7. SDG, being targeted by the project- Not provided by SG

8. Concept paper is attached.

Massales Totil22

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(N. K. Saha) Under Secretary to the Government of India

CONCEPT PAPER

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For The

PROJECT FOR UP-GRADATION OF EXISTING CONVENTIONAL AIS (AIR INSULATED SYSTEM) GRID SYSTEMS WITH GAS INSULATED SYSTEMS (GIS) FOR

UMIAM STAGE- 2 POWER STATION, UMSUMER



MEGHALAYA POWER GENERATION CORPORATION LIMITED.

CONCEPT PAPER

	ITEMS	Detailed information
Α.	General Information about the Project	
i.	Name of the Project	Project for Up-gradation of existing conventional AIS (Air Insulated System) grid systems with Gas Insulated Systems (GIS for Umiam Stage- 2 Power Station, Umsumer.
	Introduction	Umiam Stage-2 Power Station, Sumer was commissioned in the year 1970, under the erstwhile ASEB. The Power Station was built and commissioned by M/s Toshiba Pvt. Ltd, Japan. After the machine were running for 40 years without any major overhauling work, the machines were finally Renovated and Modernized during 2011-2012 by Toshiba Company with funding from JBIC (now JICA). During the above R&M work, the up-gradation of conventional grid systems were not included in the scope of work due to constraint o loan. Umiam Stage-2 Power Station has two hydro-generating Unit o 10 MW each. Along with the generating Unit there are two Units of I2 MVA, 11/132 kV transformers for transmitting the Power to the grid There is only one No. of 132 KV Feeder connecting to Stage 1 powe station.
íj.	Objectives of the project	(A) Upgradation of existing conventional AIS grid systems with Gau Insulated Grid Systems for Stage-2 Power Station, Umsumer is o utmost importance as a gas-insulated substation (GIS) uses a superior dielectric gas, SF6, at moderate pressure for phase-to-phase and phase-to-ground insulation. The high voltage conductors, circuit breaker interrupters, switches, current transformers, and voltage transformers are in SF6 gas inside grounded metal enclosures. This metal enclosures not only gives enhanced safety but is inherently reliable due its component being placed within a protective gas environment and prevent deterioration from exposure to atmospheric air, moisture, contamination, etc. Gas Insulated grid systems aids in ease of installation, accommodation of more bays within the same area, long life of equipment low maintenance cost and highe reliability compared to conventional grid station. Hence Up-gradation of existing conventional grid systems with Ga Insulated Grid Systems shall contribute greatly to reliability and stability of power supply in the state of Meghalaya& the North Eas Region. During the Renovation and Modernisation works, the Up-gradation of the existing conventional grid systems with Gas Insulated Grid Systems had not been done due to loan constraint. Hence replacement/Up-gradation of AIS switchgears with GIS, is now of utmost importance which shall contribute greatly to reliability and stability of power supply in the state of Meghalaya, the North Eas Region as a whole since the GIS system is more reliable.
111.	Estimated Cost of project	Rs 15.00 (rores.
iv.	Indicate sources and shar of funding. (NEC, Stat share and other source	e Funding from NEC is proposed (90:10).

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	TIEMS	Detailed information
	wherever applicable)	·
v.	Availability of land and land size, Indicate clearly whether owned by Govt/leased/donated/com munity owned etc.	This is the renovation and Upgradation of the existing Power Station. Hence, requirement of land does not arise.
vi.		Umiam Stage 2 Power Station, Umsumer, Ribhoi District, Meghalaya.
vii.	Name of district and sub- division/block where proposed project will be located	Umsumer/Lawbyrwa No. 5 village, Umsning Block. Ribhoi District. Meghalaya.
viii,	Proposing/Implementing Department	Director Generation of Moghalaya Power Generation Corporation Ltd. (MePGCL)
íx.	Name of the executing Department/Agency	Office of the Executive Engineer, Generation -1, MePGCL, Sumer.
х.	Enclose non-duplication certificate	
xi,	Whether the project falls within the Thrust Areas of NEC, Vision 2020 or Working Group recommendations. Specify.	NA
xii.	If project is of regional nature, give name of States which would also benefit.	Regional. This project will bring stability to the Meghalaya Grid and thereby bring the quality power supply to Meghalaya in particular and the North Eastern States Power supply System as a whole
xiii.	If State specific project, give reasons why it cannot be funded from the State Plan	NΛ
xiv.	If project is covered under any CSS/Central scheme, name the CSS/Central scheme and give reasons why funding has not been obtained/sought from the Ministry concerned.	NA
XV.	Give details of convergence with other State schemes/CSS/CS built into the project. If not, state why	NA
xvi.	Give details of synergy built in to the project with other Govt. Schemes (e.g. technical and professional assistance).	NA
XVII.	Indicate sustainability of project including operation and maintenance of assets on completion of project	The newly proposed Gas insulated systems will normally have the operational life of around 40 to 50 years, GIS are highly reliable and maintenance free. No inspection is required before ten years, and this will bring great stability to the Power System as a whole.

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	ITEMS	Detailed information
xviii.	Give details of the existing infrastructure and facilities available in the proposed project location and also in the district and sub-division/block	Umiam Stage-2 Power Station, Umsumer was commissioned in the year 1970, under the erstwhile ASEB. The Power Station was built and commissioned by M/s Toshiba Pvt.Ltd, Japan. After the machine were running for 40 years without any major overhauling work, the machines were finally Renovated and Modernized on 2011-2012 by Toshiba Company with funding from JBIC (now JICA). During the above R&M work, the up-gradation of conventional AIS grid systems were not included in the scope of work due to constraint of loan. Uniam Stage-2 Power Station has two hydro-generating Unit of 10MW each. Along with the generating Unit there are two Units of 12 MVA, 11/132 kV transformers for transmitting the Power to the grid. There is only one 132 KV feeder connecting with Stage 1 Power Station. The existing switchyard of Stage 2 Power Station is of conventional AIS Grid Systems. It was built in the year 1970 and although many equipments were replaced, the bus Bar arrangement remain the same. The operations are sluggish and prone to mechanism problems which lead to the frequent Outages/tripping of the units making the grid venerable to collapse. Ilence Up-gradation of existing conventional systems as proposed in the Objective of the Projects shall contribute greatly to reliability and stability of power supply in the state of Meghalaya, the North East Region as a whole.
В	Justification/ Rationale for the Project	
ì.	State the nature and magnitude of the problem faced or the potential to be tapped. Elaborate the problems to be addressed or benefits that will accrue through the project. For social infrastructure project, also give the baseline of socio-economic parameters/indicators to justify the proposal.	In addition to the details as stated in the <u>Objectives of the Project</u> in is to further state that the AIS Conventional grid system at Stage 2 Power Station has been in service since the time of commissioning i.e. 1970, which is almost 52 years. With the passage of time, most of the terminal equipments had been replaced from time to time. Hence with the advanced of technology up-gradation of existing AIS grid systems with Gas insulated conventional grid systems has become necessary as the conventional grid systems at present are subjected to frequent maintenance, short operating life, open enclosures increasing the risk of outages caused by lizards and vandalism etc. Up-gradation of existing conventional AIS grid systems with Gas insulated grid systems for Stage-2 Power Station, Sumer is of utmost importance as a gas-insulated substation (GIS) uses a superior dielectric gas, SF6, at moderate pressure for phase-to-phase and phase-to-ground insulation. The high voltage conductors, circuit breaker intercupters, switches, current transformers, and voltage transformers are in SF6 gas inside grounded metal enclosures. This metal enclosures not only gives enhanced safety bur is inherently reliable due its component being placed within a protective gas environment and prevent deterioration from exposure to atmospheric air, moisture, contamination, etc. Gas insulated grid systems aids in

	ITEMS	Detailed information
		ease of installation, accommodation of more bays within the same
		area, long life of equipment low maintenance cost.
		Hence Upgradation of existing AIS conventional Grid systems as
		proposed in the Objective of the Projects shall contribute greatly to
		reliability and stability of power supply in the state of Meghalaya, the
		North East Region as a whole since the failure of these conventional
		grid systems shall crippled and bring instability to the Power supply
		System of Meghalaya which in turn will affect greatly the socio-
	-	economic activities of the people on the state of Meghalaya.
	·····	
	The development	Reliable and stable power supply in North East and the state of
ii.	objectives proposed to be	Meghalaya will be achieved which will contribute greatly towards
п.	achieved	uninterrupted power supply, thus assuring continuous Socio-economic
	acineveu	and business activities and growth in various spheres of life.
	Indicate the sections and	The project will benefit almost the whole population of Meghalaya in
iii.	number of population to be	
	benefitted.	particular and North East in general.
	For income generating	
	activities/skill	
	development indicate the	As the project will contribute greatly towards reliable and stable power
	number of beneficiaries	supply in Meghalaya in particular and the North East in general it may
		I a second s
iv.	1	I a contract the state of the possible of
	methodology for selection	the second
	of beneficiaries. Indicate	
	nos, of female and male	
	beneficiaries separately.	*
с	Project Description &	
·	Main Activities	
	Sector under which project	
i.	is proposed (see Annexure-	Power
	I of guidelines)	
		Umiam Stage-2 Power Station, Sumer was commissioned in the yea
		1970, under the erstwhile ASEB. The Power Station was built and
		commissioned by M/s Toshiba Pvt.Ltd, Japan. After the machine wer
		running for 40 years without any major overhauling work, th
		machines were finally Renovated and Modernized on 2011-2012 b
	74, 14. 1	Toshiba Company with funding from JBIC (now JICA).
	1 1 1 1 1	During the above R&M work, the up-gradation of conventional Al
		Grid systems were not included in the scope of work due to constrain
	Project description	of loan. Umiam Stage-2 Power Station has two hydro-generating Un
ii.	(Provide a brief write-up	of 10MW each. Along with the generating Unit there are two Units
	on the project)	12.0 MVA, 11/132 kV transformers for transmitting the Power to th
		grid. There is only 1 (one) No of 132 KV Feeders connecting with Stag
		I Power Station.
		The existing switchyard of Stage 2 Power Station is of convention,
		AIS Grid Systems. It was built in the year 1970 and although man
		equipments were replaced, the bus Bar arrangement remain the sam
		The operations are sluggish and prove to mechanism problems which
		lead to the frequent Outages/tripping of the units making the gr

	ITEMS	Detailed information
•		venerable to collapse.
		Hence Upgradation of existing AIS conventional systems as propose
		in the Objective of the Projects shall contribute greatly to reliabilit
		and stability of power supply in the state of Meghalaya, the North Eas
	2	Region.
iii.	Component-wise cost of Project/main activities (e.g. buildings and other civil works, machineries, tools &equipments, miscellaneous fixed assets, agricultural inputs, training components etc.)	Single Bus arrangement GIS for 1 No of 132 KV Feeder, 2Nos Feeders o GTs, Bus PT feeder, GIS Hall, Bus Duct, 11Kv Cahles etc.
iv.	List out basic Indicators for measuring achievement / Success of the Project	Tendering, Supply, Installation and commissioning,
D	Physical details	
	Year-wise phasing & Time frame for completion of project	2(one) Years (24 Months) from the date of received of the first installments.
	Financial details	
Ē	Year-wise phasing	1 st Year: Rs8.0Crores 2 nd Year :Rs7.0Crores.
Ŀ	Indicate if any statutory clearances including forest and Environmental Clearances etc. are required.	Forest Clearance not required.

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(R. L. Kharkonger) Executive Engineer Generation-I, MePGCI, Sumer

2022 (B. Saibon)

(B. Aanon your Superintending Engineer Generation Circle 4, MePGCI, Umiam

(M. Marbaniang) Chief Engineer (Generation) MePGCL Shillong

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Annexure 🛏 🛴

Agenda Note for 37th meeting of the IMC/NESIDS Committee scheduled to be held on 15.11.2022

State: Meghalaya

1. Name of the Project: Upgradation of Meghalaya State wide Area Network (MSWAN)

2. Estimated Cost: Rs. 54.86 crore

3. Sector: Information Technology

4. Objective: The objective of the project is to upgrade Meghalaya State wide Area Network (MSWAN).

5. Abstract of Cost: attached in concept paper.

- 6. Intended output and outcomes of the project- Not provided by SG
- 7. SDG, being targeted by the project- Not provided by SG
- 8. Concept paper is attached.

10/11/22

(N. K. Saha) (Under Secretary to the Government of India . . .



CONCEPT NOTE & PROPOSAL FOR UPGRADATION OF MEGHALAYA STATE WIDE AREA NETWORK (MSWAN)

Information Technology & Communications Department Government of Meghalaya Stilliong, Megnalaya

Mcghalaya State Wide Area Network (MSWAN) Upgradation

The Government of Meghalaya has been continuously working at making various Government services easily available to its citizens. Further, by improving online infrastructure & internet connectivity, these services can be made electronically accessible to citizens. This will thereby ereate a digitally empowered society, in line with the Honourable Prime Minister's Digital India Vision.

The MSWAN (Meghalaya State Wide Area Network), acts as the backbone for effective communications providing a converged network that improves the service delivery to citizen. It also improves administrative effectiveness & efficiency, and accelerate the overall development of the State through improved Government interfaces.

MSWAN (Meghalaya State Wide Area Network) was launched on the 17th of August, 2011. by the then Hon'ble Chief Minister of Meghalaya. It supported the various e-Governance initiatives being planned by the State as well as the Central Government. The MSWAN was funded by the then Ministry of Communications and Information Technology, Government of India. It was implemented on a Build-Own-Operate and Transfer (BOOT) model, spread over a period of five years to provide Data, Voice and Video services to various offices of the Government of Meghalaya (GoM) and other locations as identified by GOM. It was designed to establish a reliable horizontal and vertical communication corridor.

MSWAN has faithfully served the Government of Meghalaya (GoM) for more than a decade now. However, with the passage of time, all the MSWAN equipment have now become obsolete. The GoM, therefore, proposes to upgrade and re-fresh the Meghalaya State Wide Area Network (MSWAN) to modernize the communication set up of Government to implement e-Governance initiatives, improve administrative effectiveness & efficiency, and accelerate the overall development of the State through improved Government interfaces.

The key applications on the network are Data, Voice Communications, Video Conferencing, Value Added Services. Help Desk for MSWAN users, etc. MSWAN linked Government Offices at State Head Quarter, Shillong (SHQ), District Head Quarter (DHQ), Sub-division Headquarter (SDHQ) and Block Headquarter (BHQ) with each other. The MSWAN was implemented on Build-Own-Operate and Transfer (BOOT) basis spread over a period of five (5) years to provide Data connectivity. Voice and Video services to various offices of GoM. The revamped MSWAN will have a suitable topology, use state-of-the art technologies and have capability / flexibility to expand / upgrade to cover all parts of the State.

Presently, there are 12 district headquarters, 4 sub-division headquarters and 46 block headquarters (refer Appendix 1 for details). The envisaged initial bandwidth for MSWAN is 10 Mbps (upgradable) for connecting SHQ with DHQs and 6 Mbps (upgradable) for connecting

DHQs with SDHQs/BHQs. All Government departments are envisaged to be connected with MSWAN horizontally.

Different departments of GoM have implemented or are implementing isolated local area networks and revamped MSWAN shall have provision for connecting them for the required services.

The Upgraded MSWAN shall also provide single point internet connectivity through 100 Mbps gateway at SHQ, which may be increased progressively to 200 Mbps or more any time during the period of operation.

MSWAN Architecture



The revamped MSWAN is going to be a converged network providing voice, video & data

services throughout the state at all the levels viz. SHQ, DHQ & SDHQ / BHQ. MSWAN is required to be open standards based, scalable, high-capacity network to carry Voice. Data and Video traffic between designated levels & offices of Government of Meghalaya (GoM) at State, District and Subdivision / Block levels. There will be two connectivity, Vertical and Horizontal.

The vertical connectivity of MSWAN will connect the SHQ level to DHQ level & subsequently DHQ level to SDHQ BHQ level through lease circuits of 6 Mbps using STM or Ch E3 or
Ethernet or E1 ports as appropriate for individual level. At vertical level, wherever the lease circuits are not available, a VSAT based connectivity will be considered. The Network should have single point Gateway of adequate capacity to connect to Internet.

Horizontal connectivity will connect all designated government offices to their respective centre (SHQ/DHQ/SDHQ). The connectivity to the end user is based on either one or more of standard technologies like leased circuits, Radio frequency circuits, OFC or using Ethernet ports as appropriate for the individual offices.

The Upgraded MSWAN shall be built vertically on three tiers of Network connectivity comprising:

- Primary Tier consisting of SHQ
- Secondary Tier consisting of DHQs
- Tertiary Tier consisting of SDHQs / BHQs

The Leased line, in redundant mode, shall be obtained from bandwidth provides like BSNL, Jio, Airtel etc.

Services to GoM and its user organizations: -

Through MSWAN, the operator shall provide voice, video, and data communication services to GoM and its user organizations as per technical and operational requirements. The Bill of material (Appendix -2, Appendix -3 & Appendix -4) provided in this proposal are the minimum suggestive for design and implementation of the revamped MSWAN.

CENTRES

S. No.	Level	Number of Centres
1	SHQ	1
2	DHQ	12
3	SDHQ	4
4	вно	46

Total number of centres at various levels shall be as below:

MSWAN Architecture

As mentioned earlier, the Upgraded MSWAN will be a three-tier architecture. At the top most tier, there would be SHQ located at Shillong. The 12 DHQ's below would each have leased line connectivity to the SHQ. The SDHQ's and BHQ's are categorized as a single tier. They would be connected to their respective DHQ's. The detailed listing of Districts and their respective sub divisions and blocks is given in the POP List (Appendix -1).

SHQ will be connected to the internet through a minimum 100 Mbps line. The internet link will be terminated on a separate Internet router. MSWAN backbone shall have the provision of connectivity of Data Centre and DR site as and when required at SHQ or DHQ level.

Initially around 35 (Thirty-Five) Government Offices will be connected horizontally to SHQ and only SP Office will be connected horizontally to DHQ in all the Districts through OFC link. Other Government Offices at DHQ will be connected horizontally at a later stage in Phase II.

Appendix -1

POP List

A. District Head Quarter (DHQ)

S. No.	District Name	Address			
1	East Khasi Hills District Headquarter: Shillong	O/o The Deputy Commissioner, East Khasi Hills District, Secretariat Hills, Shillong, Meghalaya - 793001			
2	West Khasi Hills District Headquarter: Nongstoin	O/o The Deputy Commissioner, West Khasi Hills District, Nongstoin, Meghalaya - 793119			
3	South West Khasi Hills District Headquarter: Mawkyrwat	O/o The Deputy Commissioner, South West Khasi Hills District, Laitlawsang, Mawkarwat - Shillong Road, Mawkyrwat, Pin: 793114			
4	Ri Bhoi District Headquarter: Nongpoh	O/o The Deputy Commissioner, Nongpoh, Ri Bhoi District, Meghalaya - 793102			
5	West Jaintia Hills District Headquarter: Jowai	O/o The Deputy Commissioner, PO: Lawmusiang, Jowai, District: West Jaintia Hills, Meghalaya - 793150			
6	East Jaintia Hills District Headquarter: Khliehriat	O/o The Deputy Commissioner, East Jaintia Hills District, Khliehriat - 793200			
7	East Garo Hills District Headquarter: Williamnagar	O/o The Deputy Commissioner, East Garo Hills District, PO: Williamnagar, Meghalaya - 794111			
8	West Garo Hills District Headquarter: Tura	O/o The Deputy Commissioner, West Garo Hills District, P.O. Tura, Meghalaya - 794001			
9	North Garo Hills District Headquarter: Resubelpara	The Deputy Commissioner, North Garo Hills District, Resubelpara, Meghalaya - 794108			
10	South West Garo Hills District Headquarter: Ampati	O/o The Deputy Commissioner, South West Garo Hills, Ampati, Meghalaya - 794115			
11	South Garo Hills District Headquarter: Baghmara	O/o The Deputy Commissioner, South Garo Hills, Bahgmara, Meghalaya - 794102			
12	Eastern West Khasi Hills District Headquarter: Mairang	O/o The Deputy Commissioner, Eastern West Khasi Hills District, Mairang, Meghalaya - 793120			

B. Sub-Divisional Head Quarter

S. No.	Sub-Division	Address				
A	A East Khasi Hills District Headquarter: Shillong					
1	Sohra Civil Sub-Division	O/o The Sohra Civil Sub-Divisional Officer,				
		Saitsohpen, Sohra (Cherrapunjee), East Khasi Hills, Meghalaya Pin - 793108				
2	Pynursla Civil Sub-Division	O/o The Sohra Civil Sub-Divisional Officer,				
	-	Urksew, Pynursla, East Khasi Hills, Meghalaya				
		Pin - 793110				
B	West Jaintia Hills District He	adquarter: Jowai				
3	Amlarem Civil Sub-Division	O/o The Amlarem Civil Sub-Divisional Officer, West Jaintia Hills District, Umlārem, Amlarem,				
		Meghalaya 793109				
C	West Garo Hills District Head	dquarter: Tura				
-4	Dadenggre Civil Sub-Division	O/o The Sub-Divisional Officer (Civil),				
		Dadenggre (Civil) Sub Division, P.O. Dadenggre,				
		West Garo Hills, Meghalaya - 794109				

C. Block Headquarter (BHQ)

S. No.	Block Name	Address				
А	East Khasi Hills District	pederer 1. der minnen minnen die Arten van 1999 maar van de gebruik van die gebruik van die de Kalmente (* 1994				
l	Mylliem C&RD Block	O/o The Block Development Officer, Mylliem C&RD Block, 5th Mile, Upper Shillong - 79312				
2	Mawphlang C&RD Block	O/o The Block Development Officer, Mawphlang C&RD Block, Shillong - Mawsynram Road. Mawphlang - 793121				
3	Mawsyuram C&RD Block	O/o The Block Development Officer, Mawsynram C&RD Block, PO: Mawsynram - 793113				
4	Shella Bholaganj C&RD Block	O/o The Block Development Officer, Shella Bholaganj C&RD Block, PO: Shella - 793112				
5	Pynursla C&RD Block	O/o The Block Development Officer, Pynursla C&RD Block, PO: Pynursla East Khasi Hills District -793110				
6	Khatarshnong Laitkroh C&RD Block	O/o The Block Development Officer, Khatarshnong Laitkroh C&RD Block, PO: Khadarshnong, Laitkroh, East Khasi Hills - 793111				
7	Mawkynrew C&RD Block	O o The Block Development Officer, Mawkynrew C&RD Block, PO: Mawkynrew, East Khasi Hills - 793015				
8	Mawryngkneng C&RD Block	O/o The Block Development Officer, Mawryngkneng C&RD Block, PO: Mawryngkneng, East Khasi Hills - 793021				

9	Sohiong C&RD Block	O/o The Block Development Officer, Solitong C&RD Block, PO: Solitong, East Khasi Hills - 793115
10	Mawpat C&RD Block	O/o The Block Development Officer, Mawpat C&RD Block, Mawpat Pyllun, East Khasi Hills - 793012
	Mawlaí C&RD Block	O/o The Block Development Officer, Mawlai C&RD Block, Mawlai Matawar, Shillong, Meghalaya 793022
B	West Khasi Hills District	
12	Nongstoin C&RD Block	O/o The Block Development Officer, Nongstoin C&RD Block, Upper New Nongstoin, West Khasi Hills, Meghalaya - 793119
13	Mawshynrut C&RD Block	O/o The Block Development Officer, Mawshynrut C&RD Block, Riangdo, West Khasi Hills, Meghalaya - 793119
- c	South West Khasi Hills Dist	
14	Mawkyrwat C&RD Block	O'o The Block Development Officer, Mawkyrwat C&RD Block, Mawkyrwat, South West Khasi Hills - 793114
15	Ranikor C&RD Block	O/o The Block Development Officer, Ranikor C&RD Block, Nonghyllam Rd, Ranikor, South West Khasi Hills - 793106
D	Rí Bhoi District	
16	Umsning C&RD Block	O o The Block Development Officer. Umsning C&RD Block, GS Road. Umsning, Ri Bhoi District - 793105
17	Umling C&RD Block	O/o The Block Development Officer. Umling C&RD Block, GS Road. Umling, Ri Bhoi District - 793102
18	Jirang C&RD Block	O/o The Block Development Officer, Jirang C&RD Block, Patharkhmah Road, Jirang, Ri Bhoi District - 793102
19	Bhoirymbong C&RD Block	O'o The Block Development Officer, Bhoirymbong C&RD Block, Bjoirymbong, Ri Bhoi District - 793103
E	West Jaintia Hills District	
20	Thadlaskein C&RD Block	O/o The Block Development Officer, Thadlaskein C&RD Block, Mukhla Soshrieh, Thadlaskein, West Jaintia Hills - 793151
21	Laskein C&RD Block	O'o The Block Development Officer. Laskein C&RD Block, Mawkaiaw, Laskein, West Jaintia Hills - 793150

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22	Amlarem C&RD Block	O/o The Block Development Officer, Amlarem C&RD Block, Jowai-Dawki Road, Umlärem, West Jaintia Hills, Meghalaya 793109
F	East Jaintia Hills District	
23	Khliehriat C&RD Block	0/o The Block Development Officer, Khlichriat C&RD Block, Khlichriat, East Jaintia Hills - 793200
24	Saipung C&RD Block	O/o The Block Development Officer, Saipung C&RD Block, Mutong, Saipung, East Jaintia Hills - 793200
G	East Garo Hills District	
25	Dambo Rongjeng C&RD Block	O/o The Block Development Officer, Dambo Rongjeng C&RD Block, Rongjeng, East Garo Hills - 794110
26	Songsak C&RD Block	O/o The Block Development Officer, Songsak C&RD Block, Songsak, East Garo Hills - 794111
27	Samanda C&RD Block	O/o The Block Development Officer, Samanda C&RD Block, Samanda, East Garo Hills - 794112
H	West Garu Hills District	· · · · · · · · · · · · · · · · · · ·
28	Rongram C&RD Block	O/o The Block Development Officer, Rongram C&RD Block, Asanang, Rongram, West Garo Hills - 794105
29	Dadenggre C&RD Block	O/o The Block Development Officer, Dadenggre C&RD Block, Dadenggre, West Garo Hills - 794003
30	Selsella C&RD Block	O/o The Block Development Officer, Selsella C&RD Block, Selsella, West Garo Hills - 794105
31	Tikrikilla C&RD Block	O'o The Block Development Officer. Tikrikilla C&RD Block, Tikrikilla. West Garo Hills - 794109
32	Gambegre C&RD Block	O/o The Block Development Officer, Gambegre C&RD Block, Gambegre, West Garo Hills - 794105
33	Dalu C&RD Block	O/o The Block Development Officer, Dalu C&RD Block, West Garo Hills - 794105
34	Demdema C&RD Block	O/o The Block Development Officer. Demdema C&RD Block, Nayagaon, Demdema, West Garo Hills - 794104
Ĭ	North Garo Hills District	· · · · · · · · · · · · · · · · · · ·
35	Resubelpara C&RD Block	O/o The Block Development Officer, Resubelpara C&RD Block, Rongdiping, Resubelpara, North Garo Hills - 794108

36	Kharkutta C&RD Block	O/o The Block Development Officer, Kharkutta C&RD Block, Khakutta, North Garo Hills - 783134
37	Bajengdoba C&RD Block	O/o The Block Development Officer, Bajengdoba C&RD Block, Bajengdoba, North Garo Hills - 794002
J	South West Garo Hills Dist	rict
38	Betasing C&RD Block	O/o The Block Development Officer, Betasing C&RD Block, Rangsakona - Betasing Road, Betasing, South West Garo Hills - 794115
39	Zikzak C&RD Block	O/o The Block Development Officer, Zikzak C&RD Block, Ampati - Zikzak Road, Zikzak, South West Garo Hills - 794115
40	Damalgre C&RD Block	O/o The Block Development Officer, Damalgre C&RD Block, Tura - Garobadha Road, Damalgre, South West Garo Hills - 794105
К	South Garo Hills District	
41	Baghmara C&RD Block	O/o The Block Development Officer, Baghmara C&RD Block, Baghmara Block Road, South Garo Hills - 794102
42	Gasuapara C&RD Block	O/o The Block Development Officer, Gasuapara C&RD Block, Baghmara - Barengapara Road Gasuapara, South Garo Hills - 794103
43	Ronggara C&RD Block	O/o The Block Development Officer, Ronggara C&RD Block, Rongara, South Garo Hills - 794114
44	Chokpot C&RD Block	O/o The Block Development Officer, Chokpot C&RD Block, Chokpot, South Garo Hills - 794105
L	Eastern West Khasi Hills D	letriet
45	Mairang C&RD Block	O'o The Block Development Officer, Mairang
12'		C&RD Block, Nongkhlaw-Guwahati Road, Mairang, Eastern West Khasi Hills - 793120
46	Mawthadraishan C&RD Block	O'o The Block Development Officer, Mawthadraishan C&RD Block, Nongshillong, Mawthadraishan, Eastern West Khasi Hills - 793119

Appendix -2

Proposed Bill of Materials Capex

S. No.	Item Description	Qty	A/U	Rate	Amount
A	SHQ	· •		<u> </u>	
I	Core Router	1	No.	83,75,890.00	83,75,890.00
2	Core Switch	<u> </u>	No.	58,30,270.00	58,30,270.00
3	Internet/ISDN Router	2	Nos.	7,27,760.00	14,55,520.00
4	Next Generation Firewall	2	Nos.	2,31,21,200.00	4,62,42,400,00
5	Intrusion Prevention System	2	Nos.	71,76,795.00	1,43,53,590,00
6	48 Port DMZ/Access Switch	2	Nos.	2,21,800.00	4,43,600.00
7	1000BASE-LX/LH SFP transceiver module, MMF/SMF	10	Nos.	24,900.00	2,49,000.00
8	10GBASE-LR SFP Module, Enterprise-Class	10	Nos.	50,047.00	5,00,470.00
9	IP Phone	10	Nos.	52.547.00	5,25,470.00
10	IP EPABX with Call Management Software	I	Lot	2,45,80,468.00	2,45,80,468.00
11	Voice Gateway Router	2	Nos.	11,32,682.00	22,65,364.00
12	MGC Server (MCU) with 50 VC Licenses	į 1	No.	2,11,05,040.00	2,11,05,040.00
13	Video Conference Codec	1	No.	16,88,753.00	16,88,753.00
14	Rack Server	3	Nos.	1,03,08,610.00	3,09,25,830.00
15	Desktop Computer	10	Nos.	75,000.00	7,50,000.00
16	30 KVA Online UPS with 2 Hours Backup	2	Nos.	53,11,296.00	1,06,22,592.00
17	82.5 KVA Diesel Generator Set	1	No.	16,43,200.00	16.43,200.00
18	Air Conditioner (2 Tonne)	8	Nos.	82,500.00	6,60,000.00
19	Electric Protection System (4PSPD, LPU and Earthing)	2	Sets	43,200.00	86,400.00
B	DHQ	· ·			
1	Router	14	Nos.	10,54,431.00	1,47,62,034.00
2	Switch	12	Nos.	69,135.00	8,29,620.00
3	1000BASE-LX/LH SFP transceiver module, MMF/SMF	24	Nos.	24,900.00	5,97,600.00
4	IP Phone	36	Nos.	52,547.00	18,91,692.00
5	Video Conference Codec	12	Nos.	16.88,753.00	2,02,65,036.00
6	Core i5 Desktop Computer	12	Nos.	75.000.00	9,00,000.00
7	3 KVA Online UPS with 2 Hours Backup	24	Nos.	95.000.00	22,80,000.00
8	10 KVA Diesel Generator Sct	12	Nos.	5,73,686,00	68,84,232.00
9	Air Conditioner (1.5 Tonne)	24	Nos.	67,500.00	16,20,000,00
10	Air Conditioner (2 Tonne)	36	Nos.	82,500.00	29,70,000.00
11	12U Wall Mount Rack	12	Nos.	21,750.00	2,61,000.00
12	24 Port Cat-6 Patch Panel	12	Nos.	3.375.00	40,500,00
13	Cat-6 Cable Box (305 Meter)	12	Nos.	8.700.00	1,04,400.00

14	Cat-6 Patch Cord 1 Meter	130	Nos.	165.00	21,450.00
15	Cat-6 Patch Cord 3 Meter	120	Nos.	240.00	28,800.00
16	Cat-6 Information Outlet (Single)	120	Nos.	315.00	37,800.00
	with Surface Mount Box				
17	Electric Protection System (SPD,	12	Sets	43,600.00	5,23,200.00
	LPU and Earthing)				
С	SDHQ & BHQ				
t	Router	52	Nos.	15,04,900.00	7,82,54,800.00
2	Switch	49	Nos.	69,135.00	33,87,615.00
3	1000BASE-LX/LH SFP transceiver module, MMF/SMF	98	Nos.	24,900.00	24,40,200.00
4	IP Phone	98	Nos.	52,547.00	51,49,606.00
5	Core i5 Desktop Computer with	49	Nos.	79,500.00	38,95,500.00
	Webcam				
6	2 KVA Hybrid Online UPS (AC +	49	Nos.	2,53.000.00	1,23,97,000.00
	Solar) with 4 Hours Backup				
7	9U Wall Mount Rack	49	Nos.	14,700.00	7,20,300.00
8	24 Port Cat-6 Patch Panel	49	Nos.	3,375.00	1,65,375.00
9	Cat-6 Cable Box (305 Meter)	49	Nos.	8,700.00	4,26.300.00
10	Cat-6 Patch Cord 1 Meter	343	Nos.	165.00	56,595.00
11	Cat-6 Patch Cord 3 Meter	245	Nos.	240.00	58,800.00
12	Cat-6 Information Outlet (Single)	245	Nos.	315.00	77,175.00
	with Surface Mount Box	4.5		43 600 00	AL 37 100 00
13	Electric Protection System (SPD,	49	Sets	43,600.00	21,36,400.00
	LPU and Earthing)				
D	SHQ Horizontal Connected Offices	• · · · · · •	ł	······	
	Switch	35	Nos.	69,135.00	24,19.725.00
2	1000BASE-LX/LH SFP transceiver	70	Nos.	24.900.00	17,43,000.00
_	module, MMF/SMF				
	IP Phone	35	Nos.	52,547.00	18,39,145.00
4	9U Wall Mount Rack	35	Nos.	14,700.00	5,14,500.00
*1				···· •· ··· ··· ······················	
E	DHQ Horizontal Connected Offices	12	Nos.	69,135.00	8,29,620.00
2	Switch 1000BASE-LX/LH SFP transceiver	24	Nos.	24,900.00	5,97,600.00
2	module, MMF/SMF	24	NOS.	<u>.</u>	5,77,000.00
3	IP Phone	12	Nos.	52,547.00	6,30,564.00
 	9U Wall Mount Rack	12	Nos.	14,700.00	1,76,400.00
4	6 Port LIU with adapter pigtail, patch	24		5.250.00	1,26.000.00
<		4 "1			1,00.000000
5	: eard and greaseraries		++		
5	cord and accessories				
5	cord and accessories		· · ·		
5 E	RF Network for SHQ Horizontal			· ·	
		7	Nos.	21,11.800.00	1,47,82,600.00

				Total Capex	47,29,65,111.38
	•••••••••••••••••••••••••••••••••••••••		•••••	······································	
	•		Å	dd GST @ 18%	7,21,47,220.38
	Commissioning			S. Total Capex	40,08,17,891.00
5	RF Network Installation &	1	Lot	44,50,000.00	44,50,000.00
4	Installation, Configuration & Commissioning	1	Loi	80,50,000.00	80,50,000.00
3	UPS Cabling and Installation at SHQ, DHQ, SDHQ & BHQ	1	Lot	30,50,000.00	30,50,000.00
2	OFC Cable Laying for Horizontal Connected Office at DHQs with Cable and Accessories	1	1.01	72,20,000.00	
] 	LAN Cabling at DHQ, SDHQ & BHQ	 	Lot Lot	40,43,500.00	40,43,500.00
F	Installation and Commissioning			46 13 500 00	10 12 200 00
	Station)		- 		
7	Rack 9U Wall Mount (At Base	2	Nos.	14,700.00	29,400.00
6	Cat-6 1-Meter Patch Cord	50	Nos.	165.00	8,250.00
5	Cat-6 RJ-45 Connector Box	2	Nos.	500.00	1.000.00
4	Cat-6 Cable Box (305 Meter)	6	Nos.	8,700.00	52,200.00
3	Tower or Pole (Base Station/CPE)	I	Lot	1,16,42,000.00	1,16,42,000.00
	Suppressor (30V), PoE Gigabit DC Injector, 5 GHz 4 Pack High-Gain Antenna Assembly, IP55 etc.				
2	5 GHz High Gain - ROW - Radio Only CPE with Gigabit Surge	35	Nos.	89,300.00	31,25,500.00
	Enhanced Power Injector 58V, LPU and Grounding Kit, Sync Generator. PoE Gigabit DC Injector etc.				
	Cable Grounding Kits, AC+DC		i i		

Rupees Forty Seven Crore Twenty Nine Lakh Sixty Five Thousand One Hundred Twelve only

Appendix -3

Proposed Bill of Materials OPEX

A	Operational Expenditure (Manpower) per year				······································
1	State Project Manager	1	Pers.	32,40,000.00	32,40,000.00
2	Helpdesk Executive	2	Pers	8,64,000.00	17,28,000.00
3	Network/System Administrator	1	Pers.	17,28,000.00	17,28,000.00
4	Network/System Engineer	1	Pers.	15,12,000.00	15,12,000.00
5	RF Network Support Engineer	1	Pers.	15,12,000.00	15,12,000.00
7	Technician (O&M for Network, UPS & DG Set)	13	Pers.	6,48,000.00	84,24,000.00
B	Operational Expenditure per year		F		
1	Operation & Maintenance Cost for DG Set	1	Lot	2,35,32,000.00	2,35,32,000.00
2	Redundant Digital Lease Line Bandwidth	1	Lot	2,21,10,000	2,21,10,000.00
3	GSM/4G SIM Connection Charges	1	Lot	3,40,000.00	3,40,000.00
				S. Total Opex	6,41,26,000.00
			A	dd GST @ 18%	1.15,42,680.00
				Total Opex	7,56,68,680.00

Rupees Seven Crores Fifty Six Lakh Sixty Eight Thousand Six Hundred Eighty only

Appendix -4

Total Project Cost with 1 Year Operational Cost

S. No.	Component	Component Cost	
1	Hardware, Software, Accessories and Installation (Capex)	47,29,65,112.00	
2	Operational cost for 1 year along with Manpower	7,56,68,680.00	
	(Opex)		
	Tota)	54,86,33,792.00	

Rupees Fifty Four Crores Eighty Six Lakh Thirty Three Thousand Seven Hundred Ninety Two only

The above figures are Budgetary Estimates. Once approved, a Request for Proposal shall be floated by the Government of Meghalaya, for discovering the market price and for selection of a Systems Integrator.

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Annexure -M

Agenda Note for 37th meeting of the IMC/NESIDS Committee scheduled to be held on 15.11.2022

State: Meghalaya

1. Name of the Project: Proposal for setting up of Meghalaya state UAV &

GIS centre under the aegis of MBDA

2. Estimated Cost: Rs. 958.00 Lakhs

3. Sector: Drone Technology

4. Objective: The objective of the project is to set up of Meghalaya state UAV & GIS centre under the aegis of MBDA

5. Abstract of Cost:

(Rs. in Lakhs)

SI. No.	Cost components	Capital Expenditure	Operational expenses per annum (Not Admissible)
1.	Meghalaya State GIS and Drone Centre	955	78
2.	Drone Pilot Training organization (Each)	3	24
	Total	958*	102*

 Total cost of the project may be Rs. 1060.00 Lakhs (Rs. 958 Lakhs +Rs. 102 Lakhs). However, in the forwarding letter State Government has mentioned as 9.58 crores.

- 6. Intended output and outcomes of the project- Not provided by SG
- 7. SDG, being targeted by the project- Not provided by SG
- 8. Concept paper is attached.

Nog/alg 10/1/22

(N. K. Saha) Under Secretary to the Governmen: of India



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Proposal for setting up of Meghalaya State UAV & GIS Centre under the aegis of MBDA, Planning Department

1. Rationale for setting up of Meghalaya State UAV & GIS Centre under MBDA, Planning Department

Government of Meghalaya is undertaking multiple developmental projects and many of these (especially Externally Aided Projects) are muti-million-dollar projects. Role of Geographical Information System (GIS) in efficient planning, effective implementation and robust monitoring has been proven beyond doubt. Similarly, Drones have been established as a leading technology that can help overcome the challenges posed by difficult terrain in the State. Spatial data in GIS framework has emerged as a necessity for good governance. Government of Meghalaya believes in leveraging technology for the betterment of lives and livelihood of the citizen of the State and wishes to set up an integrated centralised repository for the various geospatial initiatives being undertaken by the various organizations of the Government of Meghalaya. The Centre would provide a platform to converge the initiatives of various organizations and would lead to collaborated and integrated efforts.

Government of Meghalaya also believes in building its capabilities and hence the State UAV & GIS centre has been conceptualised under the aegis of M BDA, Planning Department to provide overall convergence among the various organizations of Government of Meghalaya.

The Government has engaged the services of ESRI for providing GIS software licenses to all the organizations of the Government of Meghalaya. This consolidated procurement of licenses has been cost-effective has led to access

to GIS software to all the departments of Government of Meghalaya, which otherwise would have been very difficult given the prohibitive high costs of individual licences.

The government of Meghalaya is planning to take up the following initiatives:

Seeding Spraying Technology with help of UAVs: it is important to explore new methods and technologies that are aiming to upscale and fast-track afforestation and reforestation (A/R) endeavors, given that many of the current tree planting strategies are not cost effective over large landscapes, and suffer from constraints associated with time, energy, manpower, and nursery-based seedling production.UAV (unmanned aerial vehicle)-supported seed sowing (UAVsSS) can promote rapid A/R in a safe, cost effective, fast and environmentally friendly manner, if performed correctly, even in otherwise unsafe and/or inaccessible terrains, supplementing the overall manual planting efforts globally.

Fire Fighting/ Payload dropping with Drone/UAVs: In case of structure fire, when the fire fighters first arrive at the scene, the drone can be deployed to carefully monitor the scene, before the firefighter personals are put in harm's way. When equipped with a thermal camera, the drone can reveal where the hotspots are, and also have the ability to see through smoke and in low light conditions. These infrared cameras can then allow operators to recon crew members and conditions, improving efficiency and safety. The drone can also be equipped with a spotlight to help firefighters in dark or low light conditions. After the smoke has cleared, the drones can also be used for critical evaluation of damage, whether it be from a fire or other natural disaster. Drones allow firefighters to quickly and effectively scout out dangerous fires, observe and monitor a large blaze in the forests. This project aims to develop one such drone capable of performing both surveillance and firefighting operations.

LiDAR Data for Biomass and carbon estimation: LiDAR is the latest technology that has gained prominence in biomass estimation. It can study the vertical distribution of canopy and ground substrates and provide detailed structural information regarding vegetation and more precise estimates of basal area, crown size, tree height, and stem volume. LiDAR Drone is very helpful in such situations as it is faster and more efficient.

UAVs In Traffic Management: Drones can provide on-ground situational awareness in case of emergencies like road accidents, oil leaks etc. and also collect evidence for the same. The data collected by drones can be analyzed to improve traffic flow and road safety.

Infrastructure monitoring with the use of Drone: Drones and UAVs can be used at several stages in a building construction project including pre-planning, detailed survey and mapping of jobsite, construction process monitoring, and post-build checks.

Search and Rescue: A search and rescue drone is an unmanned aircraft used by emergency services, such as police officers, firefighters or volunteer rescue teams, ideal for searching over vast areas for missing persons and crime victims in need of rescue and in any environment. Unmanned aerial vehicles (UAVs) can provide real-time visual information and data in the aftermath of an earthquake or cyclone.

DGCA Authorized Remote Pilot Training Organizations (RPTOS): The Government of Meghalaya would be training the youth from the region. Government of Meghalaya proposes Remote Pilot Training organization (RPTO) in the state of Meghalaya. Establishment of High-Tech Training facility under MBDA would provide much needed Drone pilots training centre for the youth from the region.

The Government would actively work with the academia for providing training to youth in the State to help them in making them employable and to provide trained manpower to industry.

Field offices are planned at Tura and Nongpoh. The same is being done to provide a better reach to the trainees and organizations across the State, factoring-in Directorate General of Civil Aviation's requirement of flying drones in "green-zone".

Drone pilot training organization once set up would be imparting training to the youth from the State and would lead to employment generation in the State.

2. Details of facilities, infrastructure and personnel required for the proposed drone pilot training organization

The following table provides a summary of the infrastructure, facilities and personnel required for setting up of drone pilot training school as per the Directorate General of Civil Aviation:

S. No	Particular	Quantity
1.	Pilot Instructor	02
2,	Manager	01
3.	Unmanned Aerial Vehicles (UAV, also known as drones) with unique identification number issued by DGCA	02
4.	Simulators	02
5.	Classrooms (Total Area of the Classroom for ground classes - 300 Sq. ft)	02
6.	Total Land Area for flying Classes (up to medium class)	Minimum 60m x 60m for

	Rotorcraft
	category

Table 1: Resources required for the drone pllot training school

Once operationalised, the drone pilot training schools are expected to train at least 500 candidates per year.

3. Proposed locations for the drone pilot training school and their Rationale:

As per the Directorate General of Civil Aviation (DGCA), while there are restrictions on flying in the red and orange zones, no additional permission is required for flying in the green zone. The following is a screenshot from the Digital sky portal of DGCA accessed on August 26, 2022:



Red areas shown above are No-flight zones for drones and for orange areas prior approval for each flight needs to be obtained.

As evident, Tura being in green zone could be a potential location. The other location should be able to cater to the population from Khasi hills and Jaintia hills and also from the other parts of the country especially from other State of North East India. Hence the proposed locations for the training school are as follows:

a) Tura, West Garo Hills

In addition to office space at Tura town, subject to approval, possible tie-ups with NEHU-Tura can be explored to leverage the open area available at their campus.

b) Ri-Bhoi

Given Nongpoh's proximity to Khasi Hills, Jaintia Hills and the rest of North-East India, either Nongpoh or a centre close to it like Umsning could be chosen as the second centre. Details of which would be finalised in consultation with technical experts.

