

CROP RESIDUE MANAGEMENT

OPERATIONAL GUIDELINES 2025



सत्यमेव जयते

Government of India
Ministry of Agriculture & Farmers Welfare
Department of Agriculture & Farmers Welfare
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Crop Residue Management in the States of Punjab, Haryana, Uttar Pradesh, Madhya Pradesh and NCT of Delhi.

The interventions of the crop residue management will be implemented as a component of Rashtriya Krishi Vikas Yojana (RKVY) with the objectives and operational guidelines described hereunder.

1.0 Introduction:

- (i) A large portion of the paddy straw / crop residues are burnt in the field primarily to clear the field after the harvest of the preceding crop for the sowing of next crop. Burning these crop residue causes phenomenal pollution problems in the atmosphere and huge nutritional loss and physical health deterioration to the soil.
- (ii) It has been estimated that The burning of one tonne of paddy straw releases 3 kg particulate matter, 60 kg CO, 1460 kg CO₂, 199 kg ash and 2 kg SO₂. 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 P₂O₅, 25 kg K₂O, 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) Crop Residue Management Options can be classified as in-situ and ex-situ management options. Retaining, incorporating or mulching the crop residues in the field and decomposing using consortia of microbes are the two possible in-situ crop residue management options. Baling and transporting straw from the field is other feasible ex-situ option when alternate, effective and economically viable usage methods are identified and facilities and infrastructure are created.
- (v) It is envisaged that appropriate mix of in-situ and ex-situ crop residue management options through a holistic approach of providing appropriate solutions, optimally utilizing the existing resources and establishing appropriate supply chain through a cluster based approach in the vicinity of various industries

utilizing the crop residue will help containing the burning of crop residues in the open fields.

- (vi) In view of above, it is proposed to continue to support the efforts of the States of Punjab, Haryana, Uttar Pradesh, Madhya Pradesh and NCT of Delhi in addressing the problems of crop residue burning through the interventions described hereunder:

2.0 Objectives:

- (i) Protecting environment from air pollution and preventing loss of nutrients and soil micro-organisms caused by burning of crop residue;
- (ii) Promoting management of crop residue by retention/incorporation into the soil and establishing appropriate supply chain for further utilization through the deployment of appropriate mechanization inputs;
- (iii) 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 Strategy:

To achieve the above objectives, a focused approach of providing appropriate and already accepted machines for in-situ management will be adopted. Optimal utilization of already available machines and machines that will be made available to fulfil the gaps will be ensured. A supply chain will be established through a cluster based approach in the vicinity of various industries utilizing the paddy straw. The supply chain beneficiaries will collect, densify, store the paddy straw at desired locations and will make available the same to various users or industries as per requirement. Strategic Information, Education and Communication (IEC) will also be undertaken with the involvement of all stakeholders for mass awareness of farmers.

4.0 Annual Action Plan

The State Governments of Punjab, Haryana, Uttar Pradesh, Madhya Pradesh and NCT of Delhi shall submit the comprehensive Annual Action Plan for all interventions of crop residue management. The funds sharing pattern for Centre and States will be 60:40 for the

States of Punjab, Haryana, Uttar Pradesh and Madhya Pradesh and 100:0 for NCT of Delhi.

Procedure for preparation, submission and approval of AAP will be same as outlined in the common guidelines for RKVY. In brief, it will be as under:

- (i) A consolidated AAP for all the schemes of DA&FW may be prepared by the State Agriculture Department in one go including that for crop residue management.
- (ii) Tentative overall allocation of funds availability of all the schemes under RKVY including that for crop residue management will be communicated to the State Governments as a reference point to finalize the AAP.
- (iii) Presentation of overall AAP for the agriculture sector of the state will be done by the State Agriculture Secretary to Government of India and the comments of GoI will be given in the meeting itself and minuted.
- (iv) The final approval for the consolidated AAP with the comments of GoI will be approved by SLSC headed by the Chief Secretary of the State.
- (v) Further consolidated instructions will be issued by the Ministry of Agriculture & Farmers Welfare to State governments where decision making powers will be exercised by the State governments and detailed proposals need not be sent to the Central Government for approval.

S. No.	Activity	Timeframe
1.	Preparation of consolidated AAP by the states and communication to GoI	15 th February
2.	Presentation of AAP to the Ministry of A&FW, GoI by the State Agriculture Secretary	February – March (2 nd week)
3.	Final Approval by SLSC headed by Chief Secretary of the State.	31 st March
4.	Distribution of machines to farmers / Beneficiaries	15 th August

5.0 Annual Action Plan Components:

Sr. No.	Component	Implementing Agencies	Financial Assistance	Eligible Beneficiaries	Broad Criteria for implementation
5.1	Financial assistance to farmers for procurement of crop residue management machines on individual ownership basis	State Governments/ UTs	<p>(i) Financial assistance @ 50% of the cost of machinery.</p> <p>(ii) The list of machines identified for crop residue management together with ceiling limit for subsidy is indicated in Annexure-I.</p>	Farmers	<p>(i) Beneficiaries will be identified by the State/district nodal agencies in a transparent manner.</p> <p>(ii) The areas of having larger problems of crop residue burning may be focused to increase availability of appropriate machines.</p> <p>(iii) In case of tractor drawn machines, preference may be given to those beneficiaries owning the compatible tractor for operation of the machine.</p> <p>(iv) In case, the number of applications exceeds the target, States should approve applications through an online lottery system in a fair and transparent manner rather than on a first come, first serve basis. States should make such arrangements on their respective online portals.</p>

5.2	Establishment of Custom Hiring Centres of Crop Residue Management Machines	State Governments	<p>(i) Credit Linked Back Ended Subsidy @ 80% of the project cost for the projects costing up to Rs. 30 lakhs/project</p> <p>(ii) The broad Guidelines for Credit Linked Back Ended Subsidy are given in Annexure-III.</p> <p>(iii) The maximum permissible assistance per machine under the CHC project is indicated in Annexure-II.</p>	Rural Entrepreneurs (Rural youth and farmer as an entrepreneur), Cooperative Societies of Farmers (Agriculture/ Horticulture/ Makhana etc.), Day-NRLM Cluster Level Federations and Self Help Groups (SHGs), Farmer Producer Organizations (FPOs) and Panchayats.	<p>(i) If a State so desires, proposals costing up to ₹10 lakh may be excluded from this credit-linked back-ended subsidy. However, in such cases, cash purchases or transactions should not be permitted. The financial records must clearly indicate that all transactions were conducted through banking channels, and verification must be possible via the beneficiaries' bank account statements.</p> <p>(ii) The machines/equipments for establishing Custom Hiring Centres (CHCs) appropriate for the crop residue management will be selected from within the list at Annexure-II.</p> <p>(iii) Purchase of One tractor of 60 HP & above will be allowed under the project. However, the purchase of only tractor under the CHC shall not be allowed and therefore Tractor along with 2/3 machines/ equipments which can effectively</p>
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					<p>manage the paddy straw needs to be purchased.</p> <p>(iv) Each CHC should be provided with the machines and equipments for the entire operations of crop residue management.</p> <p>(v) The capacity of the machines may be selected based on area to be covered in a cropping season.</p> <p>(vi) The CHC may be of variable costs depending on the number of machines proposed under the project and their cost. The project cost may also exceed Rs. 30 lakhs. However, the maximum permissible subsidy for each project should not exceed Rs. 24.00 lakhs per project.</p> <p>(vii) CHCs should be properly geotagged and uploaded on the Krishi Mapper.</p>
5.3	Establishment of crop residue/paddy straw supply chain	State Governments	(i) Credit Linked Back Ended Subsidy @ 65%, only on the capital cost of machines under the project.	Farmer or group of Farmers or Rural Entrepreneurs or Cooperative Societies of	<p>(i) The broader objectives of the crop residue/paddy straw supply chain will be as under:</p> <ul style="list-style-type: none"> • Enable better environmental practices

