

**CENTRAL SECTOR SCHEME**  
**ON**  
**PROMOTION OF AGRICULTURAL MECHANIZATION FOR**  
**IN-SITU MANAGEMENT OF CROP RESIDUE IN THE STATES OF**  
**PUNJAB, HARYANA, UTTAR PRADESH AND NCT OF**  
**DELHI**

**OPERATIONAL GUIDELINES**



सत्यमेव जयते

**Government of India**

**Ministry of Agriculture & Farmers Welfare**

**Department of Agriculture, Cooperation & Farmers Welfare**

**(Mechanization & Technology Division)**

**Krishi Bhavan, New Delhi-110001**

**2018**

| <b>TABLE OF CONTENTS</b> |  |                 |
|--------------------------|--|-----------------|
| <b>S.N.</b>              | <b>Contents</b>  | <b>Page No.</b> |
| 1.0                      | Introduction   | 1               |
| 2.0                      | Objectives of the Scheme   | 2               |
| 3.0                      | Scheme strategy  | 2               |
| 4.0                      | Components of the Scheme   | 3               |
| 5.0                      | Scheme Structure   | 3               |
| 5.1                      | National level   | 3               |
| 5.2                      | Executive Committee  | 4               |
| 5.3                      | State Level  | 6               |
| 5.4                      | District level   | 8               |
| 5.5                      | Role of Panchayati Raj   | 10              |
| 6.0                      | Procedure for Approvals and Fund Flow Mechanism  | 10              |
| 6.1                      | AAP Submission   | 10              |
| 7.0                      | Monitoring   | 12              |
| 8.0                      | Impact Assessment, Periodic Evaluation and Reporting   | 12              |
| 9.0                      | Expected Outcomes  | 12              |
| 10.0                     | Interventions  | 13              |
| 10.1                     | Establish Farm Machinery Banks or Custom Hiring Centres of in-situ crop residue management machinery | 13              |
| 10.1.1                   | Implementing Agencies  | 13              |
| 10.1.2                   | Objectives of Farm Machinery Banks or Custom Hiring Centres (CHCs)                                   | 13              |
| 10.1.3                   | Area of Operation & Composition of Custom Hiring Centre  | 13              |
| 10.1.4                   | Identification of machines/Implements  | 14              |
| 10.1.5                   | Procurement of Machinery   | 15              |
| 10.1.6                   | Financial Assistance   | 15              |
| 10.1.7                   | Monitoring   | 16              |
| 10.2                     | Procurement of Agriculture Machinery and Equipment for in-situ crop residue management               | 16              |
| 10.2.1                   | Implementing Agencies  | 16              |
| 10.2.2                   | Objectives   | 16              |
| 10.2.3                   | Area of Operation & Identification of Beneficiary  | 16              |
| 10.2.4                   | Identification of machines/Implements  | 17              |
| 10.2.5                   | Procurement of Machinery   | 17              |
| 10.2.6                   | Financial Assistance   | 17              |
| 10.2.7                   | Monitoring   | 17              |
| 10.3                     | Information, Education and Communication for awareness on in-situ crop residue management            | 18              |
| 10.3.1                   | Implementing Agencies  | 18              |
| 10.3.2                   | Objectives   | 18              |

|                 |   |       |
|-----------------|---|-------|
| 10.3.3          | Area of Operation   | 18    |
| 10.3.4          | Identification of Activities  | 18    |
| 10.3.5          | Training & Demonstration  | 19    |
| 10.3.6          | Financial Assistance  | 20    |
| 11.0            | Activity Mapping  | 20    |
| Annexure-I      | Activity Mapping for effective devolution of funds, functions and functionaries under Sub Mission on Agricultural Mechanization | 21    |
| Annexure-II     | Cost Norms and Pattern of Assistance  | 23    |
| Annexure-II (a) | Component No. 1: Establish Farm Machinery Banks or Custom Hiring Centres of in-situ crop residue management machinery           | 23    |
| Annexure-II (b) | Component No. 2: Procurement of Agriculture Machinery and Equipment for in-situ crop residue management                         | 24    |
| Annexure-II (c) | Component No. 3: Information, Education and Communication for awareness on in-situ crop residue management                      | 25    |
| Annexure-III    | Format for Annual Action Plan   | 28    |
| Annexure-IV     | Form of Utilization Certificate   | 30    |
| Annexure-V      | Format for Quarterly / Annual Progress Report   | 31    |
| Annexure-VI     | Agreement to be Signed by Custom Hiring Centre Owner  | 33    |
| Annexure-VII    | Sample sheets of project cost calculations and allowable financial assistance for establishing Custom Hiring Centres.           | 34-36 |

## ABBREVIATIONS

|          |  |
|----------|--|
| AAP      | Annual Action Plan                                       |
| AC&FW    | Agriculture Cooperation & Farmers Welfare                |
| ADC      | Additional Commissioner                                  |
| ADG      | Assistant Director General                               |
| ADM      | Additional District Magistrate                           |
| AICRP    | All India Coordinated Research Project                   |
| ATMA     | Agricultural Technology Management Agency                |
| BIS      | Bureau of Indian Standards                               |
| CCEA     | Cabinet Committee on Economic Affairs                    |
| CFMTTI   | Central Farm Machinery Training & Testing Institute      |
| CHC      | Custom Hiring Centers                                    |
| DAC & FW | Department of Agriculture, Cooperation & Farmers Welfare |
| DC       | Deputy Commissioner                                      |
| DD(A)    | Deputy Director (Agriculture)                            |
| DDG      | Deputy Director General                                  |
| DLEC     | District Level Executive Committee                       |
| EC       | Executive Committee                                      |
| EE(A)    | Executive Engineer (Agriculture)                         |
| EFC      | Expenditure Finance Committee                            |
| FMTTI    | Farm Machinery Training & Testing Institute              |
| FPO      | Farmer Producer Organization                             |
| GFR      | General Financial Rules                                  |
| GOI      | Government of India                                      |
| ha       | Hectare  |
| HP       | Horse Power  |
| ICAR     | Indian Council of Agricultural Research                  |
| ICT      | Information Communication Technology                     |
| JD(A)    | Joint Director (Agriculture)                             |
| KVK      | Krishi Vigyan Kendra                                     |
| kW       | Kilo-Watt  |
| M&T      | Mechanization & Technology                               |
| MIDH     | Mission for Integrated Development of Horticulture       |
| MIS      | Management Information System                            |
| NABARD   | National Bank for Agriculture & Rural Development        |
| NFSM     | National Food Security Mission                           |
| NMOOP    | National Mission on Oil Seeds & Oil Palms                |
| NSC      | National Steering Committee                              |
| PPP      | Public Private Partnership                               |
| PRI      | Panchayati Raj Institutions                              |
| PSU      | Public Sector Undertaking                                |
| PTO      | Power Take Off   |
| QPR      | Quarterly Progress Report                                |
| R&D      | Research & Development                                   |

|      |   |
|------|---|
| RKVY | Rashtriya Krishi Vikas Yojana             |
| SAU  | State Agricultural University             |
| SC   | Scheduled Caste                           |
| SHG  | Self Help Groups                          |
| SLEC | State Level Executive Committee           |
| SMAM | Sub-Mission on Agricultural Mechanization |
| ST   | Schedule Tribes                           |
| TSP  | Tribal Sub Plan                           |
| UG   | User Groups                               |
| UT   | Union Territory                           |

**PROMOTION OF AGRICULTURAL MECHANIZATION FOR IN-SITU  
MANAGEMENT OF CROP RESIDUE IN THE STATES OF PUNJAB,  
HARYANA, UTTAR PRADESH AND NCT OF DELHI**

