

**Tripartite
Memorandum of Understanding**

**TRIPARTITE MEMORANDUM OF UNDERSTANDING (MOU) BETWEEN
DEPARTMENT OF AGRICULTURE AND FARMERS WELFARE (DA&FW),
MINISTRY OF AGRICULTURE & FARMERS WELFARE (MoA & FW), GOVT. OF
INDIA, NATIONAL COMMITTEE ON PRECISION AGRICULTURE & HORTICULTURE
(NCPAH), (SPONSORING INSTITUTION) AND UNIVERSITY/ INSTITUTE
(SPONSORED INSTITUTION)
HAVING PRECISION FARMING DEVELOPMENT CENTRES (PFDC), LOCATED
IN THE DEPARTMENT OF.....**

I. The objectives of the PFDC project would be as under:

- a) To develop, refine, validate and use available innovative technologies of precision farming for the benefit of farmers/growers of the country.
- b) To disseminate and demonstrate technologies of precision farming to farmers of the country as per the objectives of the centrally sponsored schemes of MIDH and other schemes of Department of Agriculture and Farmers Welfare for enhancing production and productivity of Horticulture and other crops per unit area in the country.

II) Project Implementation:

- a. The PFDC Project will be implemented by the Department of Agriculture and Farmers Welfare through NCPAH located in various institutions in the Dept. of.....
- b. Sponsored Institution, PFDC have agreed to conduct applied research, demonstrations, extension & dissemination of agro-climatologically differentiated technologies among farmers & end users in the field of precision agriculture, digital technologies and wastewater management.
- c. The Project will be headed by a Principal Investigator (PI) who will be a full time employee of SAU / ICAR or any other Institute (preferably from Horticulture/Agricultural Engineering discipline). For the smooth operation and implementation of the approved activities of the PFDC project, Co-PI/s in the project will be engaged to support and supplement PI. The PI & Co-PIs will draw their salary from the parent organization where the PFDC is located.
- d. The PI will be supported by 2 Young Professionals under the PFDC project on contract basis and will be engaged by respective university/institute as per prevailing norms till completion of the project.

III. Activities under the Project for Sponsored Institution PFDC

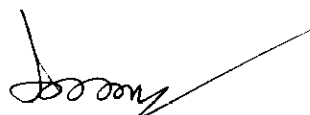
- (i) To adopt available/develop smart/future farming model such as Vertical farming, Hydroponics/ Aeroponics, Solar powered Integrated Micro Irrigation System, Automation and Sensor based technologies, Artificial Intelligence etc. to be used in agriculture & horticulture sector.
- (ii) To rationalize latest technologies with affordable system cost.
- (iii) To coordinate with product/ component manufacturers/ processors for developing quality standards on products w.r.t precision farming.



- (iv) To develop site-specific advisories w.r.t water savings, fertilizers savings, wastewater management, recycling of plastics used in Agri. Sector and to provide technical consultation, feedback on real time basis.
- (v) To suggest ways and means for promotion of Precision Agriculture & Horticulture in the country
- (vi) To revalidate the latest cutting-edge technologies w.r.t precision farming practices by dovetailing with International Institutions, Plastic engineering organizations and supporting Govt. agencies.
- (vii) To encourage, identify and conduct applied research, demonstrations, extension & dissemination of user-friendly weather/crop based agro-climatically differentiated technologies among end users in the field of precision farming, waste water management and plasticulture technologies in the country.
- (viii) To conduct Impact Evaluation Studies and Agri. Events on Precision agriculture with a view to collect & consolidate data on precision technologies including plasticulture applications as well as agro-textiles by end users across the country for policy measures.
- (ix) Develop package of practices for Hi-Tech applications & precision farming techniques for agricultural/horticultural crops growing in different agro climatic zones of the State/s.
- (x) Disseminate the improved technologies through training cum awareness programme for farmers/beneficiaries and other related stakeholders. The PFDC would act as a nodal centre for generating & providing information on precision farming technologies including protected cultivation, creation of water resources and other innovative technologies including plasticulture applications & agro-textiles for various stakeholders in Agri./Horti. & Allied sectors.
- (xi) Provide all the technical support to State Implementing Agency of the respective State/s and as invited by other related organizations for promotion of recommended/proved production for various crops under varied agro-climatic regions in pan India, aimed to maximize returns of the farmers/growers and other related Stakeholders.
- (xii) Ultimate goal is to provide requisite information's to farmers and other related stakeholders so that they are in position to apply necessary inputs and maximize the income per unit area.

IV. In order to achieve the project objectives within the targeted time, DA &FW, MoA&FW, Govt. of India, NCPAH and University/ Institute having PFDC (Sponsored Institution) agree to provide following infrastructure:

- i. The PFDC project will be implemented and monitored by NCPAH.

- ii. NCPAH will submit regular progress reports and utilization certificates to DA&FW.
- iii. Funds for approved projects will be released by DA&FW through NCPAH.
- iv. The NCPAH (with the approval of Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India) could continue/discontinue or shift PFDC project from existing institute to another based on evaluation of performance of the PFDC project.
- v. 100% financial assistance will be provided to the PFDC by Dept. of Agriculture and Farmers Welfare, MoA & FW, Govt. of India through NCPAH, with following items of expenditure based upon the approval accorded for the project:
 - a) Emoluments of contractual staff engaged under the PFDC Project as per the norms under ICAR.
 - b) Travelling allowances as per the respective Institute's norms.
 - c) Recurring and non-recurring contingencies to the extent approved in the project
 - d) Funds for undertaking/organizing training, awareness and other extension activities approved under the project.