			<p>(ii) The broad Guidelines for Credit Linked Back Ended Subsidy are given in Annexure-III.</p> <p>(iii) For the purpose of financial assistance, the project cost will be limited to Rs. 1.00 Crores for the medium size baler project and Rs. 1.50 Crores for the Big Baler Projects.</p> <p>(iv) The projects may be implemented under the bilateral agreement of the end user industry and the eligible beneficiary & in such case the financial contribution of each stakeholder may be as follows:</p> <p>(a) Government (jointly by Central and State Governments) will provide financial support</p>	<p>Farmers or Farmers Producer Organizations (FPOs) & Panchayats.</p>	<p>for ex-situ management of crop residue.</p> <ul style="list-style-type: none"> Establishing collection infrastructure, bailing, transportation and handling of large amount of crop residue and creation of storage facilities. Utilizing the paddy straw in different industries utilizing it such as biomass power generation units, Biomass co-firing in Thermal Power Plants, Bio-CNG, Bio-Ethanol, etc. Assured procurement of paddy straw from farmers by the paddy straw aggregators. Ensure increase in income (both from the produce and later from the sale of paddy residue) for farmers and enhance rural employment and financial inclusion. <p>(ii) Financial assistance from the Government will be provided only on the capital cost of machinery and equipment and the</p>
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			<p>of 65% up to a maximum limit as indicated in the Annexure-IV.</p> <p>(b) Eligible beneficiaries will contribute the balance at least 10% and will be the primary aggregator of feedstock and direct beneficiary of this PPP model. They will perform the feedstock collection targets in line with the volume and quality guidelines of the end-use industry/project requirements throughout the life of the machinery.</p> <p>(c) Industry as primary promoter of the project will contribute the balance project</p>		<p>rest of the capital expenditure and required working capital may be arranged by the beneficiary through Bank financing.</p> <p>(iii) The capital subsidy will be released into the Subsidy Reserve Fund Account of the concerned borrowers through Direct Benefit Transfer (DBT).</p> <p>(iv) The Indicative Capital Expenditure for Setting up Paddy Straw Supply Chain having Medium size Baler machines (200-300 kg Bale) / Large size Baler machines (>300 kg Bale) is given in Annexure-IV.</p> <p>(v) The cost indicated in Annexure-IV is indicative and the State Governments based on competitive market rates shall decide the maximum allowable cost for each machine covered under the project.</p> <p>(vi) The beneficiaries may have the choice of selection of equipments from within</p>
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			<p>cost and will act as the Primary consumer of the feedstock collected via machinery. Industry will be responsible for overall effective machinery deployment via most suitable machinery manufacturers, training of beneficiaries, aggregation planning along with volume and quality guidelines, on-ground execution of aggregation during post-harvest collection period, pricing of feedstock and offtake guidelines. Industry will be primary consumer of the</p>		<p>the list as per their requirement. The total project cost can only be arrived based on the proforma invoices of the sale of machines.</p> <p>(vii) Purchase of only tractors under the project shall not be allowed.</p> <p>(viii) Beneficiary/Industries are allowed to choose voluntarily any machine(s) from within the list of machinery/equipments grouped with Tractor as per the requirement.</p> <p>(ix) The machinery/equipments shall be chosen in such a way that the objectives of crop/paddy supply chain are fulfilled.</p> <p>(x) The large capacity balers may be replaced with a number of medium and small balers for same capacity projects.</p> <p>(xi) The Government shall implement the intervention through a bilateral agreement between the Beneficiary</p>
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			<p>feedstock throughout the life of the machinery.</p> <p>(v) For projects which are not under the bilateral arrangement of any end user industry and beneficiary and the beneficiaries are willing to contribute balance project cost, the financial contribution in such cases may be as follows:</p> <p>(a) Government (jointly by Central and State Governments) will provide financial support of 65% upto a maximum limit as indicated in the Annexure-IV.</p> <p>(b) Eligible beneficiary will contribute the balance 35% and will be the primary</p>		<p>and Industries and monitor the effectiveness with respective State Agriculture Departments to monitor and manage the project.</p> <p>(xii) The projects may be of variable costs depending on the number of machines proposed under the project and their cost.</p> <p>(xiii) The implementation of the intervention is proposed on pilot project basis to support the investment planned for ex-situ machinery deployment. Department of Agriculture & Farmers Welfare will monitor the programme with the help of Agriculture Departments of the State Government. However, the management of supply chain is the responsibility of scheme beneficiaries' in association with the participating industry.</p> <p>(xiv) For the projects to be implemented under the bi-lateral agreement between the Beneficiary and Industries utilizing the</p>
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			<p>aggregator of feedstock.</p> <p>(vi) The expenditure towards crop residue/paddy straw supply chain projects will be met from the flexi funds of the Crop Residue Management component.</p>		<p>paddy straw, an agreement shall be executed between the stakeholders to ensure smooth implementation of the interventions keeping the interests of the industrial project and beneficiaries interests by addressing measures for Risk Mitigation, Default clauses etc., to protect the investment made by all respective stakeholders.</p> <p>(xv) The sample format for the bilateral agreement is enclosed as Annexure-V and the provisions indicated in the sample agreement may be amended as per the requirements and mutual consent of the parties. There may not be requirement of such an agreement where the beneficiaries without the involvement of end user industry are ready to contribute remaining project cost (Project cost – applicable subsidy) at their own.</p>
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					<p>(xvi) The State Governments shall constitute a project sanctioning committee, which shall devise a template for submission of project proposal by the beneficiaries. The Committee shall also evaluate the project proposals and recommend the proposals for approval or otherwise.</p> <p>(xvii) The State Governments may facilitate for land access and leasing for storage of crop residue / paddy straw bales as per the rules/regulations in vogue.</p> <p>(xviii) The States also have the flexibility to include any machine under the projects as per their requirement.</p>
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5.4	<p>Information, Education and Communication (IEC) for awareness on crop residue management:</p> <p>Objectives:</p> <p>(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.</p>
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(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.				
	Component	Implementing Agencies	Financial Assistance	Broad Criteria for Implementation
(i)	Demonstration of crop residue management machines on the farmers' fields:	State Governments Institutions, SAUs, KVKs, PSUs, ICAR & Central Government institutions.	<p>(i) Depending on the requirements, the implementing agencies will be provided full cost of machines to be procured for demonstration</p> <p>(ii) A contingency expenditure @ Rs. 6000/- per hectare will be provided for taking up demonstrations on the farmers' fields.</p>	<p>(i) The machines to be demonstrated shall be identified by the implementing agencies.</p> <p>(ii) All demonstrations will be carried out under close supervision of Implementing Agency and the demonstrations sites shall be georeferenced and uploaded on the State portals/Krishi Mapper.</p> <p>(iii) All implementing agencies will monitor the outcome of demonstration in terms of adoption of technologies by the farmers etc.</p>
(ii)	Capacity Building Programmes on crop residue management	State Governments Institutions, SAUs, KVKs, PSUs, ICAR & Central Government institutions.	<p>(i) Depending on the requirements, the implementing agencies will be provided full cost of machines to be procured for capacity building programmes</p> <p>(ii) An amount of Rs. 6000/- per trainee per week (05 days) will be provided to the institutes identified for</p>	<p>(i) All implementing agencies will monitor the outcome of capacity building programmes in terms of improvement in skills, and adoption of technologies etc.</p>

			training to meet the expenses towards manpower, boarding/ lodging and transport. This financial assistance will be proportionate to the training duration.	
(iii)	Demonstration of Bio-decomposer Technology on farmers' fields	State Governments, State Government Institutions, SAUs, KVKs, PSUs, ICAR & Central Government institutions.	<p>(i) The States from the overall funds made available for crop residue management may meet the financial requirements on actual basis towards these demonstrations.</p> <p>(ii) The States may also procure this technology (bio-decomposer) from validated suppliers and provide the same to the farmers at free of cost.</p>	<p>(i) As the application of decomposer in the fields involves preparing and multiplying the formulation to a water soluble sprayable form in large quantities and then its application in the harvested fields through suitable sprayers, the implementing agencies may engage service providers/custom hiring centres having adequate resources after following due procedure for engagement of such service providers, for the following broader tasks to be carried out:</p> <p>(a) Conduct large scale demonstrations on the farmers' fields</p> <p>(b) Identify the farmers and area for large scale application of bio-decomposer technology</p> <p>(c) Geo-referencing of the identified area</p> <p>(d) Procuring and making available bio-decomposer in required quantity</p>