**1.0 Introduction:**

- (i) Burning crop residue causes phenomenal pollution problems in the atmosphere and huge nutritional loss and physical health deterioration to the soil.
- (ii) The burning of one tonne of paddy straw releases 3 kg particulate matter, 60 kg CO, 1460 kg CO<sub>2</sub>, 199 kg ash and 2 kg SO<sub>2</sub>. These gases affect human health due to general degradation in air quality resulting in aggravation of eye and skin diseases. Fine particles can also aggravate chronic heart and lung diseases.
- (iii) One ton of paddy straw contains approximately 5.5 kg N, 2.3 kg P<sub>2</sub>O<sub>5</sub>, 25 kg K<sub>2</sub>O, 1.2 kg S, 50-70% of micro-nutrients absorbed by rice and 400 kg of carbon, which are lost due to burning of paddy straw. Apart from loss of nutrients, some of the soil properties like soil temperature, pH, moisture, available phosphorus and soil organic matter are greatly affected due to burning.
- (iv) Nonetheless, time available between the rice harvesting and wheat sowing is very narrow and in the range of 20-30 days. It is envisaged that appropriate strategies for in situ crop residue management are planned for effective implementation to enable zero burning.
- (v) Various equipments/ machines such as Super Straw Management System (SMS) attached with existing combine harvester, Happy Seeder, Straw Chopper / Mulcher, Rotary Slasher, Reversible M B Plough, Rotavator etc. have been developed and successfully demonstrated in the farmers, fields.
- (vi) In pursuance to the Orders of National Green Tribunal (NGT), funds have been released from within the sanctioned budget for 'Sub-Mission on Agricultural Mechanization (SMAM) which is implemented on 60:40 sharing pattern between Centre and State. However, it has been noticed that interventions through SMAM are inadequate and need to be augmented through a separate scheme.
- (vii) Therefore, in view of above and in pursuance to the Budget 2018 announcement regarding a special Scheme to support the efforts of the governments of Haryana, Punjab, Uttar Pradesh and the NCT of Delhi to address air pollution and to subsidize machinery required

for in-situ management of crop residue, a new Central Sector Scheme on 'Promotion of Agricultural Mechanization for In-Situ Management of Crop Residue in the States of Punjab, Haryana, Uttar Pradesh and NCT of Delhi' for the period from 2018-19 to 2019-20 has been approved.

- (viii) The scheme will be implemented in accordance with guidelines described hereunder.
- (ix) The scheme will be implemented in the states of Punjab, Haryana, Uttar Pradesh and NCT of Delhi, to promote the usage equipment and machines for in-situ management of crop residue.

## **2.0 Objectives of the Scheme**

- (i) Protecting environment from air pollution and preventing loss of nutrients and soil micro-organisms caused by burning of crop residue;
- (ii) Promoting in-situ management of crop residue by retention and incorporation into the soil through the use of appropriate mechanization inputs;
- (iii) Promoting Farm Machinery Banks for custom hiring of in-situ crop residue management machinery to offset the adverse economies of scale arising due to small landholding and high cost of individual ownership.
- (iv) Creating awareness among stakeholders through demonstration, capacity building activities and differentiated Information, Education and Communication strategies for effective utilization and management of crop residue.

## **3.0 Scheme Strategy:**

To achieve the above objectives, the scheme will adopt the following strategies:

- (i) Provide financial assistance to farmers for procurement of in-situ crop residue management machinery and equipments.
- (ii) Provide financial assistance to the Co-operative Societies of farmers, FPOs, Self-Help Groups, Registered Farmers Societies / farmers groups, Private Entrepreneurs, Group of women farmers or self-help groups for establishment of farm machinery banks for custom hiring of in-situ crop residue management machinery.

- (iii) Provide financial assistance to promote use of in-situ crop residue management machinery among farmers by way of on-field and off-field training and demonstrations.
- (iv) Provide financial assistance to the State Governments, KVKs, ICAR institutions, Central Government institutions, PSUs etc. for the activities to be undertaken towards Information, Education and Communication (IEC).

#### **4.0 Components of the Scheme**

##### **4.1 The Scheme will have the following major components (100% Central Share):**

- (i) Establish Farm Machinery Banks or Custom Hiring Centres of in-situ crop residue management machinery
- (ii) Procurement of Agriculture Machinery and Equipment for in-situ crop residue management
- (iii) Information, Education and Communication for awareness on in-situ crop residue management

#### **5.0 Scheme Structure**

##### **5.1 National Level**

The scheme will have a National Steering Committee (NSC) under Chairmanship of Secretary (DAC&FW), with following composition:

|  |                    |
|--|--------------------|
| Secretary, Department of Agriculture, Cooperation & Farmers Welfare (DAC&FW)   | Chairman           |
| Additional Secretary & Financial Advisor, DAC&FW   | Member             |
| Additional Secretary (M&T), DAC&FW   | Member             |
| Joint Secretary (RKVY), DAC&FW   | Member             |
| Joint Secretary (Crops), DAC&FW  | Member             |
| Principal Secretary (Agriculture) of the State Government of Punjab, Haryana & Uttar Pradesh and Secretary –cum-Commissioner (Development), NCT of Delhi | Members            |
| Joint Secretary (M&T), DAC&FW  | Member Secretary   |
| DDG (Engg.) ICAR, Agriculture Commissioner, Horticulture Commissioner, ADC (Machinery), DC (M&T), Directors FMTTIs                                       | Experts<br>Members |



NSC will be the policy formulating body giving overall direction and guidance to the implementation of the scheme, and will monitor and review its progress and performance. It will be empowered to lay down and amend operational guidelines, other than those affecting financing pattern. NSC shall meet at least two times in a year.

## 5.2 Executive Committee:

The Executive Committee (EC) will comprise of the following members:

|  |                  |
|--|------------------|
| Additional Secretary (M&T), DAC&FW   | Chairman         |
| Principal Secretary (Agriculture) of the State Government of Punjab, Haryana & Uttar Pradesh and Secretary –cum-Commissioner (Development), NCT of Delhi | Members          |
| Joint Secretary (M&T), DAC&FW  | Member Secretary |
| ADG(Engg), ICAR, ADC(M&T), ADC(Crops), ADC (NRM), DC(M&T) and Director, CFMTTI Budni   | Experts Members  |

- (i) EC will oversee activities of the scheme and approve Action Plans of the States in accordance with the prescribed norms.
- (ii) EC is empowered to reallocate resources across States and components and approve projects on the basis of approved financial assistance norms. EC will use its discretion in approving only those components of a project, for which cost norms/pattern of financial assistance have been approved by the EFC/CCEA.
- (iii) EC is also empowered to approve special interventions under flexi funds but within the approved components of scheme. EC will ensure smooth functional linkages among different agencies. EC shall meet as frequently, as required.
- (iv) M&T Division in DAC will provide necessary technical support to EC to administer the scheme as under:
  - a) Indicate tentative provisions for each component of the scheme at the beginning of Financial Year (March- April) to facilitate the States in preparing Annual Action Plan (AAP) as per format at Annexure -III.
  - b) Empanel the manufacturers of machines and equipment, identified for in-situ management of crop residue, along with

their cost. Expression of Interest (EOI) based on quality, performance and service will be invited from the willing manufacturers for supply of machines in the States of Punjab, Haryana, Uttar Pradesh and NCT of Delhi. The beneficiaries will free to select any manufacturer as per their choice from within the list of empanelled manufacturers for procurement of machines and equipments. The High Powered Committee as under will empanel the manufacturers.

- (i) Joint Secretary (M&T), DoAC&FW – Chairman
- (ii) ADG (Engineering), ICAR – Member
- (iii) Dean, College of Agricultural Engineering, PAU, Ludhiana – Member
- (iv) Dean, College of Agricultural Engineering, CCS HAU, Hisar – Member
- (v) Director, CFMTTI Budni – Member
- (vi) Joint Director (Agri. Engg.), Deptt. of Agri., Govt. of Punjab – Member
- (vii) Joint Director (Agri. Engg.), Deptt. of Agri., Govt. of Haryana – Member
- (viii) Joint Director (Engg.), Department of Agriculture, Govt. of Uttar Pradesh - Member
- (ix) Members of Industry (at least 3- to be nominated by AMMA-India)
- (x) Additional Commissioner (Machinery), DAC&FW – Convener

The terms of reference of the Committee are as under:

- (I) Finalize and periodically amend the specifications of the crop residue management implements/machines.
- (II) Empanelment of manufacturers for supply of implements and fix the ceiling price of each implement for admissibility of subsidy. The process of empanelment will be as follows:
  - (i) Inviting expression of interest from eligible willing manufacturers whose implements have been tested from Farm Machinery Training & Testing Institutes (FMTTI) or DAC&FW authorized institutes, for supply of the implements

- (ii) Determine price at which these implements will be supplied
  - (iii) Empanelment of the willing manufacturers to supply the implements at the agreed price. Visit the states regularly and frequently to provide guidance in organizational and technical matters.
- c) Help in the implementation, monitoring and evaluation of various interventions in the scheme and provide feedback reports to the Member Secretary of EC
  - d) Compile materials and conduct capacity building programmes, conduct and participate in the promotional events such as, workshops/seminars/exhibitions/demonstrations/mass media programmes conducted by various implementing agencies.
  - e) Undertake publicity/information campaign to create awareness on in-situ management of crop residue, document and disseminate the success stories.
  - f) Assist the State Agencies in concurrent evaluation based on performance indicators
  - g) Prepare the agenda for the EC and NSC meetings
  - h) 1% of annual outlay of the Sub-Mission will be earmarked for incurring administrative and other contingent expenses towards the above.

