



**GOVERNMENT OF MIZORAM  
PLANNING & PROGRAMME IMPLEMENTATION DEPARTMENT  
MIZORAM : AIZAWL**

No.G.12011/22/2007-PLG(DoNER) :

Dated Aizawl, the 14<sup>th</sup> June, 2017

To

The Director,  
Govt. of India  
Ministry of Development of North Eastern Region  
Vigyan Bhawan Annex  
Maulana Azad Road, New Delhi - 110011

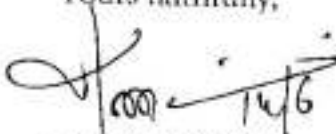
Subject: *Nomination of Nodal Officer for implementation of Science & Technology Intervention in the NER (STINER) under Advocacy & Publicity Scheme of MDoNER - regn.*

Reference: Your letter No.A and P-11/89/2017-O/o US(A&P) dt. 2.6.2017

Sir,

With reference to your letter and subject cited above, I am directed to inform you that Dr. R.K. Lallianthanga, Chief Scientific Officer is nominated as a Nodal Officer for Implementation of Science & Technology Intervention in the NE(STINER) under Advocacy & Publicity Scheme of MDoNER.

*US-MK  
Pl. create date  
for all nodal officers.  
US-MK  
14/6/17*

Yours faithfully,  
  
( LALMUANKIMA )

Under Secretary to the Govt. of Mizoram  
Planning & Programme Implementation Department