V. The Sponsored Institution agrees for the following:

- (a) To implement the project including the appointment/engagement of staff within one month from the date of final approval of the project.
- (b) To provide resources such as land (at least 2.0 hectare (5 Acres) in a consolidated block), water, electricity and laboratory facilities etc. as required for the project.
- (c) To provide basic infrastructure facilities such as office space, furniture, storage space, phone, fax, Internet, hall having sitting capacity of minimum 50 persons and space for Technology Display & Information Centre (TDIC) etc.
- (d) To deploy competent staff for the project in accordance with its recruitment procedures of the respective institute/PFDC.
- (e) To provide skilled and un-skilled labour required for the project work as per the applicable norms.
- (f) To provide on their own such scientific personnel & support staff as Scientists, field / laboratory assistants or attendants, without any financial liability to the PFDC Project by the respective institute.
- (g) Any change of PFDC staff including PI & Co-PI/s, concurrence need be solicited from NCPAH, DA&FW, MoA&FW, Govt. of India before any change.
- (h) To allow the project staff to exchange experimental material, literature,



etc., between the similar Research Centres within the State as well as outside the State. The information's/data generated in such collaboration will remain property of DA&FW, MoA & FW, Govt. of India.


- (i) To permit the PI, Co-PIs and PFDC staff to attend relevant All India Meetings, Workshops, Seminars, Symposia, Conferences, Agri. / Horti. Events & Expos, Staff exposure visits etc. with prior approval/intimation of NCPAH.
- (j) The contractual staff engaged for the project would be used exclusively for the PFDC project work.
- (k) The information/data generated in the project will remain property of DA&FW, MoA&FW, Government of India.
- (l) PFDC should have separate zero balance saving account for release of funds towards PFDC project for accounting and reconciliation of Govt. transaction as well as seamless management of funds towards approved activities. The bank account should be mapped with NCPAH account on PFMS portal and to be updated from time to time.
- (m) To use the funds provided under the project exclusively for the project work as per the approved heads of the project proposal. The installment received during the year, need to be appropriated in the ratio of approved budgetary heads. Any changes in approved funds of budgetary heads needs prior approval from monitoring agency.
- (n) To render annual audited accounts and submit audited utilization certificate (AUC) to NCPAH in the format as may be prescribed in this regard along with a provisional utilization certificate immediately after closure of the financial year.
- (o) To furnish progress report on monthly and annually information & data to monitoring agency on regular basis on time.
- (p) The Non-Recurring Contingencies (NRC) items/equipment purchased under the project will remain the property of the MoA & FW, Govt. of India, who will have the right to dispose of/transfer such equipment's from one research station to another station, if required. The NRC items proposed in the project must need technical approval from sponsoring & monitoring agency (NCPAH) before procurement and corresponding expenditure should strictly adhere to the items as approved under the project.
- (q) A separate register will be maintained for all NRC items/permanent assets procured for the PFDC project as well as a separate register to be maintained for data monitoring & record. A report of their status need be submitted by the PFDC along with Audit Utilization Certificate to the sponsoring agency at the end of each financial year.



VI. NCPAH, DA & FW, MoA & FW, Govt. of India and the Sponsored Institution mutually agree that:

- a) The contractual staff provided under the project would be utilized exclusively for the PFDC project work.
- b) Any changes in Department carrying out PFDC project, due to organizational changes or as per need, will require prior consultation and concurrence of NCPAH, MoA&FW, Govt. of India. Change of Principal Investigator and Co-Principal Investigator, if any, to be made in consultation and concurrence with NCPAH, DA&FW, MoA & FW, Govt. of India.
- c) PI, Co-PIs and PFDC staff would attend the review meetings on priority basis and PI would ensure his participation in the meeting.
- d) Grants are released by DA&FW, MoA & FW, Govt. of India through NCPAH in multiple installments based upon the satisfactory progress w.r.t. to approved activities and submission of relevant information's & utilization certificate by the PFDC during the year in the prescribed proforma.
- e) The sponsored agency would ensure the satisfactory progress of work under the project as per the approved project. However, in the event of new & innovative trail/ applied research as separate proposal may be submitted by the PFDC for approval as special project. But in the event of unsatisfactory progress of work, the DA&FW, MoA&FW and NCPAH will stop release of funds/withdraw the project.
- f) The final report and records would be submitted to the monitoring institution (NCPAH) within three months of the closure of the project.
- g) The research data/information generated & NRC built up under the PFDC project should be the sole property of Govt. of India and available to the other centers working on similar issues in the country. The items used in the project post life may be disposed of by the sponsored agency in the manner it deemed fit and the sale proceeds may be credited to the PFDC accounts as project fund.

This Memorandum of Understanding (MoU) shall become effective from the date of issue till termination of the PFDC project.


Authorized Signatory
Sponsored
Agency/Institution
Director of Research
CCS HAU Hisar

Signature
(Implementing Agency)
Member Secretary, NCPAH &
Horticulture Commissioner, DA&FW,
MoA&FW, Govt. of India

Signature
Joint Secretary, Horticulture
Department of Agriculture and
Farmer's Welfare, MoA&FW,
Govt. of India

Witness:

- 1.
- 2.