Government of Meghalaya is also in the process of tying up with various educational institutions in the State to provide Drone pilot training to their students in a bid to make them industry ready.

The initiative is proposed to be gradually rolled out to each district of Meghalaya. These district offices would be equipped with drones, image Processing Software, Workstations, storage and power back-up facilities.

S. No.	Items	Quantity	Unit rate (INR lakh)	Amount (INR lakh)
1	Furnishing of the centre	1	•	40
2	Servers and SAN Storage	1	150	150
3	Digital Wall Display (12ft by 9 ft)	1	40	40
4	Ao Size Plotter-cum-scanner	2	10	20
5	Mobile Command & Control Centre for Drones (UAV)	2	40	80
6	4*4 Pick-Up Vehicle	4	20	80
7	Small Category UAV/Drone for Aerial Mapping and Night Surveillance	2	40	80

4. Estimated budget

a) One time expenditure for making the State GIS and Drone Centre ready:

	Total			955
16	Miscellaneous items	-	-	20
15	Portable SSD Hard drive- 4TB	10	0.8	8
14	Dual Extruder 3D Printer and Printing Materials	. 1	25	25
13	Unique Identification Number Based Micro/Small Category Training drone for RPTO	4	15	60
12	High-End Mobile Workstation	4	25	100
11	Aerial Data Processing software	4	5	20
10	Professional Survey Grade LiDAR Sensor	4	20	80
9	Professional Survey Grade RGB Sensor	4	8	32
8	Professional Survey Grade Quadcopter UAV with RTK or PPK Base Station	4	30	120

b) Recurring annual cost for the State GIS and Drone Centre:

S. No	Designation	Quantity	Amount per year (INR)
1.	Technical Specialist-UAV	1	14,40,000
2.	Service Engineer-UAV-Pilot	4	3,24,000
3,	Technical Specialist GIS	1	14,40,000
4.	GIS Analyst	4	3,00,000
5.	Visual Communication Designer	1	4,20,000
6.	Consumables (cartridges etc.), Stationery & Miscellaneous	-	10,00,000
	Total		7796000

c) Cost for setting up of drone pilot training organization (RPTO):

An initial set-up cost of INR 3 lakhs (approx.) is required for the infrastructure at a drone pilot school centre, details of which are detailed below:

5. No.	Infrastructure for furnishing drone training school	Quantity	Amount in Lakh (INR)
1.	Desktop	3	2.1
2.	Simulators	2	0.2
3.	Furniture		0.7
	Total		3.0

d) Recurring annual cost for the drone pilot training organization:

An operational expenditure of INR 24 lakhs per annum is expected to be required, details of which is as follows:

5. No.	Components	Amount per month in Lakh (INR)
1.	Monthly rental	1.0
2.	Manager salary	0.3
3.	Honorarium for the Pilot Instructor	0.2
4.	Consumables (including electricity)	0.5
	Total	2,0

e) Summary of the funds required:

The summary of the above costs is captured as follows:

S. No.	Cost components	Amount in INR lakhs
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		Capitai Expenditure	Operational Expenses per annum
А.	Meghalaya State GIS and Drone Centre	955	78
В,	Drone pilot training organization (each)	3	24

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Agenda Note for 37th Meeting of the IMC/NESIDS Committee scheduled to be held on 15.11.2022

State: Nagaland

- 1. **Name of the Project:** Construction of Wrestling Arena at Tsiesema in Nagaland
- 2. **Department:** Youth Resources & Sports
- 3. Estimated Cost: Rs. 50.00 crore
- 4. Sector: Sports

5. **Objective:** Nagaland wrestling meet usually held at Kohima local ground which is centrally located with the heart of the Kohima town. A multipurpose stadium complex for a capacity of approx, 30,000 spectators has envisaged at Tsiesema, Kohima Nagaland. The identified site of the stadium complex has an approximate area of 14 acres. The conceptualization of the Stadium Complex will be based upon the Naga Wrestling depicting the importance; this sport has in the lives of the people of Nagaland. The design vision of the complex would address and incorporate to reflect the various sustainable, diverse and rich features of Naga culture and tradition yet at the same time being a state of the art world class facility.

6. Abstract of Cost:

Sl. No.	Description	Amount (in crore)
1	Main Stadium Complex viz Civil Work	32.90
2	Services for the Main Stadium Complex	
	Internal Electrification	2.47
	External Electrification	1.65
	Rainwater harvesting	0.33
	Internal Water Supply & Sanitation	2.47
3	Site Development	
	Earthwork in Site leveling & filling	2.00
	Protection works & boundary wall	1.80
	Internal road & parking	1.50
	Drain & Landscaping	1.50
4	DPR vetting, Contingencies & Consultancy/Monitoring	3.38
		50.00

7. Intended output and outcomes of the project- Not provided by SG

8. SDG, being targeted by the project – Not provided by SG

9 Concept paper is attached

10. **PD comments:** DPR vetting, Contingencies & Consultancy/Monitoring fee may be indicated separately in the concept paper, so that actual cost may be calculate in this project.

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Nox Sul 10/11/22 (N. K. Saha) 10/11/22

(N. K. Saha) Under Secretary to the Government of India E-mail: nitai.kumar@nic.in

CONCEPT NOTE

Name of Work	: Construction of Wrestling Arena at Tsiesema
Amount	: Rs.50.00 Crore

Background

Naga Wrestling is one of the oldest and most popular traditional sports in Nagaland. Being a popular sport in the State, there has been a long need for a dedicated wrestling arena complex and thus the need for a stadium was envisaged and conceptualized through the patronage of the Hon'ble Chief Minister of Nagaland and the Naga Wrestling Association. This arena shall be dedicated to the sport enthusiast people of Nagaland. This is also in line with the recent impetus of the Central Government towards encouraging various sports pan India and development of sports infrastructure through various schemes like Khelo India, etc.

State of Nagaland :

The State of Nagaland is located in the easternmost part of India. It extends between $25^{\circ}6'$ to 27 °4' North Latitude and between $93^{\circ}20'$ and $95^{\circ}15'$ East Longitude. The total area of the state is 16579 sq Km. It is bounded by Assam on the west, Manipur on the south, Myanmar (Burma) on the east and Arunachal Pradesh on the north. The population is 1,980,602 as per 2011 census with a density of 73% per sq Km. The literacy rate is 80.11%. In 1866 the Naga Hills district was formed under the Bengal Presidency under the British rule. Later on continued to be a district of Assam. In 1963 Nagaland was inaugurated as the 16th state of India with its capital at Kohima. Nagaland lies in the Patkai Mountain Range at elevations ranging from 300M to 1600M. Saramati at 3841 metres is the highest peak. Annual average rainfall is 250 cm while temperature varies from -4° C in December/January to 36°C in May to August. Southwest monsoon brings rainfall between May and October.

There are sixteen districts, each district generally having a pre-dominant concentration of one of the tribes of the state, making the district distinct in their socio-political, traditional, cultural and linguistic characteristics. Nagas have strong traditional self governing administration in each and every village. Although the literacy rate is as high as 80.11%, the economic condition is not good; however rural inhabitants prefer to maintain self sufficiency in basic survival items only. The state has good potential in agro-economy, minerals and hydro power development. There are some public undertaking viz, paper mill at Tuli, Mini cement plant at Wazeho and other small scale industries. All district headquarters are connected with state highways while 90% of villages have fair weather vehicular approach roads.

A brief profile of Kohima District

Kohima, situated in the south at an altitude of 1444m above sea level, occupies pride of place as the capital city of Nagaland. Sharing its borders with Dimapur and Peren District in the West, Tseminyu District in the North, Zunheboto and Phek District in the East and Manipur State in the South. One of the oldest among the sixteen districts of the state, Kohima is the first seat of modern administration as the Headquarters of Naga Hills District (then under Assam). When Nagaland became a full fledged state on 1st December, 1963, Kohima was christened as the capital of the state. Since then, parts of Kohima district have been carved out thrice – the first in 1973 when Phek District was created, then in 1998 Dimapur was carved out and declared as a separate district, in 2004 for the third time that Kohima district once again gave birth to Peren District and in 2021 Tseminyu District was created.

As of 2011 Census, Kohima district has a population of 2,67,988. Males constitute 1,38,966 of the population and females 129,022. Kohima has an average literacy rate of 85.23%, higher than the national average of 74.04 %: male literacy is 88.69 % and female literacy is 81.48 %. In Kohima, 36,286 of the population is under 6 years of age with boys constituting 18,297 of the

population and girls, 18,007.

Kohima features a more moderate version of a humid subtropical climate. Kohima has a pleasant and moderate climate – not too cold in winters and pleasant summers. December and January are the coldest months when frost occurs and in the higher altitudes, snowfall occurs occasionally. During peak summer months from July-August, temperature ranges an average of 80-90 Fahrenheit. Heavy rainfall occurs during summer.

Kohima is located at 25°40'N 94°07'E 25.67°N 94.12°E. It has an average elevation of 1261 metres (4137 feet) and covers an area of 1,463 sq. km, with a density of 213 per sq. km2 Kohima town is located on the top of a high ridge and the town serpentines all along the top of the surrounding mountain ranges.

Concept for Development

Nagaland Wrestling meet usually held at Kohima Local Ground which is centrally located within the heart of Kohima town, the capital of Nagaland State. This is an open field venue constructed during the British rule. At the annual event of Nagaland Wrestling meet, the turn-out of spectators are always calculated to 20,000 people or more. The main concerned is the problem face by the citizens and office goers during the tournament where all the roads leading to the ground were partially block and traffic congestion create a huge dismay.

As one of its primary objectives was to link spectators, not only with the sport and the athletes, but also with the venue, creating an exciting ambiance. This involved the audience 'warm-up' before competition began. In order for the City to function smoothly during the Games and to handle the huge crowds that would descend upon it, a number of basic infrastructure measures needed to be put in place. Key elements of the traffic network plan included: traffic restrictions removal of on-street parking, road and lane closures to provide additional space for pedestrians, and for providing residential and business access around areas with the road closures.

About the Project

A multipurpose stadium complex for a capacity of approx. 30,000 spectators has been envisaged at Tsiesema, Kohima Nagaland. The identified site of the stadium complex has an approximate area of 14 acres. The stadium would be completely thought through right from initial vision to the grand opening of the facility & subsequent operation. The conceptualization of the Stadium Complex will be based upon the Naga Wrestling depicting the importance; this sport has in the lives of the people of Nagaland.

The Project Vision

The design vision of the complex would address and incorporate to reflect the various sustainable, diverse and rich features of Naga culture and tradition yet at the same time being a state of the art world class facility. The Stadium Complex will be designed in a manner so as to be able to house related multi- disciplinary sports, conventions and cultural events/ art & gallery centre.

The uniqueness of the project, its size and the contextual framework in which the project is placed, the entire development process would require cohesive planning of the interlinked activities to make the development efficient and effective, and to ensure maximization of opportunities. Hence, the various facilities of the Stadium complex would have to be done in a self-sustaining model, to have a long term financial viability.

Given the steep gradient of the proposed site, adequate importance would also be given to the designing and incorporating, sustainable and regenerative features into the facility in terms of conservation, harvesting and regenerating various resources like soil, water, flora and fauna. Energy and resources allocation would have to be judiciously planned out in terms of various supporting infrastructure like storm water and sewage, solid waste, electricity which will ensure success of the project in the long run.

The Site Planning and Zoning

The site has been categorized in various zones to comply with the envisaged functionality aspects. This shall be developed taking care of the gradient as the maximum land portion seems to be available in the mid- region of the proposed site which would be confirmed after a detailed topographic survey.

The zones primarily being the main stadium, the practice and the training arena, the residential zone, the interpretation centre /museum and the commercial zone. The other supporting facilities include admin, services, security and interpretation centre. Adequate parking have also been catered to in these zones in an integrated manner. The FAR is envisaged to be 1 with a ground coverage of not more than 30 percent as assumed in the initial interactions (would be checked and adhered to, as per State building bye-laws and guidelines).

The central part of the site would be occupied by the main Stadium flanked by smaller practice arenas in the left. The right side would be flanked by the main admin block, muscum and interpretation centre (with commercial hub) for the general public who can have access to these areas even in the legacy (no events) days without having to cross or get into the entire site. This shall be complying with no-interference rules of the ongoing training sessions in the left and the residential zone at the back. The parking (surface/ multi- level) would be in multiple levels with provisions of segregation of various vehicle categories/ types.

The residential zone at the rear of the site would primarily house the players who have come to train or take part in the events and their accompanying officials. The officials and other VIP guests will also have accommodation within this zone of the complex.

The Main Stadium Complex would consist of the main arena where the main bouts and events will be held with adequate provisions for all the supporting facilities such as water, public utilities, entry/ exit management, MEP (Mechanical, Electrical and Plumbing) & firefighting services. There shall be central services system for the entire complex. The Players dining halls will be integrated into the hostel zone and will function with it. Medical and first aid infrastructure for the players, officials and the public in the stadium would also be planned and catered to. Further the arena will be built with modern integrated technologies including display screens, audio-visual interventions, visitor comfort, safety and surveillance.

Salient Features

A lot of importance would be given to developing the concept of the wrestling arena on the lines of sustainable and regenerative framework to ensure its effectiveness. Resource allocation and use of energy efficient fittings and fixtures will be incorporated to optimize on the resource use and efficiency, especially for storm water management and grey water recycling for use in various possible zones. Care would also be taken to incorporate adequate retail and other complimentary public uses so as to generate revenue for its sustenance and upkeep.

The facility will strive to have innovative design, process and operational aspects for energy efficiency and cost effectiveness. The applicable design principles and standards are enumerated below:

a. Functional & spatial legibility, usability, efficiency and aesthetics of various components of the design

- b. Adherence to National Building, Code, relevant IS codes, Local building bye laws & development regulations of FSI, ground coverage, with all necessary measures of disaster management & any other controls as applicable.
- c. Response to local climatic conditions in building and site planning ensuring, maximum natural lighting and ventilation; solar passive design; minimization of energy requirements for air-condoning, heating, lighting services, ventilation; using fittings and materials to save energy; and maximum generation (and use) of solar energy as part of the essential services in the structures.
- d. Ensuring minimum land disturbance within the site and its surrounding (including during construction), efficient storm water drainage, adequate segregation of pedestrian & vehicular traffic.
- e. Protection and creative use of all existing vegetation to the fullest.
- f. Incorporation of all applicable national operation safety norms and standards including full compliance to the occupational safety requirements of public parks of similar nature.
- g. Incorporate the principles of universal design to maximize accessibility for all people.
- h. Healthy indoor environmental quality, wherever applicable, that provides a comfortable indoor environment (light/temperature/ventilation) supporting the productivity and wellbeing of the occupants
- High water efficiency of the site and the services including economy of distribution, usage and discharge of water; maximum conservation and reuse of water; incorporation of waste water treatment techniques, rain water harvesting, water efficient landscaping.
- j. Efficient and proper disposal of waste (including solid, liquid wastes), preventing contamination of soil, water and air of the site and its surroundings.
- k. Efficient use of materials & appropriate technologies to satisfy the aims of high levels of energy efficiency, use of durable & renewable materials to reduce life-cycle costs. Limiting direct and indirect environmental impacts, use of building materials and products that are extracted and manufactured locally.

Landscaping

C4/

Local flora and vegetative species would be considered with water conserving species at the forefront of the strategy. Plants will have to be planted in a manner keeping in view the various zones (public and private)

Lighting, Ventilation and HVAC

Provisions for maximizing natural lighting and ventilation will be made with adequate energy efficient artificial lighting of both the interiors and exteriors. Effective and adequate Heating, ventilation and air conditioning systems will be installed with the efficient heat recovery systems for higher efficiency. Dedicated and easily accessible spaces for these infrastructures to enable their easy servicing with minimum intervention into the site would be planned.

Power Generation, Supply and Backup

Adequate power supply to be coupled with provisions of power generation through renewable sources primarily solar will be duly addressed in the project. Provisions for transformers and other supply infrastructure along with suitable power backup systems will be incorporated

Safety, Security and Surveillance

The stadium being a place of public gathering will require adequate security and crowd control measures for both games and legacy modes. Defined measures for the same would be considered and incorporated into the design. Surveillance systems will be put in place with command control rooms and integrated logistics.

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Parking

Provisions for adequate parking (in situ & ex-situ), entry and exit of vehicles as per norms and standards would be done including dedicated VIP, delegate and Media parking entry and exit.

Disaster Management

Measures in accordance and in compliance with various codal provisions and norms would be taken to ensure safety of the structures and the entire complex. Adequate medical units and provisions would be in place to tackle any eventualities (first responder).

Abstract Summary

Sl No	Description	Amount (Rs in Crore)
1	Main Stadium Complex viz Civil Work	32.90
2	Services for the Main Stadium Complex	
	Internal Electrification	2.47
	External Electrification	1.65
1	Rainwater Harvesting	0.33
	Internal Water Supply & Sanitation	2,47
3	Site Development	
1	Earthwork in Site levelling & filling	2.00
	Protection works & boundary wall	1.80
1	Internal road & Parking	1.50
1	Drain & Landscaping.	1.50
4	DPR vetting, Contingencies & Consultancy/Monitoring	3.38
	Total	50.00

Rupees Fifty Crore Only

Therefore, this Concept Note amounting to Rs. 50,00 Crore is shortlisted under NESIDS for the year 2022-23.

Executive Engineer PWD (H) Youth Resources & Sports Division : Kohima

Director Youth Resources & Sports Nagaland, Kohima

Youth Resources & Sports Nagaland, Kohima

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Agenda Note for 37th Meeting of the IMC/NESIDS Committee scheduled to be held on 15.11.2022.

State: Nagaland

1. Name of the Project: Up-gradation of transformation capacity at 132 Kv substation Nagarjan, Dimapur (132/66 kv, 100 MVA-1 no. &66/33 Kv, 50MVA-1 No) in Nagaland

2. **Department:** Department of Power

3. Estimated Cost: Rs. 24.46 crore

4. Sector: Power

5. **Objective:** Proposal of Nagaland Govt. is (a) Installation of 1x50 MVA, 66/33 KV (star-star) intermediate transformer at 132 Kv Nagarjan sub-station Dimapur and (b) Installation of 1x100 MVA, 132/66 Kv transformer at 132 KV Nagarjan sub-tation Dimapur. Nagarjan sub-station is a national grid connected sub-station catering power to Dimapur and Peren districts. At present, this sub-station consists of 2 nos. of 100 MVA system and the other with voltage ratio of 132/33 kv which caters the load of 66 kv system and other with the voltage of 132/33 which caters the load of 33 kv at 66 kv and 33kv. In the event of any of the above 100 MVA transformers needing to undergo maintenance works, complete power disruptions imposed in the areas where power is fed by the transformer undergoing maintenance. Hence, 5G of Nagaland has proposed to install 1x50 MVA and 1x100 MVA transformer at Nagajan sub-station for establish reliability of sub-station.

6. Abstract of Cost:

Sl. No.	Description	Amount (in crore)
1	Installation of 1x50 MVA, 66/33 KV (star-star) intermediate transformer at 132 Kv Nagarjan sub-station Dimapur	10.14
2) Installation of 1x100 MVA, 132/66 Kv transformer at 132 KV Nagarjan sub-tation Dimapur	14.32
	Total	24.46

7. Intended output and outcomes of the project- Not provided by SG

8. SDG, being targeted by the project - Not provided by SG

9 Concept paper is attached

10. **PD comments:** Details of cost i.e. installation, transportation, development of site area, taxes etc is not made available in the concept note.

On second with

Nozlalo (N. K. Saha) 10/11/22

Under Secretary to the Government of India E-mail: nitai.kumar@nic.in

Concept note

<u>Installation of 1x50MVA, 66/33kV(star-star) intermediate transformer at 132kV</u> Nagarjan sub-station Dimapur

The 132/66/33kV Nagarjan Sub-station is a national grid connected sub-station catering power to Dimapur and Peren districts. This sub-station consists of 2 Nos of 100 MVA transformers, one with the voltage ratio of 132/66kV which caters the load of 66kV system and the other with the voltage ratio of 132/33kV which caters the load of 33kV distribution system. The downstream sub-stations fed by the two mentioned transformers at 66kV and 33kV is as below:

A. At 66kV voltage level (80MVA installed capacity)

- 1. 20MVA, 66/33/11 kV substation at Chumukedima.
- 2. 20MVA, 66/11kV substation at Sovima.
- 3. 20MVA, 66/33/11kV substation at Power House (Burma Camp)
- 4. 5 MVA 66/33 kV sub-station at Diary Farm (Purana Bazar)
- 5. 5MVA, 66/33 kV substation at Nito Farm
- 6. 10MVA, 66/33 kV substation at Ganeshnagar.

B. At 33kV Voltage level (120MVA installed capacity)

- 1. 20 MVA 33/11kV substation at Metha colony.
- 2. 2x10 MVA, 33/11kV substation at Forest colony.
- 3. 2x10 MVA 33/11 kV sub-station at Industrial Estate.
- 4. 2x10 MVA 33/11 kV substation at Referral Hospital
- 5. 10MVA, 33/11kV substation at Super Market.
- 6. 2x10 MVA, 33/11kV substation at Padampukhuri (Yet to be commissioned)
- 7. 5MVA, 33/11kV substation at Jalukie.
- 8. 5MVA, 33/11kV substation at Peren.

In the event of any of the above 100MVA transformers needing to undergo maintenance works, complete power disruptionis imposed in the areas where power is fed by the transformer undergoing maintenance. The situation will be worse if any of the 100MVA transformer becomes defective resulting in prolongedpower outagewhich could even extend to months. Such situations will have enormous consequence with the potential of creating law and order problems. Therefore, an intermediate transformer of 66/33kV voltage ratio which can operate both in step-up & step-down modes isrequired to cater load either at 66kV or 33kV during the maintenance or defect of any of the 100MVA transformer.

Hence it is proposed to install 1x50MVA, 66/33kV (Star-Star) transformer at 132kV sub-station Nagarjan, Dimapur which will establish reliability of the sub-station. The estimated cost of the proposal including associated bay and equipment isRs. 1014.15 Lakh.

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Chief Engineer (T&G) Department of Power Nagaland, Kohima
Concept note

Installation of 1x100MVA,132/66kV transformer at 132kV Nagarian sub-station Dimapur

The 132/66/33kV Nagarjan Sub-station is a national grid connected sub-station catering power to Dimapur and Peren districts. This sub-station consists of1x100 MVA, 132/66kV transformerwhich caters load of 66kV system and 1x100MVA, 132/33kV transformer which caters the load of 33kV distribution system.

While the load on the 100MVA, 132/33kV transformer is about 45%, the load on the 100MVA, 132/66kV has reached about 70%. The downstream sub-stations fed by the said transformer totalling to an installed capacity of 80MVA are as follows:

- 1. 20MVA, 66/33/11 kV substation at Chumukedima.
- 2. 20MVA, 66/11kV substation at Sovima.
- 3. 20MVA, 66/33/11kV substation at Power House (Burma Camp)
- 4. 5 MVA 66/33 kV sub-station at Diary Farm (Purana Bazar)
- 5. 5MVA, 66/33 kV substation at Nito Farm
- 6. 10MVA, 66/33 kV substation at Ganeshnagar.

In addition to the present load, the 132/66kV transformer will have to cater upcoming demands due to industrial start-up initiative by the Department of Industries through programs like the PM Gati Shakti scheme at Ganeshnagar which is a Special Economic Zone of the State.Further, the upcoming renewable power projects totalling to about 50MW from Ganeshnagar area and Peren district shall be evacuating power from this sub-station at 66kV in the near future. There is therefore an urgent need to upgrade the transformation capacity at 132/66kV level at 132kV Nagarjan sub-station.

It is therefore proposed to install an additional1x100MVA, 132/66kV transformer at 132kV Nagarjansub-station Dimapurtocreate adequate capacity and establish reliability of the sub-station. The estimated cost of the proposal including associated bay and equipment is Rs. 1431.80 Lakh.

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Chief Engineer (T&G) Department of Power Nagaland, Kohima

Annexure

Agenda Note for 37th meeting of the IMC/NESIDS Committee scheduled to be held on 15.11.2022

State: Tripura

1. Name of the Project: HOARA DAM PROJECT UNDER WEST TRIPURA DISTRICT

2. Estimated Cost: Rs. 6820.55 Lakhs

3. Sector: Water Supply/ Water Conservation

4. Objective: The main objective of the project is to provide assured irrigation as well to provide drinking water and for mitigation of floods.

5. Abstract of Cost:

SI. No.	Name of Items	Amount (Rs. in lakh)
1	HEAD WORKS	3183.00
2	CANAL SYSTEM	1899.00
	TOTAL	5082.00
	Add 3% contingency	152.46
	Sub total	5234.46
	Add Cost Index @ 31.21% up to Oct, 2022	1586.09*
	Grand Total	6820.55
	Say Rs. 68 Crores	5

*31.21 % of Rs. 5234.46 Lakhs comes to Rs. 1633.67 Lakh

6. Intended output and outcomes of the project- Not provided

- 7. SDG, being targeted by the project- Not provided
- 8. Concept paper is attached.

Nosful 9 10/11/22

(N. K. Saha) Under Secretary to the Government of India

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GOVERNMENT OF TRIPURA

CONCEPT NOTE

ON HOARA DAM PROJECT

UNDER WEST TRIPURA DISTRICT

ESTIMATED COST

RS. 68.00 CRORES.

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Executive Summary

A secure water supply is essential for society, a prosperous economy and protection of the environment. Future requirements for water in the Agartala City and Jirania block area are likely to be very much greater than they are today. Our plan must cater for an increasing population and continue to support economic growth. We must also take account of a changing climate, the need to protect the environment, and the need to strengthen our resilience to more severe drought. We have also taken account of government policy objectives and sought to align our plan with the recommendations of the government. Our priority is to make the most effective use of water resources.

Fresh water, in sufficient quantity and quality, is essential for all aspects of life and sustainable development. The human rights to water and sanitation are widely recognized. Water resources are embedded in all forms of development in sustaining economic growth in agriculture, industry and drinking water supply and in maintaining healthy ecosystems. Water-related ecosystems and the environment have always provided natural sites for human settlements and civilizations, bringing benefits such as transportation, natural purification, irrigation, flood protection and habitats for biodiversity. However, population growth, agricultural intensification, urbanization, industrial production and pollution, and climate change are beginning to overcome and undermine nature's ability to provide key functions and services.

Given the rate of population growth, water quality and quantity will not be sustainable unless suitable conservation methods are used in all three major sectors of water use urban, agricultural, and industrial. Some middle ground must be reached in which quality of life and economic development is brought into balance within the practical constraints imposed by the available water. Harvesting runoff can increase water supplies for dry land agriculture and of course for the drinking water and industrialization and tourism purposes.

The Agartala city a state capital suffers from severe flood problem during the monsoon season on account of excess discharge in Hoarariver. On the other hand, the Agartala city faces acute shortage of drinking water during the lean season as the city is heavily dependent on Hoarariver to meet its domestic water supply needs.

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• Since Tripura is a rain fed area (annual average rainfall is 2200 mm), one project for creation of rain water harvesting reservoir on Hoara river near champaknagar will not only gives us the irrigation water but it will also help us to control the flow of Hoara to prevent flooding of Agartala City during monsoon season. Further, the creation of such reservoir would augment the domestic water supply ,fishing and tourism i.e. for multipurpose uses.

ABSTRACT OF COST

NAME OF WORK :- CONSTRUCTION OF HOARA DAM PROJECT.

SI. No.	Name of Items	Amount (in lakh)
1	HEAD WORKS	Rs. 3183.00
2	CANAL SYSTEM	Rs. 1899.00
	TOTAL	Rs. 5082.00

Add 3% contingency **Sub total** Add Cost Index @ 31.21% Upto Oct.2022 Grand Total Total Say Rs.68.00 Crores.

<u>Rs.</u>	1 52.4 6
Rs.	5234.46
<u>Rs.</u>	1586.09
Rs.6	5820.55

(Rupees Sixty eight crores) only.

1. Introduction:-

Irrigation & Water Resources planning & management is defined as the process of wise exploitation of available water and related resources to meet all the forcible short and long-term needs of the nation. Such wise use of a natural resource may make a big contribution towards achieving the ultimate objective of the development of resources ie the wellbeing of the society.

It is an optimization problem of a natural asset which is available in limited quantity. The volume of water offered by nature is limited and its distribution in space and time is non-uniform, while the supplies should meet the demands of society at the desired quantity, time and location. The rapid increase in the demand for water in recent years may cause planners and managers to pay more attention to the importance of sound planning and management based on scientific principles.

As we know from the recent development of this particular field, the methodology of water resources planning and management has changed rapidly following the trend of scientific modernization of water resources technology.

To gain the ultimate results in the shortest possible time and the least possible cost within the constraints of limited time and budget, priorityhas been givenfor the development of water resources.

To secure the efficiency and effectiveness of all the efforts of various institutions and agencies; (i) co-ordination, (ii) integration, (iii) synchronization and (iv) simplification is/are absolutely necessary.

It is believed that with such interdisciplinary co-operation, the multi-aspect of water resources development will have better results for achieving the development objectives of irrigation & planning of water resources projects.

2. Background:-

Tripura is a small state in the north eastern zone having geographical area of 10,492 square kilometers. The population of the state as per 2011 census is about 36.71 lakh, the population density being 350/km². It has undulating terrain with hills interspersed by narrow valleys. About two-third of its land is under forest cover. There are 10 major rivers in the state namely Haora, Khowai, Dhalai, Manu, Deo, Juri, Burima, Gumti, Feni and Muhuri. The rivers originate from the respective hill ranges and flow through the plains, before crossing the border and flowing into Bangladesh. During its course from the source to the Indo-Bangladesh border, it intercepts many tributaries from both banks. The average annual rainfall is 2200mm. Floods are frequent in the plains, causing inundation every year. The flood damages are very high in Agartala in the West Tripura District.

Tripura primarily State, about 42% of the is an agrarian with depending on agriculture and allied activities. However, population only about 27% of the land is cultivable, rest being hilly and forested. Rice is the major crop in the State. The climate of the State is suitable for a of horticulture/ plantation crops, including pineapple, jackfruit, variety tea, rubber, bamboo etc. A section of the indigenous population practices jhum (slash and burn) method of cultivation. Economy of Tripura is basically agrarian and characterized by highrate of poverty, low per-capita income, low capital formation, inadequate infrastructure facilities, geographical isolation, communication bottleneck, inadequate exploitation, inadequate use of forest and mineral resources, low progress in industrial field and high un-employment problem. More than 42 percent of its population now directly depends on agriculture & allied activities. In Tripura, land under cultivation is 2,55,241.00 Ha. Primarily assessed irrigable land is 1,53,154 Ha. Total assured irrigation coverage is about 81664.56 Ha.by PWD(WR).

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Fig.1: Administrative Map of Tripura

The scope of additional area under assured irrigation by utilizing lean period discharge of the self catchment of different river basin in Tripura is insignificant. Day by day base flow (lean period discharge) of the catchment of river basin is decreasing due to population increase ,modernization and urbanization. Hence, for future development of water resources in Tripura, it is necessary to create rain water storage reservoir for irrigation, drinking water, tourism as well as for mitigation of floods.

Floods are common in Tripura. The West Tripura District, drained by the main river Haora, is one of the most susceptible zones. From historical records, recurrent flooding are noticed in its lower reaches at Agartala Municipal Corporation area, Baldakhal,Briddhanagar, Khayerpur, Uttar Champamura, Jogendranagar and Pratapgarh. The floods in Tripura in the year 2018 were devastating. The Tripura State Disaster Management Authority reports that because of the flood, 22 persons died, 34 got injured,463 relief camps had to be opened in which 36,233 families consisting of 1,27,360 persons had to take shelter. In the West Tripura District,

19,216 persons were affected by flood, 7 got injured, 9309 houses were partly damaged and 1248 houses were fully damaged, crops on 163.46 Hectare were damaged that affected production of 326.92 Tonnes of food grains. With the national highway remaining inundated, the eastern entry to Agartala was blocked. Railway services were also disrupted due to waterlogging on the tracks. The water logging threw life completely out of gear, with traffic movement affected in many places. The water and electric supply are also affected. The flood affected areas are shown in the following map. It shows that the area in Agartala Municipal Corporation is most thickly populated.



Fig. 2. Flood affected areas in West District

2.1 Vision:-

PWD(WR) is a wing of Public works Department. The function of the PWD(WR) is to make an arrangement to provide irrigation to the irrigable land for growing up the crops and flood management in Tripura. The vision of the PWD(WR) is to coverage all the irrigable land in Tripura by assured irrigation and to manage/mitigate floods.

2.2 Mission:-

To cover the balance irrigable land by assured irrigation phase wise action plan has been taken up for creation of storage reservoir in Tripura.

2.3 Objective :-

The main objective of the project is to provide assured irrigation as well to provide drinking water and for mitigation of floods.

The Government State has given high emphasis for accelerated growth in irrigation ensuring co-operation of the PRI bodies and by concerted effort of the Department for Water Rural Resource, Development, Agriculture, Forests and Tripura Tribal Area Autonomous District Council.

2.4 The Scheme:-

Government of Tripura, understanding the need of the region to manage flood, providing drinking water and to facilitate irrigation, requested Secretary, MoWR, RD& GR vide letter No. F.15(176)/SE/WRPC/03 dt.20th April, 2019 to engage Central Water Commission to prepare DPR for Dam Projects on river Haora in Baramura Range. Accordingly, a Memorandum of understanding (MoU) between Chief Engineer, Public Works Department (Water Resources), Govt. of Tripura and Chief Engineer, Brahmaputra & Barak Basin Organisation, CWC, Shillong, Govt. of India, was signed on 20-06-2019 (MoU No. 001/MoU/2019) with 15 months time of completion of above work which will be submitted during the month of May,22. Due to COVID-19, pandemic situation delay was occurred.

The Haora Dam Project is proposed at latitude 23° 48' 53.10" N and longitude 91° 31' 6.6" E on Haora River; and envisages a construction of **21.40meter** high Composite (Concrete-Earthen) Dam which shall cater to the irrigation water need of Culturable Command Area(CCA) **700 ha** with annual irrigation intensity of **200%** in Jirania Block, West Tripura District (Tripura). The Kharif Area is 630 ha whereas the Rabi Area is 770 ha. Hence total irrigation potential of 1400 ha is proposed to be created. The annual utilization of water for crop has been assessed as 1.21 MCM, and total Water Demand of 2.604 MCM per annum including drinking and industrial water demands.



HAORA DAM PROJECT (TRIPURA)

Fig 3. Index Map of Hoara Dam



TYPICAL OVERFLOW SECTION AND ENERGY DISSIPATION ARRANGEMENT

Fig 4.Typical Dam Section of Hoara Dam Project

1.5 Haora River Basin System:-

The Haora River flows through the city of Agartala. It is the major river which flows in the Sadar subdivision of the West District of Tripura. It is called Saidra in Kokborok by the original inhabitants of the state.

The Saidra or the Haora originates from the **Baramura**hills in central Tripura and flows through the foothills passing through important towns like Champaknagar, Jirania, Khumulwng, Khayerpur and the capital city Agartala. It merges with the famous Padma river of Bangladesh after crossing the international border.



Fig 5: Haora River Basin

The river Haora originates from the western side of the Baramura range and its tributaries are Bardwal (right bank tributary) which joins the Haora river in Chandrasadhubari at Champaknagar, Champa river (left bank tributary) at the Campaknagar bazaar, Donaigang (right bank tributary) at the Jirania Bazar, Sishima (left bank tributary) at the Ranir Bazar, Ghoramara (right bank tributary) at the tributary) at theBriddhanagar bazaar, Deotachara(right bank tributary) in Chandrapur, Bangeshwar(left bank tributary) in Pratapgarh. The flow length of the Haora River in the state is about 53 km. and has about 414 sq. km. as catchment area. It flows towards west and passes by the southern embankment of the capital city of Agartala and finally flows down into Bangladesh.

2. Salient features:-

1	Name of the Project	:	Haora D	am Project	
2	Type of Project	:	Multipu	rpose Scheme	1
3	Location	:	West Tr	ipura	
3.1	River Basin	:			
	a) Name	:	Haora		
	b) Located in (State)	:	Tripura		
3.2	Name of the river	:	Haora riv	ver	
3 .3	State(s) / District(s) in which following are located	:	STATE	DISTRICT	BLOCK

	a) Reservoir	:	Trip	oura	West T	ripura	Jirania
	b) Head Works / Earth Dam	:	Trip	oura	West T	ripura	Jirania
	c) Command Area	:	Triț	oura	West T	ripura	Jirania
3.4	Name of villages near the Head- works	:					ungiSardarpara, abrapara
3.5	Location of						
3.5.1	Dam Head-works	:					
	a) Longitude	:	91°	31' 6.6	5" E		
	b) Latitude	:	23°	' <mark>48</mark> ' 53.	.10" N		
	c) Seismic Zone	:	Zor	ne-V			
3.6	Project area reference to:	:					
	a) Degree Sheets	:	79	M/9			
3.7	Access to the project		:	Name	ł		Distance
	a) Airport		:	Agarta	la		45.00 km
	b) Rail head		:	Agarta			30.00 km
			;	Jirania			10.00 km
	c) Road head		:	Agarta	la (NH8))	30.00 km
			:	Champ	aknagar	r(NH8)	7 km
	d) Sea port		:	Kolkata	а		1546 km
4	Water supply		:				
4.1	Domestic		:	1.212	Ν	1CM	
4.2	Industrial		:	0.17	Ν	1CM	
5	Hydrology		:				
5.1	Catchment		:	8.0	S	iq km	
	a) Rainfed		:	8.0	S	iq km	
	b) Average Annual Rainfall		•	2525.0)0 n	nm	
5.2	. Annual yield calculated at the proposed site		:				
	a) Maximum		:	28.13	Ν	ICM	
	b) Minimum		:	3.50	Ν	ЧСМ	

	c) Average	:	10.67	MCM
	d) Dependable	:		
	i) 75%	:	6.86	МСМ
5.3.	Climatic Data (Command)	:		
		:	Normal	Maximum
	a) Air temperature	:	25.2 °C	30.70 °C
	b) Humidity	:	57%	85%
	c) Wind	:	7.1 kmph	13.10 kmph
5.4.	Utilization within the State	:		
5.4 .1	Water availability	:	6.86	MCM
5.4.2	Proposed utilization by the project	:		
	a) Irrigation	:	1.21	MCM
	b) Water Supply	:	1.212	MCM
	c) Industrial	:	0.17	MCM
5.4.3	Design flood (SPF)	:	127.75	Cumecs
6	Reservoir	:		
6.1	Water levels	:		
	a) Maximum Water Level	:	71.13	m
	b) Full Reservoir Level	:	69.63	m
	c) Minimum Draw Down Level	:	51.91	m
6.2	Free board	:	1.5	m
6.3	Live storage	:	0.546	MCM
6.4	Capacity at	;		
	a) Full Reservoir Level	:	0.55	MCM
	b) Minimum Draw Down Level	:	0.004	MCM
	c) Dead Storage Level	:	0.00001	MCM
6.5	Sedimentation Rate	:	1.35	mm/yr/sq.km

7 Submergence

:

7.1	Land and Property submerged at FRL (EL. 69.63 m)	:			
	a) Villages affected	:	2	no	
	b) Population affected	:	150	nos	
	c) Total Land affected	:	110.45	i Ha	
	i) Forest land submerged	:	78	Ha	
	ii) Other land submerged	:	32.45	На	
	d) Buildings/houses	:	30	nos	
	e) Road	:			
	i) Village roads	:	-	Nil	
	f) Rail	:	-		
	g) Bridges and weirs	:	Bridge	s Nil	
			Weirs	Nil	
7.2	Submergence ratio (with reference to CCA) (%)	:	15.77	%	
8	Headworks	:			
8.1	Dam	:			
8.1.1	Type of dam	:	Earthe	n dam	
	 a) Length of the dam at top 	;	1030	m	
	i) Right Flank	:	385	m	
	ii) Left Flank	:	645	m	
	b) Top width	:	5	m	
	c) Maximum Height above G.L	:	21.40	m	
	d) Top of the Embankment Dam	:	72.13	m	
	e) Seismic coefficients	:	0.36		
8.1.2	Spillway (overflow section)		:	Concrete Sp	oillway
	a) Type of Spillway		:	Ogee	
	b) Full Reservoir Level		:	69.63	m
	c) Maximum Water Level		:	71.13	m
	 d) Length e) Maximum height above the dee foundation 	epes	: st :	-	m
	f) Crest Level		:	72.63	m
	 g) Maximum discharging capacity 	at 14	:	0.5762	cumecs

MWL

h) Tail Water Level	:	
i) Maximum	:	-
ii) Minimum	:	-
 i) Type of energy dissipation arrangement 	:	Bucket type
i) Spillway Radial Gates	:	
i) Number	:	-
ii) Type of gate	:	Radial
iii) Size of gate (W xH)	:	-
iv) Sill Level	:	-
		Rope Drum
 v) Hoisting arrangement 	:	-

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9 Canal System

9.1	Main Canal (Name)			:	Haora	canal
9.1.1	Purpose of canal			:	Irrigati	on Scheme
9.1.2	Туре			:		
	a) Flow / lift			:	Flow	
	b) Lined / unlined			:	Lined	
	c) Type of lining			:	M15 P0	CC lining
9.1.3	Design data		:			
	a) Length		:	15.00		km
	b) Full-supply level at head		:	-		m
	 c) Full supply depth at head 		:	-		
	d) Bed width at head		:	-		
	e) Side Slope (H:V)		:	1.5:1		
	f) Bed Slope		:	1in 75 0	00	
	 g) Maximum discharging capacity at head 		;	0.197		cumec
9.2	Efficiencies		:			
	a) Conveyance		:	70%		
	b) Field application		:	Kharif-	85%	Rabi-65%
10	Cropping Pattern	:	C	CA=70	0 Ha	
10.1			E	xisting		Proposed

•

		90%(630	Ha) 200	0% (1400 Ha)
	Name of crop (season-wise)	:		
	a) Kharif Season	:		
	i) AshuPaddy	: 10%(70	Ha) 259	%(175 Ha)
	ii) Aman Paddy	: 50%(350	Ha) 659	%(455Ha)
	iii) Boro Paddy	: 30%(210	Ha) -	
	Total for Kharif	: 90%(63	10Ha) 90	%(630Ha)
	b) Rabi Season	:		
	i) Pre-Kharif crops	: -	659	% (455Ha)
	ii) Winter Vegetables	: -	359	% (245 Ha)
	iii) Summer Vegetables	: -	109	% (70 Ha)
	Total for Rabi	: -	11	0%(770 Ha)
11	Cost	:		
11.1	Project cost		lakh)	
	a) Irrigation, Drinking &	: 68	20.00	
	Industrial Water Supply			
12	Benefits / Revenue	:		
12.1	Benefits	:		
	Item	: (in	lakh)	
	a) Food Production	: 62	2.98	
	b) Industrial Water Supply	: 9.2	.7	
	c) Water Supply(population)	: 8.7	'4	
	d) Benefit from Pisciculture	: 55	.23	
	e) Benefit from Husbandry	: 18	9.00	
	f) Benefit from Tourism	: 20	.00	
		Total : 90	5.22	
13	Benefit Cost Ratio	:		
	a) B.C. Ratio	:		
	i) Irrigation & other	: 1.	53	
14	Life of project/scheme	: 50	years	

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3. Financial Evaluation:-

3.1 Cost estimate:-

The cost estimate has been carried out based on the TSR 2017 and on the tentative design of various components of projects viz. Concrete Spillway, Earthen rock fill Dam, Main canal etc. The proposed Dam Axis is tentative which is to be firmed up in due course of investigation by detailed survey and analysis of various technical parameters. The Cost index period from Sept-Oct 2016 to Oct. 2021 level as calculated is 26.01% above. However, considering further one year ieupto Oct. 2022 for starting the work, the cost index considered @ 5.20% per year. Hence the overall cost index considered in this concept note is @ 31.21% (26.01%+5.20%).

The cost of the project is broadly divided into two categories for 'Preparation of project estimates as under:

- Unit I It involves the cost of headworks i.e. Dam, Head Regulator & Appurtenant Works.
- Unit II It involves the cost of Canal System i.e. Main Canal, Aqueducts, Cross drainage Structures, Road Bridges & distribution system and pipe line including pumping arrangement for drinking water purposes.

SI. No.	DESCRIPTION	Amount (in Lakh ₹)	
51.1101			
IRECT	CHARGES		
I	WORKS		
	A- Preliminary	58.80	
	B- Land	77.32	
.	C- Works	2800	

UNIT-I: HEAD WORKS
	D- Regulators	-
	E- Falls	
	F- Cross Drainage Works	
	G- Bridges	_
	H- Escape	_
	J- Power Plant Civil works	-
	K- Buildings	
	L- Earth Works	-
	M- Plantation	0.76
	O- Miscellaneous	56.00
	P- Maintenance	35.86
	Q- Special T&P	1.64
	R- Communication	
	S- Power Plant Electromechanical	-
	System	
	U- Distributaries	
	X- Environment & Ecology	
	Y- Losses on stock	
	Total of I - Works	3030.38
II	ESTABLISHMENT	84.00
III	TOOLS & PLANTS	
IV	SUSPENSE	
V	RECEIPTS & RECOVERIES	14.44
	(-)	
	TOTAL DIRECT CHARGES	3099.94
	INDIRECT CHARGES	
а	Capitalisation of abatement of	32.73
	land revenue.	
b	Audit & Account Charges	50.52
	TOTAL INDIRECT CHARGES	83.25
TOTAL C	COST OF PROJECT (UNIT-I)	3,183

UNIT-II CANAL SYSTEM

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SI.No.	DESCRIPTION	Amount (in Lakh ₹)
DIREC	CHARGES	•
Ι	WORKS	
i	A- Preliminary	35.81
ii	B- Land	
iii	C- Works	
iv	D- Regulators	45.08
v	E- Falls	
vi	F- Cross Drainage Works	118.46
vii	G- Bridges	39.16
viii	H- Escape	2.23
ix	J- Power Plant Civil works	
Х	K- Buildings	100.61
Xİ	L- Earth Works	1193.63
xii	M- Plantation	4.76
xiii	O- Miscellaneous	29.84
xiv	P- Maintenance	17.83
XV	Q- Special T&P	
xvi	R- Communication	
xvii	S- Power Plant Electromechanical System	
xviii	U- Distributaries	253.16
xix	X- Environment & Ecology	
XX	Y- Losses on stock	
	Total of I - Works	1840.58
II	ESTABLISHMENT	35.81
III	TOOLS & PLANTS	
IV	SUSPENSE	Nil
V	RECEIPTS & RECOVERIES (-)	11.41
	TOTAL DIRECT CHARGES	1864.98
NDIR	ECT CHARGES	
а	Capitalization of abatement of land revenue.	11.35

*

b	Audit & Account Charges	22.88
	TOTAL INDIRECT CHARGES	34.24
TOTAL COST OF PROJECT (UNIT-II) 1899		

3.2 **Project Funding:**

It is not possible to set-up the proposed Hoara Dam out of meagre State plan outlays as the same required Central Assistance. The State Government has therefore, decided to take up the construction works with possible funding fromMDoNER, Government of Indiaunder North East Special Infrastructure Development Scheme (NESIDS).

