

GUIDELINES FOR ESTABLISHMENT OF SOIL TESTING PROJECTS AT VILLAGE LEVEL BY LOCAL ENTREPRENEURS UNDER SOIL HEALTH MANAGEMENT (SHM)

1. Introduction:

Soil Health Management (SHM) is one of the most important interventions under National Mission for Sustainable Agriculture (NMSA). SHM aims at promoting location as well as crop specific sustainable soil health management and judicious application of fertilizers. Under SHM, establishment of soil testing labs in one of the components which are mainly located at district / block level. Therefore, village level soil testing projects will be established with the objective of employment generation for rural youth and to improve timelines in analysis of soil samples.

2. Objectives:

- i. Employment generation for rural youth.
- ii. To improve timeliness in analysis of soil samples.
- iii. Introduction of the Single Window approach from collection to issue of SHC so as to minimize delays and maximize convenience to farmers
- iv. Online delivery of soil health cards to the farmers using Soil Health Card Portal.
- v. Provide soil testing facilities to farmers at their door step.

3. Strategy:

To achieve the above objectives, the following strategies will be adopted:

- (i) Identification of beneficiary and Establishment of Soil Testing Projects in each village
- (ii) The soil analysis process to be completed within one month of receipt of soil samples in the STL i.e starting from March of the year to June month and October & November of the year. The schedule is as under;
 - A. Sampling and registration on portal: 1-10 days
 - B. Analysis of soil samples: 11-20 days
 - C. Uploading of recommendations on the portal: 21-25 days
 - D. Printing and distribution of SHC: 26-30 days.
- (iii) Promote soil sampling, testing and fertilizer recommendation among stakeholders by way of training in District level laboratories.

- (iv) Provide financial assistance to Village entrepreneur (18 – 27 age group).
- (v) Soil Sample collection at village level in the irrigated areas will be drawn in a grid of 2.5 ha. In rainfed areas, sampling will be done in a 10ha. Grid.
- (vi) Soil samples should be processed following standard procedures and analyzed for various parameters viz, pH, electrical conductivity (EC), Organic Carbon, available N, P, K, S and micronutrients (Zn, Cu, Fe, Mn & B).
- (vii) Provide financial assistance for sample collection, testing and printing & distribution of Soil Health Cards.

4. Scheme Structure:

The National Level Advisory Committee, Executive Committee and State Level Committee will remain same as under NMSA.

District Level

The District Level Executive Committee (DLEC) will comprise of the following:

Collector/Deputy Commissioner	Chairman
Deputy Director / District Agriculture Officer	Member Secretary
District Horticulture Officer	Member
Soil Testing Officer	Member
Representative from KVKs/ SAUs	Member

DLEC will be responsible for carrying forward the objectives of the scheme for project evaluation, implementation and monitoring. The office of DD (A) shall be the district nodal agency with following functions:

- (i) Identify beneficiaries / village entrepreneur (18 – 27 years age group) especially from Saansad Adarsh Gram Yojana (SAGY) villages in transparent and time bound manner.
- (ii) Identify the premises for establishment of Soil Health Labs.
- (iii) Submit the proof of procurement of equipment/inputs as per provisions and norms to Director of Agriculture of State for forwarding the same to DAC&FW for disbursement of funds to the beneficiary.
- (iv) Training to the beneficiary will be imparted by Minilab supplier for analysis of soil and water samples using mini labs. Government soil testing laboratories/KVKs/SAUs etc will provide training on sampling, registration and soil health card printing & distribution.

- (v) Monitor & display details of approved programme, all activities undertaken and name of beneficiaries, expenditure incurred etc. at the soil health portal, Panchayat Bhavan / prominent public place in the cluster of village level and get it placed before the concerned Gram Sabha annually from the point of social audit.
- (vi) The jurisdiction of the village level soil testing project will be decided by DLEC. The strategy for soil samples collection will be at 2.5 ha grid from irrigated area and 10 ha grid from rain-fed area.
- (vii) In case of cluster of villages, the Gram Sabha of each village will pass a resolution for setting up of village level soil testing project in a particular village / beneficiary village.
- (viii) One percent of the samples tested by the beneficiary will be rechecked by the soil testing laboratory of the area or any of the STL of the State.
- (ix) The DLEC shall take the decision for the selection of beneficiary and approve it within 30 days from the date of receipt of the application(s).