### 5.3 State Level

**5.3.1** The State Level Executive Committee (SLEC) will comprise of the following:

|   |                  |
|---|------------------|
| Principal Secretary (Agriculture)/Agricultural Production Commissioner                    | Chairman         |
| Director (Agriculture)/Director (Agricultural Engineering)/Joint Director (Agril Engg.)   | Member Secretary |
| Representatives of SAUs/ICAR/Other line Departments such as Pollution Control Boards etc. | Experts Members  |

The Committee's main function will be to vet the Annual Action Plan prepared by the State nodal department for implementation of the scheme. The SLEC will oversee the implementation of scheme Components of the respective States through regular meetings with the

nodal and other line departments. It will also provide inputs to the Executive Committee for appropriate policy formulation. The SLEC will be empowered to make changes upto 10% in the Component-wise allocation under the scheme within the overall framework approved by Government of India keeping in view the ground requirements. However, such information shall be shared with DAC&FW.

**5.3.2** Department of Agriculture or Dept. of Agricultural Engineering, wherever available, shall be the nodal department at the State level for implementation of this scheme. It will provide necessary support to SLEC and will have the following functions:

- (i) Prepare Scheme Implementation Plan (SIP) for entire duration of the scheme primarily focusing on achieving zero straw burning.
- (ii) Select the districts under AAP as per objective criteria
- (iii) Utilize, to the extent possible, services of Subject Matter Specialist (Agricultural Engineering) available with State Government, KVKs, SAUs and ICAR institutes functioning in the State.
- (iv) Prepare annual State Level Action Plan in consonance with scheme goals and objectives as per the format at Annexure-III taking into account tentative outlay of State as communicated by DAC&FW at the beginning of Financial Year (March- April).
- (v) The allocation in physical and financial terms may be earmarked towards various social groups in proportionate to the population in the States, in accordance with the guidelines of the Government of India in this regard.
- (vi) 10% of the AAP allocation would be earmarked as flexi-fund to meet the following objective:
  - a) To provide flexibility to States to meet local needs and requirement within the overall objective of scheme;
  - b) To pilot innovations and improved efficiency within the overall objective of the Scheme and its expected outcomes;
  - c) To undertake mitigation/restoration activities in case of natural calamities.
- (vii) Ensure suitable integration of AAP with other schemes like Rashtriya Krishi Vikas Yojna (RKVY), National Food Security Mission (NFSM) and Mission for Integrated Development of Horticulture (MIDH) etc.

- (viii) Compile District wise Action plan into State Action Plan and submit to the State level committee for approval and thereafter forward the same to EC.
- (ix) Receive funds from DAC&FW for implementing organizations and oversee, monitor & review implementation of the programmes
- (x) Compile materials and conduct capacity building programmes. Organize workshops, seminars and training programmes for all interest groups/associations at State level.
- (xi) Operationalize Information Communication Technology (ICT) enabled management system upto grassroot level. Conduct and participate in the promotional events such as, workshops/seminars/exhibitions/demonstrations/mass media programmes.
- (xii) Undertake publicity/information campaign to create awareness on in-situ management of crop residue, document and disseminate the success stories.
- (xiii) Conduct independent evaluation to assess the performance of the Mission in their States.
- (xiv) 1% of total allocation to the State may be earmarked for administrative and other contingent expenses. Expenditure in excess of 1% limit will be met by the States from their own resources.
- (xv) Submission of physical and financial reports to the DAC&FW on fortnightly basis on selection of beneficiary and release of financial assistance together with the activities taken under IEC component of the scheme.

## 5.4 District Level

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

|   |                                       |
|---|---------------------------------------|
| Collector / Deputy Commissioner   | Chairman                              |
| Dy. Director (Agriculture)/Executive Engineer (Agricultural Engineering)  | Member Secretary                      |
| District Agri. Officer/Assistant Engineer (Agri. Engg)  | Co-Member Secretary                   |
| One expert each from SAUs /ICAR institutions, KVK, Lead Bank/NABARD, representative from SHG/Progressive farmer of the district | Experts Members (Preferably four (4)) |

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

- (i) Identify the problem areas of crop residue burning
- (ii) Identify beneficiaries (Farmers, Co-operative Societies of farmers, FPOs, Self-Help Groups, registered Farmers Societies / farmers groups, Private Entrepreneurs, Group of women farmers or self-help groups) to avail the benefits of scheme in transparent and time bound manner. The report on the selection of beneficiary and release of financial assistance together with the activities undertaken towards IEC will be submitted to the DAC&FW through SLSC.
- (iii) Tie up with the Banks for credit requirements of the beneficiaries. Name and details of selected beneficiaries will be documented at district level indicating Aadhar/UID numbers and the financial assistance will be paid through Direct Benefit Transfer (DBT).
- (iv) Ensure that the benefits under various schemes of DAC&FW such as RKVY, MIDH, NMOOP, NFSM, SMAM etc. are not extended repeatedly to the same beneficiary.
- (v) Prepare district AAP with physical and financial targets under each component.
- (vi) Utilize online application software for the entire process of identification and selection of beneficiary, processing of applications and disbursement of financial assistance to the beneficiary after ensuring the proof of procurement of equipment/inputs as per provisions and norms.
- (vii) Receive funds from State Nodal Department for implementing the scheme components.
- (viii) Make efforts for direct transfer of financial assistance to the farmers/beneficiary on the basis of ADHAR No. wherever infrastructure is functional in the district.
- (ix) Monitor & display details of approved programme, all activities undertaken and name of beneficiaries, expenditure incurred etc. at the Panchayat Bhavan/prominent public place in the cluster/village level and get it placed before the concerned Gram Sabha annually from the point of social audit.

- (x) The DLEC will constitute surveillance committees under the District Agriculture Officers involving farmer's groups/progressive farmers to mobilize farmers for not burning the crop residues.
- (xi) The DLEC will constitute Block Level Committee to spread awareness for not burning the crop residues by the villagers.
- (xii) Study the impact after the implementation of the programmes and forward the reports to the State nodal Department.

**5.4.3** ICAR institutes /SAUs and KVKs functioning in the district will provide technical support in formulation of the district action plan, its implementation and monitoring. The technical staff will be sourced from these organizations for imparting training to the farmers and extension personnel.

**5.4.4** KVKs will conduct demonstration and training so that farmers will be able to know the benefits of not burning of crop residue.

## **5.5 Role of Panchayati Raj Institutions (PRIs)**

- (i) 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.
- (ii) PRIs may also be involved in publicizing the demonstrations and training of farm equipment and in ensuring participation of farmers from nearby areas for widespread dissemination of technologies.

## **6.0 Procedure for Approval & Fund Flow Mechanism**

**6.1 AAP submission:** AAP duly approved by SLEC along with the minutes of SLEC or AAP duly approved by ICAR in case of ICAR institutions and KVKs, shall reach DAC&FW for examination, deliberation and final approval. M&T Division in DAC&FW will examine AAP before it is placed before the EC for consideration, sanction and approving allocation of funds to States and implementing agencies.

6.2 DAC will allocate the funds to the States and Implementing Agencies based on the following parameters:

- a) Duly approved annual action plan by the SLEC
- b) Release of flexi-funds would be made on a pro-rata basis along with normal releases of the scheme. In other words, no separate system

for release or for utilization certificate for flexi-funds would be required.

- (i) Funds would be released to the States /Implementing Agencies in single installment as the residue burning is seasonal problem and it involves procurement of equipments and machines of capital nature.
- (ii) The release of the funds will be upon the approval of AAP by the EC

6.3 (a) DAC&FW will only transfer funds electronically to the State Governments, and Central Institutions. The department will prepare a digitized list of all implementing agencies for the same and for this purpose PFMS of CGA will be used.