4. Economic and financial evaluation:-

Financial evaluation studies for the Haora Dam Project have been carried out based on the cost estimate of the project prepared as per Guidelines for preparation of Detailed Project Report of Irrigation & Multipurpose Projects.

5. Project Benefits:-

The Haora Dam Project shall cater irrigation needs of CCA of 700 Ha with annual intensity of irrigation of 200% (1400 Ha) with provision for drinking water supply to the projected population of about 6.0 lakhs in 2045 and a component of industrial water supply. There are number of indirect benefits from the project viz. Pisciculture, Flood Mitigation, Animal Husbandry, Tourism, development of flora & fauna, generation of rural employment, etc. However, the adverse environmental effects if any due to the construction of this project shall be evaluated by proper EIA (Environment Impact Assessment) & EMP (Environmental Management Plan) at the stage of DPR. N.

5.1 Benefit Cost Ratio:-

Benefit Cost (BC) Ratio has been worked out by considering benefits from the irrigation, drinking water, industrial water. Indirect benefits of pisciculture, Flood Mitigation, Animal Husbandry and Tourism have also been considered. The BC Ratio works out to be **1.53**

SI	Items	Before Project	After Project
No		Amount In lakhs (₹)	Amount In lakhs (₹)
1	2	3	4
Α.	Gross Receipt		
1	Gross Value of farm produce	161.61	886.46
2	Dung Receipt (30% of B2)	7.27	26.59
	Total (A) Gross Receipt	168.88	913.05
В.	Expenses		
1	Expenditure of seed, manure, fertilizer	0.57	3.66
T	and labour.	0.37	5.00
	Fodder Expenses (15% for Pre. & 10%	24.24	00 65
2	for Post. Project of A1)	24.24	88.65
3	Depreciation (2.7% of A1)	4.36	23.93
	Share and cash rent (5% for Pre. & 3%	0.00	26 50
4	of Post. Project of A1)	8.08	26.59
5	Land revenue (2% of A1)	3.23	17.73
	TOTAL (B) Expenses	40.48	160.57
C.	Net Value of Farm Produce		
1	Total Gross receipt	168.88	913.05
2	Total Expenses	40.48	160.57
	Net value (C1-C2)	128.40	752.49
D.	Annual Benefit		
1	Irrigation :		
а	Net Value after project		752.49
b	Net Value before project		128.40
с	Loss due to submergence @ Rs. 1000.00/		1.10

Ha.	
Net Annual irrigation Benefit (a-b-c)	622.98

2	Drinking Water supply	8.74
3	Industrial Water Supply	9.27
4	Benefit from Pisciculture	55.23
5	Benefit from Husbandry	189.00
6	Tourism	20.00
	Net Annual Benefit (D1:D6)	905.22
E,	Capital Cost of project	
1	Capital cost of project	5081.91
2	Cost of Land development (C.C.A. Ha. @ Rs.1000/ Ha.)	7.00
	Total Cost of project (E1+E2)	5088.91
F .	Annual cost	
1	Interest on Capital @ 10% of the capital cost	508.89
2	Depreciation of the project @ 1% of the capital cost	50.89
3	O & M charges of canal C.C.A. @ Rs.1000.00 / Ha.	7.00
4	O & M charges of Head Works @ 5% of F1	25.44
	Total Annual Cost (F1+F2+F3+F4)	592.23
B.C. Ratio	= Net Annual Benefit /Total Annual Cost	1.53

5.2 Conclusion:-

According to preliminary analysis of various parameters of projects (Hydrology, Irrigation Planning, Dam site location etc.), the Haora Dam Project seems to be techno-economically viable as it shall yield many direct & indirect benefits. Implementation of the project shall improve socio-economic condition of region.

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Annexure – 🔍

Agenda Note for 37th meeting of the IMC/NESIDS Committee scheduled to be held on 15.11.2022

State: Tripura

1. Name of the Project: CHAMPAI CHERRA DAM PROJECT UNDER WEST TRIPURA DISTRICT.

2. Estimated Cost: Rs. 6201.84 Lakhs

3. Sector: Water Supply/Water Conservation

4. Objective: The main objective of the project is to provide assured irrigation as well to provide drinking water and for mitigation of floods.

5. Abstract of Cost:

SI. No.	Name of Items	Amount (Rs. in lakh)
1	HEAD WORKS	3196.00
2	CANAL SYSTEM	1425.00
	TOTAL	4621
	Add 3% contingency	138.63
	Sub total	4759.63
	Add Cost Index @ 31.21% up to Oct, 2022	1442.21
_	Grand Total	6201.84
	Say Rs. 62 Crores	; ;

6. Intended output and outcomes of the project- Not provided by SG.

7. SDG, being targeted by the project- Not provided by SG.

8. Concept paper is attached.

Nozeuli9 10/11/22

(N. K. Saha) Under Secretary to the Government of India •



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Executive Summary

A secure water supply is essential for society, a prosperous economy and protection of the environment. Future requirements for water in the Agartala City and Jirania block area are likely to be very much greater than they are today. Our plan must cater for an increasing population and continue to support economic growth. We must also take account of a changing climate, the need to protect the environment, and the need to strengthen our resilience to more severe drought. We have also taken account of government policy objectives and sought to align our plan with the recommendations of the government. Our priority is to make the most effective use of water resources.

Fresh water, in sufficient quantity and quality, is essential for all aspects of life and sustainable development. The human rights to water and sanitation are widely recognized. Water resources are embedded in all forms of development in sustaining economic growth in agriculture, industry and drinking water supply and in maintaining healthy ecosystems. Water-related ecosystems and the environment have always provided natural sites for human settlements and civilizations, bringing benefits such as transportation, natural purification, irrigation, flood protection and habitats for biodiversity. However, population growth, agricultural intensification, urbanization, industrial production and pollution, and climate change are beginning to overcome and undermine nature's ability to provide key functions and services.

Given the rate of population growth, water quality and quantity will not be sustainable unless suitable conservation methods are used in all three major sectors of water use—urban, agricultural, and industrial. Some middle ground must be reached in which quality of life and economic development is brought into balance within the practical constraints imposed by the available water. Harvesting runoff can increase water supplies for dry land agriculture and of course for the drinking water and industrialization and tourism purposes.

The Agartala city a state capital suffers from severe flood problem during the monsoon season on account of excess discharge in Hoarariver. On the other hand, the Agartala city faces acute shortage of drinking water during the lean season as the city is heavily dependent on Hoarariver to meet its domestic water supply needs.

Since Tripura is a rain fed area (annual average rainfall is 2200 mm), one project for creation of rain water harvesting reservoir on Hoara river near champaknagar will not only gives us the irrigation water but it will also help us to control the flow of Hoara to prevent flooding of Agartala

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City during monsoon season. Further, the creation of such reservoir would augment the domestic water supply ,fishing and tourism i.e. for multipurpose uses.

ABSTRACT OF COST

Name of work :- Construction of Champai Cherra Dam Project.

Grand Total

SI. No.	Name of Items	Amount (in lakh)
1	HEAD WORKS	Rs. 3196.00
2	CANAL SYSTEM	Rs. 1425.00
		TOTAL Rs.4621.00
		<u>Rs. 138.63</u>
		Sub total Rs.4759.63
Add Cost Index @ 31.21%		<u>Rs.1442.21</u>
Upto Oct. 2022		

Rs. 6201.84 Total Say Rs. 62.00 Crores.

(Rupees Sixty two crores)only.

1. Introduction:-

Irrigation & Water Resources planning & management is defined as the process of wise exploitation of available water and related resources to meet all the forcible short and long-term needs of the nation. Such wise use of a natural resource may make a big contribution towards achieving the ultimate objective of the development of resources i.e. the well-being of the society.

It is an optimization problem of a natural asset which is available in limited quantity. The volume of water offered by nature is limited and its distribution in space and time is non-uniform, while the supplies should meet the demands of society at the desired quantity, time and location. The rapid increase in the demand for water in recent years may cause planners and managers to pay more attention to the importance of sound planning and management based on scientific principles.

But as we know from the recent development of this particular field, the methodology of water resources planning and management has changed rapidly following the trend of scientific modernization of water resources technology.

To gain the ultimate results in the shortest possible time and the least possible cost within the constraints of limited time and budget, priorityhas been givenfor the development of water resources.

To secure the efficiency and effectiveness of all the efforts of various institutions and agencies; (i) co-ordination, (ii) integration, (iii) synchronization and (iv) simplification is/are absolutely necessary.

It is believed that with such interdisciplinary co-operation, the multi-aspect of water resources development will have better results for achieving the development objectives of irrigation & planning of water resources projects.

2. Background:-

Tripura is a small state in the north eastern zone having geographical area of 10,492 square kilometers. The population of the state as per 2011 census is about 36.71 lakh, the population density being 350/km². It has undulating terrain with hills interspersed by narrow valleys. About two-third of its land is under forest cover. There are 10 major rivers in the state namely Haora, Khowai, Dhalai, Manu, Deo, Juri, Burima, Gumti, Feni and Muhuri. The rivers originate from the respective hill ranges and flow through the plains, before crossing the border and flowing into Bangladesh. During its course from the source to the Indo-Bangladesh border, it intercepts many tributaries from both banks. The average annual rainfall is 2200mm. Floods are frequent in the plains, causing inundation every year. The flood damages are very high in Agartala in the West Tripura District.

Tripura is primarily an agrarian State, with about 42% of the population depending on agriculture and allied activities. However, only about 27% of the land is cultivable, rest being hilly and forested. Rice is the major crop in the State. The climate of the State is suitable for a of horticulture/ plantation variety crops, including pineapple, jackfruit, tea, rubber, bamboo etc. A section of the indigenous population practices jhum (slash and burn) method of cultivation. Economy of Tripura is basically agrarian and characterized by highrate of poverty, low per-capita income, low capital formation, inadequate infrastructure facilities, geographical isolation, communication bottleneck, inadequate exploitation, inadequate use of forest and mineral resources, low progress in industrial field and high un-employment problem. More than 42 percent of its population now directly depends on agriculture & allied activities. In Tripura, land under cultivation is 2,55,241.00 Ha. Primarily assessed irrigable land is 1,53,154 Ha. Total assured irrigation coverage is about 81664.56 Ha by PWD(WR).

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Fig.1: Administrative Map of Tripura

The scope of additional area under assured irrigation by utilizing lean period discharge of the self catchment of different river basin in Tripura is insignificant. Day by day base flow (lean period discharge) of the catchment of river basin is decreasing due to population increase ,modernization and urbanization. Hence, for future development of water resources in Tripura, it is necessary to create rain water storage reservoir for irrigation, drinking water, tourism as well as for mitigation of floods.

Floods are common in Tripura. The West Tripura District, drained by the main river Haora, is one of the most susceptible zones. From historical records, recurrent flooding are noticed in its lower reaches at Agartala Municipal Corporation area, Baldakhal,Briddhanagar, Khayerpur, Uttar Champamura, Jogendranagar and Pratapgarh. The floods in Tripura in the year 2018 were devastating. The Tripura State Disaster Management Authority reports that because of the flood, 22 persons died, 34 got injured,463 relief camps had to be opened in which 36,233 families

consisting of 1,27,360 persons had to take shelter. In the West Tripura District, 19,216 persons were affected by flood, 7 got injured, 9309 houses were partly damaged and 1248 houses were fully damaged, crops on 163.46 Hectare were damaged that affected production of 326.92 Tonnes of food grains.With the national highway remaining inundated, the eastern entry to Agartala was blocked. Railway services were also disrupted due to waterlogging on the tracks. The water logging threw life completely out of gear, with traffic movement affected in many places. The water and electric supply are also affected. The flood affected areas are shown in **Error! Reference source not found.** It shows that the area in Agartala Municipal Corporation is most thickly populated.



Fig. 2. Flood affected areas in West District

1.1 Vision:-

PWD(WR) is a wing of Public works Department. The function of the PWD(WR) is to make an arrangement to provide irrigation to the irrigable land for growing up the crops and flood management in Tripura. The vision of the PWD(WR) is to coverage all the irrigable land in Tripura by assured irrigation and to manage/mitigate floods.

1.2 Mission:-

To cover the balance irrigable land by assured irrigation phase wise action plan has been taken up for creation of storage reservoir in Tripura.

1.3 Objective :-

The main objective of the project is to provide assured irrigation as well to provide drinking water and for mitigation of floods.

The State Government emphasis accelerated has diven . high for growth in irrigation ensuring co-operation of the PRI bodies and by concerted effort of the Department Rural for Water Resource, Development, Agriculture, Forests and Tripura Tribal Area Autonomous District Council.

1.4 The Scheme:-

Government of Tripura, understanding the need of the region to manage flood, providing drinking water and to facilitate irrigation, requested Secretary, MoWR, RD & GR vide letter No. F.15(176)/SE/WRPC/03 dt.20th April, 2019 to engage Central Water Commission to prepare fresh DPR for Dam Projects on river ChampaiCherra (tributary of Haorariver).

Accordingly, a Memorandum of understanding (MoU) between Chief Engineer, Public Works Department (Water Resources), Govt. of Tripura and Chief Engineer, Brahmaputra & Barak Basin Organization, CWC, Shillong, Govt. of India, was signed on 20-06-2019 (MoU No. 001/MoU/2019) with 15 months time of completion of above work.

The ChampaiCherra Dam Project is proposed at latitude 23° 46′ 57.8″ N and longitude 91° 31′ 46.5″ E on ChampaiCherra River (tributary of Haora river); and envisages a construction of **30.90** meter high Composite (Concrete-Earthen) Dam which shall cater to the irrigation water need of Culturable Command Area (**CCA**) **700 ha** with annual irrigation intensity of **200%** in Jirania Block, West Tripura District (Tripura). The Kharif Area is 630 ha whereas the Rabi Area is 770 ha. Hence total irrigation potential of 1400 ha is proposed to be created. The annual utilization of water for crop has been assessed as 3.00 MCM, and total Water Demand of 4.209 MCM per annum including drinking and industrial water demands.

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CHAMPAI CHERRA DAM PRITECT (TRIFLIKA)



Fig 3.Index Map of ChampaiCherra Dam project



Fig. 4: Typical Dam Section of ChampaiCherra Dam Project

1.5 Haora River Basin System:-

The Haora River flows through the city of Agartala. It is the major river which flows in the Sadar subdivision of the West District of Tripura. It is called Saidra in Kokborok by the original inhabitants of the state.

The Saidra or the Haora originates from the **Baramura**hills in central Tripura and flows through the foothills passing through important towns like Champaknagar, Jirania, Khumulwng, Khayerpur and the capital city Agartala. It merges with the famous Padma river of Bangladesh after crossing the international border.


Fig 5: Haora River Basin

The river Haora originates from the western side of the Baramura range and its tributaries are Bardwal (right bank tributary) which joins the Haora river in Chandrasadhubari at Champaknagar, Champa river (left bank tributary) at the Campaknagar bazaar, Donaigang (right bank tributary) at the Jirania Bazar, Sishima (left bank tributary) at the Ranir Bazar, Ghoramara (right bank tributary) at the tributary) at theBriddhanagar bazaar, Deotachara(right bank tributary) in Chandrapur, Bangeshwar(left bank tributary) in Pratapgarh. The flow length of the Haora River in the state is about 53 km. and has about 414 sq. km. as catchment area. It flows towards west and passes by the southern embankment of the capital city of Agartala and finally flows down into Bangladesh.

2. SALIENT FEATURES :-

1	Name of the Project	:	ChampaiCherra Dam Project
2	Type of Project	:	Irrigation Scheme
3	Location	:	West Tripura
3.1	River Basin	:	
	a) Name	:	Haora
	b) Located in (State)	:	Tripura
3. 2	Name of the river	:	ChampaiCherra river

3.	.3	State(s) / District(s) in which following are located		;	STATE	DIS	TRICT		BLOCK
		a) Reservoir	1	:	Tripura	Wes	t Tripura		Jirania
		b) Head Works/Earth Dam	1	:	Tripura	Wes	t Tripura		Jirania
		c) Command Area	1	:	Tripura	Wes	t Tripura		Jirania
3.	.4	Name of villages near the Head- works	-	:	•	•			dhacharan Thakur ra, Krarbang Bari
3.	5	Location of	:	:					
3.5.	1	Dam Head-works	:	:					
		a) Longitude	:	:	91° 31' 46	5.50"	E		
		b) Latitude	:	:	23° 46' 57	7.80"	N		
		c) Seismic Zone	:	:	Zone-V				
3.	6	Project area reference to:	;						
		a) Degree Sheets	:	:	79 M/9				
3.7	Ac	ccess to the project :							
		:		N	ame			Dist	tance
		a) Airport :		A	gartala			45.0	00 km
		b) Rail head :		A	gartala			31.0	00 km
		:		Ji	rania			8.00) km
		c) Road head :		A	gartala (NH	H8)		31.0	00 km
		:		C	hampaknag	gar(N	IH8)	8 kr	n
		d) Sea port :		K	olkata			154	6 km
4	W	ater supply :							
4.1	Do	omestic :		0.	.759	ł	MCM		
4.2	In	dustrial :		0.	.45	ł	MCM		
5	H	ydrology :							
5.1	Ca	atchment :		1	1.44	9	s q km		
		a) Rainfed :		1	1.44	9	sq km		
		b) Average Annual : Rainfall		2	525.00	I	mm		

5.2. Annual yield calculated at the :

	proposed site					
	a) Maximum	:	40.23		MCM	
	b) Minimum	;	5.0 1		MCM	
	c) Average	:	15.14		MCM	
	d) Dependable	:				
	i) 75%	:	9 .81		MCM	
5.3.	Climatic Data (Command)	:				
		:	Normal		Maxim	um
	a) Air temperature	:	25.2 °C		30.70 °	°C
	b) Humidity	:	57%		85%	
	c) Wind	:	7. 1 kmp	h	13.10 k	kmph
5.4.	Utilization within the State					
			:			
5.4.1	Water availability		:	9.81		MCM
5.4.2	Proposed utilization by the proj	ject	:			
	a) Irrigation		:	3		МСМ
	b) Water Supply		:	4.21		MCM
	c) Industrial		:	0.46		MCM
5.4.3	Design flood (PMF)		:	252.5	6	cumec
6	Reservoir					
6.1	Water levels		:			
	a) Maximum Water Level		:	87.90		m
	b) Full Reservoir Level		:	86.40		m
	c) Minimum Draw Down Le	evel	:	60.10		m
6.2	Free board		:	1.5		m
6.3	Live storage		:	1.00		МСМ
6.4	Capacity at		:			
	a) Full Reservoir Level		:	1.02		мсм
	b) Minimum Draw Down Level		:	0.02		МСМ
	c) Dead Storage Level		:	0.004	05	MCM
6.5	Sedimentation Rate		;	1.35		mm/yr/sq.km

-

7	Submergence	:		
7.1	Land and Property submerged at FRL (EL. 86.40 m)	:		
	a) Villages affected	:	2	по
	b) Population affected	:	100	nos
	c) Total Land affected	:	104.22	Ha
	i) Forest land submerged	:	72.95	Ha
	ii) Other land submerged		31.27	Ha
	d) Buildings/houses	:	20	nos
	e) Road	:		
	i) Village roads	:		Nil
	f) Rail	:	-	
	g) Bridges and weirs	:	Bridges	Nil
			Weirs	Nil
7.2	Submergence ratio (with reference to CCA) (%)	:	14.88 %	
8	Headworks	:		
8.1	Dam	:		
8.1.1	Type of dam	:	Earthen da	m
	 a) Length of the dam at top 	:	550	m
	i) Right Flank	:	200	m
	ii) Left Flank	:	350	m
	b) Top width	:	5	m
	c) Maximum Height above G.L	:	30.90	m
	d) Top of the Embankment Dam	:	89.40	m
	e) Seismic coefficients	:	0.36	
8.1.2	Spillway (overflow section)	:	Concrete S	pillway
	a) Type of Spillway	:	Ogee	
	b) Full Reservoir Level	:	86.40	m
	c) Maximum Water	:	87.90	m
	Level	14		

	d) Length		: -	
	 e) Maximum height above the deepest foundation 		: 10.20	m
	f) Crest Level		: 89.40	m
	g) Maximum		. 0.5700	0.100000
	discharging capacity at MWL		: 0.5762	cumecs
	h) Tail Water Level		:	
	i) Maximum		: -	
	ii) Minimum		: -	
	iii) Type of energy		: Bucket type	
	dissipation arrangement		. Ducket type	
	i) Spillway Radial Gates		:	
	i) Number		: -	
	ii) Type of gate		: Radial	
	iii) Size of gate (W x H)		: -	
	iv) Sill Level		·	
	v) Hoisting arrangement		: Rope Drum	
9	Canal System	:		
9 9.1	Canal System Main Canal (Name)	: :	ChampaiCherra	canal
	-	: : :	ChampaiCherra Irrigation Schem	
9.1	Main Canal (Name)	::		
9.1 9.1.1	Main Canal (Name) Purpose of canal	: : : :		
9.1 9.1.1	Main Canal (Name) Purpose of canal Type	:::::::::::::::::::::::::::::::::::::::	Irrigation Schem	
9.1 9.1.1	Main Canal (Name) Purpose of canal Type a) Flow / lift	: : : : :	Irrigation Schem	
9.1 9.1.1	Main Canal (Name) Purpose of canal Type a) Flow / lift b) Lined / unlined	: : : : : : :	Irrigation Schem Flow Lined	
9.1 9.1.1 9.1.2	Main Canal (Name) Purpose of canal Type a) Flow / lift b) Lined / unlined c) Type of lining	: : : : : : : :	Irrigation Schem Flow Lined	
9.1 9.1.1 9.1.2	Main Canal (Name) Purpose of canal Type a) Flow / lift b) Lined / unlined c) Type of lining Design data		Irrigation Schem Flow Lined M15 PCC lining	ie .
9.1 9.1.1 9.1.2	Main Canal (Name) Purpose of canal Type a) Flow / lift b) Lined / unlined c) Type of lining Design data a) Length		Irrigation Schem Flow Lined M15 PCC lining	ie .
9.1 9.1.1 9.1.2	Main Canal (Name) Purpose of canal Type a) Flow / lift b) Lined / unlined c) Type of lining Design data a) Length b) Full-supply level at head c) Full supply depth at		Irrigation Schem Flow Lined M15 PCC lining	ie .
9.1 9.1.1 9.1.2	Main Canal (Name) Purpose of canal Type a) Flow / lift b) Lined / unlined c) Type of lining Design data a) Length b) Full-supply level at head c) Full supply depth at head		Irrigation Schem Flow Lined M15 PCC lining	ie .
9.1 9.1.1 9.1.2	Main Canal (Name) Purpose of canal Type a) Flow / lift b) Lined / unlined c) Type of lining Design data a) Length b) Full-supply level at head c) Full supply depth at head d) Bed width at head		Irrigation Schem Flow Lined M15 PCC lining 12.00 - -	ie .
9.1 9.1.1 9.1.2	Main Canal (Name) Purpose of canal Type a) Flow / lift b) Lined / unlined c) Type of lining Design data a) Length b) Full-supply level at head c) Full supply depth at head d) Bed width at head e) Side Slope (H:V)		Irrigation Schem Flow Lined M15 PCC lining 12.00 - - 1.5:1	ie .

	a) Conveyance	:	70%	
	b) Field application	:	Kharif-85%	Rabi-65%
10	Cropping Pattern	:	CCA=700 Ha	
10.1			Existing 101%(707Ha)	Proposed 200% (1400Ha)
	Name of crop (season-wise) a) Kharif Season	:		
	i) AshuPaddy	:	20%(140 Ha)	60%(420 Ha)
	ii) Aman Paddy	;	60%(420Ha)	60%(420Ha)
	iii) Boro paddy	:	1%(7Ha)	10%(70Ha)
	Total for Kharif	:	81%(567Ha)	130%(910H a)
	b) Rabi Season c) Rabi crops	:	10%(70 Ha)	35%(245Ha)
	i) Pre Kharif crops		5%(35 Ha)	25%(175Ha)
	ii) Winter Vegetables		3%(21 Ha)	5%(35 Ha)
	iii) Summer vegetables	:	2%(14 Ha)	5%(35 Ha)
	Total for Rabi	:	20%(140 Ha)	70%(490 Ha)
11	Cost	:		
11. 1	Project cost	:	(in lakh)	
	a) Irrigation, Drinking &	-	6200.00	
		•	0200.00	
	Industrial Water Supply	•	0200.00	
1 2	Industrial Water Supply Benefits / Revenue	:	0200.00	
1 2 12.1	Benefits / Revenue	:		
	Benefits / Revenue Benefits Item	:	(in lakh)	
	Benefits / Revenue Benefits Item a) Food Production		(in lakh) 470.39	
	Benefits / Revenue Benefits Item a) Food Production b) Industrial Water Supply		(in lakh)	
	Benefits / Revenue Benefits Item a) Food Production		(in lakh) 470.39 23.18	
	Benefits / Revenue Benefits Item a) Food Production b) Industrial Water Supply c) Water Supply(population) d) Benefit from Pisciculture e) Benefit from Husbandry		(in lakh) 470.39 23.18 6.12 52.11 189.00	
	Benefits / Revenue Benefits Item a) Food Production b) Industrial Water Supply c) Water Supply(population) d) Benefit from Pisciculture e) Benefit from Husbandry f) Benefit from Tourism		(in lakh) 470.39 23.18 6.12 52.11 189.00 20.00	
	Benefits / Revenue Benefits Item a) Food Production b) Industrial Water Supply c) Water Supply(population) d) Benefit from Pisciculture e) Benefit from Husbandry f) Benefit from Tourism		(in lakh) 470.39 23.18 6.12 52.11 189.00	
	Benefits / Revenue Benefits Item a) Food Production b) Industrial Water Supply c) Water Supply(population) d) Benefit from Pisciculture e) Benefit from Husbandry f) Benefit from Tourism Total Benefit Cost Ratio		(in lakh) 470.39 23.18 6.12 52.11 189.00 20.00	
12.1	Benefits / Revenue Benefits Item a) Food Production b) Industrial Water Supply c) Water Supply(population) d) Benefit from Pisciculture e) Benefit from Husbandry f) Benefit from Tourism		(in lakh) 470.39 23.18 6.12 52.11 189.00 20.00	
12.1	Benefits / Revenue Benefits Item a) Food Production b) Industrial Water Supply c) Water Supply(population) d) Benefit from Pisciculture e) Benefit from Husbandry f) Benefit from Tourism Total Benefit Cost Ratio		(in lakh) 470.39 23.18 6.12 52.11 189.00 20.00	

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3. Financial Evaluation:-

Cost estimate:-

The cost estimate has been carried out based on the TSR 2017 and on the tentative design of various components of projects viz. Concrete Spillway, Earthen rock fill Dam, Main canal etc. The proposed Dam Axis is tentative which is to be firmed up in due course of investigation by detailed survey and analysis of various technical parameters. The Cost index periodfrom Sept-Oct 2016 to Oct. 2021 level as calculated is 26.01% above. However, considering further one year ieupto Oct. 2022 for starting the work, the cost index considered @ 5.20% per year. Hence the overall cost index considered in this concept note is @ 31.21% (26.01%+5.20%).

The cost of the project is broadly divided into two categories for 'Preparation of project estimates as under:

- Unit I It involves the cost of headworks i.e. Dam, Head Regulator & Appurtenant Works.
- Unit II It involves the cost of Canal System i.e. Main Canal, Aqueducts, Cross drainage Structures, Road Bridges & distribution system and pipe line including pumping arrangement for drinking water purposes..

UNIT-I: HEAD WORKS

SI. No.	DESCRIPTION	Amount (in Lakh ₹)		
DIRECT CHARGES				
I	WORKS			
	A- Preliminary	58.80		
	B- Land	72.95		
	C- Works	2,800.00		
	D- Regulators	-		

	E- Falis	-
	F- Cross Drainage Works	
	G- Bridges	-
	H- Escape	
	J- Power Plant Civil works	
	K- Buildings	
	L- Earth Works	-
	M- Plantation	0.76
	O- Miscellaneous	56.00
	P- Maintenance	35.86
	Q- Special T&P	18.70
	R- Communication	
	S- Power Plant Electromechanical System	-
	U- Distributaries	-
	X- Environment & Ecology	
	Y- Losses on stock	
	Total of I - Works	3043.08
II	ESTABLISHMENT	84.00
II	TOOLS & PLANTS	
IV	SUSPENSE	
V	RECEIPTS & RECOVERIES (-)	14.44
	TOTAL DIRECT CHARGES	3112.63
	INDIRECT CHARGES	
а	Capitalisation of abatement of land revenue.	32.73
b	Audit & Account Charges	50.52
	TOTAL INDIRECT CHARGES	83.25

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TOTAL COST OF PROJECT (UNIT-I)	3196

UNIT-II CANAL SYSTEM

SI.No.	DESCRIPTION	Amount (in Lakh ₹)
DIRECT	CHARGES	I
I	WORKS	
i	A- Preliminary	26.86
ii	B- Land	
iii	C- Works	
iv	D- Regulators	33.82
v	E- Falis	
vi	F- Cross Drainage Works	88.87
vii	G- Bridges	29.38
viii	H- Escape	1.67
ix	J- Power Plant Civil works	
x	K- Buildings	75.48
×i	L- Earth Works	895.48
xii	M- Plantation	3.57
xiii	O- Miscellaneous	22.39
xiv	P- Maintenance	13.37
xv	Q- Special T&P	
xvi	R- Communication	
xvii	S- Power Plant Electromechanical System	
xviii	U- Distributaries	189.93
xix	X- Environment & Ecology	

.

xx	Y- Losses on stock	
	Total of I - Works	1380.82
II	ESTABLISHMENT	26.86
III	TOOLS & PLANTS	
IV	SUSPENSE	Nil
V	RECEIPTS & RECOVERIES (-)	8.56
	TOTAL DIRECT CHARGES	1399.13
DIR	ECT CHARGES	
а	Capitalisation of abatement of land revenue.	8.52
b	Audit & Account Charges	17.17
	TOTAL INDIRECT CHARGES	25.68
	TOTAL COST OF PROJECT (UNIT-II)	1425

3.2 Project Funding:

It is not possible to set-up the proposed Hoara Dam out of meagre State plan outlays as the same required Central Assistance. The State Government has therefore, decided to take up the construction works with possible funding fromMDoNER, Government of Indiaunder North East Special Infrastructure Development Scheme (NESIDS).

4. Economic and financial evaluation:-

Financial evaluation studies for the Haora Dam Project have been carried out based on the cost estimate of the project prepared as per Guidelines for preparation of Detailed Project Report of Irrigation & Multipurpose Projects.

5. Project Benefits:-

The ChampaiCherra Dam Project shall cater irrigation needs of CCA of 700 Ha with annual intensity of irrigation of 200% (1400 Ha) with provision for drinking water supply to the projected population of 15,627 in 2045 and a component of industrial water supply. There are number of indirect benefits from the project viz. Pisciculture, Animal Husbandry, Tourism, development of flora & fauna, generation of rural employment, etc.

However, the adverse environmental effects if any due to the construction of this project shall be evaluated by proper EIA (Environment Impact Assessment) & EMP (Environmental Management Plan) at the stage of DPR.

5.1 Benefit Cost Ratio:-

Benefit Cost (BC) Ratio has been worked out by considering benefits from the irrigation, drinking water, industrial water. Indirect benefits of pisciculture, animal husbandry and tourism have also been considered. The BC Ratio works out to 1.41

Si No	Items	Before Project Amount in lakhs (₹)	After Project Amount in Iakhs (₹)
1	2	3	4
Α.	Gross Receipt		
1	Gross Value of farm produce	154.19	699.50
2	Dung Receipt (30% of B2)	6.94	20.99
	Total (A) Gross Receipt	161.13	720.49
В.	Expenses		
1	Expenditure of seed, manure, fertilizer and labour.	0.42	2.61
2	Fodder Expenses (15% for Pre. & 10% for Post. Project of A1)	23.13	69.95
3	Depreciation (2.7% of A1)	4.16	18.89
4	Share and cash rent (5% for Pre. & 3% of Post. Project of A1)	7.71	20.99
5	Land revenue (2% of A1)	3.08	1 3.99
	TOTAL (B) Expenses	38.50	126.42
C.	Net Value of Farm Produce	· · · · ·	
1	Total Gross receipt	161.13	720.49
2	Total Expenses	38.50	126.42

Computation of B.C. Ratio

	Net value (C1-C2)	122.63	594.06
D.	Annual Benefit		
1	Irrigation :		
а	Net Value after project		594.06
b	Net Value before project		122.63
с	Loss due to submergence @ Rs. 1000.00 / Ha.		1.04
	Net Annual irrigation Benefit (a-b-c)		470.39
2	Drinking Water supply		6.12
3	Industrial Water Supply		23.18
4	Benefit from Pisciculture	· · ·	52.11
5	Benefit from Husbandry		189.00
6	Tourism		20.00
	Net Annual Benefit (D1:D6)		760.80
Е.	Capital Cost of project		
1	Capital cost of project		4620.76
2	Cost of Land development (C.C.A. Ha. @ Rs. 1000/ Ha.)		7.00
	Total Cost of project (E1+E2)		4627.76
F.	Annual cost		
1	Interest on Capital @ 10% of the capital cost		462.78
2	Depreciation of the project @ 1% of the capital cost		46.28
3	O & M charges of canal C.C.A. @ Rs.1000.00 / Ha.		7.00
4	O & M charges of Head Works @ 5% of F1		23.14
	Total Annual Cost (F1+F2+F3+F4)		539.19
B	3.C. Ratio = Net Annual Benefit /Total Annual Cost		1.41

5.2 Conclusion:-

According to preliminary analysis of various parameters of projects (Hydrology, Irrigation Planning, Dam site location etc.), the ChampaiCherra Dam Project seems to be technoeconomically viable as it shall yield many direct & indirect benefits. Implementation of the project shall improve socio-economic condition of region.

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Annexure -K

Agenda Note for 37th meeting of the IMC/NESIDS Committee scheduled to be held on 15.11.2022

State: Tripura

1. Name of the Project: Tourism and Culture Promotion Hub at Gandhighat, Agartala, West Tripura.

2. Estimated Cost: Rs. 3455.14 Lakhs

3. Sector: Tourism

4. Objective: The main objective of the project to develop Tourism and Culture Promotion Hub at Gandhighat, Agartala, West Tripura.

5. Abstract of Cost:

SI. No.	Name of Items	Amount (in Rs.)					
	CIVIL WORKS						
1	Open Theatre	23571041.00					
2	Auditorium	37765823.00					
3	Display Gallery-1 (G+1)	19715978.00					
4.	Display Gallery-3 (B+G+1)	41302654.00					
5.	Statuses of Icons of North Eastern State (LS)	1000000.00					
6.	Entrance Gate [LS]	1000000.00					
7.	Two Wheeler Parking for Visitors [LS]	1000000.00					
	Total (Civil works) (1-7)	152355496.00					
8.	Site Development	21653132.00					
9.	E& M Works	85405899.00					
10.	Acoustic & Audio Visual Works:	44849759.00					
	Total (8-10)	304264286.00					
	Add. 5 % on tender premium*	15213214.00					
		319477500.00					
	Add. 3 % contingencies*	9584325.00					
	Total	329061825.00					
	Add. 5 % Agency charge*	16453091.25					
	GRAND TOTAL	345514916.25					
	Say Rs. 34.55 Crore						

*Not Admissible under NESIDS

6. Intended output and outcomes of the project- not provided by SG

7. SDG, being targeted by the project- not provided by SG

8. Concept paper is attached.

9 10/11/22

(N. K. Saha) Under Secretary to the Government of India



[Projected Cost - ₹34.55 Crore]

INTRODUCTION

Culture of Tripura is distinct and a bit similar to other people of Northeast India. However like Assam, Manipur, Burma and Southeast Asia culture of Tripura is characterized in small portion living in plain areas notably the Tripuri culture.

Tripura, a frontal State of North Eastern Region became a part of India in 1949. The State is at present supporting a population of 36,71,032 (2011 Census). In the process of economic development, the State could not keep pace with the rest part of the country. The State remained more or less neglected decades after decade. Its backwardness is due to inadequate transport facilities, lack of large scale Industries. With a view to provide cultural activity of the people of Tripura, Government of Tripura, Department of Information & culture, proposed and considered the task for Tourism and Cultural promotion Hub at Gandhighat ,Agartala, West Tripura.

Information & cultural Department was created with the objective of proper communication between the government and the masses and to act as a bridge between these two sides. It has been acting as the nodal agency in the field of information, cultural affairs and tourism implementing various projects for their development. It has also been conveying the message of the government to the people and taking the opinion of the people to the government. So, wide measures have been taken towards expansion of information service up to the remotest corners of the state. In addition, development of culture of different castes and communities and development of tourism infrastructure to attract the tourists are the priority areas of the ICAT Department. Equal emphasis is being given on all the three wings of the department to ensure a balanced development and achievement.

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Concept Paper		

CULTURAL PROFILE:

In the 2001 census of India, Bengalis represented almost 70% of the population and the Tripuri population comprised 30% of Tripura's population. The Tripuri population (indigenous population) comprises some clans and ethnic groups with diverse languages and cultures. The largest native group was the Tripuri who had a population of 543,848 in 2001 census representing 16.99% of the state population and 54.7% of the scheduled tribe population. The other group of people in order of decreasing population bunds. With tribes

were Chakma (6.5%), Halam (4.8%), Mog (3.1%), Munda, Kuki tribes and Garo Hajong. Bengali is the most spoken language, due to the dominance of Bengali people in the state. Kokborok (Tripuri/Tiprakok) is a common language among Tripuris and lingua franca among tribes. Several other languages belonging to Indo-European and Sino-Tibetan families are spoken by the different tribe.

Tripura has several diverse ethno-linguistic groups, which has given rise to a composite culture. The dominant cultures are Tripuris who are: Tripuris, Jamatia, Reang, Tripura, Naitong, Koloi, Murasing, Rupini Uchoi, and tribes like Chakma, Halam, Garo, Hajong, Kuki, Mizo, Mogh, Munda, Oraon, Santhal

Tripura's folk culture now confronts a major threat from so-called modernity. Gone are the days when rhythmic movement of artists in 'Garia' or 'Dhamail' dance would keep viewers awake all through the night. These forms of culture have been falling prey to invasion of modernity as western musical instruments like guitar, mandolin etc keep replacing the traditional instruments like indigenous drums and flutes and western 'break dance' push aside the pristine purity of the 'Garia' dance or 'Dhamail'. However, cultural programmes, marked by songs and dances, associated with birth anniversaries of great poets and lyricists Rabindra Nath Tagore and Kazi Nazrul Islam add colour and charm to the state's multi-layered cultural mosaic enriched by contributions from many streams of sub-culture.

Tripura encloses a rich cultural heritage of music, fine arts, performing arts, and handicrafts. Being dominated by the Bengalis, the state's prevalent culture is Bengali. As it has numerous diverse ethno-linguistic groups, such as, Tripuris, Jamatia, Reang, Noatia, Koloi, Murasing, Chakma, Halam, Garo, Kuki, Lushai, Mogh, Munda, Oraon, Santhal, and Uchoi, a composite culture has emerged on the whole.

Tripura Housing & Construction Board

Concept Paper 2022-2023

People

The majority of the state's population comprises of Bengalis, Manipuris and 19 different tribal communities. In fact, Tripura is also home to thousands of migrants from West Bengal and Bangladesh. The tribal people follow their customs and religion with the highest regard. Tripura, despite having 19 Scheduled Tribes that form about 40% of population, is largely a Bengali community. Regardless of practicing different religions and notions, the people live in harmony with each other.

Language

Bengali is spoken and understood by more than 50% of the state's population. However, Kokborok (also called Tripuri) as well as Bengali are the official languages of Tripura. The other major language spoken in the state is Manipuri. The tribal communities have their own dialects for communication. English is liberally used for official and administrative purposes.

Religion

Hinduism is the most practiced religion in Tripura. Both Bengalis and Tripuris follow Hinduism with ardent fervor. Islam, Buddhism and Christianity are also followed by people in minority. However, most of the tribals are adherents of animist-Shaktism. Brahmin priests, known as Chantais, are believed to be the custodians of religion (dharma). The main gods worshipped by the people are Lord Shiva and Goddess Tripureshwari.

Cuisine

Once again, the strong influence of Bengali community is visible in the cuisine of Tripura, as Rice and Fish make the essential ingredients. People prefer eating non-vegetarian delicacies on top of vegetarian food. In most of the families, one can see preparation of authentic Bengali food. Pork, chicken, mutton, beef, turtle, fish, prawns, crabs, and frogs are consumed profusely by the non-vegetarians. Some of the traditional Tripuri delicacies are Chakhwi, Mwkhwi, and Muitru.

Music

Music is integral to the tribal lifestyle. Some of the aboriginal instruments, developed in Tripura, are Sarinda, Khamb (Drum), Lebang, Do-Tara, Chongpreng, Khengrong, and Sumui (a kind of flute). Be it the occasion of marriage, religious ceremony or other festival, songs are sung to commemorate each event in the state. The renowned musicians, Sachin Dev Burman and Rahul Dev Burman, belonged to Tripura.

Tripura Housing & Construction Board

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Dance

Dance is a vital constituent of the tribal way of life. Where some dance forms are exclusive to some occasions, there are many others to mark celebration of different events. For example, Garia dance symbolizes the prosperity of the people, Hai Hak and Cheraw dances depict the confinement of Lusai woman. In Tripura, Basanta Raas is a delightful dance form of the Hindu Manipuris. Apart from the above-mentioned, there are many other dance forms, like Hojagiri, Bihu, Wangala, Sangraiaka, Chimithang, Padisha, Abhangma, Gajan, Dhamail, Sari and Rabindra, which belong to and are performed by different communities.

Fairs & Festivals

Since Tripura is mainly subjugated by the Hindus, the festivals common in rest of the country are mostly celebrated here. For example, festivals like Durga Puja, Navaratri, Vijayadashami, Dol Jatra (Holi), Pous Sankranti, Ashokashtmi, and Diwali are the most celebrated festivals. Besides, there are many other festivals that are unique to Tripura. Some of the important tribal festivals are Garia, Ker Ganga and Gajan. Other state festivals are Rabindra/Nazrul Festival (May), Boat Festival (August), and the Orange and Tourism festival (November).

Art & Craft

The novelty of the state's art & craft comes alive in its handicrafts and handlooms. Handloom products make the vital part of the economy of Tripura. Silk, cane and bamboo works are some of the main industries. Here skilled artisans craft a fascinating variety of handiwork using simple materials, such as, bamboo, cane, palm leaves and ordinary yarn. Some of the popular handicraft items are bamboo screens, lamp stands, baskets, ivory work, tablemats, sitalpati, woodcarving, silver ornaments and other crafts.

Art and Culture

Tripura, nestled in a tip of the Northeast, flourishes on the bounties of nature but the beauty of the state is heightened by its human resources on the one hand and rich cultural tradition on the other.

Folk culture of the tribal and non-tribal people of the state forms the backbone of Tripura's cultural tradition. This is reflected as much in the delicately rhythmic physical movement of the 'Hoza Giri' dance of the Reang tribesmen as in the collective musical recitation of 'Manasa Mangal' or 'Kirtan' (devotional songs in chorus) of the non-tribals. Apart from this, the 'Garia' dance of the tribals, organized on the occasion of New Year festivities and worship of 'Garia', and 'Dhamail' dance of the non-tribals, organized on familial occasions like wedding ceremony in rural areas as well as musical duels (Kabi Gaan) between two rival rhyme-makers on public platforms form the staple of Tripura's folk culture. Enriched by myths and legends of tribal society over the past half a millennium.

Tripura Housing & Construction Board

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GENERAL INFORMATION ABOUT THE STATE TRIPURA.

State Profile : Tripura

Area:		10,491.69 sq. km
Population	:	31, 99,203 (2001 census)
Population	:	36, 71,032 (2011 cencus)
Capital	:	Agartala
Principal Languages	:	Bengali and Kokborak

Attained statehood in : 1972

State Capital : Agartala

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Bordering states/countries:

East -	Assam & Mizoram
West -	Bangladesh
North -	Bangladesh
South -	Bangladesh

Longitude:91.0° E to 92.15° E Latitude: 23.0° N to 24.3° N

Administrative set up : Tripura has 8 (eight) districts viz., North Tripura, Unokoti, Dhalai, Khowai, West Tripura, Sepahijala, Gomati & South Tripura.

Major towns :	Agartala,	Udaipur,	Dhar	managar,	Kailasahar,	Teliamu	ıra,	Khowai,
	Sonamura,	Kumar	ghat,	Sabroom,	Amarpur,	Belonia,	San	tirbazar,
	Kamalpur,	Ambassa.						

