

**MEMORANDUM OF UNDERSTANDING
BETWEEN
INDIA METEOROLOGICAL DEPARTMENT
(MINISTRY OF EARTH SCIENCE)
AND
THE INDIAN INSTITUTE OF TECHNOLOGY, KHARAGPUR
FOR WEATHER BASED AGRO ADVISORY SERVICES**

1. This memorandum of Understanding made this day, i.e. _____, between the India Meteorological Department(IMD), Ministry of Earth Sciences (MoES) with its office at Mausam Bhawan, Lodhi Road, New Delhi-110003, hereinafter referred to as "IMD" which expression shall unless excluded by or repugnant to the context be deemed to include its successors in office and permitted assignees of the one part AND the Indian Institute of Technology Kharagpur established under the Indian Institute of Technology(Kharagpur) Act, 1956 to the state of West Bengal hereinafter referred to as IIT, Kharagpur which expression shall, unless excluded by or repugnant to the context, be deemed to include its successors in office and permitted assignees) of the other part.

Whereas the Government of India has entrusted upon the Meteorological Department (IMD) the task of development of Integrated Agro Meteorological Services in the country. In pursuance here of IMD, has set up in the country a network of about 130 Agro Meteorological field units (AMFUs), which are multidisciplinary units responsible for preparation and dissemination of agromet advisories. Whereas the IIT, Kharagpur is willing to continue AMFU set up and functioning at under its jurisdiction. Now, it is hereby agreed as follows:

2. Each AMFU will be manned by an Agro-Meteorologist who would utilize the relevant meteorological products provided by IMD to generate specific advisories for agricultural management for the respective districts of Agro-Climatic Zones (ACZ) identified under the area of its jurisdiction and disseminate the same to the farming community. The responsibilities of AMFUs would include preparation of weather based advisories for management practices in agriculture after due consultation with subject matter specialist/scientists/Professors of concerned disciplines and disseminate the same to the end users using all possible modes of communication. It will also liaise with Indian Council of Agricultural Research (ICAR), District Agriculture/Horticulture/Animal husbandry Offices, Krishi Vigyan Kendra and other agencies to render Agromet Advisory Service in a holistic manner. It will also disseminate advisories through all possible means to have outreach up to village level and arrange to provide necessary feedback to IMD for development of:
 - i) Relevant Agromet Advisory for the stress crops/livestock
 - ii) Regional/local- specific agromet predictive models;
 - iii) Crop- weather relationships and
 - iv) Forewarning models for weather and climate based pests and disease etc.

3. OBLIGATIONS OF IMD

3.1 IMD agrees to provide Medium Range Weather Forecast in quantitative terms at district level to the AMFU at IIT, Kharagpur

3.2 IMD agrees to provide grant-in-aid to IIT, Kharagpur for the AMFU subject to personal and budgetary limitations imposed by the Government from time to time for submission of duly audited utilization certificate, duly audited statement of expenditure and demand for grant-in-aid by the grantee University/ Institution, for

- a) defraying expenditure towards salaries, travel expenses of the staff approved by IMD and appointed/engaged by the AMFUs exclusively for operating the agro-advisory services;
- b) purchase and maintenance of equipment approved by the IMD;
- c) contingent expenses including consumables, telephone, fax charges, transportation charges, stationary, publications, etc. necessary for effective functioning of agro-advisory services as approved by IMD; and
- d) Development of human resources related to the AAS as approved by IMD.

4. OBLIGATIONS OF THE IIT, Kharagpur (AMFU)

The IIT, Kharagpur (AMFU) agrees

- a) To receive weather forecast, prepare and disseminate Agromet Advisory bulletins for different districts of the Agro Climatic Zones
- b) To organize awareness activities to popularize Agromet Advisory Service.
- c) To maintain Agro-meteorological observatory/Automatic Weather Station, record observation, prepare data base and transmit to IMD and AMFUs will make use of the data generated from observatory/AWS for agricultural research and advisory purpose.
- d) To prepare local climatological information and data base and receive current weather observations and agricultural data from districts.
- e) To prepare annual report and submit to IMD head quarter
- f) To provide appropriate space for AWS/ARG, IIT Kharagpur also agrees to provide security and maintenance of the observatory.
- g) To make available experimental field data for calibration and validations of crop models and identify weather sensitive of crops, animal, R&D and management practices.
- h) To submit utilization certificate/ statement of expenditure duly audited and signed by competent authority.

5. IIT, Kharagpur hereby agrees to continue the support in respect of facilities established through grant-in-aid by IMD at the end of the five years when IMD support may be phased out
6. The agro-advisory services are essentially a cooperative venture. Any matter not covered specifically in the Memorandum of Understanding (MoU) may be settled by mutual agreement. On points where disagreement persists, the matter may be referred to the Secretary, MoES for a decision, which shall be final and binding on both parties.

7. Extension /Termination of MoU

Three months prior to this memorandum of understanding (MoU) coming to an end the operation of this understanding may be extended by mutual consent for such period or periods as may be considered desirable.

Requests for any major change or termination of this MoU shall be furnished by either party to the other for consideration not less than 90 days in advance of the desired date for effecting change/termination. However, all liabilities for the parties accrued during the period of operation of MoU such as settlement of accounts, handing over of completed research works/results, final drawings, etc., will survive even after the expiry of the MoU. All the equipment and material set up by IMD shall be the property of IMD and shall be restored to IMD in case of termination of MoU.

8. COMING INTO FORCE

This MoU shall be deemed to have come into force from the date specified herein and shall continue for a period of five years. All rights and obligations of IMD and IIT, Kharagpur shall be deemed to have commenced and accrued from that specified date.

9. In witness whereof the parties here to have executed this Memorandum of Understanding.

For and behalf of
Director General
India Meteorological Department
New Delhi

(अमित त्यागी)
(AMIT TYAGI)
नीतम विद्यालय के सहाय्यक
Director General of Meteorology
भारत नीतम विद्यालय
India Meteorological Department
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For and behalf of
Director
Indian Institute of Technology
Kharagpur