				<p>(e) Provide spraying services of the decomposer at scale through suitable sprayers</p> <p>(f) Advising the farmers to follow irrigation and primary tillage operations for completing the protocol of decomposition.</p> <p>(g) create awareness and ensure follow through on protocol for pre and post spraying operations</p> <p>(h) Monitoring the fields through satellite and ground observations for decomposition of the crop residue and that the fields are not burnt by the farmers</p> <p>(i) Reporting and documenting the entire demonstration programme and its outcome.</p>
(iv)	Demonstrations of Fermented Organic Manure (FOM) / Liquid Fermented Organic Manure (LFOM) on Farmer's Fields.	State Governments/ SAUs/ICAR/KVKs/ATARIs/Other Identified Institutions	<p>(i) The implementing agencies will be provided a contingency fund @ Rs. 6675/- per Hectare for taking up demonstrations on the farmers' fields which will be utilized towards FOM/LFOM procurement, hiring of prime mover, transportation of</p>	<p>(i) The large-scale demonstrations on applications of FOM/LFOM in the farming shall be demonstrated to farmers in the nearby areas of Compressed Biogas (CBG) plants which are utilizing the paddy straw.</p> <p>(ii) The State Governments/ SAU/ICAR/KVKs/ATARIs/Other Identified Institutions shall conduct such demonstrations on</p>

			<p>FOM/LFOM, labour charges, publicity and printing of technical literature, analysis of soil health before & after application of FOM/LFOM etc.</p> <p>(ii) The State Governments shall meet this expenditure from the flexi funds under the Crop Residue Management (CRM) and other institutions shall propose the expenditure under their Annual Plan of Information, Education and Communication (IEC).</p>	<p>the farmers' fields in the vicinity of CBG plants.</p> <p>(iii) Each CBG plant may be given a target to supply FOM/LFOM to conduct demonstration in 100-Hectare land.</p> <p>(iv) The demonstrations may be conducted on the farmer's fields and the improvements in the soil health may also be monitored by collecting the soil samples before and after the application of FOM/LFOM in the fields and the results may be documented.</p>
(v)	Information and publicity campaigns	State Governments, State Government Institutions, SAUs, KVKs, PSUs, ICAR & Central Government institutions.	<p>(i) The States from the overall funds made available for crop residue management may meet the financial requirements on actual basis towards these activities. Other implementing agencies shall propose the expenditure under their Annual Plan of Information, Education</p>	<p>The activities but not limited to the following may be implemented for mass awareness of farmers with the involvement of all stakeholders, social organizations and industry associations, NGOs etc.:</p> <p>(i) Advertisements in the electronic and print media and social media platforms.</p> <p>(ii) Formation of social media groups for creating awareness, sharing benefits of crop residue management and relevant</p>

			and Communication (IEC) activities.	<p>information & advisories among the farmers and other stakeholders</p> <p>(iii) Radio jingles, State specific Audio-visual clips in local language, Star campaigning etc.</p> <p>(iv) Mobilization of schools and colleges students through essay completion, painting, debate etc.</p> <p>(v) Award for village / Gram Panchayat, role model farmers for achieving zero stubble burning</p> <p>(vi) Distribution of attractive publicity materials such as leaflets, pamphlets, placards, posters etc. Communication through banners, hoardings, wall paintings etc. at prominent locations.</p> <p>(vii) Organizing Gram Sabhas, meetings, functions, Kisan Melas etc.</p> <p>(viii) Special and innovative programs for sensitization and mass awareness through panel discussions of farmers, short and long films on Doordarshan/ DD-Kisan and other private channels.</p>
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Note:

(i) The States may, if they so desire, set aside 25% of budget (including the Central and State Share) as flexi funds to be spent on any sub-scheme or component or innovation that is in line with the overall aim and objective of the approved scheme. In this regard, the guidelines for Flexi funds within Centrally Sponsored Schemes of Department of Expenditure vide Office Memorandum No. 55(5)/PF-II/2011 dated 6th September 2016 shall be scrupulously followed.

(ii) 1% of annual outlay of CRM will be earmarked for incurring administrative and other contingent expenses by the States.

The suggestive schedule of IEC activities are indicated below:

Period	Activities	Level of activity	Frequency
April-May	Preparation of short and long films / documentaries/ publicity materials including material for radio and TV programs	-	-
April-May	Preparation of publicity materials such as leaflets, pamphlets, placards, posters, banners, hoardings etc.	-	-
April to July	Formulating strategies action plans towards mobilizing the farmers through various IEC activities	-	-
August-November	Organizing Farmer Awareness /demonstration Camps by organizing Gram Sabhas, meetings, functions, Kisan Melas etc.	At village/ cluster level	02 times
		Block/district level	01 time
		State level	01 time
July-November	Organization of capacity building programs by KVKs in association with Farmers' Clubs and Cooperative Societies	KVKs in Punjab Haryana, Uttar Pradesh and NCT of Delhi	Regularly
Start by 15 th April and intensify during September to November	Advertisements in the Print Media.	-	Weekly
Start by 15 th April and Intensify during September to November	Special programs for sensitization and mass awareness and panel discussions of farmers who have switched over to crop residue management at Doordarshan/ DD-Kisan and other private channels live telecast.	-	Weekly in normal month, twice a week during intensification
August to November	Radio jingles, State specific Audio-visual clips in local language, Star campaigning (30-60 seconds duration)	-	Four times daily

July to December	Formation of social media groups for creating awareness, benefits of crop residue management, sharing of relevant information and advisories among the farmers and other stakeholders	-	Continuousl y
July to December	Mobilization of schools and colleges students through essay completion, painting, debate etc.	School level	Monthly
		District level	once in two months
		State level	Quarterly
December-January	Award for village / Gram Panchayat for achieving zero straw burning	Block/district level	Yearly

6.0 Other Guidelines for Smooth implementation of the Interventions:

- (i) The manufacturers eligible for supply of machines based on machine quality conforming to standard specifications, relevant and valid test report of the authorized testing institution and availability of product warranty & after sales service infrastructure from the manufacturer etc. shall be empanelled by the States. The States shall ensure that the cost of machines are reasonable compared to the open market prices of the machines. The manufacturers shall observe transparency in selling prices and the product warranty including after sales services intended to be provided to the farmers/beneficiaries. The maximum selling prices should be displayed on the websites of the manufacturers and also in the dealers shop.
- (ii) The farmers/beneficiaries will be at their liberty to choose any machine/equipment and its variants depending on their requirements and as per their choice from within the empanelled manufacturers by the States and may negotiate the final price after bargaining with the manufacturer/dealer and the beneficiary will be eligible to get the applicable subsidy through DBT.
- (iii) In the interest of promoting make in India and Atm-Nirbhar Bharat, it is desired that the States should not impose huge amount of Earnest Money Deposit (EMD) and Performance Security, as the manufacturers in small-scale sector gets deprived of their participation in the process carried out by the State Governments for supply of machines under the scheme. The Performance Security, if at all necessary, may be 3-5% of the value of the contract and may be furnished in the form of Insurance Surety Bonds, Account Payee Demand Draft, and Fixed Deposit Receipt from a commercial Bank, Bank Guarantee (including e-Bank Guarantee) from a commercial bank or online payment in acceptable form safeguarding the purchasers interest in all respects. Insisting on adequate after sales service infrastructure and blacklisting of the firms for failing to meet their obligations may also be adopted.

- (iv) A comprehensive online system should be developed for implementing the components of the scheme in the States and it should have arrangements for data sharing on Central portal i.e. <https://agrimachinery.nic.in>.
- (v) Manufacturers/suppliers that have tested their products either from FMTTIs or any identified institute by DA&FW will only be eligible for supply of machines under the schemes. The requirement of test report for the agricultural implements and tools costing less than 50,000 (Fifty thousand) may not be necessary. For such machines, self-certification for the desired specification/ quality/ performance of agricultural implements and tools may be accepted from manufacturers. However, the test report of the FMTTIs or authorized testing institutions may be mandatory for the first time manufacturer of such agricultural implements and tools.
- (vi) Every machine costing Rs. 1.00 lakh and above supplied under the scheme shall mandatorily be georeferenced. The self-propelled machines costing Rs. 1.00 lakh and above such as tractors, self-propelled crop reaper/reaper cum binders, and other such machines supplied to individual farmers and Custom Hiring Centres should be installed with app based AI-powered telematics kit which can track the live movement & location of machine and keep the daily record of work done by the machine. The dashboard of the telematics kit shall be available with the beneficiary of the machines/CHCs and the district as well as State Nodal officer of the scheme. The manufacturers shall provide the telematics kit as standard attachment on their machines manufactured after 1st June 2023. The establishment of CHCs should be georeferenced and it should be mandatorily uploaded on the 'FARMS' Mobile App
- (vii) It shall be mandatory that the all the Data of Custom Hiring Centres/Farm Machinery capital assets under the scheme including the demonstrations conducted shall mandatorily be uploaded on the Krishi Mapper.
- (viii) The machines supplied under the subsidy programmes should have a standardized unique identification code provided on the body of the machine by laser cut through methods in such a way that it is clearly identifiable, visible and is tamperproof. The guidelines for providing the serial number are as under:

“GJ/6545/444/2023/0001”				
Manufacturing State Code	Manufacturers ID	Centralized Implement Code	Year of Manufacturing	Serial Number of Machines Manufactured
Auto generated through https://agrimachinery.nic.in/ portal			To be provided by the manufacturer	

- (a) The type of letter should be 'Arial Bold', size of letter should be 25 mm. However, depending on the machine design and space constraints for various machines, the manufacturers are allowed the font size lesser than the

indicated one which can be conveniently put on the body of the machine provided that the code is clearly identifiable and visible on the machines.