Area (in sq. km) : 10,492 % of forest cover (2000): 57.77

Demography as per 2001 census :

Major minerals :	Fire Clay, Quartz, Silica sand
Industrial estates :	4
Industrial Growth Centre:	1

Educational institutes : (2015)

University	1
College	21
Higher Secondary School	215

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High School	392
Middle School	435
Primary School	2068
Pre-primary school	2513
Industrial & Technical school	4
Polytechnic	5
Engineering College	4
Medical College	2
	-

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	1987 - P. 1981 - ST	3. 137 m 311 mer 10 m	_

(up to 31-03-2001) Airport : Ushabazar (Agartala)

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	3700 IG	340

Language : Bengali, Kokborak, Hindi, English Power generated (1999-2000) : 312.31 MU Strengths :Second largest producer of rubber in the country Has sizeable reserves of natural gas

River port : Ashuganj, Bangladesh (30 km from Agartala), Karimganj, Assam (250 km from Agartala)

Railhead : Akhaura Jn., Bangladesh (8 km from Agartala), Dharmanagar, Tripura (188 km from Bangladesh)

Sea port : Chittagong, Bangladesh (110 km from Sabroom)

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Sizeable horticultural produces.

Major crops :	Rice, Sugar cane, Cotton, Jute, Mesta
Major plantations :	Tea, Rubber, Coffee
Fruits, vegetables & spices :	Banana, Pineapple, Orange, Mango, Guava, Litchi, Potato, Papaya, Tomato etc.



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RECENT DEVELOPMENT ACTIVITY IN TRIPURA:-

- Overcoming hurdles like historical neglect, effect of partition of the country, geographical isolation, backwardness and problem of insurgency etc., the State is now on the path of consolidate its economic position. Absence of adequate developmental initiatives both at the State as well as national level, much needed basics infrastructures are quite few and insignificant as on date. Current initiative of the Govt. of India, such as formation of new Ministry for North-East, special allocation of funds under NEC, NHM,
- Non-Lapsable Central Pool of Resources (NLCPR) has paved further growth for backward states like Tripura immensely. The Govt. of Tripura has accordingly fine-tuned its policy initiative, particularly on creation of infrastructures like schools, hospitals, Office building etc.
- The State has become strategically important in this part of Indian Subcontinent, specifically after very advent of South Asian Association for Regional Cooperation (SAARC) particularly, in the backdrop of much pursued Look East Policy of the Government of India. South Eastern part is a land locked, hilly zone, having insufficient rail connectivity in all the states, with main land India.

 Rail connectivity with Kolkata via Guwahati & Kolkata via Bangladesh, border hats, border trades, are all recent, much soughed after issues on the diplomatic drawing table of both India & Bangladesh.
 Having special attention from the source of the source o

Having special attention from the Govt. of India on overall development of the States in North-East region & simultaneously, good allocation under different head like NHM, NLCPR, ACA, SPA, CASP, RUS, NEC, Bharat Nirman, Urban- Development Schemes etc., Government of Tripura has come out with its own perspective plan proposal in regard to the infrastructural development, as a part of whole and long term future perspective. Accordingly, development objectives have been proposed in the recent past. Some are at implementation phase & some are at proposal stage.

Brief development initiatives taken in the recent times:-

(a) Opening of 7.0 (seven) nos. New Govt. Degree Colleges, such as, at Sabroom, Longtharai-Valley, Teliamura, Bishalgarh, Mohanpur, SantirBazar & Khumlung [Colleges are now in functional].

(b) Establishment of 4.0 (four) nos. New Polytechnics at Udaipur, Ambassa, Bagabassa & Khumlung under skill development scheme of Ministry of Human Resource Development, Government of India. 13th finance commission has accordingly allocated a good amount of money by the time. Currently polytechnic Colleges at Udaipur, Ambassa, and Bagabassa are newly constructed and in functional stage.

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(c) Up gradation of infrastructures of different hospitals in Tripura under state funding. (All are in implementation stage more or less).

(d) Up gradation of infrastructures of NIT, TIT, Medical colleges in the State (All are at implementation stage more or less).

(e) Construction/up-gradation of motor stand, super markets and allied infrastructures at different sub divisional towns. (A couple of this is implemented and more are in conceptual stage).

(f) Up-gradation of all hospital infrastructures in the state including establishment of new hospitals under *National Rural Health Mission* (NRHM) scheme. (These are in implementation stage in most cases, some are in conceptual stage).

(g) Up gradation / modernization of the police stations including establishing new police stations, mostly under police modernization scheme. (Most are in implementation stage)

(h) Construction of Multi-Cultural Complex, Exhibition Halls, Museums etc. This venture is at quite nascent stage, two multi-cultural complexes at the capital city Agartala, namely: - "Nazrul Kalakhstra", "Rabindra Satabarshiki Bhavan" & "Muktadhara" have been completed recently. There is plan to cover all district and sub divisional headquarters gradually. Some of them are on construction phase already.

PROJECT BACKGROUND FOR TOURISM AND CULTURAL PROMOTION HUB AT GANDHIGHAT, AGARTALA, TRIPURA,

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Concept Paper	Tripura Housing & Construction Board
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1.1 The Directorate of (Information & Cultural Affairs (ICA), Government of Tripura owns a plot at Gandhighat, Agartala and Government's construction program envisages to re-develop these dilapidated property by demolition of the existing structure and construction of a State of Art office building for ICA alongwith a multi-storied cultural hub (henceforth referred to as "Project"), as defined in the Press Notice. The plot is having an area of 6070.28sqm (1.50acre). The L- shaped plot is facing 15.5m wide Gangail road along with covered drain.

The longer sides of plot has properties Gandhighat Govt. Qtr. complex and School building. The site is almost a flat terrain with boundary wall and periphery drain. The tentative total covered area for the project will be around **20000 sqm**.

1.2 The Project area will include spaces for ICA Directorate building, conference rooms, Multipurpose Halls, auditorium, rehearsal room, showcasing archival material of North Eastern States, statute of great artiste of all North Eastern with latest multimedia facilities, library, dress bank including housing of institutions like Sangeet Natak Academy, Sahitya Academy, Lalit Kala Academy, National School of Drama and associated ancillary services. The access and functioning of each activity would be functional yet independent of each other with associated facilities.

1.3 The complex is expected to function efficiently with the help of latest services, energy efficient features, security systems, heating/cooling systems, smooth circulation and integration of open and built-up spaces and functional segregation of spaces as per requirements of the Employer as well as complying latest applicable Building Byelaws and NBC norms.

2. AGARTALA - CITY PROFILE

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2.1 LOCATION AND REGIONAL SETTING

The capital of the North-eastern state of Tripura, Agartala is a beautiful city situated on the Howrah River. Dotted with a number of historical sites and ancient buildings and surrounded by lush greenery, Agartala serves as a perfect tourist place. The historical buildings and the ancient monuments and sites in Agartala speak loud about the glorious history of the place. Agartala is situated at a distance of only 2 km from Bangladesh. Situated at an elevation of 42 feet, the Agartala city has an area of 58.84 sq km and geographical coordinates are 23°30N 91°30E. This city has a Humid Sub-tropical type of climate. The summers here have a good deal of rainfall, while the winters have very little. The temperature here

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averages 25.5 °C. The rainfall here is around 2146 mm per year. Most of the rain comes during the months April-June and July to September. Humidity is generally high throughout the year. In the summer season the relative humidity is between 50% to 74% whereas in the rainy season it is over 85 percent. The mean wind speed is 7.1 km per hour, with maximum of 13.1 km per hour in May and minimum of 3 km per hour in December.

2.2 CONNECTIVITY

Regional Connectivity

Agartala is well connected with the rest of the country by air, rail and roads. The modes of connectivity are discussed in detail below:

<u>Air Connectivity</u>

Agartala is connected to the cities of Kolkata, Guwahati, Delhi, Chennai, and Bengaluru through regular flights. The Airport (Maharaja Bir Bikram Airport) has been upgraded to an International Airport which is about 8 km from city.

Rail Connectivity

Agartala is directly connected by rail with Guwahati, Kolkata, Delhi, and Bengaluru.

Road Connectivity

The city lies on the National Highway (NH-8) and is linked with major cities like Guwahati, Kolkata.

2.3 BROAD HISTORIC GROWTH DYNAMICS OF THE CITY

The history of Agartala should be understood in the context of the history of Tripura. Earlier Tripura was a princely state and its capital was located at Rangamati, the modern date Udaipur in Gomati District. Maharaja Krishna Chandra Manikya Bahadur of the Manikya dynasty shifted the capital to present Agartala by the bank of river Howrah in 1760 and it was named Haveli. Due to the Kuki invasion the Maharaja shifted the capital from old Haveli to new Haveli. The capital Agartala was founded in 1838 by Maharaja Chandra Manikya Bahadur. During the British rule Agartala served as the capital of the erstwhile Hill Tipperah state. In 1874-75 Agartala became a municipality. In 1963 Tripura became a centrally administered Union Territory and attained the status of a full-fiedged state in 1972 and Agartala was made capital of the State.

Tripura Housing & Construction Board **Concept Paper**

FUNCTIONAL REQUIREMENTS

The Area Program envisages building of Tourism and Cultural Promotion Hub including Directorate Office Building for ICA at Agartala. PLANNING & PROPOSAL :

The ICA Department, Government of Tripura decided to build Tourism and Cultural Promotion Hub at Agartala.

TOTAL PROJECT OUTLINE

The Key Design and Planning Parameters as outlined in brief are:

- ♦ Office of Directorate, District & Sub Divisional Level [B+G+7] Internal water supply and sanitary installation of total built up area 2000.00 Sqm .
- Offices under Ministry of Culture [B+G+3]of built up area 1125.00 Sqm. * Open Theatre (built up area 300.00 Sqm), Auditorium (built up area 480.00
- 3 nos Display Gallery (built up area 300+750+650=1700.00 Sqm), * Fountain & Water Body (LS), Statues of the Icons of North Eastern State (LS), Entrance Gate [LS] Two Wheeler Parking for Visitors [LS]
- ♦ Site Development, E&M Works, Acoustic, & Audio Visual Works : External Service Connections.
- Site Development etc.

PRESENT SCOPE in Phase-I

- Open Theatre (built up area 300.00 Sqm), Auditorium (built up area 480.00 2 nos Display Gallery (built up area 300+650=950.00 Sqm),
- Statues of the Icons of North Eastern State (LS), Entrance Gate [LS] Two Wheeler
- Site Development, E&M Works, Acoustic, & Audio Visual Works :
- External Service Connections.
- Site Development etc.

* Quality Improvement: -

- By providing for quality service facility.
- By providing for advanced & better Services.

* Efficiency Improvement: -

- By providing comfortable working space to the working community. ٠
- By providing real time information systems.

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FINANCIAL EVALUATION

Project Cost:

Project cost for Tourism and Cultural Promotion Hub at Gandhighat, Agartala, West Tripura appears ₹ 34.55 Crore.

This project report does not include any amount for cost for Machinery, Equipment & furniture for the proposed Project.

a) Building Specification:

It will be a R.C.C. framed structures with 254 mm thick brick walls at the exterior and 127 mm thick brick walls at the interior part. The structural analysis, design of structural elements and structural detailing shall be as per the codal provision of Indian standard in consideration with the seismic vulnerability.

<u>Flooring</u>: Marble Stone, Vitrified, Granite, Kota stone, Edge cut ceramic tiles will be provided at Chequred tiles, Coloured designer tiles will be fitted in accordance to specification as described in Architectural drawings.

<u>Skirting/Dado</u>: 1500 mm high Dado/skirting shall be provided in all rooms, lounges, Corridors etc etc. Toilets rooms are to be given ceramic glazed wall tiles (minimum size of 200 x 300 mm) up to 2100 mm height.

Painting works: - External surface will be finished with Acrylic emulsion paint with POP and interior surface will be painted with distemper in all rooms except rooms where plastic emulsion paint is to be provided over finished wall surface by wall putty.

Doors & Windows: - Aluminum frames with glazed shutters shall be provided for all windows. Sal wood frames to be fitted for all doors except toilets where PVC frame shall be provided. Flush door shutters of door in all rooms except the toilet where PVC shutters shall be used.

Electrical Wiring: - Wiring shall be of concealed type & superior quality fitting & fixtures (with ISI mark) to be provided.

Sanitary: - Superior quality fittings and fixtures (with ISI mark) will be provided.

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LEGAL FRAMEWORKS:-

This being a proposal of the ICA Department, Govt. of Tripura the implementation would be carried out under the administrative control of the Department itself. Execution of works is to be carried out through THCB adopting workable bid documents in vogue. Whereas, procurement of goods would be carried out in conformity with the delegation of Financial Power Rules, Tripura as when fund is available in the next phase.

THCB is the potential implementing authority; State Government is extensively relying on THCB for implementation of several infrastructural projects under, Central aided schemes along the projects under State financing. THCB is having full-fledged infrastructural framework headed by full time Chief Executive Officer and followed by planning & working division. Strength of the legal framework is quite sound for implementation of such projects.

TECHNOLOGY ISSUE :-

Proposed structure has been conceived, based on RCC framed structure, which is already on wide use in most of the cases in Tripura. Sufficient experience thus has been found quite reliable as such so far among the local agencies.

Relevant code provisions at design and implementation stage will be followed strictly.

This estimate for Buildings envisages for the following provisions:

- > Construction of all buildings with RCC Framed structure
- Internal electrification.
- > Internal water supply and sanitary installation.
- > Fire Alarm system in Hospital building only.
- > External service connection.
- > Site Development etc.

Geo-technical Sub-Soil investigation report for these buildings site is yet to be conducted. However necessary provision has been kept in the preliminary estimate.

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MANAGEMENT ARRANGEMENT:-

ICA Department, Government of Tripura & THCB already constituted autonomous organization will closely monitor the project actively at various stages. More clear guidelines of operation will be formulated in due course.

RISK ANALYSIS:-

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Project is of small nature, as much, risk factors of any bigger dimension are not contemplated. However intricate analysis for Risk factors has been analyzed & remedial contingencies are planned as below:-

A. Legal/contractual risk:-

Job will be given to the reputed benefited agency through competitive tendering among firms having suitable credential. Available dispute redressal mechanism, through departmental arbitration would be exhausted in case of any litigation on the part of agency.

B. Environment risk:-

No environmental risk has been foreseen in this project.

C. Management & regulatory risk:-

This will be meeting up on time-to-time on mutual consultation, as and when situation arises.

EVALUATION:-

Project implementation phase could be handled nicely through the monitoring mechanism followed during earlier cases, which is similar to the system proposed for this project. Even post construction phase is quite satisfactory and infrastructure created is under vibrant use, presently.

SUCCESS CRITERIA:-

Project is going to benefit the people of the state mainly primitive tribes, tourist and the various activities encompassing abroad frame. Intricate base line survey for assessment of success criteria can be done on functional phase of the project.

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FINANCIAL & ECONOMIC ANALYSIS:-

This is absolutely a social sector project so financial return of quantifiable proportion is not of much relevance. This is not even a primary consideration as of now.

SUSTAINABILITY:-

After completion, project will be maintained by the ICA Department, Govt. of Tripura. Department will advise and monitor regularly in all sphere, of the day to day issues. Maintenance of the project (at different stages) will be on state non-plan allocation, through its own technical Department (THCB).

ENVIRONMENTAL IMPACT ASSESSMENT:-

While carrying out the desired activities under this proposal NONE of the following is **expected**: -

- Deforestation of any kind,
- o Use of any agricultural land
- Blockade of any natural drain
- Water logging

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 Improper waste disposal Adverse environmental impact is, therefore, not being anticipated.

IMPACT OF THE PROJECT ON WEAKER SECTION OF THE SOCIETY:-

The population in different categories, along others are going to have equal positive impact, owing to the project implementation. There will be good social & economic impact on weaker section of society as such.

IMPLEMENTATION ARRANGEMENTS:

Tripura Housing & Construction Board is the implementing authority that will actually produce the project outputs. Again, as mentioned in the preceding Para, THCB will select a competent agency through standard bidding etc. it is very important to understand the interrelationship among the agency, THCB and the ICA Department, Govt. of Tripura. Thus, before commencement of execution the selected agency may be asked to submit an indicative work plan for the proposed project. Also, other necessary arrangements which are required for smooth execution at site will be arranged by the agency form time to time.

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MONITORING AND EVALUATION ARRANGEMENTS:

It is obvious that the project will be implemented through the constant monitoring of THCB. However, regarding release of fund etc. the ICA department will monitor and control from time to time. The evaluation of the project implementation may be done by the concerned department as and when felt so and may apply any suitable technique for that. An evaluation of environmental impact (discussed in the following Para) may be done by the competent authority after the execution is over so that necessary precautions can be taken before implementing of similar project.

ONGOING ACTION /PROCESS:-

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THCB initiated relevant actions such as finalization DPR, Design/drawing, estimate, DNIT etc. by the time. Special priority for on time completion has been fixed for the project.

CAPACITY OF IMPLEMENTING AGENCY TO EXECUTE WITHIN DEFINITE TIME FRAME:

As stated THCB will be involved for implementation of the project. THCB is having well coordinated organizational set up for hauling such task which they are rendering for similar schemes, sanctioned earlier and at the implementation stage, quite satisfactory.

FIRE AND EARTHOUAKE PROTECTION:

Arrangements as prescribed in the National building code of India part-IV. Fire protection 1997 will be made in the proposed construction. Moreover, the proposed buildings will be designed structurally resistant to earthquake as per relevant code provision.

LOCATION/NATURE OF THE PROJECT :

The proposed Building Project consisting of permanent RCC structural building with RCC pile foundation, having RCC flat slab at Gandhighat, Agartala, West Tripura District.

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LAND AVAILABILITY:

The proposed project is to be constructed at Gandhighat, Agartala, West Tripura in the ICA complex so Land is available.

STRUCTURAL SYSTEM :

The first phase of the project is comprising of mainly

- Open Theatre (built up area 300.00 Sqm), Auditorium (built up area (i) 480.00 Sqm) ,2 nos Display Gallery (built up area 300+650=950.00
- Statues of the Icons of North Eastern State (LS), Entrance Gate [LS] Two (ii) Wheeler Parking for Visitors [LS]
- Site Development, E&M Works, Acoustic, & Audio Visual Works : (iii)
- **External Service Connections.** (iv)
- Site Development etc. (v)

The above structure is Reinforced concrete structures. The structural system is a conventional beam-slab system with columns resting on RCC Pile/strip foundations. Expansion joints are considered at suitable locations to cater the effect earthquake loads and Temperature stresses.

The columns are rested on RCC Pile/strip foundations.

- 1. Overhead Water Tank: Overhead Tank without independent staging system is
- 2. 250mm thick brick filler wall supported by plinth beam at formed ground

: DESIGN ANALYSIS CRITERIA ;

DESIGN LOADS: The imposed loads that are envisaged to act permanently (wherever applicable) are as following-

Items	Intensity kN/m² of plan area
Weather proof course	Depends on the thickness
	Depends on the thickness of weathering course
	and water proofing materials, be used for water
Partitions	1.50
Finish loads	1.20
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False ceiling +M&E Services (including supporting system)	0.5	

IMPOSED LOADS: The super-imposed load or otherwise live load is assessed based on the occupancy classifications as per IS: 875(Part 2)-1987 and are listed below:

BUILDING:

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Occupancy Classifications	UDL kN/m ²
a) All other Rooms	3.0
b) Corridors, passages, lobbles, stairs	4.0
c) Toilets	2.0

WIND LOADS: The wind pressure shall be calculated based on the data furnished below and other provisions laid in IS: 875(Part 3)-1987.

Basic wind speed	55 mtr. /sec.
Risk coefficient	1.00
Terrain Category	3
Structure class	Depends on size of the structure

EARTHQUAKE LOADS: The special consideration due to earthquake shall be assessed based on provisions of IS:1893-2002.

Seismic Zone	V
Importance Factor	1.00

LOAD COMBINATIONS:

The various loads shall be combined in accordance with the stipulations in IS : 875(Part 5)- 1987, whichever combination produces the worst effects in the building, foundation or structural member concerned will be adopted.

Values of Partia	ul Safety Fac	tor for Loa	ads			
Load	Limit State	Limit State of Collapse		Limit State of Serviceability		
Combination on	DL	II.	WL/EL	DL	LL	WL/EL
DL + LL	1.5	1.5] -	1.0	1.0	-
DL + WL/EL	1.5 or 0.9*	-	1.5	1.0	-	1.0
DL +LL+WL/EL	1.2	1.2	1.2	1.0	0.8	0.8

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*This value is to be considered when stability against overturning or stress reversal is critical. Wind load & Earthquake load is considered for both X & Y directions. Whenever, imposed load is combined with earthquake load the appropriate part of imposed load as specified in IS: 1893(Part 1)- 2002 will be used both for evaluating earthquake effects and the combined load effects used in such combinations.

ANALYSIS METHOD:

Using STAAD Pro software will carry out the three-dimensional finite element analysis of the structure. Appropriate loads and its combinations as per relevant clauses in IS Codes, for most unfavorable effects will be chosen for design.

DESIGN LIFE:

The design life of the structure is assumed to be 75 years. The requirement is not applicable to replaceable materials.

DESIGN METHODOLOGY:

All structures shall be designed according to Limit State method as per IS: 456-2000. All structural steel components shall be designed as per IS: 800-1994.

MATERIALS:

The self weight of the various elements are computed based on the unit weight of the materials as per given below:

Materials	Unit Weight KN/m ³
Steel	78.50
Plain Concrete	24.00
Reinforced Concrete	25.00
Brick work	20.00
BJLC	18.00
Soil	18.00
Water	10.00
Aluminium	28.00
Glass	25.00

CONCRETE:

M 25 grade of concrete is considered for all the structural elements of the building.

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REINFORCEMENT:

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Steel reinforcement shall be of Grade Fe 500 conforming to IS: 1786-1985 and of Grade Fe 250 conforming to IS: 432-1982.

COVER TO REINFORCEMENT:

From durability considerations, exposure condition shall be considered as mild. The clear cover to main reinforcement shall be as follows:

- > Slabs: 20 mm or diameter of largest bar, whichever is greater
- > Footings: 50mm
- Lift / Shear wall: 25mm
- The clear cover stirrup / tie reinforcement in beams / columns shall be as follows:

Beam: 30 mm or diameter of largest bar, whichever is greater Columns: 40 mm

For any other elements not specified above, clear cover shall be as stipulated in Clause 26.4 of IS: 456-2000.

SAFE BEARING CAPACITY:

In anticipation of the sub-soil investigation report, SBC considered as i.e. Bearing capacity is moderate in between 6.00 to 10.00 T/Sqmtr based on nearby Soil test Report already conducted for other different Projects. Hence strip/pile foundation has been considered in preparation of DPR.

DESIGN STANDARD:

The relevant Indian Standard Codes as given below have been followed for structural design -

Code		Description		
IS: 432(Part 1982	2)-	 Specification for Mild steel and Medium Steel bars Hard Drawn Steel Wire for concrete reinforcement H Drawn Steel wire 		
IS: 1786-1985		Specification for High Strength Deformed Steel Bars and Wires for Concrete Reinforcement		
IS: 875(Part 1987	1)-	Code of Practice for Design Loads (other than Earthquake) for Buildings and Structures- Unit weights of Buildings Materials and Stored Material		
IS: 875(Part 1987	2)-	Code of Practice for Design Load (other than Earthquake) for buildings and Structures – Imposed Loads		
IS: 875(Part	3)-	Code of Practice for Design Load (other than Earthquake)		

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1987	for buildings and Structures - Wind Loads
IS: 875(Part 5)- 1987	Code of Practice for Design Load (other than Earthquake for buildings and Structures - Special Loads and Load Combinations
IS: 456 -2000	Code of Practice for Plain and Reinforced Concrete
IS: 1893(Part 1)- 2002.	Criteria for Earthquake resistant design of structure (Part 1 – General provisions and buildings)
IS: 13920-1993	Ductile detailing of Reinforced Concrete Structures subjected to Seismic forces - Code of Practice
IS: 4326-1993	Code of Practice for Earthquake resistant design and construction of buildings
IS: SP 34-1987	Hand book on Concrete Reinforcement and detailing
IS: 800-1984	Code of practice for General Construction in Steel
IS: 3370(Part 1)- 1965	Code of Practice for Concrete Structures for the Storage of Liquids, Part 1- General requirements
IS: 3370(Part 2)- 1965	Code of Practice for Concrete Structures for the Storage of Liquids, Part 2- Reinforced Concrete Structures
IS: 3370(Part 4)- 1965	Code of Practice for Concrete Structures for the Storage of Liquids, Part 4- Design Tables

CONCRETE;

 M_{25} grade of concrete is considered for all the structural elements of the building incl. the piles. Grade of concrete considered for piles is also M_{25}

REINFORCEMENT: Steel reinforcement shall be of Grade Fe 500 conforming to IS: 1786-1985 and of Grade Fe 250 conforming to IS: 432-1982

1. DESIGN BASIS REPORT FOR FIRE PROTECTION SERVICES:-

25.1. <u>SCOPE</u>:-

The intent of this document is to give a detailed description about the various type fire protection system envisaged for Establishment of Cultural Hub and Office Complex at Gandhighat, Agartala, West Tripura.

. The basic system requirement is as per National Building Code of India 2005.In the cost estimate, cost consider only for overhead water tank (Terrace Tank) & underground sump for fire demand for individual building.

CODE NO	CODE DESCTIPTION
NBC	National Building Code of India 2005, Part 4 - Fire and Life Safety.
IS 15105 2002 : 2002	Design and Installation of Fixed Automatic Sprinkler Fired
2002.2002	extinguishing systems - Code for Practice.

25.2. CODES AND STANDARDS

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IS 2189 : 1999	Selection, Installation and Maintenance of automatic Fire Detection and Alarm system - Code for Practice.			
IS 2190 : 1992	Selection, Installation and Maintenance of First aid fire Extinguishers - Code for Practice.			
IS 1239 : 2004 (Part 1)	Specification for Steel Tubes, Tubular and wrought steel fittings.			
IS 3589 : 2001	Steel pipes for water and Sewage (168.3 to 2540 mm Outside diameter) – Specification.			
IS 778 : 1984	Specification for copper alloy gate, Globe and Check valves for water works purposes.			
IS 14846 : 2000	Sluice Valve for water works Purposes (50 to 1200 mm size) - Specification.			
IS 814 : 2004	Covered electrodes for manual metal arc welding of carbon and carbon manganese steel - Specification,			
BS5155:1984PN 1.6	Specification for C.I butterfly value.			
IS 3844 : 1989	Code of practice for installation and maintenance of internal Fire Hydrant and hose reel on premises.			
IS 5290 : 1993	Specifications for hydrant landing valves.			
IS 903 : 1993	Fire hose delivery couplings branch pipe nozzles and nozzle spanner – specification.			
IS 1879 : 1987	Malleable iron fittings (Parts I to x)			
IS 636 : 1988	Specification for Non-percolating flexible fire fighting delivery hose.			
IS - 5 : 2004	Colours for ready mixed paints and enamels.			
IS-10221 : 1982	Code of practice for coating and wrapping of under ground mild steel pipelines.			

ESTIMATED PROJECT COST : =

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Estimated project cost has been derived based on CPWD PAR-2021/Market Rate with latest cost index to the tune of total ₹34.55 crore (Rupees Thirty Four point Five Five crore) only based on the Architect's preliminary drawings (layout plan phase-I) Vide drawing No: THCB/ICAT/PD/309/01 Dated: 20-07-2022.

<u>TIME FRAME</u>: Total project completion has been contemplated over 24 (twenty four) month's period. Further micro planning in BAR chart/PERT etc. form will be done before taking up execution at field level.

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	PROJ	ECT (COST	
SÌ. No,	Portionland of t state		Amount	Reference
I	CIVIL WORKS	1-		*
1	Open Theatre	₹	23,571,041.00	VIDE ANNEXURE - A-1
2	Auditorium	₹	the second s	VIDE ANNEXURE - A: II
3	Display Gallery -1 [G+1]	ŧ		VIDE ANNEXURE - A: II
4	Display Gallery -3 [B+G+1]	₹		VIDE ANNEXURE - A: IN
5	Statues of the Icons of North Eastern State (LS)	₹	10,000,000.00	
6	Entrance Gate [LS]	₹	10,000,000.00	
7	Two Wheeler Parking for Visitors [LS]	₹	10,000,000.00	
* 		1 2	The Pharmer De	
II	SERVICES	10000	AL SHERE IN A STATE OF	
8	Site Development	₹	21.653.132.00	VIDE ANNEXURE - B
9	E&M Works	₹		VIDE ANNEXURE - B. II
10	Acoustic, & Audio Visual Works :	₹	44,849,759.00	VIDE ANNEXURE - B: III
	Total	₹	304,264,286.00	·····
	Add. 5% on tender premium	₹	15,213,214.00	······································
		₹	319,477,500.00	
	Add. 3% contingencies	₹	9,584,325.00	
	TOTAL	₹	329,061,825.00	· · · · · · · · · · · · · · · · · · ·
	Add. 5% Agency charge	₹	16,453,091.25	······································
	GRAND TOTAL	₹	345,514,916.25	

34.55 Crore

Say ₹ 34.55 C (Rupees Thirty Four point five five crore) only

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Chief Executive Officer THCB

ANNEXURE-S

Agenda Note for the 37th meeting of the IMC/NESIDS Committee scheduled to be held on 15-11-2022

1. **Name of the Project**: Construction of Sugar Mill for KAAC at Kheroni, Karbi Anglong Assam

2. Estimated Cost: Rs. 15000.00 Lakhs

3. Proposed under the Scheme/Package: KAATC new Package(MoS dated 4-9-2021).

4. Project Implementing Agency : PWD, Kheroni Division, Karbi Anglong, Assam.

5. **Objective:** This project is taken up to provide procurement of cane for production of sugar, sugar industries by- products. Set up a supply and distribution chain of sugar and sugar industries by-product.

6. Abstract of Cost:

SI. No.	Particulars	Amount (Rs.) in Lakh
i.	Construction of Boundary and Land	900.00
	Development	
ii.	Construction of Main Buildings etc.	8100.00
iii.	Plant and Machinery	5500.00
iv.	Consultation and vetting Charges, Etc.	500.00
٧.	Grand Total amount	15000

7. Intended output and outcomes of the project- Not provided by SG

8. SDG, being targeted by the project- Not provided by SG

9. Concept Paper is attached.

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(N. K. Saha) Under Secretary to the Government of India

F.No.11012/26/2022-NE-IV Government of India Ministry of Home Affairs (NE-Division)

North Block, New Delhi Dated the 17 June, 2022

Office Memorandum

Sub: Implementation of Clause 5.1 of Memorandum of Settlement (MoS) signed between Govt. of India, Govt. of Assam and Karbi Anglong Groups of Assam on 04.09.2021 – reg.

The undersigned is directed to state that a Memorandum of Settlement (MoS) was signed between the Govt. of India, the Govt. of Assam and the Karbi Groups on 04.09.2021 (Copy of MoS is enclosed). As per Clause 5.1 of the said MoS, "The Govt. of India may allocate Rs. 500 Cr. (Rs. 100 Cr. Per annum) for development of infrastructure in Karbi Anglong Autonomous Council area as in Annexure-II of the MoS."

2. A copy of Government of Assam, Hill Areas Department's Letter No. HAD.81/2022/162 dated 03.06.2022 alongwith preliminary Project Concept Paper (PCP) submitted by the Karbi Anglong Autonomous Council in respect of following projects, is forwarded herewith for kind consideration and necessary action of Ministry of DoNER, under intimation to this Ministry:

SI.No.	Name of Project (PCP)	Amount (Rs. I	n Lakhs)
1.	Sugar Mill at Kheroni	15000.00	
2.	Hotel and Tourism Management Institute at Diphu (Langkaijan), Assam.	7272.32	. /
Encl: a	Total	22272.32	Kin

(Nitin Jain) Under Secretary to the Govt. of India Telefax: 2309 2856 Email: <u>nitin.jain75@nic.in</u>

The Secretary, Ministry of DoNER, Vigyan Bhawan Annexe, Maulana Azad Road, New Delhi.

Copy to:

- 1. The Chief Secretary, Govt. of Assam, Dispur, Guwahati, Assam
- 2. The Principal Secretary, Karbi Anglong Autonomous Council, Diphu, Assam.

DY. No. 239/NE-1V 07/6/2022 212

GOVERNMENT OF ASSAM HILL AREAS DEPARTMENT DISPUR GUWAHATI - 6

No.HAD.81/2022/162

Dated Dispur the 3rd June, 2022

From : S. Baruah, ACS Additional Secretary to the Govt. of Assam, Hill Areas Department, Dispur

То

The Joint Secretary to the Govt of India Ministry of Home Affairs, North Block Govt of India, New Delhi-110001

Sub : Submission of Preliminary Project Concept (PC) as per Karbi Accord, 2021regarding.

Sir,

In inviting a reference to the subject cited above, I am directed to forward here with a copy of letter No. HMA-19/22/2022- Political (A) /166/ (Ecf- 203238) Dated 6^{th} May 2022 alongwith its enclosure received from the Joint Secretary to the Govt of Assam, Home & Political Department, Disput regarding Preliminary Project Concept (PCP) as per the Karbi Accord, 2021 in respect of following project for favour of your kind information and necessary action since as per the Clause 5.1 of the MoS-2021 (KAG) the following project is to be under taken by Govt of India:

		(Rs in Lakh)
S 1	Name of project (PCP)	Amount
No		
]	Hotel and Tourism Management Institute at Diphu, (Langkaijan)	7272.32
2	Sugar Mill at Kheroni	15000.00
·	Total	22272.32

(Rupees Two Hundred Twenty Two Crore Seventy Two Lakh Thirty Two Thousand) only.

Your's faithfully Enclo: As stated above. Additional Secretary to the Govt. of Assam, 11 III Areas Department Memo No.HAD.81/2022/162-A Dated Dispur the 3rd June, 2022 Copy to: PS to Addl. Chief Secretary to the Govt. of Assam, Hill Areas Department for kind appraisal. The Principal Secretary, Karbi Anglong Autonomous Council, Diphu. The Joint Secretary to the Govt of Assam, Home & Political Department, Dispur for information. By order etc Additional Secretary to the Govt, of Assam, Hill Areas Department

211

		GOVERNMENT OF A		
		POLITICAL (A) DEPARTME 2 ^{ad} Floor, CM's Block, Assam Secretari Telefax No. 0361-2261421 :: Email ;	iat. Dispur. Guwahati-6	
No. HI	MA-19/	22/2022-Political(A)/166 (ECF-203238)	Dated Dispur, the 6th May, 2022	
From	:	M.S. Nath, ACS, Joint Secretary to the Govt. of Assam, Home & Political Department, Dispur	'n	در
1 10	:	The Addl. Chief Secretary to the Govt, of A Hill Areas Department.	asam,	
Sub Sir,		Preliminary Project Concept Paper (PCPs) as	; per Karbi Accord, 2021- regarding.	
conv. a	f letter	In inviting a reference to the subject cited at No KAC/PCP-10/Mass 2024/44, dated communication	ove, I am directed to forward herewith a	

1

copy of letter No.KAC/PCP-10/MoS-2021/11, dated 06/04/2022 alongwith its enclosures (in original) received from the Principal Secretary, Karbi Anglong Autonomous Council regarding submission of preliminary Project Concept Papers in respect of 9 (nine) projects under Clause 5.1 (Annexure-II) of the Karbi Accord, 2021. You are requested kindly to take necessary action for onward submission to the concerned Ministries with intimation to the Ministry of Home Affairs, Govt. of India and this Department for information.

This is for favour of your kind information and necessary action.

Enclo : As stated above.

Copy to:-

Yours faithfully,

Joint Secretary to the Govt, of Assam $\mathfrak{g}^{\mathrm{C}}$. Home & Political Department

~

Dated Dispur, the 6th May, 2022

1. PS to the Principal Secretary to the Govt, of Assam, Home & Political Department,

2. PS to the Commissioner & Secretary (DB) to the Govt. of Assam, Home & Political Department.

, -

JoinI Secretary to the Govt, of Assam Home & Political Department

 A. S. M. Barras, J. Nep. 11
 M. S. M

Memo No. HMA-19/22/2022-Political(A)/166-A

210 9

KARBI ANGLONG AUTONOMOUS COUNCIL MEMORANDUM OF SETTLEMENT (MOS) CELL KAAC:: SECRETARIAT DIPHU-782460

Dated- 6/04/2022 No. KAAC/PCP-10/MoS-2021/ | | Shri Mukul Kr. Saikia, ACS, From :: Principal Secretary, Karbi Anglong Autonomous Council, Diphu-782460. The Principal Secretary, To :: Home & Political Department, Govt. of Assam, Dispur, Guwahati-06 Submission of Preliminary Project Concept Papers (PCPs) of MoS-2021. Sub ::

Sir,

With reference to the subject cited above, I am directed by the authority of the Karbi Anglong Autonomous Council to forward herewith preliminary Project Concept Papers in respect of 9 (nine) projects under clause 5.1 (Annexure-II) of MoS 2021.

SI. No.	Name of Project	Amo	unt (in Lakh)
1.	Hotel and Tourism Management institute at Diphu (Langkaljan).	Rs.	7272.32
2.	Sugar Mill at Kheroni	Ks.	15000.00
3.	Secretariat Complex for West Karbi Anglong at Hamren	Rs.	12500.00
4.	KAAC Capital Complex at Diphu	Rs.	15000.00
5.	Veterinary college/Hospital at Diphu and West Karbi Auglong (Donkamokam)	Rs.	67641.90
5. · 6.	Centres for fish breeding, training and farming at Dokmoka	Rs.	29000.00
7.	Establishment of Government Degree College at Hamren (West Karbi Anglong, Umpanai).	Rs.	4300.00
8.	Establishment of Agriculture college in West Karbi Anglong (Kolonga).	Rs.	10000.00
9.	Forest Training college at Loringsarku, West Karbi Anglong.	Rs.	9880.00
	Total::	Rs.	170594.22

(Rupees One thousand Seven hundred Five Crores ninety four lakhs and twenty two thousand) only.

This is for favour of information and necessary action.

Encloy As stated above. .°¢

Yours faithfully Principal Secre fary, Karbi Anglong Autonomous Council, DIPHU. Dated- 6_/04/2022

Memo No, KAAC/PCP-10/MoS-2021/ 11 - A

Copy to ::

- 1. The Addl. Secretary, Ministry of Home Affairs (NE Division), Govt. of India, New Delhi.
- 2. The Addl, Chief Secretary, Hill Areas Department, Govt. of Assam, Dispur for information.
- 3. The Joint Director (PP), Transformation & Development Department, Govt. of Assam, Dispur, Guwahati-06.
- 4. The PA to the Chief Executive Member, KAAC, Diphu for kind appraisal of Hon'ble CEM.
- 5. Department concerned.
- 6. Office file.



CONCEPT PAPER

For



CONSTRUCTION OF SUGAR MILL FOR KAAC AT KHERONI, KARBI ANGLONG, ASSAM FORWARDED BY:

SECRETARY ASSAM PWD, ASSAM



PROJECT AMOUNT: Rs/- 1,50,00,00000.00 (150 crore) DISTRICT: KHERONI, KARBI ANGLONG



1.17



PROJECT CONCEPT PAPER

1. INTRODUCTION

The Project for construction of Sugar Mill at Kheroni, Karbi Anglong district Council was set up in 1951, later turned as Karbi Anglong Autonomous integrated Council under central Assam area and having its headquarters at Diphu.

It is for the proper administrative functioning of the council that a modern office complex is proposed for the Council. This will help the public in general and also uplift the total area by generating jobs and revenue.

The etablishing of sugar mill will help to set up a sugar mill in Kheroni to help the local cane farmers use the mill in closed vicinity. It shall also generate revenue and employment for the local population in addition to the genral upgrading of the area, it will also encourage other allied industries in the area.







DA 614122





2. SUMMARY OF PROJECT

\KHERONI

Name of Project:- Construction of Sugar Mill for KAAC at Kheroni, Karbi Anglong Assam.

Location:-The project site ideally located in the Karbi Anglong district. Reachable via NH-329 Lumding road, Assam.

Amount of Project:-Rs. 150.00 Crore only.

3. JUSTIFICATION FOR TAKING UP THE PROJECT:-

This project is taken up to provide procurement of cane for production of sugar, sugar industries by- products. Set up a supply and distribution chain of sugar and sugar industries by-product.

4. PHYSICAL AND FINANCIAL PHASING OF THE :-

SI.	Items/Activities	2022-23/	2023-24/	2024-25/
No.		Crore	Crore	Crore
1.	Construction of Boundary and Land Development	5.400	2.700	0.900
2.	Construction of Main Building, Etc.	32.400	32.400	16.200
3.	Plant and machinery	00	15.00	40.00
4.	Consultation and vetting Charges ,Etc.	2.500	1.500	1.000

5. ESTIMATED PROJECT COST:-

SNO.	PARTICULARS	AMOUNT IN CRORE		
1.	CONSTRUCTION OF BOUNDARY AND LAND DEVELOPMENT	Rs/- 9.000		
2.	CONSTRUCTION OF MAIN BUILDINGS, etc.	Rs/- 81.000		
З,	Plant and machinery	Rs/- 55.000		
4.	Consultation and vetting Charges ,Etc.	Rs/- 5.000		
	GRAND TOTAL AMOUNT =Rs,	150.000		

This paper is prepared on the basis of C.P.W.D Building Schedule of rates for the year 2022.

All works will be carried out as per C.P.W.D General Specification current in the state of Assam.

6. LOCATION WITH LAND AVAILIBILITY:-

The Location of the proposed Project is at Kheroni, KARBI ANGLONG, Assam and 26.74 Hectares land is available for the proposed project.

7. IMPLEMENTATION SCHEDULE:-

ACTION	LIKELY DATE
EXPECTED SANCTION	30.05.2022
COMPLETION OF DETAIL WORKING ESTIMATES AND DRAWINGS	30.07.2022
ISSUE OF NIT	31.08.2022
ISSUE OF WORK ORDER	15.09.2022
COMMENCEMENT OF WORK	15.10.2022
COMPLETION OF WORK	15.09.2025

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A.PHYSICAL:-

PRE CONSTRUCTION STAGE:-

- (i) Survey and preparation of estimate -1 month.
- (ii) NIT and issue of work order 2-3 months.

Construction stage:-

- (i) Commencement of work:-15 days from the date of issued of formal work order.
- (ii) Time of completion :- 3 years

B.PHYSICAL:-

YEAR	FINANCIAL/	
	(CRORE)	
2022- 2023	Rs/- 40.300	
2023-2024	Rs/- 51.600	
2024-2025	Rs/- 58.100	
TOTAL	Rs/- 150.000	

8. MAINTENANCE ARRANGEMENT FOR THE PROJECT:-

After the commissioning of the project the overall maintenance of the Sugar Mill, Kheroni will be taken up by the concerned Executive Engineer, PWD, Assam.

9. PROJECT IMPLEMENTING AGENCY:-

PWD, Kheroni DIVISION, KARBI ANGLONG, ASSAM.

10. PROJECT FORMULATION PROCESS:-

Once the concept paper is accepted in principal, the detail survey and the design plan of the SUGAR MILL at Kheroni, will be worked out and there after the DPR will be submitted.

11. BLUE PRINT/ DESIGN:-

The Design and the estimate of the proposed project will be in accordance with APWD specification and codes there in which will be submitted along the DPR. \square

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6. he hads thatsing



Principal Secretary

12. NON DUPLICACY:-

This project for construction of SUGAR MILL at Kheroni, KARBI ANGLONG, ASSAM is not taken up by any other scheme by the Govt. of Assam. Countersign

Junior Engineer

5

Asst. Executive Engineer

13thi Anglong Autonomous Cou Executive Engineer PWD Question and the second Ale house the officer 86 P. P. R. D.

ecretary Karbl Anglong Autonomous Council DIPHU -

NUOS

Superintending Engineer, PWD/B & NHJ, Diphu Building Circle D I P H U,

ANNEXURE-T

Agenda Note for the 37th meeting of the IMC/NESIDS Committee scheduled to be held on 15-11-2022

- 1. Name of the Project: Hotel and Tourism Management Institute at Diphu (Langkaijan), Assam.
- 2. Sector: Tourism
- 3. Estimated Cost: Submitted by SG as Rs.7272.32 Lakhs, which has been corrected as Rs.7249.29 Lakhs
- 4. Proposed under the Scheme/Package: KAATC new Package.
- 5. Location of the project: Langkaijan in the border with Hojai District of Assam.

5. **Project Implementing Agency** : Directorate of Tourism, Karbi Anglong Autonomous Council.

6. **Objective:** To plan a progressive education training scheme and to impart, through training botli practical and theoretical knowledge of every phase of Hotel, Catering, Tourism and Institutional Management.

SI.	Particulars	Amount (Rs.) in Lakh			
No.					
i.	Site Development including Boundary	132.04			
	Wall				
	Building and Civil Works				
ii.	Academic Block	1551.43			
iii.	Guest House cum Hotel	638.42			
iv.	Boy's Hostel, Type A	601.42			
V.	Boy's Hostel, Type B	705.64			
vi.	Girl's Hostel	1064.40			
vii.	Kitchen & Dining Hall for Boys	155.41			
viii.	Principal Quarter	39.70			

6. Abstract of Cost:

ix.	Teachers' Quarter	242.38
Х.	Staff Quarters	171.18
xi.	Roads & Storm Water Drainage	239.96
xii.	External Water Supply including OH	208.93
	Tank, Bore Well, Fire Fighting and Rain	
	Water Harvesting	
xiii.	External Electrification including	250.42
	substation including Solar installations	
xiv.	ETP & Solid Waste Management	78.56
XV.	Furniture's and Equipment	700
xvi.	Total	6802.92
xvii.	Contingency @1% of above	68.03
xviii.	Preparation of Concept Note, Detailed	240.82
	Project Report, Architectural & Structural	
	Drawings, Topographical Survey, etc.	
xix.	Bid process Management, Project	160.55
	Supervision	
XX.	Grand Total	7249.29

- 7. Intended output and outcomes of the project- Not provided by SG
- 8. SDG, being targeted by the project- Not provided by SG
- 9. Concept Paper is attached.

malahe

(N. K. Saha) Under Secretary to the Government of India

F.No.11012/26/2022-NE-IV Government of India Ministry of Home Affairs (NE-Division)

North Block, New Delhi Dated the 17 June, 2022

Office Memorandum

Sub: Implementation of Clause 5.1 of Memorandum of Settlement (MoS) signed between Govt. of India, Govt. of Assam and Karbi Anglong Groups of Assam on 04.09.2021 – reg.