(b) Respective State Governments and Institutions shall ensure that subsidy component under this scheme is transferred electronically to each beneficiary (Individual, Institutions and manufacturers). The list shall be provided to the DAC&FW after transfer of benefit directly to the beneficiaries' accounts.

(c) The buyer (farmer) will purchase the equipment /machine from any of the empanelled Manufacturer on payment of full cost of the equipment/machine or he will pay the amount after deducting the amount of applicable subsidy. In case of full payment by the buyer (farmer) to the Manufacturer, the amount of applicable subsidy will be paid to the buyer directly in his account within one month.

(d) In case the buyer (farmer) pay cost of machine/equipment after deducting the amount of applicable subsidy, the amount of subsidy will be paid to the Manufacturer in his account within one month of supply, installation and commissioning of the machine/equipment. The buyer will give certificate of complete Installation and successful commissioning.

(e) It would be ensured by the State Government that no eligible beneficiary suffers for want of Aadhar and it would be the State Governments responsibility to ensure that Aadhar enrolment of such beneficiaries is carried out on priority at the permanent enrolment centres set up for the purpose. However, the benefits will not be denied for not having the Aadhar number by the eligible beneficiary.



## **7.0 Monitoring**

- (i) The scheme envisages a coordinated approach for monitoring and evaluation with active involvement of implementing agencies, beneficiaries and other stakeholders.
- (ii) At the State level the monitoring of the Scheme will be carried out by the SLEC and DLEC. The monitoring and progress reports will be submitted by the SLEC to the DAC&FW on fortnightly basis.
- (iii) A combination of periodic desk review, field visits and web-based mechanism will be adopted for releasing funds, monitoring physical and financial progress and monitoring the progress of other scheme interventions at National level by Mechanization and Technology Division (M&T) in the DAC&FW.
- (iv) All implementing agencies will ensure that a report on fortnightly basis regarding utilization of funds released to them and the physical and financial progress of the scheme are submitted to DAC&FW regularly, as per prescribed proforma at Annexure IV and Annexure-V.

## **8.0 Impact Assessment, Periodic Evaluation and Reporting**

- (i) DAC&FW will evaluate efficacy of this scheme on a yearly basis 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 scheme programmes.

## **9.0 Expected Outcome**

- (a) It is estimated that 23 million tonnes of paddy straw is burnt in Punjab, Haryana and Uttar Pradesh. The stubble burning shoots up the carbon dioxide levels in the air by 70%. The concentration of carbon monoxide and nitrogen dioxide also rises by 7% and 2.1% respectively, triggering respiratory and heart problems. Adoption of in-situ crop residue management machinery will check burning of crop residue in field and thus address the issues/problems of raising the levels of these pollutants.

- (b) By incorporation of 1 million tonnes of crop residues into soil, it is estimated that about 0.13 million tonnes of carbon (C) may be improved per year and save about  $4.7 \times 10^3$  tonne of N (equivalent to Rs. 6.71 crores) annually.
- (c) From residue incorporation, farmers' can save about 1600 kg C, 20-30kg N, 4-7 kg P, 60-100 kg K, 4-6 kg S in addition to micronutrients, which is equivalent to Rs. 1500-2000/ha for plant nutrients.

## **10.0 Interventions**

Interventions proposed under the three components of the scheme are given below whereas norms of financial assistance are summarized in Annexure-II.

### **10.1 Establish Farm Machinery Banks or Custom Hiring Centres of in-situ crop residue management machinery**

**10.1.1 Implementing Agencies:** State Governments, PSUs of Government of India, Government of India Organizations

#### **10.1.2 Objectives of Farm Machinery Banks or Custom Hiring Centres (CHCs)**

- (i) To provide hiring services for in-situ crop residue management machinery/implements applied for different operations.
- (ii) To partnership with the implementing agencies in conducting demonstrations and capacity building programmes.

#### **10.1.3 Area of Operation & Composition of Farm Machinery Banks or Custom Hiring Centre**

- (i) Custom hiring centres will be established in the districts identified for implementation in the State AAP.
- (ii) The districts in State AAP will include all villages having problems of crop residue burning.
- (iii) Each CHC will have the capacity to cover minimum area of 10 ha/day and at least 200 ha in a cropping season.
- (iv) Each CHC will be set up on cluster based approach. Group of farmers/Individual farmer having their own tractor/combine

harvester would be preferred for establishing Custom Hiring Centre (CHC)

- (v) The following parameters may be chosen for selection of village/Town for setting up of custom hiring centers:
  - (a) Small & marginal operational Holdings
  - (b) Problems of crop residue burning.
  - (c) Already having custom hiring centres of the machinery other than the machinery for in-situ crop residue management
- (vi) District Level Executive Committee will identify/invite application of Farmers, Co-operative Societies of farmers, FPOs, Self-Help Groups, registered Farmers Societies / farmers groups, Private Entrepreneurs, Group of women farmers or self-help groups to set up CHCs. Old established CHCs, with Non Crop Residue Machinery, will also be eligible for fresh project under the scheme.
- (vii) Any business model can be adopted for expanding the reach of custom hiring centres. It will be necessary to maintain, upgrade the CHCs from time to time.
- (viii) The project cost of the CHC of in-situ crop residue management machinery should not be less than Rs. 10 lakhs. However, this limit would not apply to the Co-operative Societies of farmers, FPOs, Self Help Groups, registered Farmers Societies / farmers groups and Private Entrepreneur who already possess other implements, provided that the project cost includes more than 2 equipments of crop residue management.
- (ix) The financial assistance for establishment of Custom Hiring Centre will be limited to the maximum project cost of Rs 75.00 lakhs out of which the in-situ crop residue management implements component cost should be at least 35% of the project cost.
- (x) Only 1 (one) tractor will be allowed to be included in the project cost of CHC in the other implements component for projects of more than Rs. 10 lakhs and upto Rs. 25.00 Lakhs and Only 2 (two) tractors will be allowed to be included in the project cost of CHC in the other implements component for projects of more than Rs. 25.00 Lakhs.

#### **10.1.4 Identification of machines/Implements:**

- (i) The machinery/implements appropriate for the in-situ crop residue management will be selected from within the list at Annexure-II (b)

- (ii) The machinery/implements may be selected for entire operations of in-situ crop residue management
- (iii) The capacity of the machines will be selected on the basis of area to be covered in a cropping season.

**10.1.5 Procurement of Machinery:** Procurement would be from the empanelled manufacturers. The beneficiary is free to procure any brand as per his choice from the empanelled list.

**10.1.6 Financial Assistance:**

- (i) Financial assistance for setting up of custom hiring centres will be available to Farmers, Co-operative Societies of farmers, FPOs, Self-Help Groups, registered Farmers Societies / farmers groups, Private Entrepreneurs, Group of women farmers or self-help groups as per pattern of assistance as indicated in Annexure II(a)
- (ii) The financial assistance for establishment of Custom Hiring Centre will be limited to the maximum project cost of Rs 75.00 lakhs out of which the in-situ crop residue management implements component cost would be at least 35% of the project cost. The remaining other 65% project cost may include other machinery and equipment for crop production for which financial assistance will be available as per the pattern of assistance under Sub-Mission on Agricultural Mechanization i.e. @ 40% of the project cost. The sample sheets of project cost calculations and allowable financial assistance is given in **Annexure - VII**
- (iii) The custom hiring centre having the project cost of more than Rs. 25 lakhs may be established under the model of Credit Linked back ended financial assistance from Banks.
- (iv) The bank may lock the financial assistance released to them for a period of 3 years for the credit linked project of CHC. The Beneficiary may not be allowed to transfer/ sell/ mortgage the CHC to any one before the completion of 5 years, except in genuine cases where number of hours / land managed condition is satisfied even prior to 5 years.

### **10.1.7 Monitoring:**

- (i) The State Nodal Department through SLEC will fix the hiring rate / charges of the implements / machinery of the Custom Hiring Centres. The custom hiring centres established under the scheme will be supervised by the District Agriculture Officer for its operation so that custom hiring centres do not overcharge the farmers.
- (ii) The State Nodal Department will execute agreement with the Custom Hiring Centres (CHCs) to be established under the Scheme to ensure availability of the farm implements to the farmers of the cluster and providing information on managed crop residue area. A model agreement format is placed at Annexure-VI.
- (iii) The State Nodal Department will execute Service Agreement with the empanelled manufacturers / suppliers for providing after sale service for the machinery and equipment in the State.
- (iv) The established CHCs will be provided technical assistance from KVKs/enlisted manufacturers/Approved Testing Centres, FMTTIs and ICAR centres to maintain and train CHC entrepreneurs.