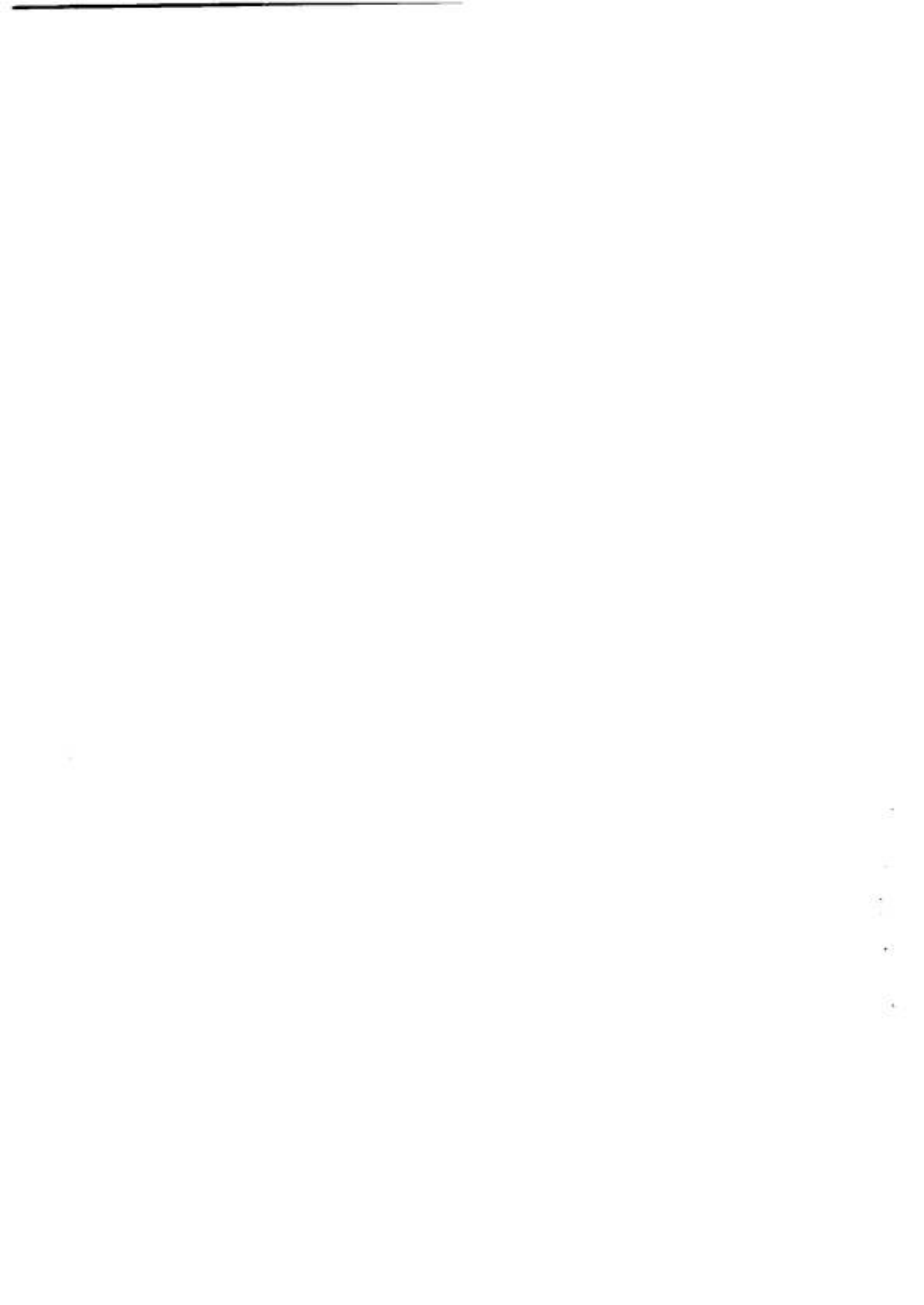
**Memo No.G.12011/22/2007-PLG(DoNER)**

**Dated Aizawl, the 14<sup>th</sup> June, 2017**

Copy to :

Dr. R.K. Lallianthanga, Chief Scientific Officer, Science & Technology for information. A copy of O.M No.A and P-11/89/2017-O/o US(A&P) dt. 2.6.2017 issued by Govt. of India, Ministry of Development of North Eastern Region, New Delhi is enclosed herewith.

Under Secretary to the Govt. of Mizoram  
Planning & Programme Implementation Department



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MTG of STIMER file.  
17/5/17

Government of India  
Ministry of Development of North Eastern Region  
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**Minutes of the meeting on 'All aspects related to Turmeric in the North Eastern Region held on 12.05.2017 under the Chairmanship of Shri Naveen Verma, Secretary, Ministry of Development of North Eastern Region in Committee Room 'A', Vigyan Bhawan Annexe, New Delhi.**

The following officers were present in the meeting:-

1. Shri S N Pradhan, Joint Secretary, Ministry of DoNER
2. Shri Jitendra Kumar, Sinha, Joint Secretary, Ministry of DoNER
1. Shri P. Sampath Kumar, Commissioner and Secretary to Government of Meghalaya, Agriculture Department.
2. Shri Sanjay Kumar, Dy. Commissioner (Horticulture), Department of Agriculture Cooperation and Farmer's Welfare.
3. Shri Vineet Sharma, Director, Ministry of Food Processing Industries
4. Dr. (Mrs.) Ketaki Bapat, Scientist 'F', Office of Principal Scientific Adviser to Prime Minister, Vigyan Bhawan Annex, New Delhi.
5. Dr. V. Pandey, Principal Scientist, Horticulture Science Division, ICAR, Department of Agriculture Research, Ministry of Agriculture and Farmer's Welfare.
6. Smt. Mercy Epao, Director, Ministry of Development of North Eastern Region, Vigyan Bhawan Annexe, New Delhi
7. Shri R.R. Sharma, Assistant Commissioner (Horticulture), Department of Agriculture Cooperation and Farmer's Welfare
8. Dr. Vibha Malhotra Sawhney, CSIR HQ.
9. Dr. A.B. Remashree, Director (R&D), Spices Board, Cochin
10. Ms. Mamta Rupolia, Export Promotion Officer, Spices Board, Cochin.
11. Shri Iboyaima Meitei, Adviser (Horticulture), North Eastern Council, Shillong.
12. Shri Pankaj Prasad, MD, North Eastern Regional Agricultural