- (b) All the manufacturers have to register themselves on 'agrimachinery.nic.in' portal and needs to obtain the registration number.
- (c) The agricultural implement/ machinery costing Rs. 1.00 lakh and more should have laser cut serial number on the main frame which can be viewed from front side of the implement/machinery and the implements/machines on which laser cut serial number is not possible, should place the laser cut serial number plate by welding it on the main frame which can be viewed from front side of the implement/machinery.
- (d) The agricultural implements/machines costing less than Rs. 1.00 lakh should have engraved serial number on the location of mainframe, which can be viewed from front side of the implement/machinery.
- (e) The implements/machines having fiber or plastic body on which laser cutting serial number is not possible, such implement/machine should have engraved serial number.
- (f) The centralized laser cut coding is not applicable for tractor and combine harvesters.
- (g) The manufacturers those who may exhaust the 4 digit serial number due to their higher production capacities for any particular machine, the States may allow the manufacturers to use up to 6 digits serial number.
- (h) All the States shall accept this unique serial number coding system and there shall not be any State specific coding system.
- (i) Apart from unique identification code, every machine shall also be provided with labeling plate firmly attached by riveting, hammer drive screws or welding in a conspicuous and readily accessible position on a part, which is normally not likely to be replaced during use. It shall show clearly and indelibly the information (1) Complete name and address of the manufacturer (ii) Make & Model of the machine (iii) Type and size of machine (iv) Unique identification code of the machine (v) Month and year of manufacture (vi) Required size of prime mover.
- (j) All machinery manufacturers must register their products, along with the MRP, on the Centralized Farm Machinery Portal. A unique manufacturer code generated in the portal must be provided on the body of the machine by laser cut through methods as indicated in para (viii) above. The manufacturer must upload the inventory of these machines State-wise on the Central Portal i.e. <https://agrimachinery.nic.in>. State Governments shall carry out the physical verification of the machines supplied under subsidy and the standardized unique identification code on the machines shall be verified against the inventory uploaded by the manufacturer on the central portal.

Annexure-I

Pattern of Assistance and Maximum Permissible Subsidy for the Farmers for procurement of crop residue management machines on individual ownership basis

S.No.	Name of the machine/equipment	Pattern of Assistance	Maximum Permissible subsidy per Machine/ Equipment per beneficiary inclusive of GST , (Rs.)
1.	Super Straw Management System (Super SMS) to be attached with Combine Harvester	50%	59,700
2.	(a) Happy Seeder (b) Smart Seeder		
	a) 09 tine	50%	81,400
	b) 10 tine	50%	84,150
	c) 11 tine	50%	86,350
	d) 12 tine	50%	90,200
3.	Paddy Straw Chopper/ Shredder/Mulcher		
	a) Mounted type (Straw Chopper & Mulcher)		
	i) 5 ft	50%	72,500
	ii) 6 ft	50%	85,800
	iii) 7 ft	50%	90,200
	iv) 8 ft	50%	95,700
	b) Trailed type	50%	1,47,100
4	Shrub Master/Rotary Slasher	50%	27,500
5.	Hydraulic Reversible M.B. Plough		
	a) Two bottom	50%	70,500
	b) Three bottom	50%	91,500
	c) Four bottom	50%	1,25,400
6.	(a) Zero Till Seed cum Fertilizer Drill (b) Spatial Zero Till Drill		
	9 tine	50%	24,800
	11 tine	50%	28,200
	13 tine	50%	30,800
	15 tine	50%	33,000
7.	Super Seeder	50%	1,20,000
8.	Surface Seeder	50%	44,000
9.	Baling Machines		
	Balers (Round – Mini – upto 16 kg per bale)	50%	2,20,000
	Balers (Round – Medium –above 16-25 kg per bale)	50%	2,39,500

	Balers (Round –big-180-200 kg per bale)	50%	9,90,000
	Baler (Rectangular 18-20 kg per bale)	50%	6,60,000
	Straw Rake	50%	1,65,000
10.	Crop Reaper		
	(a) Tractor mounted	50%	82,500
	(b) Self-Propelled	50%	90,000
	Self-Propelled reaper cum Binder (3 wheel)	50%	1,92,500
	Self-Propelled reaper cum Binder (4 wheel)	50%	2,60,000
11.	Tractor Mounted Loader (Without Tractor)	50%	3,05,000
12.	Tractor Drawn Tedder Machine	50%	2,62,000

Note:

(a) 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.

(b) The States will at their liberty to add any machine as per requirement provided that the machine is useful for crop residue management.

Annexure-II

Pattern of Assistance and Maximum Permissible Subsidy per machine under the projects of Custom Hiring Centres

S.No.	Name of the machine/equipment	Pattern of Assistance	Maximum Permissible subsidy per Machine/ Equipment inclusive of GST, (Rs.)
1.	Tractor 60 HP and above	80%	9,60,000
2.	Super Straw Management System (Super SMS) to be attached with Combine Harvester	80%	95,520
3.	(a) Happy Seeder (b) Smart Seeder		
	a) 09 tine	80%	1,30,240
	b) 10 tine	80%	1,34,640
	c) 11 tine	80%	1,38,160
	d) 12 tine	80%	1,44,320
4.	Paddy Straw Chopper/ Shredder/Mulcher		
	a) Mounted type (Straw Chopper & Mulcher)		
	i) 5 ft	80%	1,16,000
	ii) 6 ft	80%	1,37,280
	iii) 7 ft	80%	1,44,320
	iv) 8 ft	80%	1,53,120
	b) Trailed type	80%	2,35,360
4	Shrub Master/Rotary Slasher	80%	44,000
5.	Hydraulic Reversible M.B. Plough		
	a) Two bottom	80%	1,12,800
	b) Three bottom	80%	1,46,400
	c) Four bottom	80%	2,00,640
6.	(a) Zero Till Seed cum Fertilizer Drill (b) Spatial Zero Till Drill		
	9 tine	80%	39,680
	11 tine	80%	45,120
	13 tine	80%	49,280
	15 tine	80%	52,800
7.	Super Seeder	80%	1,92,000
8.	Surface Seeder	80%	70,400
9.	Baling Machines		
	Balers (Round – Mini – upto 16 kg per bale)	80%	3,52,000
	Balers (Round – Medium –above 16-25 kg per bale)	80%	3,83,200

	Balers (Round –big-180-200 kg per bale)	80%	15,84,000
	Baler (Rectangular 18-20 kg per bale)	80%	10,56,000
	Straw Rake	80%	2,64,000
10.	Crop Reaper		
	(a) Tractor mounted	80%	1,32,000
	(b) Self-Propelled	80%	1,44,000
	Self-Propelled reaper cum Binder (3 wheel)	80%	3,08,000
	Self-Propelled reaper cum Binder (4 wheel)	80%	4,16,000
11.	Tractor Mounted Loader (Without Tractor)	80%	4,88,000
12.	Tractor Drawn Tedder Machine	80%	4,20,000

Note:

(a) The financial assistance will be limited to 80% of the cost of the machine or the maximum permissible subsidy per machine as indicated above, whichever is lower.

(b) The States will be at their liberty to add any machine as per requirement provided that the machine is useful for crop residue management.

Annexure-III**Procedure for Credit Linked Capital Subsidy on the Custom Hiring Centres Projects and Paddy Straw Supply Chain Projects**

The following is the gist of procedure to be followed, to be read along with the flow charts and formats annexed:

1. **Advance Subsidy:** The 50% eligible subsidy amount for the projects will be released as advance by the State Agriculture Departments to the participating Financial Institutions (Banks) on submission of project scrutiny note cum claim form as per requirement and the norms of the interventions. The same would be kept in a Subsidy Reserve Fund Account of the concerned borrowers, to be adjusted finally against loan amount of the bank towards the end of the repayment period and life of the project as per the time schedule.

