

**BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI  
O.A. No. 666 of 2018**

**In the matter of:**

**Smt. GANGA LALWANI**

**..APPLICANT**

**VERSUS**

**UNION OF INDIA AND OTHERS.**

**...RESPONDENTS**

**AFFIDAVIT FILED BY MINISTRY OF AGRICULTURE AND FARMERS  
WELFARE IN COMPLIANCE WITH ORDER DATED 05.07.2019 PASSED  
BY THE HON'BLE NATIONAL GREEN TRIBUNAL, PRINCIPAL BENCH.**

**(For Index Please See Inside)**

**Place: New Delhi**

**Date: 23.09.2019**

**FILED BY :**

**ARDHENDUMAULI KUMAR PRASAD**

Central Government Standing Counsel

National Green Tribunal

A-52, SECTOR-17A, NOIDA

UTTAR PRADESH – 201301

PH: 0120-2488800-01-02, 9311612800



डॉ. एम. मेश्राम / A. M. MESHRAM  
उप आयुक्त (एम एच टी) / Dy. Commissioner (M & T)

भारत सरकार / Govt. of India

कृषि एवं किसान कल्याण मंत्रालय / Mo Agriculture & Farmers Welfare  
कृषि, सहकारिता एवं किसान कल्याण विभाग / Do. Agr. Coop. & Farmers Welfare  
कृषि भवन, नई दिल्ली / Kisan Bhawan, New Delhi

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कृषि संरक्षण एवं निवारण विभाग/Dept Agr. Coopn. & Farmers Welfare  
एन सी ई /Kansh Bhawan, New Delhi

FILED BY :

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I, Arvind Meshram S/O Sh. Natthu Meshram, Aged about 53 years, Presently Posted as Deputy Commissioner, Ministry of Agriculture & Farmers Welfare, (Department of Agriculture, Cooperation & Farmers Welfare, New Delhi, do hereby solemnly affirm and declare on oath as under:-

- 1.** That I am conversant with the facts and circumstances of the case and am competent to swear this affidavit in my official capacity and on behalf of Ministry of Agriculture on the basis of the records, documents and facts available in the department.
- 2.** That I have read and understood the order dated 05.07.2019 passed by the Hon'ble National Green Tribunal in the above captioned matter and filing this affidavit in its compliance thereof.
- 3.** That the deponent craves liberty to raise additional submissions or file additional affidavit in case need arises during the course of arguments.

  
 र. प. भूषण / A. N. MESHRAM  
 प. अ. (प. प. टी.) / Dy. Commissioner (M & T)  
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 कृषि विभाग, नई दिल्ली / Kishi Bhawan, New Delhi

**BRIEF SUBMISSIONS:**

**IT IS MOST RESPECTFULLY SHOWETH:**

4. That this Hon'ble Tribunal in the proceedings held on 05.07.2019 in the above captioned matter while considering the report filed by Ministry of Agriculture on Review of the Scheme "Promotion of Agricultural Mechanization For In-Situ Management of Crop Residue in States of Punjab, Haryana, Uttar Pradesh and NCT of Delhi" made some observations on the subject matter and directed the present respondent to file a further affidavit regarding the development/ progress in the implementation of the scheme by various states. The True copy of the order dated 05.07.2019 passed by the Hon'ble Tribunal is marked and annexed herewith as **Annexure-R1**.
- In pursuance to the directions as contained in the order dated 05.07.2019, the present respondent is filing this affidavit before the Hon'ble Tribunal to state the development/progress with regards to the scheme (on Promotion of Agricultural Mechanization for In-Situ Management of Crop Residue).

**5. AGRICULTURE MECHANIZATION FOR IN-SITU MANAGEMENT OF CROP RESIDUE**

**5.1** It is most respectfully submitted that the Department of Agriculture, Cooperation and Farmers Welfare is implementing the scheme on Promotion of Agricultural Mechanization for In-Situ Management of Crop Residue in 2019-20 also and so far the funds amounting to Rs. 273.80 crores, Rs. 194.06 crores, Rs. 105.28 crores and Rs. 15 crores have been released to the Government of Punjab, Haryana, Uttar Pradesh and ICAR, respectively, for distribution of in-situ crop residue management machinery to the farmers @ 50 per cent Subsidy on individual ownership basis, establishment of Custom Hiring Centres (CHCs) of in-situ crop residue management machinery @ 80 per cent subsidy and undertaking information, Education and Communication (IEC) activities for creating awareness among the farmers.