## **10.2 Procurement of Agriculture Machinery and Equipment for in-situ crop residue management**

### **10.2.1 Implementing Agencies:** State Governments

### **10.2.2 Objectives**

- (i) To provide financial assistance to the farmers for procurement of in-situ crop residue management machinery/implements.
- (ii) Increasing the availability of machines and equipments in the target areas for in-situ crop residue management.

### **10.2.3 Area of Operation & Identification of Beneficiary**

- (i) The districts in State AAP will include all villages having problems of crop residue burning.
- (ii) The following parameters may be chosen for selection of beneficiary
  - (a) Small & marginal operational Holdings
  - (b) Farmers not having machinery and equipment for in-situ crop residue management.
  - (c) Individual farmers already having tractor/combine harvester

(d) Farmers not already availed any subsidy during the last 2 years under any of the schemes of DAC&FW for the machinery and equipment identified for in-situ crop residue management.

(iii) District Level Executive Committee will identify/invite applications of willing farmers who will ensure that they will not burn crop residue. It will be ensured by the DLEC that the repetitive benefits under various other schemes of DAC&FW are not extended to the same beneficiary.

#### **10.2.4 Identification of machines/Implements:**

(iv) The machinery/implements appropriate for the in-situ crop residue management will be selected from within the list at Annexure-II(b)

(v) The capacity of the machines will be selected on the basis of area to be covered in a cropping season.

**10.2.5 Procurement of Machinery:** Procurement would be from the empanelled manufacturers. The beneficiary is free to procure any brand as per his choice from the empanelled list.

#### **10.2.6 Financial Assistance:**

(i) Financial assistance to the farmers for purchase of in-situ crop residue management machinery will be as per pattern of assistance as indicated in Annexure II(b)

(ii) The Beneficiary may not be allowed to transfer/ sell/ mortgage the machinery/equipments to any one before a period of 5 years, except in genuine cases where number of hours / land managed condition is satisfied even prior to 5 years.

**10.2.7 Monitoring:** State Department of Agriculture will ensure effective implementation and supervision of Scheme by officers specially designated for the purpose.

### **10.3 Information, Education and Communication for awareness on in-situ crop residue management**

**10.3.1 Implementing Agencies:** State Governments, State Institutions (SAUs), KVKs, ICAR institutions, Central Government institutions, PSUs.

#### **10.3.2 Objectives**

- (i) Launching Massive information and publicity campaign amongst the farmers through coordinated efforts of all stakeholders to mobilize farmers for not burning the crop residue.
- (ii) Conducting capacity building programmes and large scale demonstrations of the technologies on the farmer's fields for speedy adoption of technologies by the farmers.

#### **10.3.3 Area of Operation**

- (i) The districts in State AAP will include all villages having problems of crop residue burning.

#### **10.3.4 Identification of Activities**

For effective, planning, development and implementation of the IEC component of the scheme at the ground level, the committee as under has been constituted;

|     |   |                  |
|-----|---|------------------|
| 1.  | Joint Secretary (M&T), DAC&FW   | Chairman         |
| 2.  | ADG (Engg.), ICAR   | Member           |
| 3.  | ADG (NRM), ICAR   | Member           |
| 4.  | ADG, DD Kisan, Doordarshan  | Member           |
| 5.  | Director (Extension), DAC&FW  | Member           |
| 6.  | Director (NRM), DAC&FW  | Member           |
| 7.  | Director (M&T), DAC&FW  | Member           |
| 8.  | Director, Printed Publicity Wing, DAVP  | Member           |
| 9.  | Director (Agril. Extension), PAU Ludhiana   | Member           |
| 10. | Director (Agril. Extension), CCS HAU Hisar  | Member           |
| 11. | JDA (Agril. Engg.) of the State Governments of Punjab, Haryana, Uttar Pradesh and JDA, Development Department of NCT of Delhi | Members          |
| 12. | Additional Commissioner (Machinery), DAC&FW   | Member Secretary |

The Terms of Reference (ToR) of the Committee will be as under:

- (a) Prioritize those activities and communication products which will address objectives and major challenges under the scheme.
- (b) Translation of theoretical frameworks of IEC Strategies into a concrete and do-able action plans that will be practically implemented by the implementing agencies.
- (c) Produce materials, disseminate and publicize them as per the periodicity and timelines of the scheme.
- (d) Find ways to mobilize resources for awareness and using existing institutional resources innovatively for demonstration and capacity building programmes.
- (e) Strengthen linkages between different stakeholders for implementing IEC strategies
- (f) Participate in the promotional events such as, workshops/seminars/ exhibitions/demonstrations/mass media programmes conducted by various implementing agencies.
- (g) Provide updates and necessary inputs to the main committee constituted under the chairmanship of Secretary (DAC&FW)
- (h) The committee will meet every fortnightly during the first 3 months and thereafter every month for implementing and reviewing of the activities. The tenure of the committee will be for two years (2018-19 and 2019-20)

### **10.3.5 Training & Demonstration**

- (a) Annual Action Plans of components 'Training' & 'Demonstration' will be prepared by FMTTIs, ICAR and other implementing agencies as per Annexure-III and submit the same to the M&T Division of DAC&FW for approval of EC
- (b) Identified institutions for training and demonstration will publish annual training calendar on their websites and communicate to nodal departments of the State Governments. Publicity of the training programmes will also be made through the print and other electronic media on regular basis.
- (c) District Level Executive Committee will identify and sponsor beneficiaries such as Farmers, Members of SHGs, FPOs, rural



youth and other entities on receipt of training calendar. If required, the training institutions will also invite applications for specific courses from the targeted district under the State AAP.

- (d) Field demonstrations of package of machines/equipments for in-situ crop residue management machinery will be conducted on the farmers' fields in the districts identified for AAP.
- (e) Demonstrations will be conducted with participation of custom hiring centres established in the districts. Also, manufacturers may be engaged as partners for demonstration. Machines and equipments for demonstration will be provided by the Custom Hiring Centres/manufacturers on rental basis.
- (f) Depending on the requirements, State Government institutions, KVKs, ICAR institutions, Central Government institutions, PSUs, will be allowed purchase of machinery and equipments for demonstration. The proposals for purchase of machinery for demonstration will be submitted by the implementing agencies alongwith their Annual Action Plan. The proposals will be considered by the Executive Committee of the Scheme for allocation of funds.
- (g) All demonstrations will be carried out under close supervision of Implementing Agency which will record and document observations. Analysis shall be made to bring out cost effectiveness and benefits of technology. Success story of demonstrations will be documented and disseminated for the benefits of other farmers in the State and also for farmers of other States.
- (h) All implementing agencies will monitor the outcome of training and demonstration in terms of improvement in skills, and adoption of technologies etc.

### **10.3.6 Financial Assistance:**

Financial assistance to the State Governments, KVKs, ICAR institutions, Central Government institutions, PSUs etc. will be provided as per pattern of assistance as indicated in Annexure II(c).

### **11.0 Activity Mapping:** Enclosed as Annexure-I

**Annexure-I**

**Activity mapping for effective devolution of funds, functions and functionaries under the Scheme**

| S.N | Components     | Allocation (Rs.Cr.)  | Percentage Allocation based on function(s) |       | Implementing Agencies  | Remarks  |
|-----|----------------|----------------------|--|-------|--|--|
|     |                |                      | Centre                                     | State |  |  |
| 1   | Component No.1 | As per Annual Budget | 100  | 0     | State Governments, PSUs of Government of India, Government of India Organizations  | 1) Implementing agencies will be responsible for coordination with local and State Governments.<br>2) Annual Action Plan will build on the activities at the village level in district having problems of crop residue burning |
| 2   | Component No.2 |                      | 100  | 0     | State Governments  |  |
| 3   | Component No.3 |                      | 100  | 0     | State Governments, KVKs, ICAR institutions, Central Government institutions, PSUs. |  |

1. Establish Farm Machinery Banks or Custom Hiring Centres of in-situ crop residue management machinery
2. Procurement of Agriculture Machinery and Equipment for in-situ crop residue management
3. Information, Education and Communication for awareness on in-situ crop residue management