2. **Final Installment of Subsidy:** the remaining 50% would be disbursed to the participating Banks by the State Departments of Agriculture after conduct of an inspection and physical verification of the machines and equipments by the State Level Project Sanctioning Committee and officials from the financing banks.

3. **Adjustment of Subsidy to Borrower's Account:** The subsidy released to the bank for individual project will be kept in a separate borrower-wise account. The adjustment of subsidy will be back ended. Accordingly, the full project cost including the subsidy amount, but excluding the margin money contribution from the beneficiary, would be disbursed as a loan by the Banks. The repayment schedule will be drawn on the loan amount in such a way that the total subsidy amount is adjusted after the full bank loan component with interest is liquidated.

4. **Utilization Certificate:** After release of final installment of subsidy, a Utilization Certificate is required to be submitted by the financing Bank certifying that the full amount of subsidy received in respect of the project has been fully utilized (by way of crediting to the "Subsidy Reserve Fund Account- Borrower -wise") and adjusted in the books of Account under the sanctioned terms and conditions of the project within overall guidelines of the scheme.

5. **No Interest is chargeable on Subsidy Portion:** For the purpose of charging interest on the loan component, the subsidy amount would be excluded. The balance lying to the credit of the subsidy reserve fund account will not form part of demand and time liabilities for the purpose of SLR/CRR

6. Institutional Lending:

(a) **Eligible Financial Institutions:** The eligible financing institutions under the scheme are (i) Commercial Banks, Regional Rural Banks (RRBs), State Cooperative Banks (SCBs), State Cooperative Agricultural and Rural Development Banks (SCARDBs), Scheduled Primary Urban Cooperative Banks (PUCBs), Agricultural Development Finance Companies

(ADFCs) and such other institutions (ii) Cooperatives where they seek loan from National Cooperatives Development Corporation (NCDC).

(b) Term Loan

For the projects of Custom Hiring Centres and Paddy Straw Supply Chain projects, the amount as eligible as capital subsidy of the project cost can be raised as term loan from the financing banks. The repayment schedule will be drawn on the total loan amount (including subsidy) in such a way that the subsidy amount is adjusted after liquidation of the net bank loan (excluding subsidy). The financial institution may provide working capital separately for undertaking the business by the entrepreneurs.

(c) **Rate of interest and Scale of Financing to the ultimate borrower** : As decided by the financing bank, as per their respective Board approved policy.

(d) **Security**: The security will be as per norms prescribed by RBI from time to time.

(e) **Repayment Period**: Repayment period will depend upon the cash flow and may be generally up to 5 years with a grace of one year.

7. Procedure to be followed for sanctioning of project and release of subsidy

- (a) Interested beneficiaries will submit the project proposal for term loan and subsidy to Bank on application form as prescribed by the concerned bank along with project report and other documents for appraisal and sanction of loan.
- (b) Bank after appraisal and scrutiny of loan application will furnish a brief project profile-cum-claim form for advance subsidy in the prescribed format as may be devised by the project sanctioning committee at the State level. The loan shall be disbursed by the Bank only after the project has been cleared and approved by the State level project sanctioning committee, which shall also have a representative of the concerned Bank.
- (c) The State Department of Agriculture on the recommendation of State level project sanctioning committee shall release 50% of the eligible amount of subsidy as advance subsidy to the participating bank for keeping the same in the subsidy fund account (borrower-wise)
- (d) The participating bank shall provide eligible amount of subsidy as term loan to the beneficiary. The banks at their discretion may extend full project cost as term loan to the beneficiary.
- (e) The beneficiary will inform the Bank that the required machines and equipments have been acquired by the beneficiary and the State level project sanctioning committee involving the bank official shall conducted the physical verification of the machines and equipments. After inspection the Bank will submit the claim form to the State Department of Agriculture for final subsidy. The claim form shall

necessarily be enclosed with inspection report of the committee. The State Department of Agriculture shall release the final subsidy to banks which will be adjusted against the subsidy amount provided to the banks in advance.

- (f) Monitoring of each project will be done by Banks branches and district level officers of the State Department of Agriculture with periodic reporting to the State Agriculture Department.

Annexure-IV

(A) Indicative Capital Expenditure for Setting up Paddy Straw Supply Chain having Medium size Baler machines (200-300 kg Bale)

Sr No	Required machines	Approximate Rate / Unit (Rs. in lakhs)	Qty	Tentative Amount (Rs. in Lakhs)
1	Cutter /Rotary Slasher	0.70	1	0.70
2	Tedder Machine / Tractor Drawn Tedder Machine	5.25	1	5.25
3	Raker	5.85	1	5.85
4	Tractor 75 HP and above	18.00	1	18.00
5	Baler (200-300 kg Bale) – Rectangular or round bale	36.50	1	36.50
6	Tractor 50 HP for Tedder and Rake	8.5	2	17.00
7	Trolley (Flat, Single Axle, Local Fabricator) /Automatic bale loading trolley	3.50	3	10.50
8	Tractor attachment for Stacking (grabber)/ telehandler	5.00	1	5.00
9	Moisture Meter	0.35	1	0.35
10	Water tank (5000 Ltr)	0.25	1	0.25
11	Fire Extinguisher	0.05	1	0.05
12	Lightening Arrestor	0.40	1	0.40
13	Tractor Mounted Loader (Without Tractor)	6.10	1	6.10
14	Tractor (4WD) with Loader attachment	18.5	1	18.5
Total				124.45 or say Rs. 1.25 Cr.

Note:

- (i) Tractors required for transport trollies and grabber are supposed to be taken on rental basis.
- (ii) The machines and equipments and their costs are indicative. The total project cost can only be arrived based on the proforma invoices of the sale of machines.
- (iii) Beneficiaries may have the choice of selection of equipments from within the list as per their requirement.
- (iv) The States also have the flexibility to include any machine under the projects as per their requirement.
- (v) For the purpose of financial assistance, the project cost will be limited to Rs. 1.00 Crores i.e. the project cost may be above Rs. 1.00 Crores/project, but the financial assistance from the Government will be calculated based on the project cost of Rs. 1.00 Crores/project.

(B) Indicative Capital Expenditure for Setting up Paddy Straw Supply Chain having Large size Baler machines (>300 kg Bale)

Sr No	Required machines	Approximate Rate / Unit (Rs. in lakhs)	Qty	Tentative Amount (Rs. in Lakhs)
1	Cutter /Rotary Slasher	0.70	1	0.70
2	Tedder Machine	12.00	1	12.00
3	Raker	25.00	1	25.00
4	Tractor 90-110 HP	44.00	1	44.00
5	Baler (>300 kg Bale) – Rectangular or round bale	46.00	1	46.00
6	Tractor 50 HP for Tedder and Rake	8.5	2	17.00
7	Trolley (Flat, Single Axle, Local Fabricator) /Automatic bale loading trolley	3.50	3	10.50
8	Telehandler / Tractor (4WD) with Loader attachment	25.00	1	25.00
9	Moisture Meter	0.35	1	0.35
10	Water tank (5000 Ltr)	0.25	1	0.25
11	Fire Extinguisher	0.05	1	0.05
12	Lightening Arrestor	0.40	1	0.40
13	Bale Bundler	106.00	1	106.00
14	Bale Accumulator	67.00	1	67.00
Total				354.25 or say Rs. 3.54 Crores

Note:

- (i) For the purpose of financial assistance, the project cost will be limited to Rs. 1.50 Crores i.e. the project cost may be above Rs. 1.50 Crores/project, but the financial assistance from the Government will be calculated based on the project cost of Rs. 1.50 Crores/project.
- (ii) The machines and equipments and their costs are indicative. The total project cost can only be arrived based on the proforma invoices of the sale of machines.
- (iii) Beneficiaries may have the choice of selection of equipments from within the list as per their requirement.
- (iv) The States also have the flexibility to include any machine under the projects as per their requirement.

Sample Bi-Lateral Agreement

This Agreement (herein referred to as “Agreement”) is made on this day of **(DATE)** at **(PLACE)**.