The undersigned is directed to state that a Memorandum of Settlement (MoS) was signed between the Govt. of India, the Govt. of Assam and the Karbi Groups on 04.09.2021 (Copy of MoS is enclosed). As per Clause 5.1 of the said MoS, "The Govt. of India may allocate Rs. 500 Cr. (Rs. 100 Cr. Per annum) for development of infrastructure in Karbi Anglong Autonomous Council area as in Annexure-II of the MoS."

2. A copy of Government of Assam, Hill Areas Department's Letter No. HAD.81/2022/162 dated 03.06.2022 alongwith preliminary Project Concept Paper (PCP) submitted by the Karbi Anglong Autonomous Council in respect of following projects, is forwarded herewith for kind consideration and necessary action of Ministry of DoNER, under intimation to this Ministry:

SI.No.	Name of Project (PCP)	Amount (Rs. In Lakhs)	
1.	Sugar Mill at Kheroni	15000.00	
2.	Hotel and Tourism Management Institute at Diphu (Langkaijan), Assam.	7272.32	. /
Encl: a	a/a.	22272.32	han

(Nitin Jain) Under Secretary to the Govt. of India Telefax: 2309 2856 Email: <u>nitin.jain75@nic.in</u>

The Secretary, Ministry of DoNER, Vigyan Bhawan Annexe, Maulana Azad Road, New Delhi.

Copy to:

- 1. The Chief Secretary, Govt. of Assam, Dispur, Guwahati, Assam
- 2. The Principal Secretary, Karbi Anglong Autonomous Council, Diphu, Assam.
DY. No. 239/NE-1V 07/6/2022 212

GOVERNMENT OF ASSAM HILL AREAS DEPARTMENT DISPUR GUWAHATI - 6

No.HAD.81/2022/162

Dated Dispur the 3rd June, 2022

From : S. Baruah, ACS Additional Secretary to the Govt. of Assam, Hill Areas Department, Dispur

То

The Joint Secretary to the Govt of India Ministry of Home Affairs, North Block Govt of India, New Delhi-110001

Sub : Submission of Preliminary Project Concept (PC) as per Karbi Accord, 2021regarding.

Sir,

In inviting a reference to the subject cited above, I am directed to forward here with a copy of letter No. HMA-19/22/2022- Political (A) /166/ (Ecf- 203238) Dated 6^{th} May 2022 alongwith its enclosure received from the Joint Secretary to the Govt of Assam, Home & Political Department, Disput regarding Preliminary Project Concept (PCP) as per the Karbi Accord, 2021 in respect of following project for favour of your kind information and necessary action since as per the Clause 5.1 of the MoS-2021 (KAG) the following project is to be under taken by Govt of India:

		(Rs in Lakh)
\$1	Name of project (PCP)	Amount
No		
]	Hotel and Tourism Management Institute at Diphu, (Langkaijan)	7272.32
2	Sugar Mill at Kheroni	15000.00
- -	Total	22272.32

(Rupees Two Hundred Twenty Two Crore Seventy Two Lakh Thirty Two Thousand) only.

Your's faithfully Enclo: As stated above. Additional Secretary to the Govt. of Assam, 11 III Areas Department Memo No.HAD.81/2022/162-A Dated Dispur the 3rd June, 2022 Copy to: PS to Addl. Chief Secretary to the Govt. of Assam, Hill Areas Department for kind appraisal. The Principal Secretary, Karbi Anglong Autonomous Council, Diphu. The Joint Secretary to the Govt of Assam, Home & Political Department, Dispur for information. By order etc Additional Secretary to the Govt, of Assam, Hill Areas Department

211

		GOVERNMENT OF A		
		POLITICAL (A) DEPARTME 2 nd Floor, CM's Block, Assam Secretari Telefax No. 0361-2261421 :: Email ;	iat. Dispur. Guwahati-6	
No. HI	MA-19/	22/2022-Political(A)/166 (ECF-203238)	Dated Dispur, the 6th May, 2022	
From	:	M.S. Nath, ACS, Joint Secretary to the Govt. of Assam, Home & Political Department, Dispur	"h	در
10	:	The Addl. Chief Secretary to the Govt, of A Hill Areas Department.	ləsam,	
Sub Sir,		Preliminary Project Concept Paper (PCPs) as	s per Karbi Accord, 2021- regarding.	
000V 0	f letter	In inviting a reference to the subject cited at No KAC/PCP-10/Mass 2024/44, dated communication	bove, I am directed to forward herewith a	

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copy of letter No.KAC/PCP-10/MoS-2021/11, dated 06/04/2022 alongwith its enclosures (in original) received from the Principal Secretary, Karbi Anglong Autonomous Council regarding submission of preliminary Project Concept Papers in respect of 9 (nine) projects under Clause 5.1 (Annexure-II) of the Karbi Accord, 2021. You are requested kindly to take necessary action for onward submission to the concerned Ministries with intimation to the Ministry of Home Affairs, Govt. of India and this Department for information.

This is for favour of your kind information and necessary action.

Enclo : As stated above.

Copy to:-

Yours faithfully,

Joint Secretary to the Govt, of Assam $\mathfrak{g}^{\mathrm{C}}$. Home & Political Department

~

Dated Dispur, the 6th May, 2022

1. PS to the Principal Secretary to the Govt, of Assam, Home & Political Department,

2. PS to the Commissioner & Secretary (DB) to the Govt. of Assam, Home & Political Department.

, -

JoinI Secretary to the Govt, of Assam Home & Political Department

 A. S. M. Barras, J. Nep. 11
M. S. M

Memo No. HMA-19/22/2022-Political(A)/166-A

210 9

KARBI ANGLONG AUTONOMOUS COUNCIL MEMORANDUM OF SETTLEMENT (MOS) CELL KAAC:: SECRETARIAT DIPHU-782460

Dated- 6/04/2022 No. KAAC/PCP-10/MoS-2021/ | | Shri Mukul Kr. Saikia, ACS, From :: Principal Secretary, Karbi Anglong Autonomous Council, Diphu-782460. The Principal Secretary, To :: Home & Political Department, Govt. of Assam, Dispur, Guwahati-06 Submission of Preliminary Project Concept Papers (PCPs) of MoS-2021. Sub ::

Sir,

With reference to the subject cited above, I am directed by the authority of the Karbi Anglong Autonomous Council to forward herewith preliminary Project Concept Papers in respect of 9 (nine) projects under clause 5.1 (Annexure-II) of MoS 2021.

SI. No.	Name of Project	Amo	unt (in Lakh)
1.	Hotel and Tourism Management institute at Diphu (Langkaljan).	Rs.	7272.32
2.	Sugar Mill at Kheroni	Ks.	15000.00
3.	Secretariat Complex for West Karbi Anglong at Hamren	Rs.	12500.00
4.	KAAC Capital Complex at Diphu	Rs.	15000.00
5.	Veterinary college/Hospital at Diphu and West Karbi Auglong (Donkamokam)	Rs.	67641.90
5. · 6.	Centres for fish breeding, training and farming at Dokmoka	Rs.	29000.00
7.	Establishment of Government Degree College at Hamren (West Karbi Anglong, Umpanai).	Rs.	4300.00
8.	Establishment of Agriculture college in West Karbi Anglong (Kolonga).	Rs.	10000.00
9.	Forest Training college at Loringsarku, West Karbi Anglong.	Rs.	9880.00
	Total::	Rs.	170594.22

(Rupees One thousand Seven hundred Five Crores ninety four lakhs and twenty two thousand) only.

This is for favour of information and necessary action.

Encloy As stated above. .°¢

Yours faithfully Principal Secre fary, Karbi Anglong Autonomous Council, DIPHU. Dated- 6_/04/2022

Memo No, KAAC/PCP-10/MoS-2021/ 11 - A

Copy to ::

- 1. The Addl. Secretary, Ministry of Home Affairs (NE Division), Govt. of India, New Delhi.
- 2. The Addl, Chief Secretary, Hill Areas Department, Govt. of Assam, Dispur for information.
- 3. The Joint Director (PP), Transformation & Development Department, Govt. of Assam, Dispur, Guwahati-06.
- 4. The PA to the Chief Executive Member, KAAC, Diphu for kind appraisal of Hon'ble CEM.
- 5. Department concerned.
- 6. Office file.

Introduction

11/32115(1)/2022/0/0 SECY

According to the World Travel and Tourism Council, Travel & Tourism is one of the world's largest sectors, accounting for 10.3% of global GDP and 330 million jobs, or 1 in 10 people on the planet in 2019. The sector's growth reached 3.5% in 2019, a rate higher than that of the global economy for the ninth consecutive year, thereby enriching local communities at a faster rate than many' other sectors. Over the past five years, one in four of all new jobs created across the world has been in Travel & Tourism. The sector has tremendous social impact on local communities and the lives and livelihoods of people touched by Travel & Tourism. Through the revenues and jobs that it provides, Travel & Tourism helps reduce poverty and improve health, housing, education, and overall well-being. It supports diversity and inclusion, employing and offering opportunities to people from all walks of life, including minorities, youth, and women. Travel & Tourism has a unique ability to further protect and engage vulnerable groups and communities, while fostering innovation and preserving local heritage and culture.

The need of the Project

Tourism is an accelerator of social progress

Travel & Tourism has an important role to play, not only in driving economic growth, but also in enhancing social progress across the world. The Social Progress Index (SPI) developed by the Social Progress Imperative is a comprehensive measure of quality of life, independent of economic indicators. It measures 50 social and environmental indicators across three broad dimensions of social progress, notably, **Basic Human Needs**, **Foundations of Wellbeing**, and **Opportunity**.

In the SPI Index, China, Cambodia, Rwanda, and Sri Lanka were particularly strong performers, having all experienced annual Travel & Tourism GDP growth exceeding 8% between 2011 and 2020 (above the global average growth of 4.1%), and an increase in 10%



in their Social Progress index score in the same time period (above the average global increase of 6%).

In Cambodia, where Travel & Tourism contributes to over a quarter of GDP and jobs, this could be attributed to the country and wider region opening up to international tourism and making significant investments in local infrastructure and connectivity. The trickle-down effects, in turn, created jobs and enhanced the quality of basic services, infrastructure, education and health services, among others.

In the case of Rwanda, the government prioritised sustainable tourism, with real and tangible impacts both in terms of community development and conservation. In the area of conservation, high-value tourism permits generate over \$18 million per year, contributing to the re-population of gorillas from a mere 254 in 1981 to 600 in the National Park today. The positive impact of wildlife tourism and preservation of both animals and local communities can be witnessed across Sub Saharan Africa.

Tourism is diverse and inclusive

Diversity in the travel ecosystem, as it relates to race, ethnicity, gender, culture, religion, and physical ability, is fundamental to the success of businesses, the meaningful impact on communities, and the improved experience of travellers. As one of the most diverse sectors globally:

- Women account for 54% of Travel & Tourism's employment worldwide
- The tourism sector has almost twice as many women employers as other sectors
- Travel & Tourism employs a higher share of youth than the overall economy. In fact, youth employment reached around 30% in Canada, the United States, and the UK, more than double that of the broader economy.
- The sector prides itself on diversity. In 2018, in the United States, 26% of Tourism employees were Asian, Black or African American or of another race, while 23% were of Hispanic or Latino ethnicity.



Tourism is an enabler for community enrichment

Travel & Tourism supports and improves the livelihoods of hundreds of millions of people around the world. For the last nine years, the sector has grown faster than the global economy, thereby enhancing the livelihoods of people and their respective communities to a greater extent than most other sectors.

In fact, across the world, Travel & Tourism GDP per capita (person) growth outpaced that of the overall economy between 2011 and 2019, with an annual average of 2.9% compared to 1.7%, which was also the case for all key regions. **This means that Travel & Tourism has enriched people at a faster rate than the overall economy**. Interestingly, South East Asia recorded the fastest annual growth rate in Travel & Tourism at 6.7% compared to the region's 3.7% overall economy growth; while the Middle East achieved a 3% Travel & Tourism growth compared to 0.3% for the overall region's economy.

Furthermore, thanks to Travel & Tourism, Small Island Developing States (SIDS), which account for less than 1% of the global population, received nearly 5% of total global international spending. This showcases the ability of the sector to transfer wealth and support the growth of nations and communities.

Tourism is a driver for job creation

Travel & Tourism is one of the leading drivers of job creation across the world. In fact, it exceeds the Financial Services, Health, and Automotive sectors in terms of total employment. While at the global level, Travel & Tourism accounted for 1 in 10 jobs on the planet (10.4%) in 2019, the sector accounts for a significantly greater proportion of jobs in numerous countries which are highly reliant on the sector. This includes many Caribbean islands such as Antigua and Barbuda where Travel & Tourism accounted for 91% of total employment, and Aruba and St Lucia, where the sector accounted for 84% and 78% respectively. Moreover, in Macau, Travel & Tourism accounted for 66% of total employment, while in the Maldives the sector accounted for 60%. In absolute terms, the largest Travel & Tourism employers include China, India, the US, Germany, and Mexico.



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International Travel & Tourism, and particularly, international spend, is vital to support this job creation from megacities to rural communities. In fact, at the global level, for every 34 international visitors to a destination, 1 new job is created. This figure is more important in Africa, Asia-Pacific and the Middle East, where it respectively takes 11, 13 and 24 international visitors for the creation of 1 new job.

Tourism has a multiplier effect for local communities

The benefits of Travel & Tourism spread far beyond its direct impacts in terms of GDP and employment, with indirect benefits throughout the supply chain and interlinkages to other sectors, such as agriculture, retail, arts, and construction, among others.

- For every \$1 generated in direct Travel & Tourism GDP globally, more than \$2 is generated on an indirect and/or induced basis. This means that more than twice as much value is generated across the entire supply chain thanks to Travel & Tourism.
- For every direct job globally, nearly 2 new jobs are created on an indirect or Induced basis. So, one direct job in Travel & Tourism effectively creates a total of three jobs.
- Tourist revenues support not only people directly employed by the sector but also workers in other economic sectors including public sector. For instance, in the US, a mere 1% increase in travel spending generates \$827 million in Travel State & Local Taxes which could create the following number of public sector jobs: 15,530 firefighters, 12,640 police officers and 13,190 teachers.

Indian Tourism Scenario

The Indian tourism and hospitality industry have emerged as one of the key drivers of growth among the services sector in India – being a huge employment generator and a significant source of foreign exchange for the country. In 2020, tourism accounted for 39 million jobs, which was 8.0% of the total employment in the country. By 2029, it is expected to account for about 53 million jobs.

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According to the World Travel and Tourism Council (WTTC), India ranked 10th among 185 countries in terms of travel & tourism's total contribution to GDP in 2019. During 2019, contribution of travel & tourism to GDP was 6.8% of the total economy at Rs. 13,68,100 crore (US\$ 194.30 billion).

The Tourism Scenario in Karbi Anglong and Assam

Karbi Anglong is today a region of abundant opportunities. The Government of India is aware of the rich and vibrant culture, traditions, natural surroundings & biosphere, the region has and accordingly identified and included in the Memorandum of Settlement to establish a Hotel and Tourism Institute to cater to the future needs of this industry not only in Karbi Anglong, but to the entire region in particular but the country in general.

Mission of this Hotel and Tourism Institute (H&TI)

To educate and deliver competent, skilful and quality professionals to the tourism and hotel industries.

Vision of this H&T1

To be a unique, eventual and unavoidable component of the hotel and tourism industry by providing them the best and most professional manpower educated and trained in this H&TI.

Objectives

⇒ To plan a progressive education training scheme and to impart, through training both practical and theoretical knowledge of every phase of Hotel, Catering, Tourism and Institutional Management.

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- => To set a high standard of knowledge and training so that the status of the industry may be raised by offering attractive and progressive careers.
- \Rightarrow To develop a scientific attitude to management techniques and skills.
- \Rightarrow To train craftsmen for the Hotel, Catering and Hospitality Industry with a view to develop high standards of skills and to raise crafts to levels of technology.
- \Rightarrow To inculcate habits of courtesy, discipline and hard work in the trainees and pride in the efficient accomplishment of tasks entrusted to them.
- ⇒ To impart, by example and education, devotion to Duty, Honesty, Integrity, Dignity of Labour and a willingness to serve others happily and cheerfully.
- \Rightarrow Students will demonstrate broad knowledge of and proficiency in the core functional and support areas of hospitality business.
- \Rightarrow Students will demonstrate specific competence in a variety of operational aspects within the hospitality industry.
- ⇒ Students will creatively and critically apply their knowledge and technological skills in identifying and solving problems.

Relevance of The Programme With H&TI's Mission and Goals

This Institute will be dedicated to impart required quality education & training in the field of hotel and tourism management, to prepare comprehensively competitive managers & professionals for the hospitality industry.

Proposed Courses to be conducted with intake capacities

•	A three years Bachelor's degree	60 students/annum
\$	A one-year Diploma	60 students/annum
\$	Six months Certificate course	60 students/batch

Nature of Prospective Target Group of Learners

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Candidates of HSC or any 10+2 passed with a focus on developing their future. Candidates desirous to join service sector will opt for this program because of the unique methodology of the program, where students will get real-life workplace experience and learn simultaneously through eLearning support.

Location of the Project

The location of the project is in Langkaijan in the border with Hojai District of Assam. The land earmarked for the project is free of encumbrances.

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Proposed Facilities in the Hotel and Tourism Institute

The proposed components of the institute will be as follows:

- 1. Administrative Block: Comprising the office of the Director, Office room, Accounts section, a small meeting room, a Bank's branch, a Courier service provider, etc.
- Academic Block: This block will comprise of Class rooms, Library, Teachers room, Locker rooms, Dress rooms, Mock-up room, Kitchen, Cold storage, Restaurant, Cafeteria, Reception cum lobby room, Suites/hotel rooms, Conference room, etc.
- 3. **Students Hostel:** This will house the students. There will be separate hostels for boys and girls. The Hostels will have sufficient rooms to house degree students for three years as well as for Diploma students.
- 4. **Housing Colony:** There will be a housing colony to house the Director, Professors, Associate/Asst. Professors, Lecturers, Chef, Sous Chef, Commis Chef, drivers, peons, etc.
- 5. Auditorium: There will be an auditorium to accommodate about 250 persons with VIP Lounge, small meeting room, etc.
- 6. **Guest House cum Hotel cum Inhouse Practical Training:** It is proposed to also have a Guest house cum Hotel cum Inhouse Practical Training for real life training and grooming, as well as to ensure revenue for the Institute to be a self-sustaining unit.

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- 7. WMS/ETP: There will also be a Waste Treatment Plant (WTP) and Effluent Treatment Plant (ETP). The day-to-day wastes generated will be segregated into organic and inorganic/recyclable wastes and the organic waste will be converted to Compost and the non-recyclable waste will be incinerated. The waste water will be treated for use in the garden/cooling towers of HVAC Plant.
- 8. **HVAC Plant:** There will be a Heat, Ventilation and Air Conditioning plant for the entire campus.
- 9. Arboriculture/ Landscape: the entire campus will have well designed and desired trees/plants, flowers gardens, etc. to be established scientifically.
- 10. **Dispensary:** It is proposed to have a Dispensary also within the campus to provide First Aid, etc. to the needy.
- 11. **Play ground:** Play grounds like Badminton/Lawn tennis courts, Volley ball, etc. are also proposed.
- 12. Internal Infrastructure: The Institute will have internal roads, storm water drainage, foot paths, Water bores with underground and overhead tanks with distribution systems, Firefighting, etc.

The indicative Academic Block shall be G+2. Each of the Floors will have facilities like:

Ground Floor

Front office/Reception Counter and a Lobby:

The nerve centre of any hotel operations, the Front Office is both the rest and last point of contact for the guest. With a Mock Front Office, the students are given a thorough grounding in the entire life cycle of the Front Office Operations, with a view to surpassing the expectations of the guest.

House Keeping:

One of the most important departments in any hotel, students are taught the techniques of cleaning, bed making, flower arrangement, interior decoration, laundry, linens, and the use of cleaning equipment. The ground floor will have Dummy suites/other rooms to acts as housekeeping lab.

Conference hall:

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Conference hall with about 150-200 sitting capacity will also be housed in the ground floor with nearby small indoor recreation half to house e.g. Table tennis, Chess, etc. with lots of open space.

First Floor:

 The first floor will house the Class rooms with modern facilities, teacher's rooms, Library, Lockers, Uniform room, Mock-up rooms, Wash rooms, etc.

Second Floor:

Food Production

State-of-the-art kitchen laboratories with modern equipment for students to get the best hands-on training to learn the basics of all cuisines along with a Quantity Food Kitchens to learn how to cook for large numbers and a Training Kitchen to practice cold food production.

Food and Beverage Service

There will be a training restaurant and a Cafeteria for both advanced and basics, to teach the various techniques of serving food and beverages to guests.

Store room/Wash rooms, etc.

Indicative Project Parameters

Land requirement

Initial Land utilization

Total Building area

Road area³

: 30 bighas approximately

- : About 17 bighas
- : 1,99,634 Sq. ft.

: 45,209 Sq. ft.

Storm Water drainage in running mtrs.

: 1400 R.M.

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Water requirement	: 75.000 Litres
Transformer capacity	: 800 KVA
Director, Faculty Staff including Chefs,	
Office staff, drivers, etc.	: 33 nos.
Waste Management Systems	: 50 Kgs/Day of Waste
	: 30 Kgs/day Compost Plant Capacity
Effluent Treatment Plant	: 50 KLD
Playground area	: 3 bighas

Tentative Project Cost

Particulars	Area/ sq.mtr.	Amount in
		Lakhs
Site development including Boundary Wall		132.04
Building and Civil Works		<u> </u>
Academic Block	5429	1551.43
Guest House cum Hotel	2365	638.42
Boy's Hostel, Type A	2174	601.42
Boy's Hostel, Type B	2550	705.64
Girl's Hostel	3769	1064.40
Kitchen & Dining Hall for Boys	581	155.41
Principal Quarter	144	39.70
Teacher's Quarters	850	242.38
Staff Quarters	600	171.18
Roads & Storm Water Drainage		239.96
External Water Supply including OH Tank, Bore Well, Fire Fighting and		208.93
Rain Water harvesting		
External Electrification including Substation includin	g Solar installations	250.42

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ETP & Solid W	/aste Management	
Furniture's an	d Equipment	
-v ·	TOTAL	·
Contingency (01% of above	

Preparation of Concept Note, Detailed Project Report, Architectural &	240.82
Structural Drawings, Topographical Survey, etc	
Bid Process Management, Project Supervision	160.55
GRAND TOTAL	7272.32

(The project cost, based on CPWD Plinth Area basis of 2021, is just indicative for a budgetary provisions and exact cost will be arrived at after preparation of the Detailed Project Report)





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Project Implementation Schedule

SI. No	Activity	2022-23	2023-24	2024-25
1	Site Development	52.82	79.22	
2.	Building & Civil Works	1038.80	3115.81	1038.6
3.	Roads & Drainage		143.98	95.98
4.	External Water Supply	20.89	20.89	167.14
5.	External Electrification		100.17	150.25
6.	Waste Management	16.06	96.33	48.17
7.	Furniture and Equipment			700
8.	Consultancy	256.88	96.33	48.17
	Total	1369.19	3556.4	2278.71

Expected Sanction	April, 2022
Completion of Topographical Survey, and detailed project report with architectural and structural drawings	August, 2022
Bid Process Management	September, 2022
Selection of Contractor	October, 2022
Commencement of work	November, 2022
Completion of work	October, 2024

Project Implementation Agency

Directorate of Tourism, Karbi Anglong Autonomous Council will be the implementation agency.

Operation and Management of the Institute

Operation involves site and facilities management and maintenance, ongoing investment promotion, performance monitoring and evaluation, and ongoing improvements and reinvestment.

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Furthermore, the Institute Management should in order to deliver properly coordinated, clean and green services including aiming at incubating or developing entrepreneurship, strengthening supply chains through linkage programmes improving students and/or residents' workforce skills, and/or providing employee care.

Some of the Management's (Operator's) main activities are outlined below:

- Marketing of the curriculum of the Institute and the Guest House
- Brand image building;
- Day-to-day operation of the institute and the guest house including ensuring the efficient operation of all the general and specialized infrastructure and facilities therein;
- Facilities management and maintenance within the campus, including facilities upgrades;
- Compliance with legal standards and requirements, including in particular as regards, environmental matters; and
- Supervision of the application and enforcement of internal development control rules inside the campus

Proposed Model of the Governance entity

Though a Statutory body or a corporation could be formed, but since the part fund for establishment of the Hotel Management Institute is done from the Central Ministry and part from the Assam Government through the Ministry of Tourism, a Cabinet decision might be required to form such bodies and thus, may be critical. Moreover, private company formation may be ruled out since no contribution is coming from any private sources. The best model having various jurisdictions to administer and develop the campus under its purview may be formed under Section 25 of the Companies Act or may form a Society under the Indian Societies Act.

A "Section 25 Company" Option-I

A "Section 25" company is registered under Section 25 of the Companies Act, 1956. This section provides an alternative to those who want to promote charity without creating a

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Trust or a Society for the purpose. It allows the formation of a company, which will exist as a legal entity in its own right, separate from the person promoting it. The crucial bit, however, is that any company under this section must necessarily re-invest any and all income towards promoting the said object or charity. In essence, unlike a regular company, where owners and shareholders can make profits or receive dividends, no money gets out of a Section 25 company.

A Section 25 company is often preferred because it is easier to start — being exempt from statutory requirements of minimum paid-up capital. They are much easier to run than Trusts and Societies, as board meetings require a smaller quorum and requirements for calling such meetings are less rigid. It is easier to increase the number of directors, it is easier for people donating money to join or leave or transfer shares to others, and such a company is obliged to fulfil far less stringent book-keeping and auditing requirements as against a regular company. Lastly, a Section 25 company enjoys significant tax benefits. Depending on how it is registered under the Income-Tax Act, companies could benefit from income-tax exemptions, or from the provision wherein people donating money to these companies receive income deductions in their income-tax liability. Such companies are also exempt from stamp duty payments.

Society Formation...... Option- Il

Society is a group of people (In the case of a society in a state, a minimum of 7 members is needed) formed with mutual consent to administer, govern and act on a common purpose. These are usually formed for a charitable purpose and not for a financial gain (one of the 3 main types of NGOs in India). It is registered under the Society Registration Act, 1860 which aims at legalizing and bringing uniformity to the way societies are governed. This Act has been adopted by many states (with some exception making amendments to it). The name of each member must be subscribed to the <u>memorandum of association</u> and the same shall be filed with the Registrar of Societies.

Advantages:

(i) Society becomes a separate legal entity after incorporation

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- (ii) Being a separate legal entity, it can buy, sell, rent or lease any property, borrow money, enter into contracts using its name.
- (iii) Even if a member leaves or is replaced with a new member, the entity remains functioning
 - (iv) Any single member is not liable to pay for the debt, contract or any other obligation unless the debt or obligation has arisen because of the activity is undertaken is to obtain profit. OR, if the members are undertaking a part in illegal activities, then as well the members are liable to pay.
- (v) A society might fall under income tax exemption

However, the best model, based on the above two, that most State Governments or even by the Central Government prefers to form for a cause is a "SOCIETY". The Directorate of Tourism and the Karbi Anglong Autonomous Council may consider to float a Society in the name of "Tourism and Hotel Management Institute" or any other name as preferred by the department.

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Annexure-U

Agenda Note for 37th Meeting of the IMC/NESIDS Committee scheduled to be held on 15.11.2022

Mizoram

(Change of Scope with the reduction of cost)

Subject: Project "Construction of Multipurpose Centre at Ramthar North, Aizawl" in Mizoram under NLCPR Scheme.

The above project was recommended by the NLCPR Committee meeting in its 122nd meeting held on 31.01.2014 at a cost of Rs.462.37 lakh. Accordingly, Administrative and Financial Approval (AFA) was issued vide letter dated 18.02.2014 and 1st installment of Rs. 166.45 lakh was released on 20.02.2014.

2. The Chief Secretary (CS), Govt. of Mizoram vide D.O letter No. 12011/36(NLCPR-48)/2013-14/PLG (RDB) dated 8th November, 2016 requested this Ministry for revised Administrative Approval of the project (at a much lower cost) to an amount equivalent to the value of the 1st installment plus state share i.e. Rs. 184.94 lakh within which the project will be fully completed. The CS informed that after a protracted land dispute related to site and ownership, the implementing Department, i.e. UD & PA was obligated to propose for change in the plinth area (after due consultation of all stakeholders) to the extent that the whole project would be completed at a reduced cost of Rs. 184.94 lakhs which is exactly the amount of released fund plus state share.

3. In this regard, a meeting of **State Level Empowered Committee (SLEC)** for NLCPR for the state of Mizoram was held on 20th September, 2022 at 2:00 p.m. through Video conferencing with the opening remarks from the Chairman. She enlightened the meeting that the project "Construction of Multipurpose Hall at Ramthar Veng, Aizawl, Mizoram" under NLCPR was completed in 2019 but the SLEC has not recommended the Revised DPR till date. That being the case, the Revised DPR prepared at a cost of Rs.184.94 lakh was placed in the meeting for recommendation. The meeting was convened for recommendation of Revised DPR of the completed project "Construction of Multipurpose Hall at Ramthar North, Aizwal, Mizoram under Chairmanship of the Chief Secretary, Govt. of Mizoram.

4. On the request of Chairman, Secretary, Planning & Programme Implementation Department resented brief information of the project. He apprised the meeting that the project was sanctioned by the Ministry of DoNER on 18.02.2014 at a cost of Rs.462.13 lakh and released Rs.166.45 lakh as 1st installment on 20.02.2014. The State Government of Mizoram also released Rs.18.49 lakh as a counterpart funding. The total release of the fund thus amounted to Rs.184.94 lakh. Due to unavoidable problems relating to site and ownership of land, the State Govt. was obligated to propose for change in the plinth area from 1604.69 sq. m to 655.14 sq. m.

5. The meeting thoroughly discussed the revised DPR. The difference of total cost is to the tune of Rs.277.19 lakh. The **original approved components of work contained for construction of G + 2 + Basement I, II, III, IV with the plinth area of 1604.69 sq. m whereas the Revised DPR comprised for construction of G+ Basement I, II, III, IV with the plinth area of 655.14 sq.m. The cost of construction per sq. m in the original DPR is RS.28,798/-** while in the **Revised DPR, it is Rs.28,229/-.** It was pointed out in the meeting that the reduction in total plinth area is due to reduction in the area of land on which the building was construction as well as construction of G + Basement I, II, III, IV instead of First + Second + G = Basement I, II, III, IV in the original DPR. However, the cost per Sq. meter remains roughly the same.

6. After due deliberations, the meeting decided that the revised DPR for the Construction of Multipurpose Hall may be recommended so that the project can be closed formally as it is physically completed.

7. Accordingly, the proposed change of scope (plinth area) from 1604.69 Sq. m to 655.14 Sq. m with reduction in cost from Rs.462.37 lakh (original) to Rs.184.94 lakh (revised) is placed for consideration of IMC/NESIDS Committee.

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(N. K. Saha) Under Secretary to the Government of India E-mail: nitai.kumar@nic.in

MINUTES OF THE MEETING OF SLEC FOR NLCPR HELD ON 20th SEPTEMBER 2022 AT 2:00 P.M UNDER THE CHAIRMANSHIP OF THE ON OF MIZORAM GOVERNMENT SECRETARY, CHIEF **RECOMMENDATION OF REVISED DPR FOR CONSTRUCTION OF** AIZAWL, RAMTHAR NORTH, MULTIPURPOSE HALL AT **MIZORAM.**

- 1. A Meeting of State Level Empowered Committee for NLCPR for the state of Mizoram was held on 20th September 2022 at 2:00 P.M through Video Conferencing. The Meeting was convened for recommendation of Revised DPR of the completed project Construction of Multipurpose Hall at Ramthar North, Aizawl, Mizoram under the Chairmanship of the Chief Secretary, Government of Mizoram. List of Members present is at Annexure –'A'.
- 2. The Meeting started with opening remarks from the Chairman. She welcomed the participants briefly explaining the Agenda. She enlightened the Meeting that the project "Construction of Multipurpose Hall at Ramthar Veng, Aizawl, Mizoram" under NLCPR was completed in 2019 but the SLEC has not recommended the Revised DPR till date. That being the case, the Revised DPR prepared at a cost of Rs 184.94 lakh was placed in the Meeting for recommendation.
- 3. On the request of Chairman, Secretary, Planning & Programme Implementation Department presented brief information of the project. He apprised the Meeting that the project was sanctioned by Ministry of DoNER on 18.02.2022 at a cost of Rs 462.13 lakh and released Rs 166.45 lakh as 1st Installment on 20.02.2014. The State Government of Mizoram also released Rs 18.49 lakh as a counterpart funding. The total release of fund thus amounted to Rs 184.94 lakh. Due to unavoidable problems relating to site and ownership of land, the State Government was obligated to propose for change in the plinth area from 1604.69 sq. m to 655.14 sq. m.

The SLEC Meeting held on 12.07.2022 at 11:00 A.M decided that the State Government may make a case for revised sanction of the project
with detail justification to the extent that the whole project would be completed within the cost of Rs 166.55 lakh released by the MDoNER for Construction of G + Basement I & II. The then Chief Secretary vide his D.O dated 08.11.2016 to the Secretary Ministry of DoNER wrote that the State Government would complete the project at a reduced cost of Rs 184.94 lakh (Rs 166.55 lakh released by MDoNER plus Rs 18.49 lakh released by the State Government) with G+ Basement I&II including the additional 12% for Internal Water Supply and Sanitary Installations, 5% for external service connections, 12.5% for internal electric installation and 1% for Quality assurance. The State Government clarified that the main reason for revision of the project is due to smaller size of land readily available for construction. During preparation of the DPR, the owner of the land adjacent to the NGO's land verbally agreed to donate certain portion of his land to meet the requirement of the project. Later, when the construction work was starting, he demanded some amount of fund which the State Government could not meet. It thus left the State with no option but to revise the DPR as per the size of the land available with the NGO.

Secretary, Planning & Programme Implementation Department also informed the meeting that original approved work comprised of construction of G + 2 + Basement I,II,III,IV while the Revised DPR is for construction of G + Basement I,II,III,IV. Site Inspection from MDoNER was also undertaken on 27.03.2020 and observed that the building was constructed with the plinth area of 655.14 sq. m against the State Government's request of 598.38 sq. m. in 2016.

4. The Meeting thoroughly discussed the Revised DPRs. The total cost difference amounted to the tune of Rs 277.19 lakh. The original approved components of work contained for construction of G + 2 + Basement I, II, III, IV with the plinth area of 1604.69 sq. m whereas the Revised DPR comprised for construction of G + Basement I,II,III,IV with the plinth area of 655.14 sq. m. The cost of construction per sq. m in the original DPR is Rs 28,798 /- while in the Revised DPR, it is Rs 28,229 /-. It was pointed out in the meeting that the reduction in total plinth area is due to reduction in the area of land on which the building was constructed as well as construction of G + Basement I, II, III, IV instead of

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First+Second+G+basement I, II, III, IV in the original DPR. However, the cost per sq. meter remains roughly the same.

- 5. After due deliberations, the Meeting decided that the Revised DPR for Construction of Multipurpose Hall may be may be recommended so that the project can be closed formally as it is physically completed.
- 6. The Meeting ended with vote of thanks from the Chair.

Sd/-Dr RENU SHARMA Chief Secretary, Government of Mizoram & Chairman, SLEC for NLCPR

Memo No.G 12011/1(NESIDS-SLEC)/2018-PLG(RDB):Dated Aizawl; the 21st Sept., 2022 Copy to:

- 1) Sr.P. P.S to the Chief Secretary, Government of Mizoram
- 2) P.P.S to Secretary, Planning & Prog. Implementation Department, Government of Mizoram.
- Joint Secretary (NLCPR/ NESIDS), Ministry of DoNER, Government of India
- 4) Financial Adviser, Ministry of DoNER, Government of India.
- 5) P.S to Principal Secretary, Finance Department, Government of Mizoram
- 6) P.S to Secretary, Urban Development & Poverty Alleviation Department, Government of Mizoram.
- 7) Director, Urban Development & Poverty Alleviation Department, Government of Mizoram
- 8) Chief Engineer (Planning), Public Works Department, Government of Mizoram.
- 9) Guard File

Denome

(LALMALSAWMA PACHUAU) Member Secretary, SLEC for NLCPR & Secretary to the Government of Mizoram Planning & Programme Implementation Department



GOVERNMENT OF MIZORAM PLANNING & PROGRAMME IMPLEMENTATION DEPARTMENT STATE LEVEL EMPOWERED COMMITTEE (NLCPR)

SI No.	Items .	Remarks/ Comments/ Recommendation	
1	Name of the	Construction of Multi-Purpose Hall at	
	project	Ramthar North, Aizawl, Mizoram	
2	Estimated Cost	Rs. 184.94 lakhs	
3	Location	Ramthar North , Aizawl, Mizoram	
4	Department	Urban Development & Poverty Alleviation Department, Government of Mizoram.	
5	Project Objective	To provide the basic community needs with respect to parking lot for vehicle, recreation centre, community hall	
6	Scope of work	Construction of : i) Parking ii) Library iii) Recreation Center for Old aged persons iv) Community Hall v) Chowkider's quarter vi) Store room	
7	Financial Aspect	The DPR was based on Mizoram PWD Building SOR 2013 A. Building Works – Rs 1,38,42,444.00 B. Resisting Earthquake Force @ Rs 1190 per sq. m – Rs 7,79,616 C. Every 0.30 m additional height of floor above normal height of 3.30m for 9nos.(280 X 0.2/0.30 = 2520) – Rs 34,627.29	

PROJECT APPRAISAL REPORT

1

		 D. 4% for Internal Water Supply & Sanitary Installation – Rs 5,53,697.76 E. 12.50% for Internal Electrification – Rs 16,30,305.50 F. 5% for External Service Connections – Rs 6,92,122.20 G. Site Development @ RS 4400 per sq. m – Rs 8,61,520.00 Total – Rs 1,84,94,333.35
8	Sustainability & risks	Maintenance and Repair of the asset created is in the hands of local community leaders and NGO (Young Mizo Association).
9	GST / VAT	VAT is inbuilt in the PWD SOR 2013 which is included in the estimates.
10	Expected output/outcome	The Multipurpose centre caters for different range of activities and is accessible for people of different groups for multi activities like workshops, seminars, parking, training and a library to provide literary benefits to the local community and the surrounding areas which are more than 4000 persons.
11	Readiness for implementation	The project has already been completed.
12	Non-Duplication Certificate	The project has not been taken up or proposed with any other funding agencies. A certificate has been enclosed in the DPR.
13	Land Availability	The land is owned and maintained by the Government and hence no requirement for purchase or acquisition of land. A certificate has been enclosed in the DPR.
14	Environment &	There is no requirement for statutory

	Forest Clearance	clearances as the project does not require forest clearance and there will be no adverse impact to the environment.
15	Time Frame	Work was completed and Completion Certificate was submitted to Ministry of DoNER on 20.12.2019

Date of State Level Empowered Committee Meeting : 20.09.2022

Revised DPR is approved and recommended (expost facto)at a cost of Rs 184.94 lakh and can be proceeded for formal closure of the Project as the project is already completed in 2019.

Ishaeng

(DR RENU SHARMA) Chief Secretary & Chairperson SLEC for NLCPR Government of Mizoram



<u>Annexure – 'A</u>

SI. No	Name of the Officer	Designation	Department / Organisation
1	Dr Renu Sharma	Chief Secretary & Chairman, SLEC for NLCPR	Government of Mizoram
2	Shri Lalmalsawma Pachuau	Secretary	Planning & Programme Implementation Department, Govt. of Mizoram
3	Shri Vanlal Chhuanga	Principal Secretary	Finance Department, Govt. of Mizoram
3	Shri Saurabh Endley	Joint Secretary	Ministry of DoNER
4	Shri Purushottam Verma	Deputy Secretary	Ministry of DoNER
5	Shri SD Meena	Deputy Secretary	Ministry of DoNER
6	Shri SK Jain	Executive Engineer	Ministry of DoNER
7	Er B. Lalawmpuia	Chief Engineer (Building)	Public Works Department, Govt. of Mizoram
8	Shri C. Malsawma	Executive Engineer	Urban Poverty & Alleviation Department, Govt. of Mizoram
10	Smt. C. Lalnunsiami	Sr Research Officer –cum- Under Secretary	Planning & Programme Implementation Department, Govt. of Mizoram
11	Shri H. Lalengzauva	Research Officer	Planning & Programme Implementation Department, Govt. of Mizoram
12	Smt Lalrinawmi	Asst Engineer	Urban Poverty & Alleviation Department, Govt. of Mizoram



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ALMALSAWMA, IAS CHIEF SECRETARY GOVERNMENT OF MIZORAM



AIZAWL-796 001 Office: 0389-2322411, 2322429 Fax: 0389-2322745 E-mail : cs miz@rediffmail.com



D.O. No. 12011/36(NLCPR-48)/2013-14/PLG(RDB) Dated Aizawl, the 8th November, 2016

Dear

Regarding project for Construction of Multipurpose Centre at Ramthar North, Aizawl, I am making the following submissions for your kind considerations:

- The project was sanctioned on 18.2.2014 with a total approved cost of 1) Rs. 462.37 lakhs against the proposal of Rs. 463.33 lakhs (originally proposed in the DPR). First instalment of Rs. 166.45 lakhs was released on 20.2.2014.
- After a protracted land dispute related to site and ownership, the 2) implementing Department for the project i.e. Urban Development & Poverty Alleviation Department was obligated to propose for change in the plinth area (after due consultation of all stakeholders) to the extent that the whole project would be completed at a reduced cost of Rs. 184.94 lakhs which is exactly the amount of released fund plus State share.
- The proposal for the reduced scope and cost of the project was approved 3) by the meeting of the State Level Empowered Committee (SLEC) held on 12th July, 2016 under my Chairmanship (copy enclosed).
- Revised DPR of the project for a total cost of Rs. 184.94 lakhs has been 4) prepared comprising of 2(two) nos. Of basements and a ground floor, against the earlier approved components of 4(four) basements, ground + first + second floors. The revised estimate includes additional 12% for internal water supply and sanitary installations, 5% for external service connections, 12.5% for internal electric installations and 1% for quality assurance.

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I am therefore making a request to the Ministry for revised Administrative Approval of the project (at a much lower cost) to an amount equivalent to the value of the 1st instalment plus State share i.e. Rs. 184.94 lakhs within which the project will be fully completed.

Early necessary action for above is solicited please.

With regards,

Yours decently, Unill

(LALMALSAWMA)

Shri Naveen Verma, IAS Secretary to the Govt. of India Ministry of DoNER, New Delhi - 110 011

Form (19 - A) [See Rule 212(1)]

Form of Utilization Certificate

Construction of Multipurpose Centre at Ramthar North, Aizawl Name of the Projects : Rs 184.94 lakh (Rs 166.45 NLCPR & Rs 18.49 SMS) **Project** Cost :

1. Certified that Rs 166.45 lakh only sanction under Non Lapsable Central Pool of Resource (NLCPR) during the year 2013 - 2014 and Rs. 18.49 lakh only Sanction under State Matching Share (SMS) during 2016-17 in favour of "Construction of Multipurpose Centre at Ramthar North, Aizawl" given in the margin a sum of Rs 184.94 lakh has been utilized for the purpose of which it was sanctioned and that the balance is Rs. 0.00 lakh.

S1	Letter No. & Date	Expenditure Amount (Rs in lakh)
1.	NLCPR Rs.166.45 lakh vide No. * GOI Released F. No. DNER/NLP/MIZ/163/2013 dt. 20.2.2014 * State Budget Allocation No. G. 20016/1/2014-FBT Dt. 5.5.2014 * Concurrence of Fin. Deptt vide ID No. FIN(EC) 686/2015-PWD Dt. 17.10.2015 * Expenditure Sanction No. B.13011/36/2014-PWD/12 Dt. 2.11.2015	166.45
2.	 State Matching Share (SMS) Rs.18.49 lakh * State Budget Allocation No. G. 20016/4/2016-FBT Dt. 31.10.2016 * Concurrence of Fin. Deptt vide ID No. FIN(EC) 1025/2016-UD&PA Dt. 27.1.2017 * Expenditure Sanction No. G.20016/20/2016-UD&PA dt.2.2.2017 	18.49
	TOTAL	184.94

2. Certified that I have satisfied myself that the conditions on which the grant-in-aid was sanctioned have been fulfilled/ are being fulfilled and that I have the following checks to see that the money

was actually utilized for the purposed for which it was sanctioned.

Kind of checks exercised

- 1. Books and records made available at the time of inspection.
- 2. Approval of competent authority.
- 3. All expenditure made as per the sanction order and there is no deviation.

Signature of Department Secretary	Counter Signature of Planning Secretary
C	cre
Name : Dr. C. VANLALRAMSANGA	Name : Dr. C. VANLALRAMSANGA
Date: 18.12.19	Date: 20.12.299
Place : Aizawl, Mizoram	Place: Aizawl, Mizoram
Secretary UD & PA Department	(Dr. C. VANLALRAMSANGA) 3 (Dr. C. VANLALRAMSANGA) 3 (Dr. C. VANLALRAMSANGA) 5 (Dr. C. VANLALRAMSANG

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Annex - B

QUARTERLY PROGRESS REPORT FOR QUARTER ENDING SEPTEMBER, 2019 PROJECTS UNDER NON-LAPSABLE CENTRAL POOL OF RESOURCES SCHEME

- Identification Particulars A.
- : Construction of Multipurpose Center at Name of Project 1. **Ramthar North** : Ramthar North, Aizawl Location 2. : Mizoram State District : Aizawl : Rs. 184.94 Approved Cost (Rs. in lakh) 3. Date of Approval of Project/Scheme : 2.02.2017 4. vide No. G.20016/20/2016-UD&PA :Rs. 184.94 Tendered Cost (Rs. in lakh) 5. : 13thApril, 2017 Date of award of Contract 6. [Copy of Work Order to be attached (only once for the quarter in which it was issued need not be submitted if submitted in earlier quarter)] : Yes
- Whether Contract awarded on Turnkey basis 7. Whether awarded work is being executed based 8.
- on PERT/CPM Original Date of Completion of Project/Scheme 9.
- Re-scheduled Date of Completion of Project/Scheme 10.
- Executing Agency (State Govt./PSU/ 11. Other agency (specify)
- **Overall Progress** Β.