**5.2** That the State Governments have been requested to identify the beneficiaries by 31<sup>st</sup> July, 2019. However, based on the requests of State Governments, the date was extended up to 20<sup>th</sup> August, 2019. The States have been requested to ensure that the machines and equipments are

  
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available with the farmers and CHCs well before the paddy harvesting season of 2019.

**5.3** That in order to bring all the Custom Service Providers and Farmers/Users on a common platform, the Department has developed a Multi lingual Mobile App “CHC- Farm Machinery” for Custom Hiring Centers (CHCs) of Agricultural Machinery, compatible with the Android platforms. This will assist small and marginal farmers in having smart, efficient and modern ways of cultivation at their fingertips. This app will be launched on full scale in the public domain, which will ensure availability of appropriate agricultural machines on rental basis at competitive rates.

**5.4** That the State of Punjab has given emphasis on diversification of crops in this Kharif Season 2019-20, by way of diverting area from Paddy to other alternate crops like Maize, Cotton and Basmati. As a result, area sown under paddy has gone down by 2.00 lakh hectares, while area under Basmati has been increased by 1.13 lakh hectares. Similarly, area under Cotton has been increased by 1.34 lakh hectares. The area under Maize is also increased by 51000 hectares.

**5.5** That Since it is a general practice in the State of Punjab to utilize straw of basmati as animal fodder, it is not generally burnt. Moreover, Basmati is transplanted in rainy season and consumes less water than paddy and has no adverse effect on other important resource of ground water too.

**5.6** That almost 70 per cent of the area under Paddy in Punjab has been brought under short and medium term varieties.

**5.7** That the Department of Agriculture and Farmers Welfare Haryana has already promoted the Maize as alternative crop to paddy as the department has diversified an area of 50,000 ha. in the 10 major paddy growing districts of the state by providing financial assistance @ Rs. 2000 per acre to the farmers.

**5.8** That the Indian Oil Corporation Limited (IOCL) is in the process of establishment of Maize Ethanol Plant at Village Bohali in district Panipat (Haryana).

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**5.9** That as far as option of ex-situ management is concerned, the state of Haryana has already notified the Bio Energy Policy and the details of the project is as under

Sr. No.	Type of Project	Commissioned Projects		Projects in pipeline under execution	
		No.	MW	No.	MW
1.	Biomass Power Projects	2	19.40	6	53.80
2.	Biomass/ Cogeneration Projects	22	84.51	3	20.45
	Total	24	103.51	9	74.25

**5.10** That the Department of Agriculture and Farmers Welfare, Government of Haryana is providing agricultural machinery namely straw baler, Hay Rake, Reaper Binder on subsidy @ 40 to 50 per cent, which are used in collection of straw from the fields.

## **6. INCENTIVES AND DIS-INCENTIVES**

**6.1** That as per Satellite data, 75563 events of crop residue burning have been reported in the States of Punjab, Haryana and Uttar Pradesh during 2018. As regards dis-incentivizing the farmers who indulge in burning is concerned, the Government of Punjab has identified 6193 cases and recovered Rs. 19.02 lakhs as Environment Compensation. The Government of Haryana has identified 3997 cases and recovered Rs. 31.82 lakhs as Environment Compensation and also lodged FIR against 164 defaulters. The Government of Uttar Pradesh has identified 510 cases and recovered Rs. 26.0 lakhs as Environment Compensation.

**6.2** That the Hon'ble Chief Minister of Punjab had earlier requested to announce compensation of Rs. 100 per quintal, along with the increased Minimum Support Price (MSP) to be given only to those farmers who refrain from burning paddy residue. The issue was examined in consultation with the Commission for Agricultural Costs and prices (CACP) and they had communicated that the inclusion of cost of stubble removal in the MSP may not be a viable option as it will not help those farmers who are not getting

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the benefit of MSP and also create price distortion in the market. It was suggested that, the State Government should create massive awareness about Crop Stubble Management and promote Custom Hiring Centres under which machines for Crop Residue Management should be made available to the farmers at affordable price. The Government has already approved Central funds of Rs. 1151.80 Crores for In-Situ Management. The CACP further stated that, since such a system is already in place, there is no need of additional Rs. 100/quintal on MSP for Crop Residue Management. The same was also informed to the Hon'ble Chief Minister of Punjab vide letter dated 5<sup>th</sup> October, 2018 at the level of Hon'ble Minister for Agriculture and Farmers Welfare. The True Copy of the letter dated 05.10.2018 is marked and annexed herewith as **Annexure-R2**.