By and Between:

1. ----- (Name of the Biomass Based Industry) -----, a Company Incorporated under Companies Act, 2013 and having its registered office at----- (complete address of Biomass industry)----- (hereinafter referred to as “**Industry**” or “----(Short Title of Biomass Based Industry)----- ” which expression shall, unless repugnant to the context or meaning thereof, be deemed to include its successors and permitted assigns) of the **FIRST PARTY**;

AND

2. **BENEFICIARY**, which expression shall unless repugnant to the context or meaning thereof, be deemed to include Farmer or group of Farmers or Rural Entrepreneurs or Cooperative Societies of Farmers or Farmers Producer Organizations (FPOs) or Panchayats (hereinafter referred to as “**Aggregator**” which expression shall, unless repugnant to the context or meaning thereof, be deemed to include its successors and permitted assigns) of the **SECOND PARTY**;

(Both of the parties mentioned hereinabove shall be individually referred to as the “**Party**” and collectively as the “**Parties**”)

WHEREAS

(a) The “**Government**” intends to contain the burning of Agri-residue / paddy straw in the open fields through an approach of providing accepted solutions for ex-situ management of Agri-residue / paddy straw and released guidelines vide OM No. ----- -- Dated ----- for providing financial assistance to Aggregator to establish Agri-residue / paddy straw supply chain for its utilization in different industries utilizing the same to achieve farmer’s welfare by way of reduced stubble burning and utilizing the abundant Agri-residue / paddy straw towards useful applications.

- (b) ----(Name of Biomass Based Industry) ----- referred to as an **“Industry”** is inter alia engaged in the manufacturing of --- (Products name) ----- from Agri-residue / paddy straw and other biomass. ---- (Name of Biomass Based Industry) ----- has set up a --- (Products name) ----- Project with capacity (-----), will utilize approximately ---- tons of Agri-residue / paddy straw per day and will utilize approximately ----- tons of Agri-residue / paddy straw per year. The plant is in -----(Location address of Biomass Based Industry /Plant).
- (c) The -----(Name and address of Aggregator) ----- referred to as an **“Aggregator”** is desired and willing to invest into the establishment of Agri-residue / paddy straw supply chain by way of acquiring required machinery and equipments through financial support of the Government and Industry and has agreed to collect, transport, store the Agri-residue / paddy straw at the allocated area or areas allotted by ---- (Name of Biomass Based Industry) ----- and will supply the same to ---- (Name of Biomass Based Industry) -----.

NOW THEREFORE, in consideration of the foregoing and the mutual covenants contained in this agreement, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

ARTICLE 1

DEFINITIONS AND INTERPRETATION

- 1.1 Definitions: In this agreement, unless the context otherwise requires or expressly provides, the following words shall have the following meaning respectively:
- a) **Business day** shall be construed as a reference to a day (other than a Sunday) on which banks in the state where I&C Facility is situated are generally open for business
 - b) **Biomass Based Industry** means industries utilizing the Agri-residue / paddy straw for various purposes
 - c) **Catchment area** shall herein mean area within the radius of 10 to 35 kms of - ----(Name of Biomass Based Industry) ---- plant site situated ----- (Complete address of location) -----
 - d) **Price** in reference to this agreement will mean the price at which biomass-based industry will purchase Biomass from the Aggregator.
 - e) **Equipment or Machinery** means equipments and machines that are covered under the supply chain i.e., Cutters/Rotary Slashers, tedder, Raker, Baler, tractor, loader, trolley, telehandler etc.

- f) **Financial Assistance** shall be in the form of subsidy which will be provided to the farmer by the Government and biomass-based industry in the ratio mentioned in the scheme guidelines under para -----.
- g) **Law** shall mean all statutes, enactments, acts of legislature or parliament, laws, ordinances, rules, regulations, code, directives and orders of any Government Authority, Tribunal, Board or Court and if applicable, International Treaties and regulations.
- h) **MT** means Metric tonnes
- i) **OEMs** shall mean Original Equipment Manufacturer of the equipments and machines that are covered under the supply chain
- j) **Principal place of Business** in reference to this agreement means for parties -
----- (Complete address of location of the biomass-based industry) -----

- k) **Supply (collection, transport and storage of Agri-residue / paddy straw)** shall have meant ascribed to it in
- l) **Supply Process Flow** as indicated in para 8 of the concept note
- m) **Software** in reference to this agreement shall be called Straw management and automation mobile application which shall be given to the aggregators by -----
----- (name of biomass-based industry) -----.
- n) **TPD** means tonnes per day.

1.2 **Interpretation**

Except where the context requires, this agreement shall be interpreted as follows:

- 1 References in this Agreement to any statutory provision shall include a reference to that statute or provision as amended, extended or re-enacted and to any statutory replacement thereof from time to time and shall also include reference to all statutory instruments and orders made pursuant to any such statutory provision.
- 2 the division of this Agreement into clauses and schedules and the insertion of headings and bold typeface are only for convenience and shall not affect the construction or interpretation of any provision of this Agreement;

- 3 words and numbers importing the singular shall include the plural and vice versa;
- 4 references to the Recitals, Clauses and Schedules are to the recitals and clauses of, and schedules to, this Agreement;
- 5 the Schedules to this Agreement form part of this Agreement and shall be deemed to be expressly set out in the body of this Agreement;
- 6 all words (whether gender-specific or gender neutral) shall be deemed of any gender are deemed to include the other gender;
- 7 the terms “hereof”, “herein”, “hereby”, “hereto” and derivative or similar words refer to this entire Agreement or specified Clauses of this Agreement, as the case may be;
- 8 a reference to any Party in this Agreement, including the Parties, shall, where the context permits, include such Person’s executors, administrators, heirs, legal representatives, successors and permitted assigns;
- 9 any obligation under this Agreement not to do something includes an obligation not to agree or allow that thing to be done;
- 10 an agreement, representation or warranty on the part of 2 (two) or more Persons binds them jointly and each of them individually;
- 11 a reference to any Law or to any provision thereof includes references to such Law as it may, during the term of this Agreement or the completion of the transactions contemplated herein, be amended, consolidated, modified, re-enacted or replaced by any other Law and to any subordinate legislation or regulation made under the relevant Law;
- 12 Unless the context otherwise requires, any period of time referred to shall be deemed to expire at the end of the last day of such period;
- 13 the expressions “hereof”, “herein” and other similar expressions shall be construed as references to this Agreement as a whole and not limited to the particular Clause or Schedule in which the relevant expression appears;
- 14 references to writing include in electronic form;
- 15 references to “Rupees”, “Rs.” and “INR” are references to the lawful currency of the Republic of India;
- 16 reference to any document includes an amendment or supplement to, or replacement or novation of, that document, but disregarding any amendment, supplement, replacement or novation made in breach of this Agreement;
- 17 reference to an “amendment” includes a supplement, modification, novation, replacement or re-enactment and “amended” is to be construed accordingly;
- 18 any word or phrase defined in the body of this Agreement as opposed to being defined in Article 1.1 above shall have the meaning assigned to it in such definition throughout this Agreement, unless the contrary is expressly stated or the contrary clearly appears from the context;
- 19 the Parties have each participated in the negotiation and drafting of this Agreement and if an ambiguity or question of interpretation should arise, this Agreement shall be construed as if drafted jointly by the Parties thereto and no

- presumption or burden of proof shall arise favouring or burdening either party by virtue of the authorship of any of the provisions in this Agreement;
- 20 This agreement is made and executed in the English, Hindi and Punjabi Language which shall be the governing text for all purposes.
 - 21 Any reference to any period of time shall mean a reference to that according to Indian Standard Time;
 - 22 Any reference to day shall mean a reference to a calendar day;
 - 23 “**Lakh**” mean a hundred thousand (100,000) and crore means ten million (10,000,000);
 - 24 Reference to a “**person**” and wording denoting a natural person shall be construed as a reference to any individual, firm company, corporation society, trust, government, state or agency of a state or any association or partnership (whether or not having separate legal personality) of two or more of the above and shall include successors and assigns;
 - 25 The words “**include**” and “**including**” are to be construed without limitation and shall be deemed to be followed by “**without limitation**” or “**but not limited to**” whether or not they are followed by such phases;
 - 26 Reference to any date, period or Project Milestone shall mean and include such date, period or Project Milestone as may be extended pursuant to this agreement;
 - 27 The damages payable by either party to the other of them, as set forth in this agreement, whether on per diem basis or otherwise, are mutually agreed genuine pre-estimated loss and damage likely to be suffered and incurred by the party entitled to receive the same and are not by way of penalty (the “Damages”) and
 - 28 Time shall be of the essence in the performance of the parties’ respective obligations. If any time period specified herein is extended, such extended time shall also be of the essence.