Physical Progress (%) Total Expenditure End of SI. Incurred Beginning of During Items Quarter No. (Rs. In lakh) Quarter Quarter (Cumulative) 19.51 Earthwork - Site Preparation and 100% 98% 2% foundation/ Retaining Wall 1. 100% 86.58 5% 95% **RCC Work** 2. 10% 100% 22.43 90% 3. Brick Works 10.94 100% 90% 10% Door/ Windows Fittings 4. 16.24 20% 100% 80% Plastering 5. 4.34 0% 100% 100% Paintings 6. 100% 14.18 20% 60% Sanitary fitting& Water Supply s7. 10.69 100% 0% 100% Electrification 8. 184.94 Over all Physical Progress/Total 10.875% 100.0% 89.125% Expenditure

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- : N.A.
- : UD & PA Department
- : Yes : 13th April, 2018

C. Progress of Release of State Share

SI. No.	Release of Funds/Payments	Date	Amount (Rs.in lakh)
a.	Concurrence 1st instalment expenditure sanction	2.02.2017	18.49
b.			
	Total State Released		18.49

D. No. of Photographs attached : Enclosed 3 (three) copies signed & dated A4 size

	\cap
Signature by the Nodal Officer	Azin
Name	HVLZARZOENGA
Designation	Joint Director (P), Urban Development & Poverty Alleviation Department Mizoram:Aizawl
Place	Aizawl
Date	17 th December, 2019
Office Seal	Joint Director (Plan) Urban Dev. & Poverty Alleviation

Signature by Secretary of Implementing Department	inc
Name	Dr C. VANLALRAMSANGA
Designation	Secretary Urban Development & Poverty Alleviation Department Mizoram:Aizawl
Place	Aizawl
Date	17 th December, 2019
Office Seal	UD & PA Department Govt. of Mizorani

Signature by Secretary of Planning Department	
Name	SY. C. VANLAL RAMSANCA
Designation	Secretary Planning & Prog. Implementation Doportment Government of Mizoram
Place	Minne
Date	2112.2209
Office Seal	

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GOVERNMENT OF MIZORAM DIRECTORATE OF URBAN DEVELOPMENT AND POVERTY ALLEVIATION DEPARTMENT MIZORAM : AIZAWL

:

No.G-20017/49(A)/2017-DTE(UD&PA)

608

Dated Aizawi, the 1st October 2019



COMPLETION CERTIFICATE

This is to certify that the work of CONSTRUCTION OF MULTI-PURPOSE HALL AT RAMTHAR NORTH Amounting to Rs.1,84,94000.00/- (Rupees One Crore eighty four lakh ninety four thousand) only

Vide Work order No. No. 24012/28(MCR)/2017-Tech/DTE (UD&PA) Dated: Aizawi the 6th April 2017 has been carried out generally to specifications and has been completed satisfactorily.

.

1

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1

Date of Commencement Date of Completion Due Date of Liability Period Amount of Security Deposit Name of Contractor.....

1st October 2019 1st October 2020 Rs. 924700.00/-R.Liantluanga Bungkawn

21st Aug 2017

Executive Engineer Urban Development & Poverty Alleviation Department Mizoram : Aizawl

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Inspection Report of the Project during the Quarter ending September 2019

- 1. Reporting Period : July 2019 September 2019
- 2. Inspection Note:
 - a. Inspection of the project was carried out on weekly basis. Final Inspection was conducted on 30th September 2019, all items of work has been completed as per plan and specifications. Quality of works found satisfactory and the building is ready for inauguration.
 - b. Photographs of completed works enclosed in separate sheet.

Nodal Officer

Joint Director (Plan) Urban Dev. & Poverty Alleviation Govt. Of Mizoram



NLCPR Sanction No. 197/ Year 2013-14

F.No. DNER/NLP/MIZ/163/2013 Government of India Ministry of Development of North Eastern Region Vigyan Bhawan Annexe, Maulana Azad Road, New Delhi- 110011

Dated: 20.02.2014

The Accounts Officer, Principal cum Pay & Accounts Office, Ministry of DoNER, GPO Bhawan, E-Block, 5th Floor, INA, New Delhi – 110023

Subject: Payment of Central Assistance from Central Pool of Resources for Development of North-Eastern Regionto Government of Mizoram during 2013-14 towards for project "Construction of Multipurpose Centre at Ramthar North, Aizawl" in Mizoram.

Sir.

To

I am directed to convey sanction of the President for payment of ₹ 166.45 lac (Rupees One Hundred Sixty Six lac and Forty Five thousand Only) to the Government of Mizoram as Central Assistance from the Central Pool of Resources for Development of North-East and Sikkim during financial year 2013-14 for "Construction of Multipurpose Centre at Ramthar North, Aizawl" in Mizoram. This is the First installment for this project.

		(₹ in lac
Project	Grant	Total
"Construction of Multipurpose Centre at Ramthar North, Aizawl" in Mizoram.	166.45	166.45
Total	166.45	166.45

2. The above amount may kindly be paid to State Government immediately.

3. The payments are adjustable in the account of the Central Government in the books under sub-head indicated below: -

GRANT DEMAND NO. 28 3601-GRANTS-IN-AID TO STATE GOVERNMENTS 02-GRANTS FOR STATE PLAN SCHEMES 02.101 Block Grants 14-CENTRAL ASSISTANCE FOR THE CENTRAL RESOURCE POOL FOR DEVELOPMENT OF NORTH EASTERN REGION 14.00.35- GRANTS FOR CREATION OF CAPITAL ASSETS

....contd

12/14

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NLCPR Sanction No. 197/ Year 2013-14

This release is made out of budgetary provision of ₹ 948 crore budgeted in Demand No. 28 relating to the Ministry of Development of North Eastern Region during the financial year 2013-14. Progressive total of Central Assistance <u>released from the Non-lapsable Central Pool of Resources</u> in the current financial year 2013-14 including the amounts released in this sanction letter is as follows:

17		
12	113	201
1.5		lac)

	Grant	Total
Total release under the Non-lapsable Central Pool of Resources in the financial year 2013-14 (excluding this sanction)	64079.43	64079.43
Release made through this sanction	166.45	166.45
Progressive Total (including this sanction)	64245.88	64245.88

5.

The progressive totals of Central Assistance released to the Government of Mizoram from Non-lapsable Central Pool of Resources under the sub-head at para 3 in the current financial year 2013-14 is as follows: -

		(< in lac)
	Grant	Total
Government of Mizoram 1 Total release under the Non-Iapsable Central Pool of Resources in the financial year 2013-14 (excluding this sanction)	5237.82	5237.82
2.Release made through this sanction	166.45	166.45
3.Progressive Total (including this sanction)	5404.27	5404.27

The Central Assistance released under this sanction is for purpose indicated in this Sanction Letter. Total approved cost for this project is ₹ 462.37 lac, out of which 90% amounting to ₹ 416.13 lac is admissible as Grant to the State Government.

The amount of ₹ 166.45 lac is being released as 'Grant' component (90%) of ₹ 184.94 lac. Balance ₹ 18.49 lac (10%) being State shared will be raised by State Government.

8

9.

7.

6

Funds released must be transmitted to the Implementing Agency / Project Authority by State Government within 15 days from the date of release of funds from Government of India and a Certificate to this effect be sent to this Ministry by the State Planning Department.

Funds must be utilized within period of twelve (12) months from the date of release and the State Government shall submit utilization certificate on prescribed proforma to Joint Secretary (VBP), Ministry of Development of North Eastern Region, Vigyan Bhawan Annexe, Maulana Azad Road, New Delhi-110 011. In case the funds are not utilized within the stipulated time, such cases may be referred to Ministry of DoNER with sound reasoning for revalidation. Revalidation for a limited period may be granted by Secretary, Ministry of DoNER on merit.

11/11/20/2/14

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NLCPR Sanction No. 197/ Year 2013-14

- State Government will nominate nodal officer for the project indicated in this sanction letter who will be responsible for timely implementation of sanctioned works, within approved costs.
- 11. State Government would get the project inspected on ground at least once in a quarter and submit physical progress report in prescribed proforma within three weeks of close of quarter to Joint Secretary, Ministry of Development of North Eastern Region, Vigyan Bhawan Annexe, Maulana Azad Road, New Delhi-110 011.
- 12. State Government should follow all codal formalities which include calling tenders on a competitive basis against advertisements within 30 days from date of release in newspapers, Trade Journal, website etc. to ensure wide publicity with a view to ensure healthy response.
- State Government will ensure submission of Quarterly Progress Report as per actual Progress of work executed, component wise as sanctioned based on PERTICPM.
- 14. The above release has concurrence of IFD vide. Dy. No.345/Dir (IFD) dated 11.02.2014.

Yours faithfully,

(K.Guite) Director Phone: 011-23794862

Copy to:

- Secretary, Department of Expenditure, Ministry of Finance, Govt. of India, with reference to his D.O. No. 37(1)/PF.I/05 dated 09.06.2005.
- 2. Finance Secretary, Government of Mizoram, Aizawl.
- 3. Planning Secretary, Government of Mizoram, Aizawl.
- 4. Secretary, Public Works Department, Govt. of Mizoram, Aizawl.
- 5. Principal Accountant General/ Accountant General (A&E) Govt. of Mizoram, Aizawl.
- 6. Manager, RBI, Nagpur.
- 7. CCA, Ministry of Home Affairs, North Block, New Delhi.
- 8. IFD, Ministry of DONER

K.Guite Director

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No. DNER/NLPMIZ/163/2013 Government of India Ministry of Development of North Eastern Region Vigyan Bhawan Annexe, Maulana Azad Road, New Delhi- 110011

Dated: 18.02.2014

lo.

Chief Secretary, Government of Mizoram, Aizawl - 796001

Subject: Administrative and Financial approval for Central financial assistance under Nonlapsable Central Pool of Resources (NLCPR) for project, "Construction of Multipurpose Centre at Ramthar North, Aizawl" in Mizoram

Madam,

I am directed to convey administrative and financial approval of Government of India to amount of Rs. 416.13 lakh (90%) for above mentioned project approved at Rs. 462.37 lakh as per detailed break up given below, **subject to compliance of conditions mentioned in Para 2 below**: (Rs. in lakh)

		(Ks. In Iakh)			
S. No	Item of Work	Amount (Rs. in lakh)	90% Admissible Grant		
1	Building Cost				
(a)	Ground Floor	69.100	62.190		
(b)	First Floor	70.417	63.375		
(C)	Second Floor	72.868	65.581		
(d)	Basement		0		
	No. 1.11 & 111	129.656	116.690		
	No. IV	15.330	13.797		
	TOTAL	357.371	321.634		
2	Internal Water supply and Sanitary installation (4% of Building Cost)	14.295	12.866		
3	Internal Electrification @12.50%	44.671	40.204		
4	External Services @5%	17.869	16.082		
5	Fire Fighting (Wet riser system)	9.066	8.159		
6	Resisting Earth quake Forces	19.096	17.186		
	G.TOTAL	462.368 Say 462.37	416.131 Say 416.13		

 Approval of Ministry of Development of North Eastern Region is subject to following conditions:

- a) State Government/Implementing Department will strictly comply with observations made by M/s WAPCOS Itd. A copy is being enclosed as (Annexure - 'A')
- b) Award of contract will be on turnkey basis.

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- b) Award of contract will be on turnkey basis.
- c) Transparency should be maintained in tendering process and the State Govt. should ensure that the tender has been called on competitive basis by giving wide publicity in print media and website etc. and the works have been awarded within 3 months of its sanction, even without waiting for the release of funds from State Govt. to implementing agency.
- d) The State Govt, should follow all codal formalities and strictly adhere to the project implementation schedule and physical targets given in the DPR.
- e) The project implementation by the State Govt, will be governed by the rules/conditions stipulated in the guidelines of NLCPR.
- f) Time frame for completion of the project is 36 months, from date of issue of this sanction letter and target date of completion of project is 31th August. 2016, Time frame should be followed strictly.
- g) State Government will firm up quarterly physical and financial targets keeping in view target date and convey the same to this Ministry within one month immediately on receipt of this sanction letter. Thereafter, quarterly report in physical and financial progress of project should be furnished to M/o DoNER within two weeks of close of quarter.
- Project will be implemented strictly in time and with help of PERT/ CPM.
- Funds will be utilized within specified time and strictly for purpose for which sanctioned. No diversion of fund is allowed.
-) Any escalation towards cost of project has to be borne by State Government from own resources.
- k) State Finance Department/Planning Department shall ensure transmission of released amount to Department / Implementing Agency concerned within 15 days from date of release by Government of India and submit certificate in this behalt within prescribed time limit to Ministry of Development of North Eastern Region.
- State Government will properly utilize funds and submit utilization certificate in prescribed proforma to Joint Secretary, Ministry of Development of North Eastern Region, Vigyan Bhawan Annexe, Maulana Azad Road, New Delhi-110011, within twelve months from the date of release. In case funds are not utilized within the stipulated time. Planning Department of State Government should approach Ministry of Development of North Eastern Region for revalidation with sound reasoning.
- M) State Government will nominate nodal officer for project who will be responsible for timely implementation of sanctioned works, within approved cost. Nome and designation of Nodal Officer with full address along with his contact telephone number be communicated to this Ministry.

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- State Government shall get project inspected on ground at least once in a quarter and submit physical progress report in prescribed proforma, within two weeks of inspection to Joint Secretary, Ministry of Development of North Eastern Region, Vigyan Bhawan Annexe, Maulana Azad Road, New Delhi-110.011.
- State Government will ensure submission of Quarterly Progress Report as per progress of work executed based on PERT and not item wise progress which is shown to be reflecting to be same as percentage of expenditure.

3. This sanction issues with concurrence of Integrated Finance Division vide their Dy. No/ Dir(IFD)/345 dated 11.02.2014.

· Yours faithfully.

Phone: 011-23022025

12002 (Umakant)

Director

Copy to:

1

11

- Commissioner & Secretary, Department of Planning & Programme Implementation, Govt. of Mizoram,
- Secretary, Finance, Government of Mizoram, Alzawl.
- Secretary, PWD, Govt. of Mizoram.
- 4. Integrated Finance Division, Ministry of DoNER.

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Agenda Note for 37th Meeting of the IMC/NESIDS Committee scheduled to be held on 15.11.2022

State: Manipur

- Name of the Project: Infrastructure Development in and around the Polo Ground at Ibudhou Marjing, heingang, Imphal East.
- 2. Sector: Tourism
- 3. Estimated Cost: Rs. 26.03 crore

4. **Objective:** The above mentioned project was already sanctioned in the IMC/NESIDS Committee in its 33rd meeting held on 18.01.2022 subject to the condition that funding from this Ministry was limited to the available Normative allocation for the State i.e. Rs.4.37 crore and balance funds shall be borne by the State Government from their own resources. The project place is located at Marjing Hill, Imphal East District at a distance of 4 km from Khabam Lamkhai on AH-1, Manipur. The Tourism Department organizes International Polo Tournament for Men and Women every year at Mapal Kangjeibung. Manipur is the only State where women Polo tournaments are being organized every year. Development of infrastructure works like road connectivity, drinking water facilities for polo players, proper lighting facilities around the Polo ground are required. This will attract more inflow of tourists. This will also help in creating job opportunities to the local youths in terms of ticketing, hospitality, food and beverage services and transport facilities which will help to generate revenue also. Ministry of Tourism supported the proposal for promotion of tourism infrastructure and better connectivity with low impact in nature.

(A)	Description of Item	unit cost (Rs.)	Unit	Amount (in Rs.)
i	Construction of Footpath	39,70,802.94	1	39,70,803.00
ii	Construction of steps	36,68,498.47	1	36,68,498.00
iii	Gallery (for 1000 capacity)	2,46,10,975.67	1	2,46,10,976.00
iv	Construction of Drain with horse trap covering around the Polo Ground	5,19,23,149.72	1	5,19,23,150.00
v	Construction of Culverts	13,26,523.52	3	39,79,571.00
vi	Drinking water facility	2,90,361.68	3	8,71,085.00
vii	Electrification	2,29,98,245.80	1	2,29,98,246.00
viii	Main Gate	6,05,889.87	3	18,17,670.00
ix	Rain Water harvesting	7,32,723.60	2	14,65,447.00

6. The broad component wise cost break-up submitted by the State Government as under:-

x	Construction of overhead tank for water storage	12,19,903.71	2	24,39,807.00
xi	Rain Shelter	2,50,901.14	10	25,09,011.00
xii	Compound Fencing	5,58,03,123.06	1	5,58,03,123.00
xiii	Development Works	2,57,73,476.00	1	2,57,73,476.00
AIII	Total			20,18,00,863
	Add 2% for Architectural & Structure Design		14-3-2-4 14-3-2-4	40,36,017.00
	Add 1% for Labour Cess			20,18,009.00
	Add 0.25% for Vetting Charge (A)			5,04,502.00
	Add 6% forCGST)		2 7 5 1	1,21,08,052.00
	Add 6% forSGST			1,21,08,052.00
-	Add 2% Contingency Charge			40,36,017.00
	Add 11.75% for Agency Charge on (A)			2,37,11,601.00
	Grand Total		i i i i i i i	26,03,23,113.00

Intended output and outcomes of the project- Not provided by SG

8. SDG, being targeted by the project – Not provided by SG

9 Concept paper is attached

10. **PD comments:** The project is aimed at promoting polo tourism by way of developing infrastructures in and out of the Polo ground at Ibudhou Marjing, Heingang, Imphal East, Manipur for promotion of Polo Tourism in the State. This will attract more inflow of tourists. This will help in creating job opportunities to the local youths in terms of ticketing, hospitality, food and beverage services and transport facilities which will help to generate revenue also. After due scrutiny, PD recommends the proposal for its consideration by the IMC/NESIDS Committee.

Nozful9

(N. K. Saha) Under Secretary to the Government of India E-mail: nitai.kumar@nic.in

No. PLG2-301/9/2022-PLG-PLANNIG

Secretariat: Planning Department Government of Manipur

NNN

Imphal, the 14th November, 2022

To,

Shri Saurabh Endley, Joint Secretary, Ministry of DoNER Vigyan Bhawan Annexe, Maulana Azad Road, New Delhi-110011.

Subject: 37th meeting of IMC/NESIDS Committee to discuss miscellaneous issues related to projects under NESIDS/NLCPR submitted by NE States-reg.

Sir,

In inviting a reference to M/o DoNER's letter No. Coord-14/15/2022-O/o US(AKP) dated 07/11/2022 addressed to the Chief Secretary, Government of Manipur on the above subject, we are submitting herewith the following 2 (Two) prioritized projects worth Rs 176.27 crore for the financial year 2022-23 for consideration under NESIDS. Concept papers for these proposals are also enclosed herewith.

SI	Name of Project	Department	District	Estimated cost(Rs in Cr)	Central Share sought for FY 2022-23
1	Infrastructure Development in and around the Polo Ground at Ibudhou Marjing, Heingang, Imphal East	Tourism	Imphal East	26.03	21.37
2	Strengthening of 120 High & Higher Secondary schools in Manipur	School Education	All Districts	150.24	80.00
	Total:			176.27	101.37

2. The proposal listed at SI No. 1 has been sanctioned in the Financial Year 2021-22 with an approved amount of Rs 30.40 crore of which Central Share is Rs 25.747 crore. However, AFS amount is Rs 4.37 crore. Hence, the balance AFS amount/Central Share is proposed in the current year. In respect of the project listed at SI No. 2, estimated cost is Rs 150.24 crore @ Rs 1.25 cr per school for 120 schools. Out of which Rs 80.00 crore for 64 schools is proposed in the current year.

3. This issues with the approval of the Competent Authority.

Encl: As stated.

Yours Faithfully,

N. Kulharcin Law 22 (N. Kulkarani Devi) Director (Planning) NNN

Copy to:

- 1. Secretary to Chief Minister, Manipur
- 2. Staff Officer to Chief Secretary, Government of Manipur
- 3. Additional Chief Secretary (Planning), Government of Manipur
- 4. Guard File.

"CONCEPT NOTE"

11

SI. No.	SI. Items Detailed Information						
A	General Information About		The	e Projec	ct		
I	Name of the project	Infrastructures Development in and around the Polo Ground at Ibudhou Marjing, Heingang, Imphal East, Manipur for promotion of Polo Tourism in the State. Marjing Hill, Imphal East District, Manipur is located at a distance					
II	Location of the project		ll, Imphal East Dist m Khabam Lamkha			at a distance	
III	Estimated cost of the project	26.03 Cror	re				
IV	Introduction	In view of the historical significance of the place where the Lord, Ibudhou Marjing is believed to have tamed the mythical horse, Samudon Ayangba and introduced Sagol Kangjei/Modern Polo.To commemorate the game of Polo (Manipur being the birthplace of the Game of Polo) a gigantic Polo Statue of 68'0" height above a pedestal of a three storey building with recreational facilities is going on at Ibudhou Marjing Khubam which is 24"87' North Latitude, 93"94' East Longitude and 651 m Altitude above MSL.The Department of Tourism organized International Polo Tournament for the Men and Women every year and played polo at Mapal Kangjeibung. However, the size of polo ground at Mapal Kangjeibung is not in international standard. The department is to develop the Original site at Ibudhou Marjing Khubam, Heingang as world class polo infrastructure to attract the foreign and domestic tourist. Manipur is the only state where women polo tournament was organized every year in India.					
v	Objectives of the project	The project providing	ect is aimed at pri infrastructures rela w of tourists.	romoting	polo tourism		
VI	Present Status	Presently,	the land is lying v pment of polo infras	acant a	nd acquired by	government	
VII	Work Component	Quantity	Unit Cost (Rs.)	Unit	Amount (Rs.)	Remarks	
1	Construction of Footpath	1	39,70,802.94	No.	39,70,803	Rate	
2	Construction of Steps	1	36,68,498.47	No.	36,68,498	based on MSR 2017	
3	Gallery for (1000 capacity)	1	2,46,10,975.67	No.	2,46,10,976		
4	Construction of Drain with horse trap covering around the Polo Ground	1	5,19,23,150.00	No.	5,19,23,150		
5	Construction of Culvert	3	13,26,523.52	No.	39,79,571		
6	Drinking Water Facility	3	2,90,361.68	No.	8,71,085		
7	Electrification	1	2,29,98,245.80	No.	2,29,98,246		
8	Main Gate	3	6,05,889.87	No.	18,17,670	1	
9	Rain Water harvesting	2	7,32,723.60	No.	14,65,447	1	
10	Construction of overhead tank for water storage	2	12,19,903.71	No.	24,39,807		
11	Rain Shelter	10	2,50,901.14	No.	25,09,011		

13	Development works	1		2,57,43,476.00	No.	Colored as terrar and the	57,43,476	
	TOTAL						8,00,863	
	Add 2% for Architectural and Structure Design 40,36,017							
	Add 1% for Labour Cess						20,18,009	
		harge		5,04,502				
				Add 6% for		1,	21,08,052	
				Add 6% for	SGST	1,	21,08,052	
		A	dd 2%	for contingency C	harge		40,36,017	
				75% for Agency C		2,	37,11,601	
				GRAND T	CONTRACTOR OF STREET, STRE	26,0	3,23,113	
VIII	Physical Target/Benefit	connectiv players, 1 ground. T in terms	public/a his wil of tick	vement of people audience, proper I help in creating eting, hospitality cilities and help g	lightir job opp sector,	ng faci portun , food	ilities arour ities to the and bevera	nd the polo local youths
IX	Project duration	2 yrs					Dhusiaal	
<u>IX</u> X	Phasing	Phase	_	Year			Physical 40%	
		1 st 2 nd	_	2022-2			60%	
x	Method of Implementation	By entrus Governme		an appropriate				ided by the
XII	Status of Land	Available	16 acre	es				
XIII	Status of preparedness	as it will ready to t	be pla	s project there wi inned in an eco- the project.	friendly	mann	er. The de	partment is
XIV	Maintenance	On comp	letion	of the assets, m				
XV	Justification for taking the project	Manipur adequate polo playe submitted birth place By imple	has be infrast ers is n d to bre e of mo mentin bly and	en recognized as ructures for orga ot available in de eze the gap and odern polo. Ig this project t will provide loca	sirable for pro the no l emplo	polo t standa motior os. of oyment	fournament, ard hence the of polo to footfall w	interproject is urism in the project is urism in the project is the project is the project is the project of the project is the project of th
XVI	Techno-Economic viability	The proj	ect wi	Il provide oppor ayers and enthusi ure and can gen	tunitie	s to 1 bringin	the polo a gout a wo	nd standard
	Let a let a	Maninur		presented to DoN				an enderson

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Director (Tourism), Manipur

No: NESIDS-13015(11)/1/2022-O/o US (NLCPR) Government of India Ministry of Development of North Eastern Region

East Block-10, Level-4 R.K Puram, New Delhi-110 066 Dated:19.04.2022

To

The Chief Secretary, Government of Manipur, Imphal.

Subject: Administrative Approval and Financial Sanction for Central financial assistance under North East Special Infrastructure Development Scheme (NESIDS) for the project "Infrastructure Development in and around the Polo Ground at Ibudhou Marjing, Heingang, Imphal East" in Manipur" at a cost of Rs.30.40 crore.

Sir,

I am directed to convey Administrative Approval and Financial Sanction of Government of India to an amount of Rs.437.00 Iakh (Rupecs Four Crore and Thirty Seven Iakh only) to Government of Manipur as Central Share against the vetted cost of Rs.30.40 crore for the above mentioned project, subject to compliance of the conditions mentioned in Para-2 of this AFS. The project is sanctioned against the Normative Allocation of the State of Manipur for the Financial Year 2021-22. The detailed cost break-up of the project is as below:-

				(Amo	ount in Rupees)
SI.No.	Description of Item	Unit cost (Rs.)	Unit	Approved amount	Admissible Central Share
1	Construction of Footpath	39,70,802.94	1	39,70,803.00	39,70,803.00
ii	Construction of steps	36,68,498.47	1	36,68,498.00	36,68,498.00
100 M	Gallery (for 1000 capacity)	2,46,10,975.67	1	2,46,10,976.00	2,46,10,976.00
	Construction of Drain with horse trap covering around the Polo Ground	5,19,23,149.72	1	5,19,23,150.00	5,19,23,150.00
v	Construction of Culverts	13,26,523.52	3	39,79,571.00	39,79,571.00
vi	Drinking water facility	2,90,361.68	3	8,71,085.00	8,71,085.00
vii	Electrification	2,29,98,245.80	1	2,29,98,246.00	2,29,98,246.00
	Main Gate	6,05,889.87	3	18,17,670.00	18,17,670.00
	Rain Water harvesting	7,32,723.60	2	14,65,447.00	14,65,447.00
x	Construction of overhead tank for water storage		2	24,39,807.00	24,39,807.00
xi	Rain Shelter	2,50,901.14	10	25,09,011.00	25,09,011.00
xil	Compound Fencing	5,58,03,123.06		5,58,03,123.00	5,58,03,123.00
xiii	Development Works	5,96,19,444.54		5,96,19,445.00	5,96,19,445.00
	Total (A)			23,56,76,832.00	23,56,76,832.00

Nox what

Add 2% for Architectural & Structure Design	47,13,537.00	47,13,537.00
Add 1% for Labour Cess	23,56,768.00	23,56,768.00
Add 0.25% for Vetting Charge	5,89,192.00	5,89,192.00
Add 6% for CGST)	1,41,40,610.00	1,41,40,610.00
Add 6% for SGST	1,41,40,610.00	-
Add 2% Contingency Charge	47,13,537.00	-
Add 11.75% for Agency Charge on (A)	2,76,92,028.00	-
Total (B)	6,83,46,282.00	2,18,00,107.00
Grand Total	30,40,23,114.00	

No: NESIDS-13015(11)/1/2022-O/o US (NLCPR)

2. Approval of Ministry of Development of North Eastern Region (M/o DoNER) is subject to following conditions:-

- i. Works shall be awarded within six months of the issue of the sanction by the Ministry and a copy of the work order endorsed to the Ministry of DoNER. In case, no work order is received by Ministry of DoNER within a period of six months of the release of token amount of Rs.10 lakh, the sanction of the project may be liable for cancellation. On the receipt of the work order, the Ministry will release the balance amount of the first installment.
- ii. No work shall be undertaken by the State Government before the issue of Administrative approval and financial sanction by the Ministry of DoNER. No execution of Contract Agreement or Award of works should be done before sanction of the project. Any work done prior to sanction of the project will not be funded by the Ministry.
- iii. State Governments will award the work after fulfilling all the formalities in a transparent manner. To ensure timely completion of the project within estimated cost, the project should be implemented through EPC mode.
- iv. The funds will be released by Ministry of DoNER in two installments of 40% and 60%.
- v. Second installment of 60% in the project will be released by the Ministry of DoNER once the State Government submits utilization certificate for 75% of the first installment released and commensurate physical progress duly signed by the Head of designated agency and countersigned by Planning Secretary of the State Government.
- vi. State Government will properly utilize funds and submit utilization certificate in prescribed proforma to Ministry of Development of North Eastern Region, Vigyan Bhawan Annexe, Maulana Azad Road, New Delhi-110011 within twelve months after closure of the financial year in which funds are released.
- vii. Any cost overrun over and above the approved/ sanctioned cost in any project due to delay in implementation or any other reasons has to be borne by the concerned State Governments.

My Saly

No: NESIDS-13015(11)/1/2022-O/o US (NLCPR)

- vili. After completion of the project, a Completion Certificate along with utilization certificate of the total fund released will be submitted by the State Government.
- ix. The State Government will put in place a robust monitoring mechanism for proper execution of the projects sanctioned under the scheme. The mechanism will preferably consist of officials not directly concerned with execution of a particular project.
- x. Notice Board should be available at the project implementation site. The Board should indicate the date of sanction of the project, likely date of completion, estimated cost of the project, source of funding i.e. North East Special Infrastructure Development (Government of India), contractor(s) name and the physical Target. After completion of projects, State Government will put a permanent display on site like plaque on the wall etc. after asset is created displaying details of NESIDS funding.
- xi. Funds will be utilized within specified time and strictly for purpose for which it was sanctioned.
- xii. State Government will nominate nodal officer for project who will be responsible for timely implementation of sanctioned works.
- xiii. The State Government will be totally responsible for the qualitative and quantitative execution of the project.
- xiv. It is mandatory on the part of the State Government that release of funds to Implementing Agency to be made through PFMS/ EAT module only. Hence, State Government may register the concerned IA in PFMS and roll out relevant EAT module(s) for them immediately, if not done already. In turn, IA will also make all its onward releases to contractors, beneficiaries etc. through relevant EAT module only.

3. This sanction issues with concurrence of Integrated Finance Division vide their Dy. No. DS (IFD)/12/2022 dated 05.04.2022.

Yours faithfully,

(N.K. Saha

Delhi-110 011

Under Secretary to the Govt. of India SAHA are divertian Secretary Greet and Under Secretary Greet and Development of New Parset Indian of Development of New Parset Indian of New Parset

Copy to:-

I,

- i. Finance Secretary, Government of Manipur, Imphal.
- ii. Planning Secretary, Government of Manipur, Imphal.
- iii. Secretary, Tourism Department, Government of Manipur, Imphal.
- iv. Integrated Finance Division, Ministry of DoNER.

Agenda Note for 37th Meeting of the IMC/NESIDS Committee scheduled to be held on 15.11.2022

State: Manipur

1. Name of the Project: Strengthening of 120 High & Higher Secondary school in Manipur.

2. Sector: Education

3. Estimated Cost: Rs.150.24 crore

4. **Objective:** Many of the Govt. Secondary and Higher Secondary School in the State are in need of repairing and strengthening of new classrooms as these schools were established many years back and have now been a dilapidated condition. Some new classrooms have been constructed under RMSA, the proposed school infrastructures are found to be insufficient to cater the ever increasing enrolments. Despite the fact that the State Govt. has started the noble initiative of improving the schools infrastructure under school Fagathansi Mission, all the schools could not be covered due to limited resources. There is also a real concern that these old structure built with kuccha materials are not structurally stable and are in danger of collapse anytime, putting the students at great risk. Therefore, Govt. of Manipur proposed for augmentation/strengthening, repair or renovation, supply of requisite furniture and providing computer enabled education system (SMART classroom) to all 120 High & Hr. Sec. Schools of Manipur

i	Project component & Estimated cost	Qty.	Rate	Amount (In Rupees)
i	Construction of Computer Room	1	14,39,388	14,39,388
ii	Construction of Classroom	1	14,39,388	14,39,388
iii	Construction Laboratories	1	14,39,388	14,39,388
iv	Construction of Library	1	18,09,962	18,09,962
v	Repairing of Existing Classroom	1	28,71,874	28,71,874
vi	Furniture	1	15,00,000	15,00,000
vii	Smart Classroom	1	15,00,000	15,00,000
viii	Lab Equipment	1	5,00,000	5,00,000
		1,11,28,126		
	Add GST		18%	11,93,063
	Add Labour Cess		1%	66,281
	Add Contingency Charge		2%	1,32,562.52
	Grand Total			1,25,20,032

5. The broad component wise cost break-up submitted by the State Government as under:-
| Sl.No. | Project | Qty. | Rate | Amount
(In Rupees) |
|--------|--|------|-------------|-----------------------|
| 1 | Strengthening of 120 High &
Higher Secondary school in
Manipur | 120 | 1,25,20,032 | 150,24,03,840 |

6. Intended output and outcomes of the project- Not provided by SG^{*}

7. SDG, being targeted by the project – Not provided by SG

8 Concept paper is attached

9. **PD comments:** To provide with adequate infrastructure and computer enabled education system (SMART classroom) so as to improve the quality of education in Manipur.

Nozfah9

(N. K. Saha) Under Secretary to the Government of India E-mail: nitai.kumar@nic.in

No. PLG2-301/9/2022-PLG-PLANNIG

Secretariat: Planning Department Government of Manipur

NNN

Imphal, the 14th November, 2022

To,

Shri Saurabh Endley, Joint Secretary, Ministry of DoNER Vigyan Bhawan Annexe, Maulana Azad Road, New Delhi-110011.

Subject: 37th meeting of IMC/NESIDS Committee to discuss miscellaneous issues related to projects under NESIDS/NLCPR submitted by NE States-reg.

Sir,

In inviting a reference to M/o DoNER's letter No. Coord-14/15/2022-O/o US(AKP) dated 07/11/2022 addressed to the Chief Secretary, Government of Manipur on the above subject, we are submitting herewith the following 2 (Two) prioritized projects worth Rs 176.27 crore for the financial year 2022-23 for consideration under NESIDS. Concept papers for these proposals are also enclosed herewith.

SI	Name of Project	Department	District	Estimated cost(Rs in Cr)	Central Share sought for FY 2022-23
1	Infrastructure Development in and around the Polo Ground at Ibudhou Marjing, Heingang, Imphal East	Tourism	Imphal East	26.03	21.37
2	Strengthening of 120 High & Higher Secondary schools in Manipur	School Education	All Districts	150.24	80.00
	Total:			176.27	101.37

2. The proposal listed at SI No. 1 has been sanctioned in the Financial Year 2021-22 with an approved amount of Rs 30.40 crore of which Central Share is Rs 25.747 crore. However, AFS amount is Rs 4.37 crore. Hence, the balance AFS amount/Central Share is proposed in the current year. In respect of the project listed at SI No. 2, estimated cost is Rs 150.24 crore @ Rs 1.25 cr per school for 120 schools. Out of which Rs 80.00 crore for 64 schools is proposed in the current year.

3. This issues with the approval of the Competent Authority.

Encl: As stated.

Yours Faithfully,

N. Kulharcin Law 22 (N. Kulkarani Devi) Director (Planning) NNN

Copy to:

- 1. Secretary to Chief Minister, Manipur
- 2. Staff Officer to Chief Secretary, Government of Manipur
- 3. Additional Chief Secretary (Planning), Government of Manipur
- 4. Guard File.

CONCEPT PAPER

II	Name of project	Streng	gthening of 120 High	School	s and Hr. Se	condary	Schools
	Location of the	Enclosed (along with geo-tag etc.)					
	Project(geo	Anney					
t	tagged)			-		<u></u>	
1	Estimated Cost	Rs. 15	50,24,03,840/- (Rup	ees On	e hundred	fifty Cr	ores Twent
III C	of the Project	Four	Lakh(s) three Thou	sand ei	ght hundre	d and fo	orty) Only
IV	Introduction	School new c and ha Thoug the pr cater Gover school school There kucch collap propol supply educa School room, facilit (SMA transa Manij School		n need of chools v apidate oms hav structur nrolmen the no der Sch ed due cern that structur the stud on/stren iture an T classi fficient library compo- vill help tigher s in the	of repairing were establis d condition. we been cons- res are found- nts. Despite ble initiative initiative cool Fagatha- to limited res- to l	and stree shed man tructed u d to be i the fact re of ir ansi Mis sources. structur and are risk. It epair o g comp 120 Hig s Science d educa ng qual chools in rents in	engthening on ny years back under RMSA nsufficient t that the Stat nproving the ssion, all the es built wit in danger of is, therefore r renovation outer enable the Hr. Sec the laborator infrastructur ation system ity classroor n the state of Governmen
		and the second sec	rovide with adequa	te infra	structure ar	nd com	outer enable
	011	education system (SMART classroom) so as to improve the					
V	Objectives	0000000000			situation se	, as 10	improve u
			y of transaction in M	-			
		Estimates, design and technical specifications have been worked					
VI	Present status		or a unit and is given				
		ourie	a unit und 15 given		011001		
			Project Component &	FOR 1 S	CHUUL		
		VII	Estimated Cost	Qnty	Rate	Unit	Amount
			Construction of				
		а	Computer Room	1	14,39,388	Rs	14,39,388
			Construction of	100			
		b	Classroom	1	14,39,388	Rs	14,39,388
				1			
Contraction of the second	Project		Construction of	4	11 20 200	Re	
VII	component and	с	Laboratories	1	14,39,388	Rs	14,39,388
VII		c d	Laboratories Construction of Library	1	14,39,388 18,09,962	Rs Rs	14,39,388
VII	component and	d	Laboratories Construction of Library Repairing of Existing	1	18,09,962	Rs	14,39,388 18,09,962
VII	component and	d e	Laboratories Construction of Library Repairing of Existing Classroom	1	18,09,962 28,71,874	Rs Rs	14,39,388 18,09,962 5,00,000
VII	component and	d e f	Laboratories Construction of Library Repairing of Existing Classroom Furniture	1	18,09,962 28,71,874 15,00,000	Rs Rs Rs	14,39,388 18,09,962 5,00,000 1500000
VII	component and	d e f g	Laboratories Construction of Library Repairing of Existing Classroom Furniture Smart Classroom	1 1 1 1	18,09,962 28,71,874 15,00,000 15,00,000	Rs Rs Rs Rs	14,39,388 18,09,962 5,00,000 1500000 1500000
VII	component and	d e f	Laboratories Construction of Library Repairing of Existing Classroom Furniture	1	18,09,962 28,71,874 15,00,000	Rs Rs Rs	14,39,388 18,09,962 5,00,000 1500000 1500000 1500000 1,11,28,126

Ast

		Add GST					11,93,063	
				OUR CESS		1%	66,281	
			ADD VAT	CHARGES				
			CONTIN	IGENCY		2%	132562.52	
			ADD AGENC	Y CHARGE	S		0	
				SULTANCY				
		GRANE	TOTAL				1,25,20,032	
		SI. No.	Project	Qnty	Rate	Unit	Amount	
		1	Strengthening of 120 High & Higher Secondary Schools	120	12520032	Rs	150,24,03,840	
			Rupees One hundred f eight hundred and fort	y) Only			ree Thousand	
VIII	Physical target	120 See	condary and Highe	r second	ary Schools			
IX	Project duration	2 years						
		Phase	Year		Physic	Physical		
x	Phasing	1 st	2022-23		60%			
~	i nasing	2 nd 2023-24 40%						
XI	Method of Implementation	By con	tract through a sing	gle BID	1			
XII	Status of land	Availal	ole.					
хш	State of preparedness/ readiness		for implementatior					
XIV	Maintenance	Mainte	nance to be the res	ponsibili	ty of the Sta	ate Gov	ernment.	
XV	Justification for taking up the project	There is an immediate need to provide such adequate infrastructure facilities to all proposed 120 Govt. High Schools and Hr. Sec. Schools as these schools were established many years back and have now been in a dilapidated condition. The said schools have also been deprived of adequate infrastructures and computer enable education. The present proposal is made in view of the need assessment carried out by the concerned department in order to improve the deteriorating condition of said 120 government						
XVI	Techno – Economic viability	Secondary & Hr. Secondary schools. The students coming to Government Schools are poorest of the poor. To augment Government Schools means we are directly helping the poorest of the poor to educate their children. The proposed project is economically viable as the project will benefits the poor children who otherwise will drop out in the entire State.						
XVII	Funding	The pr	roject is not funde Government/ Centra	ed by ar al Gover	ny other so nment/ any	urce/ ag other ex	gency wheth ternal agenc	

al agency.