5. Beneficiary:

- (i) The beneficiary / village level entrepreneur should be a youth in 18-27 years age group especially from Saansad Adarsh Gram Yojana (SAGY) villages.
- (ii) The beneficiary must be qualified at least 2nd division matric with science with knowledge of computer.
- (iii) The applicant shall submit the application along with requisite qualification certificate, PAN Card and Aadhar Card to the office of Deputy Director / District Agriculture Officer.
- (iv) Apart from collection, testing of sample, printing & distribution of cards to farmers, the selected beneficiary shall provide results of soil samples tested along with samples / farmers in excel sheet to the concerned soil testing officer of the area.
- (v) The applicant / beneficiary should have his / her own building for setting up village level soil testing lab or rental building with lease agreement for at least four years.
- (vi) The beneficiary has to submit a bond for running the labs for at least 2 cycles i.e. at least 4 years.

6. Financial Assistance:

To establish a Village Level Soil Testing Project (VLSTP) the maximum project cost is Rs. 5 lakhs. The financial assistance @ 75% of the total cost of project shall be admissible as one time subsidy that will be shared between GOI and State Government on 60:40 basis (90:10 for NE and Hilly States). The remaining 25% cost of the project shall be invested by the entrepreneur at his/her own level.

Timelines:

- (i) State Governments to finalize selection of entrepreneurs and submission of proposal to DAC&FW by September, 2017 end for final approval by the Executive Committee.
- (ii) Entrepreneur to procure mini lab equipment, computers etc by October, 2017 end and furnish necessary documents to DLEC for further furnishing to State Directorate of Agriculture and DAC&FW.
- (iii) DAC&FW to release GOI share to State Government within 20 days from receipt of proposal.

7. Fund flow mechanism for establishment of VLSTP: After receipt of approved VLSTP from the DLEC shall be forwarded to Director Agriculture of the state .Further it will be forwarded to the INM Division, M/o Agriculture and Farmers Welfare, Govt.of India for final sanction and release of the funds. The Executive Committee at DAC&FW will sanction the project and GOI share will be released to the State Government through PFMS.

8. Role of Panchayati Raj Institutions (PRIs)

The State Government and other designated implementing agencies, to the extent possible, will ensure active participation of the Panchayati Raj Institutions (PRIs) in the implementation of this Scheme.

9. Monitoring:

District Agriculture Officer will be responsible for monitoring of the projects as it is to be implemented under his guidance and targets / time table is fixed by him.

10. Impact Assessment, Periodic Evaluation and Reporting

- (i) DAC&FW will evaluate efficacy of this Scheme through a 'third party'. The agency will assess the efficacy, performance, outcome and shortcomings of the scheme and recommend suitable corrective measures.
- (ii) Information and communication technology will be deployed extensively for ensuring transparency in the implementation process and effective monitoring of the programme.

11. Expected Outcome

- (i) It will promote balanced and judicious use of plant nutrients.
- (ii) The demand for organic sources of plant nutrient like bio-fertilizers, organic manure, vermi-compost, slow release nitrogenous fertilizer like neem/sulphur coated urea will increase, which in turn improve the soil fertility as well nutrient use efficiency.

12. Training of Beneficiary:

The training programme to be organized for Beneficiary on Importance of Soil testing in Soil Fertility Management; Sampling Methodology; Testing protocols; Interpretation of soil test results and calculation of nutrient requirement; Cropping system based nutrient management & Importance of balanced nutrition on productivity and quality of produce and soil health maintenance etc.

13. Financial Structure of the project of soil testing up to 3000 samples per annum:

Item	Details	Cost
Purchase of machinery & equipment, chemicals & glass wares, miscellaneous laboratory articles.	1. Mini lab with accessories - 1.00 2. Glass wares - 0.25 3. Electronic balance - 0.25 4. Analytical balance - 0.15 5. Drying oven - 0.35 6. Distillation unit, sieving system, electric/ water filters, etc. - 0.50	Rs 2.50 lakh
Purchase of IT equipments	1. Computer, - 0.50 2. Printer, -0.30 3. Scanner,] 4. Hand held Device - 0.20	Rs 1.00 lakh
Contingency Expenditure	1. Electricity & water connectivity & supply Bill - 0.30 2. Broad band/ Telephone connection & Charges - 0.40 3. Stationary - 0.50 4. Annual Maintenance Cost (AMC)-0.30	Rs. 1.50
Total cost of the project		Rs. 5.00 lakh

Note: The cost break up is tentative; the entrepreneur has inter-component flexibility. It will be one time assistance.

14. Sample Collection and Testing Charges applicable:

Sample collection, testing and generation & distribution of soil health card to farmers – Rs 300/ sample

15. Procedure for Approval & Fund Flow Mechanism of testing charges:

- a) Funds for sample collection, testing and generation / distribution of soil health card would be released by State Government under Soil Health Card scheme to the beneficiary in two Installments. 50 % on the registration on the portal and 50% after delivery of SHC to farmers.
- b) The bank account of the beneficiary should be linked to the soil health portal.
- c) In case, the soil samples are provided by the State Government for analysis, then the payment would be deducted accordingly.

Work Flow Chart