ARTICE 2 SCOPE OF THE AGREEMENT

- 2.1 This Agreement details the terms and conditions, financial arrangement and obligation of Government, Industry and Aggregator. Further, any specific terms or conditions, procedure or methodology specified/not specified in this Agreement, but relevant to the scope and deemed necessary to be amended/included, may be mutually discussed and agreed to between the Industry and Aggregator within two (2) months of signing of this Agreement and shall be included as an amendment as per Amendment Article of this Agreement.
- 2.2 Aggregator will undertake Activity at collection end of Agri-residue / paddy straw, transport, storage and supply it to industry in terms of this Agreement. The Industry and Aggregator shall respectively and faithfully abide by and subject themselves to the terms and conditions and stipulations of the Agreement.

- 2.3 The implementation of this Bi-lateral agreement is based on the Guidelines OM No. (.....) Dated....., a pilot project basis to support the investment planned for ex-situ machinery deployment. The programme will be monitored by Department of Agriculture & Farmers Welfare with the help of Agriculture Departments of the State Government. However, the management of supply chain is the responsibility of the Industry in association with the Aggregator.

ARTICE 3 FINANCIAL ARRANGEMENTS

- 3.1** The projects will be implemented under this Bi-lateral agreement between the (Name of biomass-based Industry) who shall be utilizing the Agri-residue / paddy straw ----- and ----- (name of the Aggregator) ----- . This agreement is executed between the parties to ensure smooth implementation of the projects keeping the interests of the ----- (name of biomass-based industry) ----- project and -----(Name of Aggregator) ----- interests.
- 3.2** Financial assistance will be provided to the Aggregator only on the capital cost of machinery and equipment as indicated in the guidelines issued by the Government and the rest of the capital expenditure and required working capital may be arranged by the aggregator. For working capital, National Agriculture Infra Financing Facility (AIF) by the Farmer or NABARD project financing or financing from any other Banks may be used.
- 3.3** The Escrow agreement shall be executed between the Industry and the Aggregator. All cash inflows and outflows arising out of this agreement or matters incidental thereto shall be credited and debited, as the case may be, in accordance with the provisions of the escrow agreement. All the expenses and liabilities towards arrangement of such escrow account and agreement shall be borne by the Industry and Aggregator equally and jointly.

ARTICE 4 OBLIGATIONS

4.1 Obligations of the Government:

- (a) Empanel the machinery suppliers
- (b) constitute a project sanctioning committee which shall devise a template for submission of project proposal by the Aggregator.
- (c) examine the proposals through project sanctioning committee and approve the projects of Agri-residue / paddy straw supply chain management within 5 days of receipt of proposals

- (d) facilitate the aggregator to get financing from AIF/NABARD/Other financial institutions
- (e) guide the Aggregator for obtaining all regulatory clearances, such as fire, land sealing, conversion from agricultural to non-agricultural and, availability of government land, electricity supply, transmission system, waiver of development charges of development authority etc.
- (f) physical inspection of the machinery procured by the Aggregators and process for release of financial assistance through Escrow Agreement.

4.2 Obligations of the Industry:

- (a) Finalize and submit the project proposal in co-ordination with the Aggregator.
- (b) facilitate the Aggregator in site selection and obtaining all regulatory clearances
- (c) contribute required Industry share of the project as per guidelines into the Escrow account of the Aggregator
- (d) facilitate the Aggregator to get financing from AIF/NABARD/Other financial institutions
- (e) facilitate the Aggregator in procuring the required machinery and equipments from the OEMs empanelled by the Government.
- (f) provide daily scheduling to the Aggregator for supply of required quantity of paddy
- (g) create awareness amongst farmers residing/owing land/property in the catchment area by through convenient mode.
- (h) purchase all the collected Agri-residue / paddy straw from the Aggregator at a rate as may be mutually agreed by Aggregator and Industry. Revisit the rate Year-on-Year based on the market condition.
- (i) shall throughout monitor the effectiveness of the project
- (j) facilitate Aggregator in maintenance and service of the equipments and machines through the authorized service network of the OEMs.
- (k) take actions against the Aggregator for not supplying the desired Quality, Quantity, Price and misuse of the equipment and machine in association with the Government through appropriate committee duly constituted for the purpose.
- (l) Responsible for asset utilization on yearly basis to the Government in terms of annual Agri- residue/ paddy straw collection (in tonnes per Agri-residue / paddy straw type).

4.3 Obligations of the Aggregator:

- (a) arrange land for storage of the collected paddy under the guidance of Industry
- (b) obtain all regulatory clearances, such as fire, land sealing, conversion from agricultural to non-agricultural, electricity supply, transmission system, development charges of development authority etc.

- (c) place order with the empanelled OEMs for procurement of machinery as included in the project proposal.
- (d) Contribute required Aggregator share of the project as per guidelines into the Escrow Account.
- (e) secure Industry contribution for the proportionate amount as per the project proposal and guidelines of the Government
- (f) receive financial assistance from the Government in the Escrow account
- (g) secure required working capital either through own funding or AIF or NABARD or other bank financing
- (h) make payments to the OEMs towards the procurement of machinery in alignment with the Escrow Account regulations.
- (i) tie up with the farmers for procurement of straw from the farmer's fields
- (j) engage necessary skilled and non-skilled manpower for continuous operation of the aggregation of Agri-residue / paddy straw
- (k) acquire required machines and collect the straw as per the scheduling as may be decided by Aggregator and Industry.
- (l) insure equipment or machinery against loss by theft, fire or by the Act of God
- (m) store baled straw as per the SOPs provided by the industry
- (n) insure the risk for the stock of biomass in storage, transit, fire and theft.
- (o) shall be responsible for the management of machinery for collection, Transportation, Storage of Agri-residue / paddy straw and also delivering the end product to the industry on timelines decided by Industry
- (p) shall exclusively provide the Agri-residue / paddy straw at a agreed price to Industry only with whom the agreement is made and not to any other industry.
- (q) Restrict the use of machines only for the use of the industry in designated cluster. In case of use of machines for other Industry, shall take prior consent or no objection from the industry with whom the agreement is signed.
- (r) shall not transfer/sell/mortgage/ hypothecate the machines and equipment in any manner whatsoever.

ARTICLE 5

PURCHASE OF MACHINERY AND EQUIPMENT

- 5.1 The AGGREGATOR shall place an order with the empanelled manufacturers for procurement of Machinery and Equipments.
- 5.2 The Parties shall before (.....), open and establish an escrow account with the _____ Bank (the Escrow Bank"). The payment shall be made according to the timelines stated below:

Financial Milestone/ Timelines:

S.NO	Parties to the Agreement	Contribution in terms (%)	Tentative timelines for releasing payment in “ESCROW ACCOUNT” (Tentative)
1.	GOVERNMENT	65	30 th October of every Financial year
2.	INDUSTRY	as may be agreed between industry and aggregator	10 th July of every Financial year
3.	AGGREGATOR	Minimum 10	10 th July of every Financial year

- 5.3 The payment toward the purchase of Equipment and Machinery will be made from the ESCROW Account to be opened in the name of INDUSTRY. The parties and government will transfer their respective contribution in the ESCROW account according to the ESCROW Agreement.
- 5.4 All the expenses and liabilities towards arrangement / opening of such escrow account and agreement shall be borne by the INDUSTRY and AGGREGATOR Jointly in 50 – 50 Ratio.

ARTICE 6

OWNERSHIP OF EQUIPMENT AND MACHINES

- 6.1 The Government shall not own any Equipment or Machine. It would just purely provide financial support and would monitor the effectiveness of the project.
- 6.2 Industry shall throughout monitor the effectiveness of the project.
- 6.3 Industry shall act as the primary or only consumer of feedstock aggregated by the procured machinery under the scheme and shall have the first right of ownership of machinery and can acquire possession in case of expiry of tenure of the agreement or termination due to any non-compliance or default on behalf of the Aggregator.

ARTICE 7

QUALITY COMPLIANCE PARAMETER

- 7.1 Below are the Quality acceptance criteria/ parameters of the straw to be supplied by the farmer at Industry Plant site.

S. No.	Description	Acceptance Criteria	Remarks
1.	Type of Bales	To be decided by the industry	
2.	Moisture	To be decided by the industry	
3.	Mandatory use of balers with cutting system	To be decided by the industry	
4.	Compression	To be decided by the industry	
5.	Stacking height	To be decided by the industry	

ARTICE 8

INDEMNITY

Either party will indemnify, defend, and hold harmless other party (including its successors, affiliates and assigns) and their respective directors, officers, employees, agents and/or any third party (the "indemnified persons") against any and all losses, liabilities, judgments, awards, costs, claims, expenses, charges etc. (individually and collectively, referred to as "Damage") (i) arising out of breach by the defaulting party of any of the terms contained herein; (ii) due to any representation, or other statement made by the defaulting party being or becoming untrue in any manner, (iii) due to any act, omission or negligence of the defaulting party or its personnel and/or persons engaged by him (in) any claims that may be made by the defaulting party's personnel against the suffering party for any reason Whatsoever, without any limit in the amounts or time.