## Functions:

| S No | Activity Description                  | Union Government   | State Government   | District Administration        | Local Government   |   |   | Implementing Agency                          |
|------|---------------------------------------|--|--|--------------------------------|--|---|---|--|
|      |                                       |  |  |                                | Panchayati Raj System  |   |   |  |
|      |                                       |  |  |                                | Zilla Parishad   | Intermediate Panchayat  | Village Panchayat   |  |
| 1    | Setting Standards                     | Formulate guidelines and cost norms for the scheme                       | Disseminate guidelines and norms at District Level, preferably in local language | Implement guidelines           | Disseminate guidelines at the block level and below                          | --  | --  | Maintain the physical and financial progress |
| 2    | Planning                              | Provide the tentative outlays for preparing the State Annual Action Plan | 1.Prepare strategic plan<br>2. Prepare State Annual Action Plan                  | Formulate District Action Plan | Contribute in preparing District Annual Action Plan                          | --  | Contribute in selection of equipments for demonstration, beneficiaries in capacity building and availing the assistance |  |
| 3    | Implementation of Scheme              | Release of funds to States by DAC&FW                                     | Release of funds to District level   | --                             | Prioritize projects as per requirement of the Districts.                     | Select location of activity within the district, select beneficiaries | Contribute in selection of equipments for demonstration, beneficiaries in capacity building availing the assistance     |  |
| 4    | Monitoring and Evaluation of Projects | 1.Review quarterly progress<br>2.Conduct midterm and impact evaluation   | Furnish the physical and financial progress quarterly                            | --                             | Review progress at panchayat level and provide feedback to State Governments | --  | Provide feedback to District Panchayat  |  |

## C. Functionaries:

| S. | Union Government       | State Government                           | District Administration           | Local Government   |                        |  |
|----|------------------------|--|-----------------------------------|--|------------------------|--|
|    |                        |  |                                   | Panchayati Raj system  |                        |  |
|    |                        |  |                                   | Zilla Parishad   | Intermediate Panchayat | Village Panchayat  |
| 1  | M&T Division of DAC&FW | Agriculture Department of State Government | Agencies implementing Action Plan | State Government to devolve functionaries as per activities to be implemented under SMAM | --                     | State Government to devolve functionaries as per activities to be implemented under the scheme |

## COST NORMS AND PATTERN OF ASSISTANCE

## Annexure –II (a)

**Component No. 1:** Establish Farm Machinery Banks or Custom Hiring Centres of in-situ crop residue management machinery

| S.N | ITEM   | MAXIMUM PERMISSIBLE PROJECT COST   | PATTERN OF ASSISTANCE   |
|-----|--|--|---|
| A   | Procurement subsidy for establishment of Custom Hiring Centre of in-situ crop residue management machinery | <b>Project based</b><br>10 - 75 lakhs<br>(in-situ crop residue management implements component cost would be at least 35% of the total project cost) | <ul style="list-style-type: none"> <li>• 80% of the project cost of the in-situ crop residue management implements</li> <li>• 40% of the project cost for the remaining project (This financial assistance will be available under SMAM)</li> </ul> |

**Component No. 2: Procurement of Agriculture Machinery and Equipment for in-situ crop residue management**

| S.No. | Name of the machine/equipment  | Maximum Permissible subsidy per Machine/ Equipment per beneficiary | Pattern of Assistance |
|-------|--|--|-----------------------|
| 1.    | <b>Super Straw Management System (Super SMS) to be attached with Combine Harvester</b> | 56,000   | 50%                   |
| 2.    | <b>Happy Seeder</b>  |  |                       |
|       | a) 09 tine   | 72,800   | 50%                   |
|       | b) 10 tine   | 75,600   | 50%                   |
|       | c) 11 tine   | 78,400   | 50%                   |
| 3.    | <b>Paddy Straw Chopper/ Shredder/Mulcher</b>   |  |                       |
|       | a) Mounted type (Straw Chopper & Mulcher)  |  |                       |
|       | i) 5 ft  | 67,200   | 50%                   |
|       | ii) 6 ft   | 72,800   | 50%                   |
|       | iii) 7 ft  | 78,400   | 50%                   |
|       | iv) 8 ft   | 84,000   | 50%                   |
|       | b) Trailed type  | 1,26,000   | 50%                   |
|       | c) Combo type  | 1,40,000   | 50%                   |
| 4     | <b>Shrub Master / Cutter cum Spreader</b>  | 22,400   | 50%                   |
| 5     | <b>Hydraulic Reversible M.B. Plough</b>  |  |                       |
|       | a) Two bottom  | 70,000   | 50%                   |
|       | b) Three bottom  | 89,500   | 50%                   |
| 6     | <b>Rotary Slasher</b>  | 22,400   | 50%                   |
| 7     | <b>Zero Till Seed cum Fertilizer Drill</b>   |  |                       |
|       | 9 tine   | 21,280   | 50%                   |
|       | 11 tine  | 24,080   | 50%                   |
|       | 13 tine  | 26,880   | 50%                   |
|       | 15 tine  | 28,000   | 50%                   |
| 8     | <b>Rotavator</b>   |  | 50%                   |
|       | 5 feet   | 42,000   | 50%                   |
|       | 6 feet   | 44,800   | 50%                   |
|       | 7 feet   | 47,600   | 50%                   |
|       | 8 feet   | 50,400   | 50%                   |

**Note: The financial assistance will be limited to 50% of the cost of the machine or the maximum permissible subsidy per machine as indicated above, whichever is lower.**

**Component No. 3: Information, Education and Communication for awareness on in-situ crop residue management**

**A. Demonstration:**

| <b>S.N</b> | <b>ITEM</b>  | <b>PATTERN OF ASSISTANCE</b>   |
|------------|--|--|
| <b>I</b>   | Demonstration of in-situ crop residue management machinery at farmers' fields. | <p>Rs. 6000 per hectare upto 500 ha per season. This includes:</p> <p>(i) Charges towards hiring of machines alongwith implements/ self-propelled machines – Rs. 2500 per ha.</p> <p>(ii) Expenditure towards hands on training – Rs. 2500 per ha.</p> <p>(iii) Miscellaneous expenditure such as expenditure towards transport, labour, publicity and printing of technical literature etc – Rs. 1000 per ha</p> <p>100% grant in aid will be provided for purchase of machinery and equipment depending on requirements.</p> |

**B. Training:**

| <b>S.N</b> | <b>ITEM</b>   | <b>MAXIMUM PERMISSIBLE PROJECT COST</b> | <b>PATTERN OF ASSISTANCE</b>  |
|------------|---|---|---|
| <b>I</b>   | Training of farmers/users/stakeholders by Institutions identified by State Govt./ICAR | Rs.2.0 crore per State per year.        | <p>Rs. 6000/- per trainee per week (05 days), including manpower, boarding/lodging and transport</p> <ol style="list-style-type: none"> <li>1. Stipend of Rs. 1000/- per trainee per week</li> <li>2. Actual to and fro travel expenses by ordinary mode of transport in ordinary class or on sharing basis, upto maximum of Rs. 500/- per trainee</li> <li>3. boarding and Lodging Charges @ Rs. 2000/- per trainee per week</li> <li>4. Institutional charges (including stationery, training material, honorarium to resource persons) @ Rs. 2500/-per trainee per week</li> </ol> |