- Marketing Corporation (NERAMAC)
13. Mrs. Bhanu Kumar, General Manager, MSTC Limited
  14. Shri P.K. Sinha, Chief Manager, MSTC Limited, New Delhi
  15. Dr. S. Khaund, North Eastern Development Finance Corporation (NEDFi), Guwahati
  16. Shri T. Pintshs Bhutia, AD, Horticulture and Cash Crops Department, Government of Sikkim.
  17. Dr. Moa Walling, Deputy Director, Department of Horticulture, Government of Nagaland.
  18. Shri D. Bhuyan, Director (P), Small Farmers' Agribusiness Consortium (SFAC)
  19. Shri B.K. Baruah, AGM, Agricultural and Processed Food Products Export Development Authority (APEDA)

1. The meeting started with welcome note to the representatives of the participating Ministries/Departments of the Central and State Governments . Secretary, DoNER stated that this meeting was a follow up of the decision taken in the meeting chaired by PSA on 20.4.2017 wherein it was inter-alia agreed that the technology adopted by IIT (RUTAG, CSIR, ICAR) need to disseminated amongst the stakeholder Ministries and the State Government Departments and through them to the end user particularly farmers. The basic purpose of this meeting was to maximise the value chain of agro-horticulture produces of NE Region, including application of relevant technology by focussing on turmeric as a test case. He further clarified that the meeting is more like a brainstorming session to know about the potential of turmeric production, the facilities of storage, testing, transportation, marketing and other related aspects as well as the interventions of the central or State Government departments and their organizations in supporting these activities through various schemes/programmes. Thereafter, MD, NERAMAC made a presentation showing the overall picture of production and marketing of turmeric in the region vis-à-vis the national scenario. The presentation brought out the higher productivity of turmeric in Manipur vis-à-vis Assam where the productivity of turmeric is very low despite being cultivated on a larger area.

1. The representative of ICAR, apprised the participants that ICAR has developed nine varieties of turmeric. In his presentation, he mentioned that some of these varieties have reduced the period of crop duration by around two months and requirement of seeds by about 80%. Some of their variants have retaining capacity upto 31% after drying which normally lie around 16%. He informed that 'Megha' variety of turmeric have performed well at all the 10 locations where testing were done. 'Roma' variety is appropriate for hilly areas which involves least cost but better productivity and higher percentage of retention after their drying post harvesting. He highlighted the importance of considering the post drying yield of turmeric as a critical parameter while pointing out that on such parameters Roma as a variety scores well and can be considered for NER. He also informed that the 'single node' technology developed by ICAR has reduced the requirement of seeds from 2500 kg per hectare to 2700 kg per hectare. Not only has the cost of plantation reduced substantially but the period of harvesting has also reduced. The development of PGPR nutrimix capsules have made it possible to give targeted micronutrients which are easily transportable.
  
1. Copies of the presentation made by NERAMAC and ICAR are enclosed. Indian Institute of Spices Research, Kozhikode, an ICAR Institute have developed technologies for solar tunnel dryer, packaging and processing. The representative of the Spices Board informed that some technology for processing of turmeric have been developed by them. The representative from Govt. of Sikkim stated that they are procuring dryer from Chennai.
  
1. The representative of the Spices Board stated that there is sufficient demand of turmeric by the pharma companies in Bengaluru. She added that in the recently held Buyer-Seller meet in Itanagar, Arunachal Pradesh, which was graced by the



Union Minister of Commerce, various contracts in the form of MoUs were signed between the farmers and private buyer firms. She further informed that the Board supports the registered FPOs for setting up of quality testing facilities apart from doing the testings from their own centres. Through their scheme, registered FPOs are entitled for financial support for setting up such facilities. Spices Board also helps in marketing of the products of NE region including Turmeric by arranging such Buyer-Seller meets at different places apart from routine activities of its marketing from its own premises. She agreed with the need of quality testing and certification of turmeric to create a space in external market through exporting some of its varieties which are in demand over there. Even in the domestic market, due to higher presence of 'curcumin', some of the variants of Turmeric produced in North East are high on demand in rest part of India.

1. The representative from Government of Sikkim raised the issue of the insufficient supply of improved variety seeds developed by ICAR to the State Government agencies and to the farmers. He also desired that the researches by ICAR may be shared with the States. Citing an example of development of a bio-plant through which organic composts are prepared in 10 days in place of the normal period of 3-4 months, the representative of Meghalaya Government expressed concern over the non-sharing of the research works done by the scientists of ICAR or other organizations to the stakeholders. He also emphasized the need of setting up infrastructure relating to quality testing and other post-harvest mechanization besides putting in place the mechanism for awareness among farmers and development of proper platforms for their marketing.
  