ARTICLE 9

INSURANCE

9.1. Insurance against storage of Machine and equipments:

- a) It is a responsibility of the AGGREGATOR, at its own cost, during the tenure, to acquire adequate comprehensive insurance cover for corresponding to the risk of Equipment and machines against Marine, theft, fire etc;
- b) For corresponding to the risk for the stock of biomass in storage, transit, fire and theft;

- c) The copy of insurance papers shall be supplied to Industry before training by OEMs for Machinery and Equipments starts for Aggregator &
- d) The Selection of insurer shall be the responsibility of the industry.

9.2 Insurance against Machine and Equipments

- a) The Industry and the Aggregator shall purchase an Insurance cover in which contribution in terms of premium shall be borne by the Industry and the Aggregator;
- b) The industry shall pay premium in proportion to its own share as well as Government's share in the capital cost of the machinery and equipment which comes out to be 90% (25% + 65%) contribution in terms of premium amount;
- c) The Aggregator shall pay premium contribution in proportion to its 10% share in the capital cost of the Machine and Equipments &
- d) The selection of Insurer shall be the responsibility of the industry.

ARTICLE 10

VOLUME, QUALITY AND TRANSPORTATION OF CROP RESIDUE

- 10.1 INDUSTRY shall accept Crop Residue in case AGGREGATOR make compliance to the following criteria as given below

(A) Volume for aggregation of Biomass (Agri-residue / paddy straw)

S.No	Description	Default	Remarks
	Volume: Capacity to supply Biomass fuel as per desired specifications (Per season)	In case the supply is <40% (For supply of having medium size Baler machines (200-300 kg Bale)	Written Notice will be issued stating with a onetime warning post Non-compliance of which can lead to a situation where ownership of the machines will be transferred to another AGGREGATOR after consulting with the committee defaulting AGGREGATOR.
		In case the supply is <30% (For supply of having large size Baler machines (>300 kg Bale)	

(B) Quality compliance parameters

S.No.	Description	Acceptance Criteria	Remarks
1.	Type of Bales		
2.	Moisture		
3.	Mandatory use of balers with cutting system		.
4.	Compression		
5.	Stackling height		

(C)TRANSPORTATION OF BIOMASS FROM FARM TO GATE

In case the AGGREGATOR defaults in supplying the agreed biomass from farm to gate i.e not transporting aggregated biomass to the gate then a Written Notice will be issued stating with a onetime warning post Non-compliance of which can lead to a situation where ownership of the machines will be transferred to another AGGREGATOR after consulting with the committee defaulting Aggregator.

ARTICLE 11

ASSIGNMENT AND SUBCONTRACT AND SUBSTITUTION

- 11.1 The “AGGREGATOR” shall not without the prior written approval of INDUSTRY, assign or transfer its rights or obligations under the agreement or any part thereof, or any share, or interest therein to any other person.
- 11.2 That in case “AGGREGATOR” is unable to perform in any Season, he can propose the name of other person in writing and if approved by Committee, he can substitute the AGGREGATOR for the Season and accordingly Rights and Obligation under this agreement will be Assigned to that Person and that Person for the purposes of this Agreement will know as Substituted Aggregator for that Season.
- 11.3 That in case of Assignment to Substituted Aggregator, Machinery and Equipment will be hand over by AGGREGATOR to that person for that particular Season.
- 11.4 That proposal of substitution should be made before 1st August of Every Year.

ARTICLE 12 AMENDMENTS TO THE AGREEMENT

No amendment or modification of this Agreement shall be valid unless the same is made in writing by the Parties and their authorized representatives and specifically stating the same to be an amendment of this Agreement. The modifications/ changes shall be effective from the date on which they are made/ executed unless otherwise agreed to.

ARTICLE 13 NOTICES

All notices and communications required to be served under this agreement shall be considered to be duly served if the same been posted by registered mail at its last known address of business.

ARTICLE 14 TENURE

This agreement shall come into force from the date of signing of this agreement and will continue till supply of quantity as given in Article... (which shall be added at the later stage) or Five years, whichever is earlier.

ARTICLE 15 EFFECTIVE DATE AND TERMINATION OF THE BI-LATERAL AGREEMENT

- 15.1 This Agreement shall be deemed to have come into effect from the date of signing of the Agreement.
- 15.2 **Termination:** This Agreement may be terminated by Industry in consultation with Government constituted committee by giving a one **(7) days'** notice in writing to Aggregator in the following cases:
 - (a) If Aggregator obtains the financial assistance on the basis of false information/ false statement.
 - (b) If Aggregator and Industry does not take up the Activity as per the terms of the Agreement.
 - (c) If performance of Aggregator or Industry is not found satisfactory as per obligations indicated in Article 4 of the Agreement.
 - (d) If any fraud/ embezzlement is detected subsequently and not reported by Aggregator or Industry.
 - (e) Suppressing information regarding Conflict of Interest by the parties.
 - (f) If Aggregator or Industry is declared insolvent by the relevant competent authority.
 - (g) If Aggregator and Industry commits material breach of this Agreement.

- (h) Non-payment/ non-realization of penalties or any dues by the aggregator and/or Industry
- 15.3 In the event of termination of the Agreement vide Clause 15.2, the rights and obligations of the Parties thereto shall be settled through mutual discussion between the Parties. Provided that any pending payments with respect to invoices for all completed Activities shall be paid by the Aggregator within thirty (30) days of date of termination of this Agreement. Provided further that in the event of termination of the Agreement vide Clause 15.2, the machines and equipment together with all physical assets acquired under the project are taken into the custody by the Industry.

ARTICLE 16 FORCE MAJEURE

- 16.1 Neither of the party, in any way, except for any payment related obligations, be held liable for non-performance either whole or in part of this agreement or for any delay in the performance thereof in consequence of any Act of God, epidemics, quarantine restrictions, lawful strike, lock out, delivery interruptions, orders including administrative orders or decrees of any Government or Government authority, revolutions, wars, acts of enemies embargoes or other import restrictions or by any other acts, whether or not of the same class or kind as those set forth above, not within the control of the party, fulfilment on whose part is interfered with and which by exercise of reasonable diligence, the said party is unable to prevent.
- 16.2 Promptly but not later than 2 days, upon the occurrence of an event or circumstance that a party considers may subsequently lead it to claim force majeure relief under this agreement, such party shall give notice to such effect to the other party, describing such event or circumstance and the obligations the performance of which could be delayed or prevented thereby,
- (a) The parties shall exercise reasonable diligence to resume normal performance of this agreement as soon as possible, after the occurrence of an event of force majeure.
 - (b) Even prior to resumption of normal performance, the parties shall continue to perform their obligations under this agreement to the extent not prevented by such event of force majeure.

ARTICLE 17 GOVERNING LAWS AND JURISDICTION

This agreement shall be governed and construed in accordance with the laws of India including without limitation, the relevant Central and State acts and the rules,

regulations and notifications issued and amended there under from time to time and subject to clause 18 below, the courts of (.....) shall have the exclusive jurisdiction in relation to all disputes arising from or relating to the agreement.

ARTICLE 18 DISPUTE RESOLUTION

- 18.1 A dispute shall be deemed to have arisen under this agreement, when either party notifies the other party of any issue, difference or dispute in writing to that effect.
- 18.2 Any dispute arising out of this agreement shall be resolved amicably through discussions in good faith with a view to expeditiously resolve such dispute. In the event the Dispute cannot be resolved amicably within the period of 30 days from the date of its occurrence, either party may refer the dispute for resolution to State Government and even if not resolved, actions may be taken according to Arbitration and conciliation act, 1996.
- 18.3 The venue of arbitration shall be ----- and the language of arbitration shall be in English or Punjabi. The arbitrator shall pass a reasoned award and the award shall be final and binding on all the parties.

SEAL OF PARTIES

In witness whereof the Parties here to have signed this Agreement on the day of (Month) and year mentioned hereinbefore

For and on behalf of Industry Name: Designation: Seal:_____	For and on behalf of Aggregator Name: Designation: Seal:_____
Witnesses: (Name Address) 1. _____ 2. _____ Date: _____	Witnesses: (Name Address) 1. _____ 2. _____ Date: _____