**\*The financial assistance will be proportionate to the training duration.**

### C. Advertisement and Publicity:

| Period  | Activity schedule   | Level of activity  | Frequency | Pattern of Assistance                               |
|---|---|--|-----------|---|
| April-May, 2018   | Preparation of short and long films / documentaries/ publicity materials including material for radio and TV programs | -  | -         | As per DAVP Rates                                   |
| April -May, 2018  | Preparation of publicity materials such as leaflets, pamphlets, placards, posters, banners, hoardings etc.            | -  | -         | As per DAVP Rates                                   |
| April to August, 2018   | Formation of APPs for effective hiring custom services of the straw management implements                             | -  | -         | --  |
| August-November (during 2018 & 2019)  | Organizing Farmer Awareness /demonstration Camps by organizing Gram Sabhas, meetings, functions, Kisan Melas etc.     | At village/cluster level   | 02 times  | As per actual proposals duly approved by SLEC/ ICAR |
|   |   | Block/district level   | 01 time   |   |
|   |   | State level  | 01 time   |   |
| July-November (during 2018 & 2019)  | Organization of capacity building programs by KVKs in association with Farmers' Clubs and Cooperative Societies       | KVK centers in Punjab Haryana, Uttar Pradesh and NCT of Delhi states | Regularly |   |
| Start by 15 <sup>th</sup> April and intensify during September to November (during 2018 & 2019) | Advertisements in the Print Media.  | -  | Weekly    | As per DAVP Rates                                   |

|   |  |                      |   |   |
|---|--|----------------------|---|---|
| Start by 15 <sup>th</sup> April and Intensify during September to November (during 2018 & 2019) | Special programs for sensitization and mass awareness and panel discussions of farmers who have switched over to in-situ management at Doordarshan/ DD-Kisan and other private channels live telecast. | -                    | Weekly in normal month, twice a week during intensification | As per actual proposals duly approved by SLEC/ ICAR |
| August to November (during 2018 & 2019)   | Radio jingles, State specific Audio-visual clips in local language, Star campaigning (30-60 seconds duration)  | -                    | Four times daily  | As per DAVP Rates                                   |
| July to December (during 2018 & 2019)   | Formation of social media groups for creating awareness, benefits of in-situ straw management, sharing of relevant information and advisories among the farmers and other stakeholders                 | -                    | Continuously  | As per DAVP Rates                                   |
| July to December (during 2018 & 2019)   | Mobilization of schools and colleges students through essay completion, painting, debate etc.  | School level         | Monthly   | As per actual proposals duly approved by SLEC/ ICAR |
|   |  | District level       | once in two months  |   |
|   |  | State level          | Quarterly   |   |
| December (during 2018 & 2019)   | Award for village / Gram Panchayat for achieving zero straw burning  | Block/district level | yearly  | Rs. 100000 per village                              |



## Format for Annual Action Plan

Name of State:

Financial Year:

Nodal Department:

Background Information:

**(A) Component No.1: Establish Farm Machinery Banks or Custom Hiring Centres of in-situ crop residue management machinery**

| 1                     | Total no. of CHCs | Pattern of Assistance | Estimated Cost (Rs. in crore) | Central Share |
|-----------------------|-------------------|-----------------------|-------------------------------|---------------|
| a)                    | 10 lakhs =        | As per Annexure II(a) |                               |               |
| b)                    | 11-20 lakhs =     |                       |                               |               |
| c)                    | 21-30 lakhs =     |                       |                               |               |
| d)                    | 31-40 lakhs =     |                       |                               |               |
| e)                    | 41-50 lakhs =     |                       |                               |               |
| f)                    | 51-60 lakhs =     |                       |                               |               |
| g)                    | 60-75 lakhs =     |                       |                               |               |
| <b>Total Cost (A)</b> |                   |                       |                               |               |

**(B) Component No. 2: Procurement of Agriculture Machinery and Equipment for in-situ crop residue management**

|  |                                | Pattern of Assistance  | Estimated Cost | Central Share |
|--|--------------------------------|------------------------|----------------|---------------|
| Name of machines to be procured  | No. of machines to be procured | As per Annexure-II (b) |                |               |
| Super Straw Management System (Super SMS) to be attached with Combine Harvester* |                                |                        |                |               |
| Happy Seeder   |                                |                        |                |               |
| Paddy Straw Chopper/ Shreder/ Mulcher  |                                |                        |                |               |
| Shrub master / cutter cum spreader   |                                |                        |                |               |
| Reversible M.B. Plough   |                                |                        |                |               |
| Rotary Slasher   |                                |                        |                |               |
| Zero Till drill  |                                |                        |                |               |
| Rotavator  |                                |                        |                |               |
| <b>Total Cost (B)</b>  |                                |                        |                |               |

**(C) Component No. 3: Information, Education and Communication for awareness on in-situ crop residue management**

| S.N   | Component  | Approved pattern of assistance              | Estimated Cost | Central Share |
|---|--|---|----------------|---------------|
| <b>i. Demonstrations</b>                            |  |   |                |               |
| 1   | Total no. of Demonstrations (ha)   | Rs. 6000 per Hectare upto 100 ha per season |                |               |
| <b>ii. Training</b>                                 |  |   |                |               |
| 1   | Total no. of courses to be conducted and No. of trainees to be trained under each course | Rs. 6000 per trainee per week               |                |               |
| iii   | Advertisement and Publicity, awareness Camps, awards etc                                 | As per actuals as approved by the SLEC/ICAR |                |               |
| <b>Total Cost (C):</b>                              |  |   |                |               |
| <b>(D) Flexi Funds:</b>                             |  |   |                |               |
| 1   | Local Initiatives (10% of the approved outlay)   |   |                |               |
| <b>(E) Management/Administrative Cost (&lt;1%):</b> |  |   |                |               |
| <b>Total Cost (A+B+C+D+E)=</b>                      |  |   |                |               |
| <b>Total Central Share=</b>                         |  |   |                |               |

FORM GFR 19-A  
(See Government of India's Decision (i) below rule 150)  
Form of Utilization Certificate

| SI. No | Letter No. & Date | Amount |  |
|--------|-------------------|--------|--|
|        |                   |        | <p>Certified that out of Rs. -----of grants-in -aid sanctioned during the year ---- in favour of ----- under this Ministry/ Department letter No. given in the margin and Rs. -----on account of unspent balance of the previous year, a sum of Rs.----- ---- has been utilized for the purpose of -----For which it was sanctioned and that the balance of Rs.----- remaining unutilized at the end of the year has been surrendered to Government (Vide No.-----dated-----) will be adjusted towards the grant -in-aid payable during the next year-----</p> |
|        |                   |        |  |
|        |                   |        |  |

2. Certified that I have certified myself that the conditions on which the grant-in-aid was sanctioned have been duly fulfilled/are being fulfilled and that I have exercised the following checks to see that the money was actually utilized for the purpose for which it was sanctioned.

Kind of checks exercised.

- 1)
- 2)
- 3)
- 4)
- 5)

Signature: -----

Name: -----

Designation: -----

## Format for Fortnightly / Annual Progress Report

Name of State:

Financial Year:

Nodal Department:

| S.N | Components   | Activities   | Target Approved by DAC&FW |           | Fortnightly / Annual Progress Report |           |                         |           |
|-----|--|--|---------------------------|-----------|--------------------------------------|-----------|-------------------------|-----------|
|     |  |  |                           |           | Achievements during the fortnight    |           | Cumulative Achievements |           |
|     |  |  | Physical                  | Financial | Physical                             | Financial | Physical                | Financial |
| 1   | Establish Farm Machinery Banks or Custom Hiring Centres of in-situ crop residue management machinery | Number of Custom Hiring Centres  |                           |           |                                      |           |                         |           |
| 2   | Procurement of Agriculture Machinery and Equipment for in-situ crop residue management               | Name of machines to be procured<br>Super Straw Management System (Super SMS) to be attached with Combine Harvester*<br>Happy Seeder<br>Paddy Straw Chopper/ Shreder/ Mulcher |                           |           |                                      |           |                         |           |

|    |   |   |  |  |  |  |  |  |
|----|---|---|--|--|--|--|--|--|
|    |   | Shrub master /<br>cutter cum spreader   |  |  |  |  |  |  |
|    |   | Reversible M.B.<br>Plough   |  |  |  |  |  |  |
|    |   | Rotary Slasher  |  |  |  |  |  |  |
|    |   | Zero Till drill   |  |  |  |  |  |  |
|    |   | Rotavator   |  |  |  |  |  |  |
| 3. | Information,<br>Education and<br>Communication<br>for awareness on<br>in-situ crop<br>residue<br>management | Total no. of<br>Demonstrations (ha)   |  |  |  |  |  |  |
|    |   | Total no. of courses<br>conducted and No. of<br>trainees trained under<br>each course |  |  |  |  |  |  |
|    |   | No. of Advertisement<br>and Publicity,<br>awareness Camps,<br>awards etc              |  |  |  |  |  |  |
|    |   |   |  |  |  |  |  |  |
| 9  | Flexi Funds(Local<br>Initiatives)   | Type of local initiatives   |  |  |  |  |  |  |
| 10 | Management/Adm<br>inistrative Cost<br>(≤1%):  |   |  |  |  |  |  |  |
|    | Total:  |   |  |  |  |  |  |  |

**AGREEMENT TO BE SIGNED BY CUSTOM HIRING CENTRE OWNER**

We, ..... (write name of the owner firm) hereby declare,

1. We understand that Custom Hiring Centre (CHC) is to be established within 3 months of issue of work order and that the subsidy to the bank will be released only after work progress report is satisfactory and as per the schedule of release of subsidy.
2. We understand that government of ----- has no obligation for providing land and space for establishing CHC. It will be our duty to arrange land for CHC.
3. We will maintain transparency and will provide all the information about progress of work, asked from us from time to time. Also we will allow easy access to our establishment, documentation of managed crop residues area and other records for government officials, if asked so.
4. We will abide by the hiring rate as fixed by the Department of Agriculture, Government of \_\_\_\_\_ for renting out the agricultural implements to the farmers of the State.
5. We will display all information about the centre for the benefit of farmers and also will non-financially partner in the training programmes for the benefit of farmers.
6. We completely understand and agree that we will abide all the terms and conditions of this agreement and any violation of it shall attract termination of the operation of the Centre and forfeiture of the subsidy amount by the Government.