ANNEXURE-1

LIST OF 120 SCHOOLS

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	A/C		OF 120 SCHOOLS		
District	SI. No.	Constituency	Name of School	Lat	Long
Bishnupur	1	Bishnupur	Ningthoukhong Sadar Patel High School	24.571283	93.764417
Bishnupur	2	Bishnupur			93.769683
					93.825367
	2				93.75005
Bishnupur	1			24.48235	93.779667
Bishnupur	2			24.496	93.7661
Bishnupur	1	Nambol		24.694717	93.8836
Bishnupur	2	Nambol		24.734917	93.85925
Bishnupur	1	Oinam	Oinam High School	24.695733	93.804117
Bishnupur	2	Oinam	Madhumati High School	24.695867	93.788967
Bishnupur	1	Thanga	Chingmei School	24.479667	93.805383
Bishnupur	2	Thanga	Thanga Wangma High School	24.51705	93.8171
Chandel	1	Chandel	Chakpikarong Hr. Sec. School	24.20365	93.901233
Chandel	2	Chandel	Liwa Changning High School	24.429367	94.013033
Churachandpur	1	Churachandpur	Lanva Model High School	24.32875	93.6911
Churachandpur	2	Churachandpur	Vungzagen Hr. Sec. School	24.298783	93.67615
Churachandpur	1	Henglep	Henglep High School	24.48495	93.52645
Churachandpur	2	Henglep	Vumhao High School	24.339333	93.591183
Churachandpur	1	Saikot	I.N.A. Memorial High School	93.729467	24.448083
Churachandpur	2	Saikot	Saikot High School	24.3318	93.7266
Churachandpur	1	Singngat	Suangdoh High School	24.09295	93.480967
Churachandpur	2	Singngat	Tuining High School	24.30855	93.81505
Imphal East	1	Andro	Azad Hr. Sec. School	24.6802	94.04175
Imphal East	2	Andro	Huikap High School	24.724733	94.0321
	1	Heingang	Y. Tampha High School	24.848583	93.950533
	2	Heingang	Lairikyengbam Leikai H/S	24.8321	93.956983
	1	Keirao	Kiyamgei H/M	24.73825	93.950583
			Chanam Sandrok School	24.709833	93.991667
			Awang Ngairangbam School	24.926983	93.967017
		· · · · · · · · · · · · · · · · · · ·	Yumnam Khunou School	24.9318	93.9928
	-		Khurai Heigrumakhong School	24.83935	93.968117
· · ·				24.843617	93.996333
				24.806633	93.967717
				24.822017	93.9868
					94.011
				24.870983	94.011
					93.9641
	+				93.965
					93.96066
					93.94996
					93.959
	Bishnupur Bishnupur Bishnupur Bishnupur Bishnupur Bishnupur Bishnupur Bishnupur Bishnupur Bishnupur Bishnupur Chandel Chandel Chandel Churachandpur Churachandpur Churachandpur Churachandpur Churachandpur	DistrictSI. No.Bishnupur1Bishnupur2Bishnupur2Bishnupur2Bishnupur1Bishnupur2Bishnupur1Bishnupur2Bishnupur1Bishnupur2Bishnupur1Bishnupur2Bishnupur2Chandel2Churachandpur1Churachandpur2Churachandpur1Churachandpur2Churachandpur1Churachandpur2Churachandpur1Churachandpur2Imphal East1Imphal Ea	DistrictSI. No.Constituency No.Bishnupur1BishnupurBishnupur2BishnupurBishnupur1KumbiBishnupur2KumbiBishnupur2MoirangBishnupur1MoirangBishnupur2MoirangBishnupur1NambolBishnupur2NambolBishnupur1OinamBishnupur2OinamBishnupur2ThangaChandel2ChandelChandel1ChurachandpurChurachandpur1HenglepChurachandpur1SaikotChurachandpur2SaikotChurachandpur1SingngatImphal East1AndroImphal East1KeiraoImphal East1KhundrakpamImphal East1KhundrakpamImphal East1KhuraiImphal East1KhuraiImphal East1KhuraiImphal East1KhuraiImphal East1KhuraiImphal East1KhuraiImphal East1LamlaiImphal East1LamlaiImphal East1KhuraiImphal East1KhuraiImphal East1LamlaiImphal East1ImphaliImphal East1ImphaliImphal East1ImphaliImphal	District Si. Constituency Name of School Bishnupur 1 Bishnupur Ningthoukhong Sadar Patel High School Bishnupur 2 Bishnupur Ningthoukhong Kha High School Bishnupur 1 Kumbi Ithai Khunou High School Bishnupur 2 Kumbi Saiton High School Bishnupur 1 Moirang Mukat High School Bishnupur 2 Moirang Mukat High School Bishnupur 1 Nambol Pukhrambam HS Bishnupur 2 Nambol Utlou High School Bishnupur 1 Oinam Oinam High School Bishnupur 2 Thanga Thanga Wangma High School Chandel 1 Chandel Chandel Chandel 2 Chandel Liwa Changning High School Churachandpur 1 Churachandpur 1 Churachandpur Churachandpur 2 Churachandpur 2 Saikot Saikot Saikot Churachandpur	District Si. Constituency Name of School Lat Bishnupur 1 Bishnupur Ningthoukhong Sadar Patel High School 24.571283 Bishnupur 2 Bishnupur Ningthoukhong Kha High School 24.4521283 Bishnupur 1 Kumbi Ithai Khunou High School 24.428283 Bishnupur 1 Moirang Mukta High School 24.428283 Bishnupur 1 Moirang Moirang High School 24.428283 Bishnupur 1 Nambol Pukhrambam HS 24.694717 Bishnupur 1 Nambol Uthou High School 24.734917 Bishnupur 1 Nambol Uthou High School 24.695733 Bishnupur 1 Thanga Chingmei School 24.29667 Bishnupur 1 Thanga Thanga Mangan High School 24.29267 Chandel 1 Chandel Chakpikarong Hr. Sec. School 24.29267 Churachandpur 1 Henglep Wing School 24.29267 Churac

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LIST OF 120 SCHOOLS

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SÎ. No.	District	A/C SI. No.		Name of School	Lat	Long
42	Imphal East	2	Yaiskul	Shyamasakhi High School	24.829317	93.935533
43	Imphal West	1	Keishamthong	Haobam H.A. Marak High School	24.78115	93.935555
44	Imphal West	2	Keishamthong	Keishamthong High School	24.79175	93.936617
45	Imphal West	1	Konthoujam	Recent Hr. Sec. School	24.786217	93.857017
46	Imphal West	2	Konthoujam	Yurembam High School	24.789067	93.868583
47	Imphal West	1	Lamsang	Heibongpokpi High School	24.8339	93.84745
48	Imphal West	2	Lamsang	Khonghampat Hr. Sec. School	24.892667	93.896233
49	Imphal West	1	Langthabal	Khagemba School	24.766817	93.928167
50	Imphal West	2	Langthabal	Canchipur H/S	24.755083	93.929783
51	Imphal West	1	Mayang Imphal	Phoubakchao School	24.53595	93.868017
52	Imphal West	2	Mayang Imphal	Uchiwa H/S	24.58325	93.909917
53	Imphal West	1	Naoriya	Kumari H/S	24.726733	93.898883
54	Imphal West	2	Naoriya	Mekola Gulap Hr. Sec. School	24.737117	93.876256
55	Imphal West	1	Patsoi	Budhimanjuri High School	24.797233	93.910817
56	Imphal West	2	Patsoi	Taobungkhok High School	24.776867	93.8835
57	Imphal West	1	Sagolband	Johnstone Hr. Sec. School	24.806917	93.937767
58	Imphal West	2	Sagolband	Sagolband Popular School	24.802733	93.927133
59	Imphal West	1	Sekmai	Nilapadama Hr. Sec. School	24.939233	93.882383
60	Imphal West	2	Sekmai	Phayeng High School	24.851917	93.818517
61	Imphal West	1	Singjamei	Heirangoithong High School	24.77475	93.929862
62	Imphal West	2	Singjamei	Moirangkhom School	24.792333	93.941633
63	Imphal West	1	Thangmeiband	Bheirodan Maxwel Hindi High School	24.809917	93.9357
64	Imphal West	2	Thangmeiband	Lalambung High School	24.8127	93.929117
65	Imphal West	1	Uripok	Iroishemba School	24.807783	93.8935
66	Imphal West	2	Uripok	Langol Ningthou PS	24.835483	93.902367
67	Imphal West	1	Wangoi	Wangoi Hr. Sec. School	24.673896	93.901223
68	Imphal West	2	Wangoi	Irom Meijrao H/S	24.710561	93.883292
69	Jiribam -	1	Jiribam	Ahmadabad H/S	24.737063	93.135177
70	Jiribam	2	Jiribam	Borobekara Hr. Sec. School	24.633108	93.09877
71	Kakching	1	Hiyanglam	Waikhong H/S	24.421483	93.9318
72	Kakching	2	Hiyanglam	Hiyanglam H/S	24.52595	93.928483
73	Kakching	1	Kakching	Irengband UPS	24.515133	94.000117
74	Kakching	2	Kakching	Yumbimacha H/S	24.495417	93.98655
75	Kakching	1	Sugnu	Wangoo Tera H/S	24.379217	93.853283
76	Kakching	2	Sugnu	Chairel H/S	24.347033	93.8604
77	Kakching	1	Wabagai	Wabagai Tera Urak H/S	24.528833	93.9447
78	Kakching	2	Wabagai	Wabagai H/S	24.524167	93.9338
79	Kamjong	1	Phungyar	Nambashi H/S	24.604233	94.353083
80	Kamjong	2	Phungyar	Phungyar Hr. Sec. School	24.81225	94.356767
81	Kangpokpi	1	Kangpokpi	Gelnel Hr. Sec. School	25.22495	93.831867
82	Kangpokpi	2	Kangpokpi	Keithelmanbi High School	25.097517	/93.939167

LIST OF 120 SCHOOLS

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SÎ. No.	District	A/C SI. No.	Constituency	Name of School	Lat	Long
83	Kangpokpi	1	Saikul	Molkon High School	25.089717	94.0682
84	Kangpokpi	2	Saikul	Mongbung High School	25.04837	93.95218
85	Kangpokpi	1	Saitu	Bungte Chiru H/School	24.680083	93.763317
86	Kangpokpi	2	Saitu	Saitu High School	25.0308	93.907017
87	Noney	1	Nungba	Nungba Hr. Sec. School	24.745375	93.421057
88	Noney	2	Nungba	Khangshillung Hr. Sec. School	24.68185	93.517947
89	Pherzawl	1	Thanlon	Bukpi High School	24.208483	93.241283
90	Pherzawl	2	Thanlon	Pherzawl High School	24.2692	93.189117
91	Pherzawl	1	Tipaimukh	Kangreng High School	24.4581	93.105617
92	Pherzawl	2	Tipaimukh	Sibapurikhal H/School	24.56805	93.079417
93	Senapati	1	Karong	Oinam Hill High School	25.351467	94.194833
94	Senapati	2	Karong	Khongdei High School	25.329267	94.269367
95	Senapati	1	Мао	Liyai School	25.46515	94.271467
96	Senapati	2	Мао	Sardar Patel High School	25.509133	94.137283
97	Senapati	1	Tadubi	Maram Khullen High/ S	25.424467	94.085317
98	Senapati	2	Tadubi	Oklong High School	25.391695	94.009338
99	Tamenglong	1	Tamei	Makui H/S	25.128183	93.790267
100	Tamenglong	2	Tamei	Lenglong High School	25.262978	93.63997
101	Tamenglong	1	Tamenglong	Model Village High School	24.989722	93.503611
102	Tamenglong	2	Tamenglong	Thingra High School	25.001907	93.67505
103	Tengnoupal	1	Tengnoupal	Sita High School	24.452917	94.222133
104	Tengnoupal	2	Tengnoupal	Tengnoupal High School	24.383183	94.147733
105	Thoubal	1	Heirok	Heirok Hr. Sec. School	24.58745	94.073633
106	Thoubal	2	Heirok	Chandrakhong PhanjangKhong H/S	24.68745	94.127433
107	Thoubal	1	Khangabok	Sangaiyumpham Hr. Sec. School	24.595033	94.01455
108	Thoubal -	2	Khangabok	Wangbal School	24.6132	94.024783
109	Thoubal	1	Lilong	Haoreibi Makha Leikai H/M	24.702517	93.9144
110	Thoubal	2	Lilong	Abdul Ali H/M	24.720083	93.941383
111	Thoubal	1	Thoubal	Chaoyaima Hr. Sec. School	24.639434	94.001759
112	Thoubal	2	Thoubal	Moijing High Madrassa	24.645367	93.960183
113	Thoubal	1	Wangjing Tentha	Phundrei H/S	24.5537	94.05055
114	Thoubal	2	Wangjing Tentha	Lalita Madhob Sharma H/S	24.5606	94.030167
115	Thoubal	1	Wangkhem	Kiyam Shiphai H/S	24.661067	93.9713
116	Thoubal	2	Wangkhem	Wangkhem School	24.663867	94.02305
117	Ukhrul	1	Chingai	Tungou H/S	25.035217	94.247167
118	Ukhrul	2	Chingai	Jessami Hr. Sec. School	25.618133	94.540817
119	Ukhrul	1	Ukhrul	Model H/S	25.1147	94.361433
120	Ukhrul	2	Ukhrul	Sanakeithel Chingshang H/S	25.033517	94.151333

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Agenda Note for 37th Meeting of the IMC/NESIDS Committee scheduled to be held on 17.11.2022

State: Mizoram

- 1. Name of the Project: Up-gradation of B.N. College of Nursing
- 2. Department: Health & Family Welfare Department.
- 3. Estimated Cost: Rs. 40.00 crore
- 4. Sector: Health

5. **Objective:** The B.N. College of Nursing is an autonomous Institution establish by B N Foundation Society, Aizawal, Mizoram in 2020. The main aim of the project is to upgrade the existing B.N. Collage with required facilities & equipments. The institute encompasses to develop a centre of excellence in the field of nursing education, research and patient care so as to impart quality education leading to Bachelor Degree in Nursing for the internationally accredited Nursing Professionals. The existing College of Nursing is located in the locality of Kulikawn, Aizwal, Mizoram and is being run in a rented 3 storey building with an approximate total area of 4958.35 Sq. ft. The management has decided to increase the annual intake of students to 60 as against the current intake of 30 students to meet the growing demand for admission. However, as per INC for college with an annual admission capacity of 60 students, the constructed area of the college should be 23200 Sq. ft. 6.

6. Abstract of Cost:

Sl. No.	Description	Amount (Rs. in rupees)
1	Civil Construction	237,497,046.66
2	Furnishing	13,71,10,837.50
	Library Requirement	2,53,92,107.30
	Total	39,99,99,991.46
	Say	40,00,00,000.00

7. Intended output and outcomes of the project- Not provided by SG

8. SDG, being targeted by the project – Not provided by SG

9 Concept paper is attached

10. **PD comments:** SG has provided Provisional land lease certificate, which is already expired on January, 2022. Existing college is not a state institution. The B.N. College of nursing is not affiliated from INC. $M = \frac{16}{10} \frac{10}{22}$ (N. K. Saha)

(N. K. Saha) Under Secretary to the Government of India E-mail: nitai.kumar@nic.in



CONCEPT NOTE FOR

UPGRADATION OF B.N COLLEGE OF NURSING

(To be considered under NESIDS Scheme)

PROJECT ESTIMATE: Rs. 40,00,00,000.00

(Rupees Forty Crore only)

Submitted to:

MINISTRY OF THE DEVELOPMENT OF NORTH EASTERN REGION (DONER)

GOVERNMENT OF INDIA

Submitted by: HEALTH & FAMILY WELFARE DEPARTMENT GOVT. OF MIZORAM AIZAWL, MIZORAM

SL No ITEMS **DETAILED INFORMATION** General Information about the Project A Name of the Project Upgradation of B.N College of Nursing i The main aim of the Project is to upgrade the existing ii **Objective of the Project** B.N College of Nursing & establish a reputed Nursing College can prepare the graduates as professional Nurses. The Objectives are as follows:-Prepare Nursing graduates to assume responsibility in preventive, promotive, curative & rehabilitative care of patients in Hospital and Community level. To meet the acute shortage of qualified Nursing personnel in the country & NER in general and Mizoram State in particular. To promote and strengthen the Nursing skills for better competence in the Nursing profession in general and patient care in particular. То produce Nurse Administrators and educators in the Hospital and in the community for better implementation of National Health programmes. To provide qualified Nurses to the country to cope up with advancement in Medical Science and Technology. To enable them to get job opportunities at economically better position. iii Estimate Cost of Project Rs. 40,00,00,000.00 iv Indicate sources and share of funding **Means of Finance** Amount (in Rupees) % Ministry of DONER 40,00,00,000.00 100 Total 40,00,00,000.00 100 Availability of land and land size. Indicate Land is available and free of encumbrances. Ownership v clearly whether by Govt. / leaded / donated / of land is attached in Annexure. community owned etc. vi Location of Project Hualngo Hmun, Aizawl vii Name of District and sub-division/block where Aizawl District, Mizoram, India. proposed Project will be located. viii Nodal Department Health & Family Welfare Department Government of Mizoram. Project Implementing Agency B.N. Foundation Society ix Enclose non-duplication certificate Enclosed (Annexure) х If Project is of regional nature, give name of xi Prospective students & Teaching staffs from states which would also benefit. neighbouring states can seek admission & work in the proposed Nursing college. All NE states can benefit from this project in terms of retention of students as well as teaching staff from migration to metro states. If State specific project, give reasons why it xii The Government of Mizoram does not have financial cannot be funded from the state plan resources to fund the proposed project xiii If project is covered under any CSS /Central No, this is not a state run institution scheme, name the CSS/central scheme and give reasons why funding has not been obtained /sought from the Ministry concerned xiv Give details of convergence with other state This is a standalone project

schemes /CSS /CS built into the project. If not,

CONCEPT NOTE FOR UPGRADATION OF B.N COLLEGE OF NURSING, AIZAWL, MIZORAM

	state why	
xv	Give details of synergy built into the project (e.g. technical and professional assistance).	 The project is formulated in accordance with the Indian Nursing Council (INC) guideline. Civil Construction estimation is done in accordance with the PWD Mizoram rules All lab equipments is estimated according to the INC guideline
xvi	Indicate sustainability of project including operation and maintenance of assets on completion of project	 Admission & Monthly Fees from students Donation & Contribution from BN Foundation Society Avail appropriate schemes and GIA from central Govt and State Govt
xvii	Give details of existing infrastructure and facilities available in the proposed project location and also in the district and sub- division/block.	BN Foundation Society already runs a Hospital named BN Hospital & Research Centre located at Kulikawn, Aizawl, Mizoram. The Hospital will act as a parent/ owr Hospital which is a requirement of Indian Nursing Council .The Hospital is located within a 5 km radius of the proposed Nursing collage site.
В	Justification/Rationale for the project	
1	State the nature and magnitude of the problem faced or the potential	 The current status of Nursing in India is abysmally low. Nursing is a Hight demand sector due to acute shortage across the country. According to WHO, in India ideal nurse to population ratio is 3.0:1000 whereas existing nurse to population ratio is 1.7:1000 Shortage of nursing institutes present in the NER as compared to the number of courses being offered. The total number of seats present for nursing education is not sufficient as compared to the total number of females willing to take up Nursing education. According to INC, there are 34 recognised nursing institutes in the NER Mizoram has only 4 (four) nursing institutes offering degree courses, out of which only 3 are recognized by Indian Nursing council. Hight demand for nurses from the NER due to there fluency over English language and there ability to handle patients better. Ample scope of expansion in the future , within the institutes as well as opening of other branches across the state
ii	The development objectives proposed to be achieved	 To upgrade the existing collage with required facilities & equipments thus help in addressing shortage of nurses in the country-compliance with Govt. rules & regulation while constructing and running the institution Create an excellent learning environment for professional growth – For efficient and proper running of the institution, monitoring, supervision mechanism & management system will be evolved Accreditation & Affiliation with competent authority especially INC

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	to be benefitted.	 the project Youth & young adults aged between 17-35 yrs can directly benefit from the proposed project The proposed project can have positive effect on the general community accessibility & advocacy
C i	Project Description & Main Activites Sector under which project is proposed	- Medical & Health
ii	Project description (provide a brief write-up on the project) (Goals, area ,target group , probleams to be addressed)	- The proposed project is to upgrade the existing BN Collage of Nursing at Hualngo Hmun, Aizawl with additional state-of-the-art facilities necessary for a reputed institution. The existing collage of Nursing is being run in a rented building with no possibility of exoansion in terms of physical area & academics
		 As stated earlier, there is extreme shortage of nurses in the whole country which is also felt in the NER. Mizoram needs more nursing institution that offer BSc. Nursing degree course.BN Collage of Nursing is one of the 4 institutions that offer the said degree course, but it is in dire need for upgradation and expansion to accommodate more students.
		 The goal is to upgrade the existing college tha will prepare graduates for excellence in practice and lead in conducting research and developing models for health care delivery to meet the needs of the Society.
		 Upgradation Construction of the institution include hostel, administrative building, laboratories, library, staff quarters as per the norms provided by the INC. Procurement of equipments & suppliers needed for a reputed nursing college followed
		 Application for accreditation & required licenses so that the institution adhere to the norms and guidelines laid down by the INC.
		 Highly qualified teachers and support staff will be employed in accordance with the requirements of the position available. Promotion of the Nursing college within and outside the State and tie-up with hospitals in
		 the State, National and International for placement. The proposed site for the upgraded Nursing College is Hualngo Hmun which is located within Aizawl District and is easily accessible by upblic temport.
		 by public transport. High School graduates especially women/ girls (Youth) will have the opportunity to study Nursing and develop the core competencies for Nursing practice.
		 The proposed upgraded Nursing College will address the problem of shortage of Nurses not only in the State but in the whole NER and India.

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iii	Component-wise cost of Project/main activities	Attached in Annexure		
iv	List out basic Indicators for measuring achievement / Success of the Project	 Students Admission Rate Pass percentage Pass percentage Satisfaction Index Satisfaction Index Feedback Faculty Retention Rate Satisfaction Index Local Economic Indicator Local Economic Indicator Return Investment V) Operational Performance Capacity Utilization Rate Quality Index V) Contribution to Community Health Accessibility Index Public Advocacy Index 		
D	Physical Details			
	Year-Wise phasing & Time Frame for completion of Project.	Attached in Annexure		
E	Indicate if any Statutory Clearances including Forest & Environmental Clearances etc. are required.	All proposed Construction and ancillary activities will be confined within the boundary wall of the compound. Statutory clearance from any other agency will not be required. Pollution such as air, water will be minimal as the proposed project does not require heavy machineries and the quantity of works. Polluting environment are minimal.		
F	Brief Information of B.N Foundation Society	Attached in Annexure		
G	Brief Information of B.N College of Nursing	Attached in Annexure		

Signature: Designation:

PRINCIPAL DIRECTOR

PRINCIPAL DIRECTOR Health & Family Welfare Department Govt. of Mizoram Aizawl,Mizoram

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Annexure - I

STATEMENT OF NEED

I. Aizawl City

Aizawl is the capital city of Mizoram and as per 2011 census, Aizawl district has a population of 400309. The population density is 112 Sq Km with 199,270 males and 201,039 females. The district has 7 towns, 96 villages and 14 Assembly constituencies. The literacy rate stands at 97.89%. Aizawl district is bounded on the north by Kolasib district; on the west by Mamit district, on the south by Serchhip district, on the southwest by Lunglei district and on the east by Champhai district. Since Aizawl is the administrative centre, it is the most populous district in the State. There are nineteen (19) recognised hospitals and eight (8) Nursing Institutes in Aizawl District. Out of the eight (8) nursing institutes, only four (4) offer degree course of BSc. Nursing.

II. Brief Account of existing BN College of Nursing

The B.N College of Nursing is an autonomous Institution established by BN Foundation Society, Aizawl, Mizoram in 2020. The institute encompasses to develop a center of excellence in the field of nursing education, research and patient care so as to impart quality education leading to Bachelor Degree in Nursing for the internationally accredited Nursing Professionals. The BN College of Nursing offers B.Sc. Nursing Degree course, the duration is four years *including* six months Internship Programmes. The Course is affiliated to Mizoram University (MZU) and has thirty (30) seats annually. The existing B.N College of Nursing is located in the locality of Kulikawn, Aizawl, Mizoram and is being run in a rented building.

III. Demand for Nursing Education

Although the largest employer of professional nurses is typically hospitals, health care settings in Mizoram have changed in recent years. Most people now require professional nurses in assisted living facilities, rehabilitation facilities, hospice and private palliative care. This has resulted in the increased demand for nurses which further lead to demand for nursing education. As stated earlier, since Aizawl is the administrative centre, it is also the commercial and education hub and as such there is increased migration from rural areas to Aizawl. Many prospective nursing students come to seek admission in the capital city. This is due to the fact that many cannot afford to go outside of Mizoram for higher or better studies.

The demand for nursing education stems from the increased demand for trained nurses. This has resulted in increased number of aspirant nursing students. Most of the nursing institutions are run by the state and central government and there is no independent private nursing college run by a Society or private entrepreneur. The seats available in the existing nursing institutions are limited and cannot accommodate all the aspirant nursing students.

The existing nursing institutes in Aizawl cannot accommodate the increased demand for admission and moreover prospective students often opt for a degree course. It is the need of the hour to establish or upgrade a nursing college that can facilitate the growing demand of nursing education.

IV. Need for Upgradation of existing BN College of Nursing

The increased number of aspirant nursing students has prompted the management of BN College of Nursing and the BN Foundation Society to look for assistance for upgradation of the existing nursing institution. Although the existing nursing college is next to the parent hospital i.e BN Hospital & Research Centre, there is no space for extension of the building. The existing college is being run in a rented 3- storey building with an approximate total area of 4958.35 Sq. ft. The management has decided to increase the annual intake of students to 60 as against the current intake of 30 students to meet the growing demand for admission. However, as per INC for a college with an annual admission capacity of 60 students, the constructed area of the college should be 23200 Sq. ft. This is not possible given the location and area of the existing nursing college.

As the demand for trained nurses increases, **B.N College of nursing** has to find ways and means to address this situation. However, the ability to increase the number of nurse graduates is seriously constrained by inadequate educational infrastructure and facilities. The existing college has a makeshift library, laboratory in a congested space. It is safe to say the facilities are not up-to-the-par but this can be remedied and improved once a new building is constructed. All the facilities such as classroom, faculty block, library, laboratory, etc are confined in one building as against the norms set up by the INC. This further prevents the nursing college from getting appropriate accreditation from the concerned authority. This hampers the future of the nursing institution as the management plans to grow and have the potential to develop as a leader in its field.

BN Foundation Society owns a plot of land specifically for building and setting up of a nursing college at Hualngo Hmun, Aizawl, Mizoram that can accommodate adequate educational & infrastructural facilities as per the norms provided by Indian Nursing Council. The proposed upgraded BN College of Nursing plans to accommodate all the required educational infrastructure and facilities, to name a few, such as : Skill lab, Nutrition lab, Lecture hall, Multipurpose hall, Library with adequate books, playground, special facilities required for clinical experience, Separate block for Administration & hostel facilities for 60 students, etc

The upgraded **BN School of Nursing** is intended to become a major force in local and regional health care by offering BSc. Nursing Degree program that will produce leaders in clinical nursing practice as well as top-tier nurse educators, administrators, scholars for the State and beyond. It is also a key element in the development of the State Capital – Aizawl, in terms of medical education as it would have the potential to develop a national reputation. The upgraded BN College of Nursing is intended to become nationally respected for excellence in research and professional nursing practice.

Annexure - II

ABSTRACT OF COST

	Based on Mizora	m PWD SOI	R 2019	
ITEM	AREAS	UNIT	RATE PER Sqm	TOTAL AMOUNT
College Building	4061.195	M ²	34000.00	₹ 138,080,630.00
Hostel Building	456.840	M ²	38000.00	₹ 17,359,920.00
TOTAL-A	4518.035	M ²	Children and Children	₹ 155,440,550.00
Add 12.5% for internal electrificat	ion from Total 'A'			₹ 19,430,068.75
Add 4% for Sanitary Installation a	nd water supply from 7	Total 'A'		6,217,622.00
			TOTAL-B	₹ 181,088,240.75
Add 27.33% for Cost Index Above	SOR 2019 from Total	'B'	SUS-SISO CLASS	49,491,416.20
			TOTAL -C	₹ 230,579,656.95
Add 3% for contingency	₹ 6,917,389.71			
G	RAND TOTAL			₹ 237,497,046.66

A. CIVIL CONSTRUCTION

B. FURNISING

SL No.	PERTICULARS	AMOUNT (In Rs.)
1	Class Rooms & Computer Lab	₹ 77,30,307.44
2	Simulators & Machine	₹ 3,04,20,400.00
3	Furnishing for Lab	₹ 27,06,920.00
4	Instruments & Requirement	₹ 69,53,032.00
5	Linen	₹ 28,45,570.00
6	Nutrition	₹ 58,35,005.00
7	Obstetrics & Gynecology Lab Requirement	₹ 62,30,840.14
8	Equipments / Instruments	₹ 27,08,364.32
9	Community Health Nursing	₹ 30,21,634.26
10	Furnishing & Equipping Medical unit	₹ 10,79,774.34
11	Pre-Clinical Science Lab	₹ 21,24,672.60
12	Paediatrics	₹ 1,09,13,560.40
13	Administrative Block	₹ 3,22,17,398.40
14	Hostel:	
	(i) Kitchen & Dinning	₹ 37,64,200.00
	(ii) Hostel Rooms	₹ 1,66,95,820.00
15	Warden Room Furnishing	₹ 9,39,988.00
16	Staff Quarter Furnishing	₹9,23,350.00
	TOTAL AMOUNT	₹ 13,71,10,837.50

C. LIBRARY REQUIREMENT

SL No.	PERTICULARS	QUANTITY	AMOUNT (In Rs)
1	Foundation of Nursing Book	875	₹ 21,44,384.50
2	Nursing Research & Statistic Book	360	₹ 2,67,942.60
3	Midwifery & Obstetrical Nursing Book	205	₹ 5,60,718.30
4	Medical Dictionary	540	₹ 8,28,466.20
5	Pharmacology & Drug Book	900	₹ 18,05,400.00
6 '	Text Book of Pathology Book	720	₹ 15,08,995.80
7	Genetics Book	810	₹ 15,88,645.80
8	Biochemistry Book	630	₹ 13,74,068.70
9	Nutrition Book	360	₹7,63,418.70
10	Anatomy & Physiology Book	195	₹ 1,81,843.90
11	Microbiology Book	315	₹ 7,36,868.70
12	Psychology Book	. 225	₹2,54,880.00
13	Computers Book	225	₹ 1,32,750.00
14	Sociology Book	450	₹ 5,31,000.00
15	Community Health Nursing Book	355	₹ 35,23,474.10
16	English Book	140	₹ 82,600.00
17	Communication & Educational Technology Book	7	₹ 4,130.00
18	Nursing Management Book	2	₹ 3,540.00
19	Medical Surgical Nursing Book	1140	₹ 90,01,040.00
20	Journal	36	₹ 97,940.00
	TOTAL AMOUNT	8490	₹ 2,53,92,107.30

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A+B+C = Total Estimate of the Project

₹ 23,74,97,046.66 + ₹ 13,71,10,837.50 + ₹ 2,53,92,107.30 = ₹ 39,99,99,991.46 (Say Rs. 40,00,00,000.00)

Total Project Cost is Rs. ₹ 40,00,00,000.00 (Rupees Forty Crore only)

1.4

13/10/22

Executive Engineer Health & Family Weifare Deptt Mizoram : Aizawl

Annexture - III

41

YEAR-WISE IMPLEMENTATION PHASE

The Project will be completed within 2 years from the date of receiving fund as given below:

Project Activities	Monthly Implementation											
Project Activities	• 2	- 4	6	8	10	12	14	16	18	20	22	24
Place of materials		Sise Mil		1.0.1.5.2			N. Strach					
Construction						Constant of	T ST	THE	THE STATE			
Procurement of equipments												
Installation									- Constant	Martin A	No.	
Staff Recruitment	Second Print		111111	1244611		Val 1	Distant I	In the second se	-		Interestioned	
Opening & launching						-			_ ENGINE			

Annexure - IV

NON – DUPLICATION CERTIFICATE

It is certified that B.N Foundation Society, Mizoram has not obtained or applied for grants for the same purpose or activity i.e. "Upgradation of B.N College of Nursing", Hualngohmun, Aizawl District from any other Ministry or Department of the Government of India or State Government.

Place: Aizawl

-

Date:

Signature:

Name:

Designation:

Organisation:

ils

(Dr. JOSEPH LALHMINGTHANGA)

Chairman

B.N Foundation Society Aizawl, Mizoram Pin Code : 796001

Chainned B N. Foundation Societ Kulikawn, Aizawl

BASIC INFO OF BN FOUNDATION SOCIETY

- 1. Name of Society: **BN** Foundation Society
- 2. Registered Office :

Registered Office of the society shall remain in Mizoram and at present it is at the following address :

House No. 1/6 Kulikawn, Aizawl Mizoram

3. Aims and Objectives :

The aims and objectives for which the society is established are as under :

- (a) To render service for the upliftment of human resources and for the socioeconomic development and welfare of humanity,.
- (b) To take up programmes on drinking water supply, sanitation, health, medical health centres, hospitals and dispensary.
- (c) To provide necessary facilities for education and research to facilitate good health for the masses and to produce qualitative professional graduates to the country.
- (d) To take up programmes on women and child development, orphanage, handicapped, aged, de-addication and rehabilitation centres etc.
- (e) To organize workshop, conference, seminar, awareness campaign on health related issues, health treatment camp and mobile clinic.

4. Units of BN Foundation Society :

- (a) BN HospitaLand Research Centre Kulikawn, Aizawl, Mizoram.
- (b) BN College of Nursing Hualngohmun, Mizoram

B. N. Foundation Society Kulikawn: Aizawl

BASIC INFO OF BN COLLEGE OF NURSING.

The BN College of Nursing is an autonomous Institution establish by BN Foundation Society, Aizawl, Mizoram on 2020.

The institute encompasses to develop a centre of excellence in the field of nursing education, research and patient care so as to impart quality education leading to Bachelor Degree in Nursing for the internationally accredited Nursing Professionals.

Registered Office :

BN College of Nursing Hualngohmun Mizoram-796005

AIM :

The undergraduate nursing program aims to:

1. Prepare nurses to provide comprehensive nursing care and function as an efficient member of the healthcare team making a maximum contribution to the society at every level of the health care settings while abiding to the code of ethics and professional conduct at all times.

2. Promote and uplift the profession of nursing as a whole by preparing nurses to keep pace with latest professional and technological developments, conduct research in the areas of nursing practice that will contributes nursing care in the prevention of disease, protection of health and rehabilitation of the sick.

3. Prepare nurses to assume role of practitioner, teacher, supervisor and manager in clinical or public health settings.

OBJECTIVES:

The B.Sc Nursing is a Baccalaureate Degree Program of four (4) years, which on completion will enable the graduates to:

1. Provide proficiency in the skills and techniques of nursing based on scientific principle and concepts of nursing by utilizing critical analysis, judgment and decision making abilities.

2. Participate as member of the healthcare team in delivery of curative, prevention, promotion and rehabilitative health care services.

3. Provide effective nursing care through the knowledge of human relation and communication skills.

4. Supervise and manage health programmes and to undertake teaching /training, assignments in different settings.

5. Provide opportunities for self-development through curricular and extra-curricular activities helping

them develop a pride in their profession and guide them in their future nursing career. 6. Provide abroad-based educational programmes through which graduates will be prepared to assume responsibility at the primary, secondary and tertiary level health care institutions as professional Nurses. 7. Prepare the graduates to conduct need based research both operational and applied and utilize the research findings to improve the quality of nursing care.

8. Impart a feeling of care and humanity to students and thereby lending a helping hand of love and care to everyone.

NAME OF THE COURSE:

B.Sc. Nursing

DURATION OF THE COURSE:

Four years including six months Internship Programmes.

AFFILIATION:

The Course is affiliated to Mizoram University (MZU)

TOTAL NUMBER OFSEATS

Thirty (30) seats annually.

Secretary B. N. Foundation Society Kulikawn : Aizawl

Provisional Land Lease Certificate

[see rule 7 (6)]

Name of Provisional Certificate Holder	: BN Foundation Society
Address	: Kulikawn, Aizawl
Purpose	: Hualngohmun
Area in bigha & sqm	: 3144.913 sqm = 2.34 bigha
Period of validity	: 6 Months (July 2021- Jan 2022)
The helder of this Drovies	onal Land Loase Certificate will be

The holder of this Provisional Land Lease Certificate will be issued Land Lease Certificate after completion of these conditions –

- 1. Properly demarcated with the assistance of Revenue Department using boundary pillars prescribed by the Revenue Department.
- Boundary wall or proper fencing shall be put up by the allottee within six
 (6) months from the date of issue of Provisional Land Lease Certificate.
- On satisfactory fulfilment of above two conditions, the holder of this Provisional Land Lease Certificate shall apply for issue of Land Lease Certificate.

Dispoval No. K. 15013/61/2005-REV Date 21.04.2021 No D. 28014/11/21-DC(REV)MICS-1

> (V.LALRUATLIANA) Settlement Officer Land Revenue & Settlement Aizawl District : Aizawl

Con plane

No.K.15013/61/2005-REV GOVERNMENT OF MIZORAM LAND REVENUE & SETTLEMENT DEPARTMENT

Secretariat Building No.2, 1st Floor, New Capital Complex. email : mizoram.revenue@gmail.com

Aizawl, 21st April, 2021.

To

The Director, Land Revenue & Settlement, Mizoram, Aizawl.

Subj : Approval for allotment of land to BN Foundation Society at Hualngohmun.

Ref : No. D. 28014/1/2019-DTE(REV)MISC-11/28 dt. 23.02.2021.

Sir,

With reference to the subject cited above, I am directed to convey herewith approval of the Government for allotment of land to BN Foundation Society for the purpose of Nursing College with an area of **3144.914 sqm**. for a period of 25 years on issue of Provisional Lease Certificate as required under Rule 7 (6) of the Mizoram (Land Revenue) Rules, 2013.

All connected papers are returned herewith.

Enclo : As above.

Yours faithfully,

(ZOHMINGTHANGA)

Under Secretary to the Govt. of Mizoram,

Dated Aizawl, the 21st April, 2021.

Memo No. K.15013/61/2005-REV Copy to :-

- 1) The Chairman, BN Foundation Society for information.
- 2) Guard file.

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Under Secretary to the Govt of Mizoram,





Agenda Note for 37th Meeting of the IMC/NESIDS Committee scheduled to be held on 17.11.2022

State: Mizoram

- 1. Name of the Project: Establishment of Mizoram Immersive Tourist Hub at Berawtlang, Mizoram
- 2. Department: Tourism.
- 3. Estimated Cost: Rs. 20.00 crore
- 4. Sector: Tourism

5. **Objective:** The project is proposed to take place in Berawtlang Tourist Complex, Aizwal. The proposed project has the goals of establishing high-tech centers of cultural education, digital preservation of the local cultural heritage, promotion of local tourism and generation of revenue and employment. This will be akin to cultural museums that utilize the latest immersive and experiential technologies.

6. Abstract of Cost:

Sl. No.	Description	Amount (Rs. in rupee)	
1	Civil Construction	6,01,03,375.80	
2	Interior Design & Fabrication	2,91,14,730.00	
3 '	Hardware & Equipment	5,00,67,400.00	
4	Design & Content Production	2.50,92,700.00	
5	Software Development	3,56,21,840.00	
	Total	20,00,00,045.00	

7. Intended output and outcomes of the project- Not provided by SG

8. SDG, being targeted by the project – Not provided by SG

9 Concept paper is attached

10. **PD comments:** Annual recurring expenditure of maintenance for created asset and deployment of manpower resource are not made available in the concept paper.

Nor Sul 9

(N. K. Saha) Under Secretary to the Government of India E-mail: nitai.kumar@nic.in



CONCEPT NOTE FOR

ESTABLISHMENT OF MIZORAM IMMERSIVE TOURIST HUB at BERAWTLANG, AIZAWL

(To be considered under NESIDS Scheme)

PROJECT ESTIMATE: Rs. 20,00,00,000.00

(Rupees Twenty Crore only)

Submitted to:

MINISTRY OF THE DEVELOPMENT OF NORTH EASTERN REGION (DONER) GOVERNMENT OF INDIA

Submitted by:

TOURISM DEPARTMENT

GOVERNMENT OF MIZORAM

CONCEPT NOTE ON MIZORAM IMMERSIVE TOURIST HUB AT BERAWTLANG, AIZAWL

S/n	ITEMS	DETA	ILED INFORMATION		
i	Name of the Organization	Tourism Department, Government of Mizoram			
ii	Name of Website/Social Media Link	tourism.mizor	am.gov.in	1.16	
iii	Address, Street, District Pin Code, Phone No. & Fax (with STD Code), E-mail	MINECO, Khatla, Aizawl, Mizoram 796 001 Ph - 0389-2333475 Email - <u>mizoram.tourism@gmail.com</u>			
iv Name, Designation& address of Chief Functionary		Shri Saitluanga, Director, Tourism Department, Govt. of Mizoram, MINECO, Khatla, Aizawl, Mizoram 796 001			
v	Name of other Key Functionaries &	Smt. Rachel La	lrinhlui, Deputy Diree	ctor,	
	Contact No. & Address	Tourism Department, Govt. of Mizoram, MINECO, Khatla, Aizawl, Mizoram 796001			
S/n	ITEMS	DETA	ILED INFORMATION		
A	General Information about the Project				
i	Name of the Project	Setting Up of Mizoram Immersive Tourist Hub at Berawtlang, Aizawl			
ii	Objectives of the Project - To leverage the local exotion resources and offer unique through immersive experience. - To establish reputed high-tect of tourism and cultural educate - To establish reputed high-tect of tourism and cultural educate - To catalogue and archive aspect local cultural heritage into repository for preservati promotion. - To leverage and supplement sites of attraction in a sites of attraction in a sites of attraction in a site region.			insights centers on. ts of the digital n and existing ymbiotic	
iii	Estimated Cost of Project	Rs. 20,00,00,0	00.00		
iv	Indicate sources and share of funding	Means of Finance	Amount (in Rupees)	%	
		DONER	20,00,00,000.00	100%	
		Total	20,00,00,000.00	100%	
V	Availability of land and land size. Indicate clearly whether owned by Govt./leaded/ donated/community owned etc	Govt. of Mizo	ed by Tourism Depa ram. Land is availa brances. Ownership o mexure	ble and	

vi	Location of Project	Berawtlang, Aizawl, Mizoram			
vii	Name of district and sub-division/block where proposed project will be located	Aizawl District			
viii	Proposing/Implementing Department	Tourism Department, Govt. of Mizoram			
ix	Name of the executing Agency	Tourism Department, Govt. of Mizoram			
x	Enclose Non-duplication certificate	Attached in Annexure IV			
xi	If State specific project, give reasons why it cannot be funded from the State Plan	The Government of Mizoram does not have fund for the proposed project			
xii	If project is covered under any CSS/Central scheme, name the CSS/Central scheme and give reasons why funding has not been obtained/sought from the Ministry concerned	Ministry of Tourism, Govt, of India does not offer scheme that cover this particular project			
xiii	Give details of convergence with other State schemes/CSS/CS built into the project. If not, state why	This is a standalone project			
xiv	Give details of synergy built into the project (e.g. technical and professional assistance).	 As the project establishes a new site of tourist attraction in close proximity to existing ones, both the new and existing sites can benefit from each other as traffic from one drives the other. Educational institutions of all levels can employ the immersive exhibits to supplement their own curriculum as applicable. The authenticity and quality of the archived digital media collection makes it suitable for academic reference. Items in the digital media collection will be licensable for use in various media productions related to art and culture. 			
XV	Indicate sustainability of project including operation and maintenance of assets on completion of project	On completion, the project is expected to be self-sustaining. Expected revenue sources: - Visitor entry fees - Sale of merchandise - Hosted events - Digital media licensing - Donations and contributions			

		- Others
xvi	Give details of the existing infrastructure and facilities available in the proposed project location and also in the district and sub-division/block	While the project pertains to the establishment of new infrastructure, the project site is location of (or in close proximity to) existing tourism attraction Berawtlang Tourist Complex is an existing tourist site that houses the Mizoram Science Center, a Convention Center, the Arts and Culture hall, among others. There is also ongoing construction of an Open Ain Theatre, Orchidarium, and other minor facilities.
B	Justification/Rationale for the project	and the second states and the second s
i	State the nature and magnitude of the problem faced or the potential to be tapped. Elaborate the problems to be addressed or benefits that will accrue through the project. For social infrastructure project, also give the baseline of socio-economic parameters/indicators to justify the proposal The development objectives proposed to be achieved	 Attached in Annexure I To construct infrastructure to house the centre of Tourism To research the local heritage, consult subject matter experts, and identify subjects for exhibition content To develop immersive and experiential exhibits with regards to software, hardware, and content production. To collect digital archive content and to design and build infrastructure for its storage and access
iii	Indicate the sections and number of population to be benefitted.	The general population of the state as a whole by way of preservation and promotion of own culture
iv	For income generating activities/skill development indicate the number of beneficiaries targeted and the methodology for selection of beneficiaries. Indicate nos. of female and male beneficiaries separately	N.A
С	Project Description & Main Activities	
i	Sector under which project is proposed	Tourism
ii	Project description (Provide a brief write-	- The proposed project is to construct a

	up on the project) (Goals, area, target group, problems to be addressed)	 new tourist attraction. This will be akin to cultural museums that utilize the latest immersive and experiential technologies. The subject of the exhibitions in this site will cover the natural and cultural heritage of the local ethnic groups of Mizoram. The new facilities will conduct collection, catalogue, and archiving aspects of the local heritage in rich media formats towards the goal of culture preservation. The project is proposed to take place in Berawtlang Tourist Complex, Aizawl. The proposed project has the goals of establishing high-tech centers of cultural education, digital preservation of the local tourism, and generation of revenue and employment.
iii	Detail of any "Need Assessment" done before deciding on the project	Attached in Annexure I
iv	Component-wise cost of Project/main activities	Attached in Annexure II
V	List out basic Indicators for measuring achievement / Success of the Project	 Tourism index: Visitor footfall and retention Visitor satisfaction index and feedback Visitor profile KPI of nearby sites Financial indicators: Revenue generated Local economic indicators Digital collection: Size of digital archive Quality index of archived items Social impact: Organised events and attendance Local socio-economic indicators
D	Physical Details	
	Year-wise phasing & Time frame for completion of project	Attached in Annexure III
Е	Indicate if any Statutory Clearances including Forest & Environmental Clearances etc are required	All proposed construction and ancillary activities will be confined within the boundary wall of the compound.

Statutory clearance from any other agency will not be required. Pollution such as air, water will be minimal as the proposed project does not require heavy machineries and the quantity of works polluting environment are minimal.

Signature of Concept Paper preparing authority:

Falt

Lalrindika Ralte Creative Director Makkati LLP

Countersigned:

(SAITLUANGA)

Director Tourism Department Govt. of Mizoram

Annexure I

NEED AND OPPORTUNITY ASSESSMENT

A preliminary need and opportunity assessment was conducted before deciding on the project. The following needs and opportunities were identified:

1. Need for digital preservation of local cultural heritage

With increasing globalization and the general population increasingly adapting to a more global culture, local cultures everywhere are facing dangers of extinction. Between 1950 and 2010, 230 languages went extinct, according to the UNESCO Atlas of the World's Languages in Danger. Today, a third of the world's languages have fewer than 1,000 speakers left. Every two weeks a language dies with its last speaker, 50 to 90 percent of them are predicted to disappear by the next century.

Mizoram, with a population of around 11 lakhs (2011 census), is home to a number of ethnic groups with a number of cultures and subcultures. Without coordinated preservation efforts using the latest technologies, the various ethnic groups in Mizoram face the threat of certain aspects of their culture vanishing without any proper record.

With proper equipment, and the infrastructure to support it, there exists an opportunity to capture and store aspects of Mizoram's various cultural heritage in multiple media formats. The project aims to catalogue and archive these into a structured repository. The repository will be preserved, maintained, and made available for research and reference.

This initiative is supplementary to MeitY's National Digital Preservation Program, in that the project will attempt to maintain a complete and comprehensive repository.

2. Opportunity to export "exotic" tourism resource using rich media

The culture of the various ethnic groups in Mizoram, while sharing certain similarities within themselves, are, on a whole, unique from the other cultures that exist in the region. Mizoram is home to a number of languages and dialects, multiple festivals, music and dances, and rich folklore and legends with some related and traceable to presentday geography. This rich natural and cultural heritage is an exotic tourism resource for the rest of the world.

There exists an opportunity to package this rich tourism resource into immersive media for a more visceral experience for visitors. The project aims to achieve this by deploying the latest in experiential technologies to exhibit the rich heritage of the region. These technologies include Virtual Reality, Augmented Reality, Projection Mapping, large dome and curved screen projections, holographs, interactive displays, and so on.
A facility with such display technologies paired with the exotic tourism export has the potential to become a nationally acclaimed tourist attraction site.

3. Need for digital museum in the state

As of 2022, the state of Mizoram actively runs one museum - the Mizoram State Museum. This museum (and any other upcoming ones) exhibits the local heritage through the more traditional medium of physical displays and real-life exhibits.

Complementary to this, the project aims to employ a digital-first approach and focus on digital media. In addition to keeping up with global trends, digital media exhibits offer a more visceral experience for visitors and provide a unique engaging experience for all age groups.

Additionally, with the Mizoram State Museum being located inside the city of Aizawl, it is relatively isolated (with respect to tourist attractions) from other tourist sites. In this regard, the project also aims to establish sites of culture dissemination among existing sites of tourist attraction for better visibility and access.

4. Opportunity to leverage and benefit existing tourist sites

The Berawtlang Tourist Complex is an existing tourist attraction site that enjoys a steady rate of visitor footfall. The project aims to leverage this existing site by establishing a new facility within it.

Additionally, the attraction generated by the new establishment also serves to drive up the traffic of the existing site. In this manner, both the new and existing establishments stand to benefit each other in a symbiotic relationship.

5. Employment generation and development of the area

As a primary benefit, the new facilities proposed in the project stand to generate employment through construction, and subsequently through operation.

Additionally, the additional businesses generated in the area will have the secondary benefit of developing the area in terms of other commercial and employment opportunities, ultimately elevating the socio-economic state of the region.