1. During the meeting representatives of Department of Agriculture and Farmers Welfare informed about one of their schemes of Mission for Integrated Development of Horticulture (MIDH) where they provide credit link back ended

financial assistance to individual beneficiary or a Government PSU to the extent of Rs.15.00 lakh and Rs.200.00 lakhs respectively. The representative from Small Farmers Agri-business Consortium (SFAC) shared about the support of 40% of promoter's contribution subject to maximum of Rs.50.00 lakh for setting up of a processing unit by entrepreneurs/FPO etc. under Venture Capital Assistance (VCA). APEDA informed about one scheme where interest free loans are given with 7 years moratorium.

1. It was noted during discussions that organizations of Central and State Governments are doing a lot of work in their own ways in the field of turmeric but 'in isolation'. The researches done in the field of development of/availability of improved seed variety, single bud technology, nutri-mix capsules need to be carried further by Department of Agriculture and Farmers Welfare through its extension activities. Testing facilities need to be developed. Different types of turmeric driers are being used and there is a need to map locations of facilities. Greater awareness about the schemes of financial support to beneficiaries among farmers and other stakeholders is necessary. The technologies developed by different arms of the Government are not properly transferred to the stakeholders, especially to the end users/ farmers of the region.

1. Secretary, DONER observed that these issues are being addressed separately and in 'silos' thus missing out on an integrated approach that could benefit the entire turmeric ecosystem and value-chain. Therefore, he felt the need of greater coordination and regular exchange of information among them apart from transfer of technology to the stakeholders. He added that stakeholders must keep in touch with each other and organize workshops, seminars and other programmes to know each other work in the field of turmeric as a starting point.

The action points that emerged from the discussions include:

1. State Governments may share information regarding availability of building infrastructure and existing facilities for processing.
2. MD, NERAMAC would consolidate the demand of seeds of Turmeric from each of the NE States and forward it to ICAR so that appropriate variety of improved seeds could be made available to them in sufficient amount. ICAR could develop breeder seeds, provide them to farmers/ seed entrepreneurs, impart training to State Governments officials/ farmers to use the latest technology and also to license the entrepreneurs.
3. Department of Agriculture and Farmers Welfare /ICAR could play a greater role in sharing technologies to the farmers.
4. If necessary, a scheme could be considered by NEC where improved seeds can be popularised through support to breeders in ICAR, seed exchange, farmer workshops, etc.
5. Various existing technologies/machinery for processing of turmeric need to be showcased at a central location for instance, Delhi Haat, Janakpuri, New Delhi which can be evaluated by experts and demonstrated to farmers/entrepreneurs. Solar driers may be encouraged and use of better technology for their packaging, to avoid the absorption of moisture. This could be coordinated by Office of PSA in collaboration with M/o DoNER.
6. Scheme of Spices Board for support to FPOs; market linkages and supply of processing machinery could be supplemented.
7. SFAC would prepare a calendar of awareness programme for various States. NEDFi and NERAMAC would organise investor meet along with SFAC to enhance awareness about the subsidy/venture fund that can be combined.
8. NEDFi and SFAC need to work together to look into the part of financial support and encouraging entrepreneurship.
9. MSTC could create a facility/platform for e-commerce. Aggregation would be done by NERAMAC.
10. CSIR may create quality testing facilities at the earliest. In addition in the lab called CIMAP, NBRI, Lucknow and Palanpur may work out a joint programme for maximising the value from turmeric including processing of turmeric leaves.
11. Department of Agriculture and Farmers Welfare may consider



undertaking sample checks of data on productivity.

All the above tasks would be coordinated by NERAMAC .

Concluding the discussion, Secretary, DoNER desired to have the next meeting on the subject in the last week of August, 2017 to take stock of the progress made by each of the participating departments as per discussions held on the subject of their domain.

The meeting ended with thanks to the participants.

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