Signature with full name of the  
authorized person with company's  
seal

## Annexure - VII

### Sample sheets of project cost calculations and allowable financial assistance for establishing Custom Hiring Centres.

**A – Project cost of CHC upto Rs. 10 lakhs.** (For Co-operative Societies of farmers, FPOs, Self Help Groups, registered Farmers Societies / farmers groups and Private Entrepreneur who already possess other implements)

| S. No. | Name of the equipment/ machines   | No. of equipments | Unit cost of Equipment (Rs. in lakhs) | Total cost of Equipment (Rs. in lakhs) | Rate of financial assistance | Maximum permissible subsidy @ 80% of the cost (Rs. in lakhs) |
|--------|---|-------------------|---------------------------------------|--|------------------------------|--|
| 1      | Super Straw Management System (Super SMS) to be attached with Combine Harvester | 01                | 1.12                                  | 1.12                                   | 80%                          | 0.90   |
| 2      | Happy Seeder (10 tine)  | 01                | 1.51                                  | 1.51                                   | 80%                          | 1.21   |
| 3.     | Paddy Straw Chopper (combo)   | 01                | 2.80                                  | 2.80                                   | 80%                          | 2.24   |
| 4.     | Paddy Mulcher (7ft)   | 01                | 1.57                                  | 1.57                                   | 80%                          | 1.26   |
| 5.     | Hydraulically Reversible M.B. Plough (3 bottom)                                 | 01                | 1.79                                  | 1.79                                   | 80%                          | 1.43   |
| 6.     | Rotary Slasher  | 01                | 0.45                                  | 0.45                                   | 80%                          | 0.36   |
|        | <b>Total</b>  | <b>06</b>         |                                       | <b>9.24</b>                            | 80%                          | <b>7.40</b>  |

**Note: (No tractor will be allowed under project cost upto Rs. 10 lakhs)**

**Annexure – VII-Contd.**

**B- Project cost of CHC more than Rs. 10 lakhs and upto Rs. 25 lakhs (The cost of in-situ crop residue management machinery in the total project cost should be at least 35%)**

| <b>S.No</b> | <b>Name of the equipment/ machines</b>  | <b>No. of machines/ equipment</b> | <b>Unit cost of machine/ Equipment (Rs. in lakhs)</b> | <b>Total cost of machines/ Equipment (Rs. in lakhs)</b> | <b>Rate of financial assistance</b> | <b>Maximum permissible subsidy (Rs. in lakhs)</b> |
|-------------|---|-----------------------------------|---|---|-------------------------------------|---|
| 1           | Super Straw Management System (Super SMS) to be attached with Combine Harvester | 01                                | 1.12  | 1.12  | 80%                                 | 1.12  |
| 2           | Happy Seeder (10 tine)  | 02                                | 1.51  | 3.02  | 80%                                 | 2.42  |
| 3.          | Paddy Straw Chopper (Combo)   | 01                                | 2.80  | 2.80  | 80%                                 | 2.24  |
| 4.          | Paddy Mulcher (7ft)   | 01                                | 1.57  | 1.57  | 80%                                 | 1.26  |
| 5.          | Hydraulically Reversible M.B. Plough (3 bottom)                                 | 01                                | 1.79  | 1.79  | 80%                                 | 1.43  |
| 6.          | Rotary Slasher  | 01                                | 0.45  | 0.45  | 80%                                 | 0.36  |
| 7.          | Tractor   | 01                                | 5.00  | 5.00  | 40%                                 | 2.00  |
| 8.          | Laser land leveler  | 01                                | 4.00  | 4.00  | 40%                                 | 1.60  |
| 9.          | Reaper cum binder (self-propelled)  | 01                                | 4.00  | 4.00  | 40%                                 | 1.60  |
|             | <b>Total</b>  |                                   |   | <b>23.75</b>  |                                     | <b>14.03</b>                                      |

**Note: Only one tractor will be allowed in the project costing upto Rs. 25 lakhs**  
**Project cost of in-situ crop residue management machinery (Sl. No. 1 to 6) = 10.75 lakhs (45% of total project cost)**  
**Project cost of other than in-situ crop residue management machinery (Sl. No. 7 to 9) = 13.00 lakhs (55% of total project cost)**



**C- Project cost of CHC more than Rs. 25 lakhs and upto Rs. 75 lakhs (The cost of in-situ crop residue management machinery in the total project cost should be at least 35%)**

| S.No. | Name of the equipment/ machines   | No. of machines/ equipment | Unit cost of machine/ Equipment (Rs. in lakhs) | Total cost of machines/ Equipment (Rs. in lakhs) | Rate of financial assistance | Maximum permissible subsidy (Rs. in lakhs) |
|-------|---|----------------------------|--|--|------------------------------|--|
| 1     | Super Straw Management System (Super SMS) to be attached with Combine Harvester | 02                         | 1.12   | 2.24   | 80%                          | 1.79                                       |
| 2     | Happy Seeder (10 tine)  | 03                         | 1.51   | 4.53   | 80%                          | 3.62                                       |
| 3.    | Paddy Straw Chopper (Combo)   | 02                         | 2.80   | 5.60   | 80%                          | 4.48                                       |
| 4.    | Paddy Mulcher (7ft)   | 03                         | 1.57   | 4.71   | 80%                          | 3.77                                       |
| 5.    | Hydraulically Reversible M.B. Plough (3 bottom)                                 | 03                         | 1.79   | 5.37   | 80%                          | 4.30                                       |
| 6.    | Rotary Slasher  | 02                         | 0.45   | 0.90   | 80%                          | 0.72                                       |
| 7.    | Rotavator (7 ft)  | 04                         | 0.95   | 3.80   | 80%                          | 3.04                                       |
| 8.    | Zero Till Seed Drill (13 tine)  | 02                         | 0.54   | 1.08   | 80%                          | 0.86                                       |
| 9.    | Tractor   | 02                         | 6.00   | 12.00  | 40%                          | 4.80                                       |
| 10.   | Laser land leveler  | 01                         | 4.00   | 4.00   | 40%                          | 1.60                                       |
| 11.   | Reaper cum binder (self-propelled)  | 02                         | 4.00   | 8.00   | 40%                          | 3.20                                       |
| 12.   | Straw Baler   | 01                         | 10.00  | 10.00  | 40%                          | 4.00                                       |
| 13.   | Straw Rake  | 01                         | 4.00   | 4.00   | 40%                          | 1.60                                       |
| 14.   | Potato Planter  | 01                         | 1.50   | 1.50   | 40%                          | 0.60                                       |
| 15.   | Potato digger shaker  | 01                         | 1.50   | 1.50   | 40%                          | 0.60                                       |
| 16.   | Raised bed planter  | 01                         | 1.80   | 1.80   | 40%                          | 0.72                                       |
| 17.   | Pneumatic planter   | 01                         | 1.80   | 1.80   | 40%                          | 0.72                                       |
| 18.   | Multicrop thresher  | 01                         | 2.00   | 2.00   | 40%                          | 0.80                                       |
|       | <b>Total</b>  |                            |  | <b>74.83</b>                                     |                              | <b>41.22</b>                               |

**Note: Only two tractors will be allowed in the project costing more than 25 lakhs and upto Rs. 75 lakhs**

**Project cost of in-situ crop residue management machinery (Sl. No. 1 to 8) = 28.23 lakhs (38% of total project cost)**

**Project cost of other than in-situ crop residue management machinery (Sl. No. 9 to 18) = 46.60 lakhs (62% of total project cost)**