Annexure II

ABSTRACT OF COST

I. CIVIL CONSTRUCTION

	Based on Mizoram PWD SOR 2019					
SI. no.	Item Area Unit Rate per m.sq		Total amount			
1.	Exhibition building	520	m.sq	₹ 38000	₹ 1,97,60,000.00	
2.	Office building	300	m.sq	₹ 38000	₹ 1,14,00,000.00	
3.	3D theater building	185	m.sq	₹ 38000	₹ 70,30,000.00	
	TOTAL A	1005	m.sq		₹ 3,81,90,000.00	
4.	Add 16% for internal electrific	₹ 61,10,400.00				
5.	Add 4% for sanitary installation	₹ 15,27,600.00				
				TOTAL B	₹ 4,58,28,000.00	
6.	Add 27.33% for Cost Index A B'	bove SC	OR 2019 fro	om 'TOTAL	₹ 1,25,24,792.40	
				TOTAL C	₹ 5,83,52,792.40	
7.	Add 3% for Contingency				₹ 17,50,583.80	
			G	Grand Total:	₹ 6,01,03,375.80	

II. INTERIOR DESIGN AND FABRICATION

SI. no.	Particulars	Qty.	Amount	Total amount
1.	40Kv Generator and installation	1	₹ 8,00,000	₹ 8,00,000
2.	Office electronic hardwares	1	₹ 25,50,000	₹ 25,50,000
3.	Office utility hardwares	1	₹ 12,20,000	₹ 12,20,000
4.	Interior furnishing materials	1	₹ 30,00,000	₹ 30,00,000
5.	Museum decoration items	1 ·	₹ 50,00,000	₹ 50,00,000
7.	Exhibition display structure fabrication	1	₹ 25,00,000	₹ 25,00,000
8.	HVAC system (VRV)	1	₹ 96,00,000	₹ 96,00,000

	Total:	₹ 2,91,14,730
9.	GST 18%	₹ 44,40,600
		₹ 2,46,70,000

III. HARDWARE AND EQUIPMENT

SI. no.	Particulars	Qty.	Amount	Total amount		
1.	Digital collage of photographs	8	₹ 8,50,000	₹ 68,00,000		
2.	3D theater with Active glasses	1	₹ 28,00,000	₹ 28,00,000		
3.	Transparent OLED digital panels	8	₹ 6,50,000	₹ 52,00,000		
4.	270 degree curved screen	1	₹ 65,80,000	₹ 65,80,000		
5.	Projection mapping on 3D model		₹ 15,00,000	₹ 90,00,000		
6.	Kiosk - reception/assistant	28	₹ 1,25,000	₹ 35,00,000		
7.	Pyramidal holographic display	8	₹ 4,50,000	₹ 36,00,000		
8.	Unmanned quiz	2	₹ 12,00,000	₹ 24,00,000		
9.	Server and other hardware requirements	1	₹ 25,50,000	₹ 25,50,000		
				₹ 4,24,30,000		
10.	GST 18%	₹ 76,37,400				
	Total:			₹ 5,00,67,400		

IV. DESIGN AND CONTENT PRODUCTION

SI. no.	Particulars	Qty.	Amount	Total amount
1.	360-degree tour mobile app	1	₹ 8,50,000	₹ 8,50,000
2.	Digital collage of photographs	8	₹ 3,50,000	₹ 28,00,000
3.	3D theater with Active glasses	1	₹ 26,70,000	₹ 26,70,000
4.	Transparent OLED digital panels	8	₹ 2,60,000	₹ 20,80,000
5.	270 degree curved screen	1	₹ 35,00,000	₹ 35,00,000
6.	Projection mapping on 3D model	6	₹ 8,00,000	₹ 48,00,000
7.	Kiosk (Assistant & Information board)	24	₹ 65,000	₹ 15,60,000

	Total:			₹ 2,50,92,700
10.	GST 18%			₹ 38,26,800
				₹ 2,12,60,000
9.	Unmanned quiz	2	₹ 5,00,000	₹ 10,00,000
8.	Pyramidal holographic display	8	₹ 2,50,000	₹ 20,00,000

V. SOFTWARE DEVELOPMENT

SI. no.	Particulars	Qty.	Amount	Total amount
1.	360-degree tour mobile app	1	₹ 15,00,000	₹ 15,00,000
2.	Digital collage of photographs	8	₹ 4,00,000	₹ 32,00,000
3.	3D theater with Active glasses	1	₹ 15,00,000	₹ 15,00,000
4.	Transparent OLED digital panels	8	₹ 5,00,000	₹ 40,00,000
5.	270 degree curved screen	1	₹ 25,00,000	₹ 25,00,000
6.	Projection mapping on 3D model	6	₹ 8,00,000	₹ 48,00,000
7.	Kiosk - reception/assistant	13	₹ 3,50,000	₹45,50,000
8.	Pyramidal holographic display	8	₹ 6,00,000	₹ 48,00,000
9.	Unmanned quiz	2	₹ 25,00,000	₹ 50,00,000
				₹ 3,18,50,000
9.	GST 18%	₹ 57,73,000		
-	Total:			₹ 3,56,21,840

Total Cost of the Project:

6,01,03,375.80 + 2,91,14,730.00 + 5,00,67,400.00 + 2,50,92,700.00 + 3,56,21,840.00 = Rs. 20,00,00,045.80

say Rs. 20,00,00,000.00 (Rupees*Twenty Crore* only)

Ta

Creative Director Makkati LLP

Annexure III

ACTION PLAN

The project will be completed within two (2) years from the date of receiving fund. The yearwise implementation plan is given below:

Project activity	Monthly implementation											
	2	4	6	8	10	12	14	16	18	20	22	24
Detailed site analysis & research												
Experience design and planning												
Construction and civil works												
Digital content production												
Software development												
Hardware procurement, fabrication, installation												
User acceptance tests							Charles .					
Feedback and development iterations												
Recruitment and training of personnel												
Launch and start of operational support												

Annexure IV

NON- DUPLICATION CERTIFICATE

It is certified that **Tourism Department, Govt. of Mizoram** has not obtained or applied for grants for the same purpose or activity i.e. **Mizoram Immersive Tourist Hub at Berawtlang, Aizawl, Mizoram** from any other Ministry or Department of the Government of India or State Government.

Place: Aizawl

Date:

Signature: Name : Designation : Organization : (SAITLUANGA)

Director Tourism Department Govt. of Mizoram



Agenda Note for 37th Meeting of the IMC/NESIDS Committee scheduled to be held on 17.11.2022

State: Mizoram

- Name of the Project: Establishment of Mizoram Immersive Tourist Hub at Thenzawl, Mizoram
- 2. Department: Tourism.
- 3. Estimated Cost: Rs. 20.00 crore
- 4. Sector: Tourism

5. **Objective:** The project is aims to leverage the local exotic tourism resources and offer unique insights through immersive experiences. Achieve this by deploying the latest in experiential technologies to exhibit the rich heritage of the region. These technologies include Virtual Reality, Augmented Reality, Projection Mapping, large dome and curved screen projections, holographs, interactive displays and so on. A facility with such display technologies paired with the exotic tourism export has the potential to become a nationally acclaimed tourist attraction site. The site for the proposed Immersive Hub is at Thenzawl Golf Resort. This golf course resort is an existing tourist attraction site with an all-season 18 hole golf course. It also houses facilities for lodging and dinning. As a primary benefit, the new facilities proposed in the project stand to generate employment through construction and subsequently through operation.

6. Abstract of Cost:

Sl. No.	Description	Amount (Rs. in rupee)
1	Civil Construction	6,01,03,375.80
2	Interior Design & Fabrication	2,91,14,730.00
3	Hardware & Equipment	5,00,67,400.00
4	Design & Content Production	2.50.92.700.00
5	Software Development	3,56,21,840.00
	Total	20,00,00,045.00

7. Intended output and outcomes of the project- Not provided by SG

8. SDG, being targeted by the project – Not provided by SG

9 Concept paper is attached

10. **PD comments:** Annual recurring expenditure of maintenance for created asset and deployment of manpower resource are not made available in the concept paper.

Wogene

(N. K. Saha) Under Secretary to the Government of India E-mail: nitai.kumar@nic.in



CONCEPT NOTE FOR

ESTABLISHMENT OF MIZORAM IMMERSIVE TOURIST HUB at THENZAWL, MIZORAM

(To be considered under NESIDS Scheme)

PROJECT ESTIMATE: Rs. 20,00,00,000.00

(Rupees Twenty Crore only)

Submitted to:

MINISTRY OF THE DEVELOPMENT OF NORTH EASTERN REGION (DONER) GOVERNMENT OF INDIA

Submitted by:

TOURISM DEPARTMENT

GOVERNMENT OF MIZORAM

CONCEPT NOTE ON MIZORAM IMMERSIVE TOURIST HUB AT THENZAWL

S/n	ITEMS	DETAILED INFORMATION
i	Name of the Organization	Tourism Department, Government of
		Mizoram
ii	Name of Website/Social Media Link	tourism.mizoram.gov.in
iii	Address, Street, District Pin Code, Phone	MINECO, Khatla, Aizawl, Mizoram 796 001
	No. & Fax (with STD Code), E-mail	Ph - 0389-2333475
		Email - mizoram.tourism@gmail.com
iv	Name, Designation& address of Chief	Shri Saitluanga, Director, Tourism
	Functionary	Department, Govt. of Mizoram, MINECO,
		Khatla, Aizawl, Mizoram 796 001
v	Name of other Key Functionaries &	Smt. Rachel Lalrinhlui, Deputy Director,
	Contact No. & Address	Tourism Department, Govt. of Mizoram,
		MINECO, Khatla, Aizawl, Mizoram 796001

S/n	ITEMS	DET	AILED INFORMATION	J		
A	General Information about the Project					
i	Name of the Project	· ·	Mizoram Immersive F rchhip District, Mizora			
ii	Objectives of the Project	 Thenzawi, serchnip District, Mizorali To leverage the local exotic tourism resources and offer unique insights through immersive experiences. To establish reputed high-tech centers of tourism and cultural education. To catalogue and archive aspects of the local cultural heritage into a digital repository for preservation and promotion. To leverage and supplement existing sites of attraction in a symbiotic manner, further promoting tourism in the region. 				
iii	Estimated Cost of Project	Rs. 20,00,00,	000.00			
iv	Indicate sources and share of funding	Means of	Amount (in	%		
		Finance	Rupees)			
		DONER	20,00,00,000.00	100%		
		Total	20,00,00,000.00	100%		

v	Availability of land and land size. Indicate clearly whether owned by Govt./leaded/	Land is owned by Tourism Department, Govt. of Mizoram. Land is available and
	donated/community owned etc	free of encumbrances. Ownership of land is attached in Annexure.
vi	Location of Project	Golf Course, Thenzawl, Serchhip District, Mizoram
vii	Name of district and sub-division/block where proposed project will be located	Serchhip District
viii	Proposing/Implementing Department	Tourism Department, Govt. of Mizoram
ix	Name of the executing Agency	Tourism Department, Govt. of Mizoram
x	Enclose Non-duplication certificate	Attached in Annexure IV
xi	If State specific project, give reasons why it cannot be funded from the State Plan	The Government of Mizoram does not have fund for the proposed project
xii	If project is covered under any CSS/Central scheme, name the CSS/Central scheme and give reasons why funding has not been obtained/sought from the Ministry concerned	Ministry of Tourism, Govt, of India does not offer scheme that cover this particular project
xiii	Give details of convergence with other State schemes/CSS/CS built into the project. If not, state why	This is a standalone project
xiv	Give details of synergy built into the project (e.g. technical and professional assistance).	 As the project establishes new sites of tourist attraction in close proximity to existing ones, both the new and existing sites can benefit from each other as traffic from one drives the other. Educational institutions of all levels can employ the immersive exhibits to supplement their own curriculum as applicable. The authenticity and quality of the archived digital media collection makes it suitable for academic reference. Items in the digital media collection will be licensable for use in various media productions related to art and culture.

	Indianta austria hilita - 6 anairst includia -	Our according the preject is expected to
XV	Indicate sustainability of project including operation and maintenance of assets on completion of project	On completion, the project is expected to be self-sustaining.
	completion of project	Expected revenue sources:
		-Visitor entry fees
		- Sale of merchandise
		- Hosted events
		- Digital media licensing
		- Donations and contributions
		- Others
xvi	Give details of the existing infrastructure	The site for the proposed Immersive Hub is
	and facilities available in the proposed	at Thenzawl Golf Resort. This Resort sports
	project location and also in the district and	an all-season 18-hole golf course. It also
	sub-division/block	houses facilities for lodging and dining. The
		specific site for the proposed Immersive
		Hub is at the entrance of the Resort and is
14.44		easily accessible by the public
B	Justification/Rationale for the project	
i	State the nature and magnitude of the problem faced or the potential to be tapped. Elaborate the problems to be addressed or benefits that will accrue through the project. For social infrastructure project, also give the baseline of socio-economic	Attached in Annexure I
	parameters/indicators to justify the proposal	
ii	The development objectives proposed to be achieved	 To construct infrastructure to house the centre of Tourism To research the local heritage, consult subject matter experts, and identify subjects for exhibition content
		 To develop immersive and experiential exhibits with regards to software, hardware, and content production. To collect digital archive content and to design and build infrastructure for its storage and access
iii	Indicate the sections and number of population to be benefitted.	The general population of the state as a whole by way of preservation and promotion of own culture
iv	For income generating activities/skill	N.A
	development indicate the number of	
	beneficiaries targeted and the methodology	

	for selection of beneficiaries. Indicate nos. of female and male beneficiaries separately	
С	Project Description & Main Activities	
i	Sector under which project is proposed	Tourism
ii	Project description (Provide a brief write- up on the project) (Goals, area, target group, problems to be addressed)	 The proposed project is to construct new tourist attractions. These will be akin to cultural museums that utilize the latest immersive and experiential technologies. The subject of the exhibitions in these sites will cover the natural and cultural heritage of the local ethnic groups of Mizoram. The new facilities will conduct collection, catalogue, and archiving aspects of the local heritage in rich media formats towards the goal of culture preservation. The project is proposed to take place in Thenzawl Golf Resort. The proposed project has the goals of establishing high-tech center of cultural education, digital preservation of the local cultural heritage, promotion of local tourism, and generation of revenue and employment.
iii	Statement of Need	Attached in Annexure I
iv	Component-wise cost of Project/main activities (e.g. buildings and other civil works, machineries, tools &equipments, miscellaneous fixed assets, agricultural inputs, training components etc.)	Attached in Annexure II
v	List out basic Indicators for measuring achievement / Success of the Project	 Tourism index: Visitor footfall and retention Visitor satisfaction index and feedback Visitor profile KPI of nearby sites Financial indicators:

		 Revenue generated Local economic indicators Digital collection:
		 Size of digital archive Quality index of archived items Social impact:
	Charles and arts of the construction of the construction	- Organised events and attendance Local socio-economic indicators
D	Physical Details	
	Year-wise phasing & Time frame for completion of project	Attached in Annexure III
Е	Indicate if any Statutory Clearances including Forest & Environmental Clearances etc are required	All proposed construction and ancillary activities will be confined within the boundary wall of the compound. Statutory clearance from any other agency will not be required. Pollution such as air, water will be minimal as the proposed project does not require heavy machineries and the quantity of works polluting environment are minimal.

Signature of Concept Paper preparing authority:

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Ratte

Lalrindika Ralte **Creative Director** Makkati LLP

Countersigned:

(SAITLUANGA) Director

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Tourism Department Govt. of Mizoram

Annexure I

NEED AND OPPORTUNITY ASSESSMENT

A preliminary need and opportunity assessment was conducted before deciding on the project. The following needs and opportunities were identified:

1. Need for digital preservation of local cultural heritage

With increasing globalization and the general population increasingly adapting to a more global culture, local cultures everywhere are facing dangers of extinction. Between 1950 and 2010, 230 languages went extinct, according to the UNESCO Atlas of the World's Languages in Danger. Today, a third of the world's languages have fewer than 1,000 speakers left. Every two weeks a language dies with its last speaker, 50 to 90 percent of them are predicted to disappear by the next century.

Mizoram, with a population of around 11 lakhs (2011 census), is home to a number of ethnic groups with a number of cultures and subcultures. Without coordinated preservation efforts using the latest technologies, the various ethnic groups in Mizoram face the threat of certain aspects of their culture vanishing without any proper record.

With proper equipment, and the infrastructure to support it, there exists an opportunity to capture and store aspects of Mizoram's various cultural heritage in multiple media formats. The project aims to catalogue and archive these into a structured repository. The repository will be preserved, maintained, and made available for research and reference.

This initiative is supplementary to MeitY's National Digital Preservation Program, in that the project will attempt to maintain a complete and comprehensive repository.

2. Opportunity to export "exotic" tourism resource using rich media

The culture of the various ethnic groups in Mizoram, while sharing certain similarities within themselves, are, on a whole, unique from the other cultures that exist in the region. Mizoram is home to a number of languages and dialects, multiple festivals, music and dances, and rich folklore and legends with some related and traceable to presentday geography. This rich natural and cultural heritage is an exotic tourism resource for the rest of the world.

There exists an opportunity to package this rich tourism resource into immersive media for a more visceral experience for visitors. The project aims to achieve this by deploying the latest in experiential technologies to exhibit the rich heritage of the region. These technologies include Virtual Reality, Augmented Reality, Projection Mapping, large dome and curved screen projections, holographs, interactive displays, and so on. A facility with such display technologies paired with the exotic tourism export has the potential to become a nationally acclaimed tourist attraction site.

3. Need for digital museum in the state

As of 2022, the state of Mizoram actively runs one museum - the Mizoram State Museum. This museum (and any other upcoming ones) exhibits the local heritage through the more traditional medium of physical displays and real-life exhibits.

Complementary to this, the project aims to employ a digital-first approach and focus on digital media. In addition to keeping up with global trends, digital media exhibits offer a more visceral experience for visitors and provide a unique engaging experience for all age groups.

Additionally, with the Mizoram State Museum being located inside the city of Aizawl, it is relatively isolated (with respect to tourist attractions) from other tourist sites. In this regard, the project also aims to establish sites of culture dissemination among existing sites of tourist attraction for better visibility and access.

4. Opportunity to leverage and benefit existing tourist sites

The Golf Course Resort is an existing tourist attraction site with an all-season 18-hole golf course. It also houses facilities for lodging and dining that enjoys a steady rate of visitor footfall. The project aims to leverage this existing site by establishing a new facility within it.

Additionally, the attraction generated by the new establishment also serves to drive up the traffic of the existing site. In this manner, both the new and existing establishments stand to benefit each other in a symbiotic relationship.

5. Employment generation and development of the area

As a primary benefit, the new facilities proposed in the project stand to generate employment through construction, and subsequently through operation.

Additionally, the additional businesses generated in the area will have the secondary benefit of developing the area in terms of other commercial and employment opportunities, ultimately elevating the socio-economic state of the region.

Annexure II

ABSTRACT OF COST

I. CIVIL CONSTRUCTION

	Based on	Mizora	m PWD SC	DR 2019	
SI. no.	Item Area Unit Rate per m.sq		Total amount		
1.	Exhibition building	520	m.sq	₹ 38000	₹ 1,97,60,000.00
2.	Office building 300 m.sq ₹ 38000				₹ 1,14,00,000.00
3.	3D theater building	₹ 70,30,000.00			
	TOTAL A	₹ 3,81,90,000.00			
4.	Add 16% for internal electrific	₹ 61,10,400.00			
5. Add 4% for sanitary installation and water supply from 'TOTAL A'					₹ 15,27,600.00
				TOTAL B	₹ 4,58,28,000.00
6.	Add 27.33% for Cost Index A B'	bove SC	OR 2019 fro	om 'TOTAL	₹ 1,25,24,792.40
				TOTAL C	₹ 5,83,52,792.40
7.	Add 3% for Contingency				₹ 17,50,583.80
			(Grand Total:	₹ 6,01,03,375.80

II. INTERIOR DESIGN AND FABRICATION

SI. no.	Particulars	Qty.	Amount	Total amount
1.	40Kv Generator and installation	1	₹ 8,00,000	₹ 8,00,000
2.	Office electronic hardwares	1	₹ 25,50,000	₹ 25,50,000
3.	Office utility hardwares	1	₹ 12,20,000	₹ 12,20,000
4.	Interior furnishing materials	1	₹ 30,00,000	₹ 30,00,000
5.	Museum decoration items	1	₹ 50,00,000	₹ 50,00,000
7.	Exhibition display structure fabrication	1	₹ 25,00,000	₹ 25,00,000
8.	HVAC system (VRV)	1	₹ 96,00,000	₹ 96,00,000

	Total:	₹ 2,91,14,730
9.	GST 18%	₹ 44,40,600
		₹ 2,46,70,000

III. HARDWARE AND EQUIPMENT

SI. no.	Particulars	Qty.	Amount	Total amount	
1.	Digital collage of photographs	8	₹ 8,50,000	₹ 68,00,000	
2.	2. 3D theater with Active glasses		₹ 28,00,000	₹ 28,00,000	
3.	3. Transparent OLED digital panels		₹ 6,50,000	₹ 52,00,000	
4.	4. 270 degree curved screen		₹ 65,80,000	₹ 65,80,000	
5.	Projection mapping on 3D model		₹ 15,00,000	₹ 90,00,000	
6.	Kiosk - reception/assistant		₹ 1,25,000	₹ 35,00,000	
7.	Pyramidal holographic display	8	₹ 4,50,000 ₹ 12,00,000	₹ 36,00,000	
8.	Unmanned quiz	2		₹ 24,00,000	
9.	Server and other hardware requirements	1	₹ 25,50,000	₹ 25,50,000	
				₹ 4,24,30,000	
10.	GST 18%	*		₹ 76,37,400	
	Total:			₹ 5,00,67,400	

IV. DESIGN AND CONTENT PRODUCTION

SI. no.	Particulars	Qty.	Amount	Total amount
1.	360-degree tour mobile app	1	₹ 8,50,000	₹ 8,50,000
2.	Digital collage of photographs	8	₹ 3,50,000	₹ 28,00,000
3.	3D theater with Active glasses	1	₹ 26,70,000	₹ 26,70,000
4.	Transparent OLED digital panels	8	₹ 2,60,000	₹ 20,80,000
5.	270 degree curved screen	1	₹ 35,00,000	₹ 35,00,000
6.	Projection mapping on 3D model	6	₹ 8,00,000	₹ 48,00,000
7.	Kiosk (Assistant & Information board)	24	₹ 65,000	₹ 15,60,000

	Total:			₹ 2,50,92,700
10.	GST 18%			₹ 38,26,800
				₹ 2,12,60,000
9.	Unmanned quiz	2	₹ 5,00,000	₹ 10,00,000
8.	Pyramidal holographic display	8	₹ 2,50,000	₹ 20,00,000

V. SOFTWARE DEVELOPMENT

SI. no.	Particulars	Qty.	Amount	Total amount				
1.	360-degree tour mobile app	1	₹ 15,00,000	₹ 15,00,000				
2.	Digital collage of photographs	8	₹ 4,00,000	₹ 32,00,000				
3.	3. 3D theater with Active glasses		3D theater with Active glasses	1	₹ 15,00,000	₹ 15,00,000		
4.	Transparent OLED digital panels	8	₹ 5,00,000	₹ 40,00,00				
5.	270 degree curved screen	1	₹ 25,00,000	₹ 25,00,000				
6.	Projection mapping on 3D model	6	₹ 8,00,000	₹ 48,00,000				
7.	Kiosk - reception/assistant	13	₹ 3,50,000	₹45,50,000				
8.	Pyramidal holographic display	8	₹ 6,00,000	₹ 48,00,000				
9.	Unmanned quiz	2	₹ 25,00,000	₹ 50,00,000				
				₹ 3,18,50,000				
9.	GST 18%			₹ 57,73,000				
	Total:			₹ 3,56,21,840				

Total Cost of the Project:

6,01,03,375.80 + 2,91,14,730.00 + 5,00,67,400.00 + 2,50,92,700.00 + 3,56,21,840.00 = Rs. 20,00,00,045.80

say Rs. 20,00,00,000.00 (Rupees *Twenty Crore* only)

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Creative Director Makkati LLP

Annexure III

ACTION PLAN

The project will be completed within two (2) years from the date of receiving fund, The year-wise implementation plan is given below:

Project activity	Monthly implementation											
	2	4	6	8	10	12	14	16	18	20	22	24
Detailed site analysis & research												
Experience design and planning												
Construction and civil works												
Digital content - production												
Software development	4											
Hardware procurement, fabrication, installation												
User acceptance tests												
Feedback and development iterations												
Recruitment and training of personnel												
Launch and start of operational support												

Annexure IV

NON- DUPLICATION CERTIFICATE

It is certified that **Tourism Department**, **Govt. of Mizoram** has not obtained or applied for grants for the same purpose or activity i.e. **Mizoram Immersive Tourist Hub at Thenzawl**, **Serchhip District**, **Mizoram** from any other Ministry or Department of the Government of India or State Government.

Place: Aizawl

Date:

Signature: Name

Designation :

:

Organization :

(SÅITLUANGA) Director Tourism Department Govt. of Mizoram

Junph



Agenda Note for 37th Meeting of the IMC/NESIDS Committee scheduled to be held on 17.11.2022

State: Nagaland

- Name of the Project: Augmentation of Drinking Water Supply to Englan HQ and 5 (five)
 Villages by Pumping in the Wokha District in Nagaland
- 4. **Department:** Public Health Engineering Department (PHED)
- 3. Estimated Cost: Rs. 29.6 crore
- 4. Sector: Water

5. **Objective:** Englan EAC HQ and its surrounding (5) villages are located 25 km away from Wokha Town towards the Northern part of the district. All the habitations in this area are settled along the top of a particular mountain range viz Englan Range. A piped gravity water supply system which existed in the early 1980 could not sustain for long owing to factors like severe depletion of water at the source and frequent damages in the pipeline due to its long distance. The goal of this project is to facilitate long term water supply to six villages namely Englan (HQ), Riphyim Old, Riphyim New, Changsu Old, Changsu New and Ekhyoyan.

6. Abstract of Cost:

Sl. No.	Description	Amount (in crore)
1	Construction of approach road, water treatment plants, Pump house, Chowkidar quarter, Main resources, Sub reservoirs etc.	16.00
2	Pipes, fittings and appurtenances	5.00
3	Labour charges for fittings and fixing of GMS pipes	0.20
4	Electrically operated centrifugal pump	4.5
5	Supply & installation of transformer Sub-station with complete electrification	3.4
6	Carriage charges of materials	0.50
	Total Rs.	29.6

7. Intended output and outcomes of the project- Not provided by SG

8. SDG, being targeted by the project – Not provided by SG

9 Concept paper is attached

10. **PD comments:** As per standard practice water supply scheme should be plan for 30 years. However, serving period of water supply is not made available in the concept note.

NogSalig (N. K. Saha) 16[11/22

Under Secretary to the Government of India E-mail: nitai.kumar@nic.in J. ALAM, IAS



CHIEF SECRETARY GOVERNMENT OF NAGALAND NAGALAND : KOHIMA

जिदिका अमत महोत्सव

D.O.NO.PLN/NESIDS-PRIOR/2021-22

Dated Kohima, the5th April, 2022.

Dear Sir,

This is with reference to Planning & Coordination Department letter No. PLN/NESIDS-PRIOR/2021-22 Dated Kohima, the 3rd December 2021 forwarding therewith an additional project proposal "Augmentation of Drinking Water Supply to Englan HQ and 5(five) Villages by Pumping in the Wokha District, Nagaland" for an estimated cost of Rs.29.6 Crores for consideration under NESIDS during 2021-22.(Copy enclosed).

This proposal has been selected in view of the pressing needs of the villagers and to facilitate long term water supply to six villages and the project was submitted for consideration outside the priority list to DoNER Ministry by the State Government. However, the project proposal could not be considered during 2021-22 due to scarcity of fund.

It is, therefore, requested you to kindly consider the proposal and sanction the project at the earliest.

With Regards,

(J.ALAM)IAS JU DOD

Shri Lok Ranjan,IAS, Secretary, Govt.of India, Ministry of DoNER, Vigyan Bhawan Annex, Maulana Azad Road, New Delhi.

Scanned with CamScanner

J. ALAM, IAS



CHIEF SECRETARY GOVERNMENT OF NAGALAND NAGALAND : KOHIMA

D.O.NO.PLN/NESIDS-PRIOR/2021-22 Dated Kohima, the 3rd December 2021

Dear Street

This is with reference to Planning & Coordination Department letter No. PLN/NESIDS-PRIOR/2021-22 Dated Kohima, the 3rd December 2021 forwarding therewith an additional project proposal "Augmentation of Drinking Water Supply to Englan HQ and 5(five) Villages by Pumping in the Wokha District, Nagaland" for an estimated cost of Rs.29.6 Crores for consideration under NESIDS during 2021-22.

This proposal has been selected in view of the pressing needs of the villagers and to facilitate long term water supply to six villages. This project is being submitted for consideration outside the priority list already submitted to DoNER Ministry by the State Government.

It is, therefore, requested you to kindly consider the proposal and sanction the project at the earliest.

With Regards.

Yours sincerely, (LALAM)I

Shri Lok Ranjan, IAS, Secretary, Govt.of India, Ministry of DoNER, Vigyan Bhawan Annex, Maulana Azad Road, New Delhi.

GOVERNMENT OF NAGALAND PLANNING & COORDINATION DEPARTMENT NAGALAND:KOHIMA

No.PLN/NESIDS-PRIOR/2021-22

Dated Kohima, the 3rd December 2021

To

1

Shri Saurabh Endley, Joint Secretary, Ministry of DoNER, Vigyan Bhawan Annexe, Maulana Azad Road, New Delhi-110011.

Sub - Submission of additional project proposal to be considered under NESIDS during 2021-22.

Sir.

With reference to the subject cited above and in continuation to this Department letter of even number dated 10th August 2021, the undersigned is directed to forward herewith the additional project proposal "Augmentation of Drinking Water Supply to Englan HQ and 5(five) Villages by Pumping in the Wokha District, Nagaland" for an estimated cost of Rs.29.6 Crores for consideration under NESIDS during 2021-22.

For kind approval and consideration please.

Encl - copy of concept note

Yours faithfully. (T. Akkuba \$anktam)

Joint Development Commissioner

Copy to,

- The OSD to Hon'ble Chief Minister, Nagaland for kind information of Hon'ble Chief Minister.
- 2. The OSD to Hon'ble Minister Planning for kind information of Hon'ble Minister, Planning.
- 3. The Deputy Secretary to Chief Secretary for kind information of Chief Secretary, Nagaland.
- 4. The Secretary, PHED, Nagaland, Kohima.
- 5. The Chief Engineer, PHED, Nagaland, Kohima.
- 6. Office copy.

GOVERNMENT OF NAGALAND PUBLIC HEALTH ENGINEERING DEPARTMENT NAGALAND: KOHIMA

PHE-2/WORKS/18/2021

Dated, Kohima, the 16th August 2021

To,

Dr. Inder Jit Singh,

Secretary to the Government of India, Ministry of Development of North Eastern Region, Vigyan Bhawan Annexe, Maulana Azad Road, New Delhi-110011

Sub: Submission of Concept Note for "Augmentation of Drinking Water Supply to Englan HQ and 5(five) Villages by Pumping in the Wokha District, Nagaland" under NEC for the year 2021-22

Sir,

Referring to the subject cited above, I am directed to submit herewith a set of Concept Note for "Augmentation of Drinking Water Supply to Englan HQ and 5(five) Villages by Pumping in the Wokha District, Nagaland" under NEC for the year 2021-22.

Further, it is to state that the proposed drinking water supply project consists of the following habitations:

- 1. Englan HQ,
- 2. Riphyim Old
- 3. Riphyim New
- 4. Changsu Old
- 5. Changsu New
- 6. Ekhyoyan.

This is for your kind information and further necessary action.

Enclosed: As stated above

Yours faithfully,

Munger 18/21

(MHATHUNG TUNGOE) Additional Secretary to the Government of Nagaland

Scanned with CamScanner

GOVERNMENT OF NAGALAND OFFICE OF THE CHIEF ENGINEER, PHED NAGALAND :: KOHIMA

NO.CE/PHE/M-26/2001-02(Pt)/WOKHA/ To

Dated Kohima, the 12th Aug 2021

The Secretary, to the Govt. of Nagaland, Public Health Engineering Department, Nagaland, Kohima.

Sub:- Submission of Concept Note for augmentation of drinking water supply to Englan HQ and 5 (Five) villages by pumping in Wokha District, Nagaland.

Sir.

In inviting a reference to the subject stated above, I am to forward herewith the Concept Note proposed by Executive Engineer PHED, Wokha.

It is proposed to provide Drinking Water Supply to the following 6 (Six) villages namely Englan HQ, Riphyim Old, Riphyim New, Changsu Old, Changsu New, and Ekhyoyan.

It is pertinent to note here that all the above mentioned habitations are ongoing and to be taken up under JJM.

Therefore, with detail information the same has been forwarded for your necessary action.

Enclosed: - As stated above.

Yours faithfully,

(REPANGYANGBA LONGKUMER) Chief Engineer & HoD (PHED) Nagaland, Kohima.

NO. CE/PHE/M-26/2001-02(Pt)/WOKHA

Dated Kohima, the 12 Aug 2021

Copy to:

- 1. The Executive Engineer PHED, Wokha Division, for your information and necessary action.
- 2. Office copy.

Chief Engineer & HoD (PHED) Nagaland, Kohima

Concept Note

Augmentation of drinking water supply to Englan (HQ) and surrounding 5(five) villages by pumping in Wokha District, Nagaland.

Proposed under North East Special Infrastructure Development Scheme (NESIDS) PHED Wokha, Nagaland, June 3 2021

1. Background

Englan EAC HQ and its surrounding (5) villages are located 25 Km away from Wokha Town towards the Northern part of the district. All the habitations in this area are settled along the top of a particular mountain range viz Englan Range. Due to its location and topography, no feasible gravity water source could be identified to date. A piped gravity water supply system which existed in the early 1980 could not sustain for long owing to factors like severe depletion of water at the source and frequent damages in the pipeline due to its long distance.

Though the basic infrastructures like roads and electricity are well in this area. For the common people, the accessibility to potable drinking water still remains a distant dream. Even today, the inhabitants had to travel long distances to fetch clean water for their daily uses. Therefore, to minimize this daily hardship as well as to improve their living standard, provision of good quality water to the people of this range has become imperative.

A survey was carried out in the month of March 2021 identifying a suitable perennial stream source viz Tchupvu with sufficient water discharge located below Changsu Old village. Hence, a Detailed Project Report is being prepared, proposing to tap water from this stream through 2-staged Pumping system and distributed by gravity.

2. Goals and Objectives

The goal of this project is to facilitate long term water supply to six villages namely Englan (HQ), Riphyim Old, Riphyim New, Changsu Old, Changsu New and Ekhyoyan.

Specific Objectives:

- i) To provide access to clean and safe drinking water
- ii) To improve health, economic savings and security.
- iii) To reduce the hardships of the villages.
- iv) To improve the living standards of the people.
- v) To maintain proper hygiene and cleanliness.
- vi) Better waste management to reduce risks of water-borne disease and recreational accidents.

3. Expected Results.

First of all, a walk that used to take an hour or two now only takes a few minutes. More importantly, the water is now clean, safe to drink and easier to collect. Due to ease and accessibility of water in the villages, as result there will be latrines and hand washing stations. Due to extra time

available, more effort can now be focused on investing in the well being of the village. The clean water source can now be used to grow crops and feed the wider community.

4. Innovation

A lot of money is spent trying to unlock new water sources, yet so many people still lack access. To ensure sustainable and sufficient water is at the top of our agenda. By not acting, communities will continue to suffer from infectious diseases, failed harvests and poor living conditions. With more than half the current water sources failing in the region, it is vital to act now. Our project aims to address the sustainability gap through using state of the art technology and innovation to drive forward clean water solutions.

5. Present status of the beneficiary Villages are furnished for easy reference.

- i) 2011 Population 8589 Souls
- ii) Present Population 8922 Souls
- iii) Design Population 12008 Souls
- iv) Existing Status of LPCD for each Habitation :
 - a) Changsu Old 7 LPCD
 - b) Changsu New 40 LPCD
 - c) Riphyim Old 59 LPCD
 - d) Riphyim New 46 LPCD
 - e) Englan (HQ) 40 LPCD
 - f) Ekhyoyan 20 LPCD

v) Lean period discharge available at source - 1.97 Mld

- 8000 m

vii) Length of gravitational feed line :-

vi) Length of raising Main Line

- a) 40 mm GMS pipe 16000 m
- b) 32 mm GMS pipe 20000 m
- c) 25 mm GMS pipe 18000 m

viii) Whether any of the Habitation are covered under any Scheme, to specify:-

- a) Changsu Old Yes, under JJM 2021-22
- b) Changsu New Yes, under JJM 2020-21
- c) Riphyim Old Yes, retrofitting under JJM 2020-21
- d) Riphyim New Yes, under JJM 2020-21
- e) Englan (HQ) Yes, under JJM 2021-22
- f) Ekhyoyan Yes, under JJm 2021-22
- 6. Budget(in Rs)
- Construction of Approach road, water treatment plants. Pump house, Chowkidar quarter, Main Resources, Sub reservoirs etc : 16 Crores.
- ii) Pipes, fittings and appurtenances : 5 Crores
- iii) Labour charges for fittings and fixing of GMS pipes 20 Lakhs
- iv) Electrically operated centrifugal pumps 4.5 Crores

Supply and installation of transformer Sub- Station with complete electrification – 3.4 Crores

vi) Carriage charges of materials - 50 lakh

v)

Total amount = 29.6 Crores approx..

Executive Engineer BELE.D. Wakhe

ANNEXURE-AB

Agenda Note for 37th Meeting of the IMC/NESIDS Committee scheduled to be held on 17.11.2022

State: Nagaland

- 5. Name of the Project: Construction of Short Landing Strips in 4 (four) District H.Q's in Nagaland
- 6. Department: Nagaland State Transport
- 3. Estimated Cost: Rs. 140.00 crore
- 4. Sector: Civil Aviation

5. **Objective:** Presently, the State is connected with only one Rail head and Airport at Dimapur with the rest of the country. Because of the geological conditions of the State the road net work which is the only means of transport in the entire State except Dimapur gets damaged/blockades due to landslides and major part of the State remains cut off from the rest of the World. Govt. of Nagaland proposes to setup/develop short landing strips for operation of smaller Aircrafts of 18 to 20 setter capacity to increase the activities of public and cargo transport within the State of Nagaland and also to provide connectivity to the flight at Dimapur and Guwahati.

6. Abstract of Cost:

Sl.No	Descriptions of work	Amount (Rs. in Cr.)
I	Land Cost	
1	50.00Acres @Rs. 4,00,000/- per Acres (Approx)	2.00
	Total-I	2.00
II	Civil Works	
1	Airport Terminal building	3.00
2	Staff quarters 4 units	1.47
3	Security house	0.40
4	Earthwork for Runway	5.00
5	Construction of Approach road to Airstrips	3.50
6	Construction of Runway Pavement	6.00
7	Construction of Taxi-way and Apron	0.85
8	Construction of internal road and parking bays	0.75
9	Construction of wire mesh security fencing & gate	2.50
10	Construction of storm water drain a7 culvert	0.50
11	Construction of CRSM retaining wall	3.50
	Total - II	27.47
III	Services	
1	Electrification I/c Construction of 11 KV LT line & installation of 100	1.00
2	Water supply & sanitation	0.80
3	Airport lighting installation I/c beacon, illuminaries, underground	0.10
4	Fire fighting system	0.10
5	Runway & taxiway painting / painting / marking / signage etc	0.05
6	Supply & installation of furniture AC,CCTV, LED TV / Display, PA	0.30
	Total - III	2.35

	Total (I+II+III)	31.82
	6% for GST	1.91
V	Add 3% for contingency on SI.No. 37	0.95
V	Add 1% for quality control on SL. No. 37	0.32
I	Grand Total	35.00
	For (04) location	140.00

7. Intended output and outcomes of the project- Not provided by SG

8. SDG, being targeted by the project – Not provided by SG

9 Concept paper is attached

10. **PD comments:** As per NESIDS guideline, the cost towards land acquisition is not allowed under the scheme.

1007 Eulo (N. K. Saha) 6/11/22

Under Secretary to the Government of India E-mail: nitai.kumar@nic.in

NAGALAND STATE TRANSPORT

CONCEPT NOTE

Construction of Short Landing Strips

in 4(Four) District H.Q's in Nagaland.

District H.Q's

- 1. Mokokehung
- 2. Mon
- 3. Kiphire
- 4. Zuaheboto

Project Cost :- Rs. 140.00 Crores (Rupees one hundred forty crores)

Submitted by:

General Manager Nagaland State Transport Dimapur, Nagaland

Concept note

Construction of short landing strips in 4(Four) District HQ's in Nagaland.

1. Introduction:

Nagaland, the 16th State of the Indian Union was inaugurated on 1st December 1963. The State has an area of 16,579 sqkms and is bounded by Arunachal Pradesh in the North, Myanmar in the East, Manipur in the South and Assam in the West and South West. The State has a population of 19, 80, 602 as per 2011 census. The State has more than 95% hilly terrain. The State experiences long spell of high rainfall from April to October i.e for 7 (seven) months. Because of the geological conditions of the State the road net work which is the only means of transport in the entire State except Dimapur gets damaged/blockades due to landslides and major part of the State remains cut of from the rest of the world.

State of Nagaland is one of the most forward looking States in India. A large number of Foreigners and domestic tourists visit the State throughout the year. But the movement is restricted due to uncertain road conditions.

2. Project:

At present the state is connected with only one Rail head and Airport at Dimapur with the rest of the country. Nagaland is one of the up coming States in India in the fields of Agriculture, Horticulture and Floriculture besides Education and other cultural activities besides huge potential in tourism sector. The State Government is handicapped in supporting to provide Horti and

Floriculture products which need immediate transshipment to the places of demand because of their perishable nature. Further, Tourism is going to be the major Industry of the State to generate employment to the local populace in the absence of any other major Industry. Therefore, the Government of Nagaland proposes to setup/develop short landing strips for operation of smaller Aircrafts of 18 to 20 seater capacity to increase the activities of public and cargo transport within the State of Nagaland and also to provide connectivity to the flights at Dimapur and Guwahati.

The places identified for the purpose are based on the administrative importance of the location, Traffic potential, interconnectivity of the District HQ's and Sub-Divisional HQ's, so as to enhance and encourage trade and Tourism and also to facilitate the easy movement of people of the area and outside the state.

3. Land:

An ideal site/ location for the purpose have been identified and earmarked in all the proposed places and the required land/area shall be acquired throught the State Government.

4. Promoters Background:

The Nagaland State Transport Department, under the Government of Nagaland headed by General Manager with its Head Quarters at Dimapur has adequate knowledge for construction and maintenance of such projects. The project will be implemented and executed by the department through its Civil Engineering Division headed by Executive Engineer in consultation with expertise consultants in this particular field. The State Helicopter services is being operated and managed by the Department.

5. Funds:

The Government of Nagaland proposes to seek necessary funding for the purpose under the PM-DevINE scheme, Government of India.

6. Cost of the Project:

The probable financial involvement for establishment of small Air strips of the four locations in the state of Nagaland is envisaged at a total cost of RS. 140.00 erores (Rupees one hundred forty erores) only. (e.i at an average of Rs. 35.00 erores per Airstrips). Preliminary cost estimate enclosed as 'ANNEXURE'

7. Implementation schedule:

The project is proposed to be taken up during the current financial year 2022-23 and complete within 24 (twenty four) months from the date of sanction of the project.

8. Action Plan:

Year	Physical Achievement	Financial Requirement
2022-23	20%	28.00 Crores
2023-24	80%	84.00 Crores
2024-25	100%	28.00 Crores

9. Conclusion:

Once the project is completed and commissioned, the general public of the area will be benefited enormously in terms of easy and faster means of transport for passenger, medical emergencies, trade and commerce and will enhance in the tourism sector in a huge way. Hence, the overall socio-economy of the state will be uplifted and also self employment avenues to the educated unemployed youth of the state shall be catered to a large extent. Therefore, the project is of prime importance which may be considered on priority.

Sub-Divisional Officer (Const.) Negaland State Transport Dimapur : Magaland

ANNEXURE

PRELIMINARY COST ABTRACT

Name of work:-Construction of Short Landing Strips in Nagaland.

SI, No	Description of work	Amount (₹ in Crs.)		
1	Land cost			
1	50.00 Acres @ Rs. 4.00,000/- per Acres (Approx)	2.00		
	Total -I	2.00		
11	Civil works			
. 1	Airport Terminal building	3.0		
2	Staff guarters 4 units	1.4		
3	Security house	0.4		
4	Earthwork for Runway	5.0		
5	Construction of approach road to Airstrips	3.5		
1.6	Construction of Runway pavement	6.0		
7	Construction of Taxi-way and Apron	0.8		
	Construction of internal road and parking bays	0.7		
9	Construction of wire mesh security fencing & gate	2.5 0.5		
10	Construction of Storm water drain & Culvert	0.5		
11	Construction of CRSM retaining wall	3.5(
-	Total-II	27,4		
111	Services			
	Electrification I/c Construction of 11KV LT line & installation of 100	1.00		
	Watyer supply & sanitaion	0.81		
	Airport lighting installation i/c beacon, illuminaries, underground	0.10		
	Fire fighting system	0.10		
	Runway & taxiway painting/markings/signage etc.	0.0		
6	Supply & installation of furniture, AC, CCTV, LED TV/Display, PA	0.30		
	Total -III	2.35		
	Total((++I)+11)	31.82		
IV	Add 6% for GST	1.91		
V	Add 3% for contingency on St. NO. 37	0.95		
VI	Add 1% for quality control on SI_NO_37	0.32		
	Grand total	35.00		

Say Rs. 35, 00, 00,000/- (Rupees thirty five crores only)

MB

 This preliminary cost estimate is prepared on approximation based on the Prevaleng NPWD SoR 2021

2 The above estimated cost is worked out for one location in Nagsland to assertain the average cost per Airstrips in nagaland.

Sub-Divisional Officer (Const.) Negative State Transport Dimapur / Negaland