**6.3** That under the Guidelines of In-Situ Crop Residue Management scheme, a provision for cash award to villages/ Gram Panchayats for achieving zero stubble burning is already there and during 2018, the Government of Punjab has awarded such 95 villages/Gram Panchayats.

## **7. MONITORING CROP RESIDUE BURNING THROUGH REMOTE SENSING CENTRE**

**7.1** It is most respectfully submitted that the State of Punjab and Haryana has already got a system prepared in the year 2016, for monitoring crop residue burning through Punjab Remote Sensing Centre, Ludhiana and Haryana Space Applications Centre, Hisar Space Applications Centre, Hisar respectively that send alerts to the District Level Officials simultaneously. It is working well so far as identification of crop residues burning is concerned.

**7.2** That the Government of Uttar Pradesh in a meeting through video conference on 09.07.2019, has been advised to study the alert systems available in the State of Punjab and Haryana and adopt the same in the State of Uttar Pradesh.

**7.3 USAGE OF DRONES:** That the use of in crop residue burning management may be a difficult task as the area to be managed in all the three States of Punjab, Haryana and Uttar Pradesh is more than 100 lakh hectares. In some places, regulatory approval for drones is also an issue, and the challenge is not just to fly them but to process the data gathered. There are also other issues, that drones are required to operate within Visual

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Line of Sight (VLOS), during day time only, and up to maximum of 400 ft. altitude. For flying in controlled Airspace, filing of flight plan and obtaining Air Defence Clearance (ADC)/ Flight Information Centre (FIC) number shall also be necessary. Minimum manufacturing standards and training requirements of Remote Pilots is also an issue with the use of Drones.

## **8. CROP RESIDUE AS ORGANIC MANURE**

**8.1** It is most respectfully submitted that a meeting through video conference chaired by secretary DAC&FW was convened on 09.07.2019 to review the implementation of the Crop Residue Management Scheme during 2019 and the issues of NGT order dated 05.07.2019. It was followed by the meeting on 08.08.2019 and 22.08.2019. The True copy of the Minutes of the Meeting dated 09.07.2019, 08.08.2019 and 22.08.2019 is annexed herewith as **ANNEXURE-R3**. The Department has also organized one-day National conference of Farmers on 09.09.2019 in order to create awareness on Crop Residue Management in which more than 1200 farmers from the State of Punjab, Haryana and Uttar Pradesh participated. Twenty role model farmers have been awarded certificate of appreciation by the Hon'ble Union Minister of State for Agriculture & Farmers Welfare for their outstanding contribution in crops residue management.

**8.2** That the State of Punjab has explored almost all options of use of Paddy Straw such as Incorporation, keeping as mulch over the soil surface, Collection and Removal of Straw through Balers; Converting it into Bio Gas; Use in the Power Generation Plants; Converting it into Manure by burying paddy straw through deep pits; As mulch in Horticulture; Mushroom Cultivation; Briquette Making; Production of Biogas and its conversion to Bio Manure. Some units are working in the State with one or the other techniques as mentioned above. One such unit on bio-manure i.e., Sampurn Agriventure is operating in the district of Fazilka.

**8.3** That the State of Punjab is also exploring viable proposals to setup plant for organic manure and decentralized composting units and is ready to extend benefits under Punjab State Industrial Policy 2017.

**8.4** That the Government of Haryana has also taken up matter of composting units with the State Agriculture University, i.e. Chaudhary Charan Singh, Haryana Agriculture University, Hisar.

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**8.5** That the Government of Uttar Pradesh through the Village Development Department is encouraging farmers to prepare compost pits in the field itself under the MGNREGS scheme and Rs. 6000 demonstration subsidy is being given to the farmers.

In view of the above submissions, it is stated that the Department of Agriculture, Cooperation and Farmers Welfare is constantly monitoring the implementation of the Scheme in coordination with the concerned States at various levels. It is, therefore, most respectfully submitted that the application may kindly be disposed with appropriate orders as deemed fit and proper in the interest of justice and on the basis of replies filed by other respondents.



**DEPONENT**

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**VERIFICATION**

Verified at New Delhi, on this the Twenty third day of September, 2019. That the contents of the above Affidavit are true and correct to my knowledge. No part of it is false and nothing material has been concealed therefrom.



**DEPONENT** N. MESHARAM  
उप-आयुक्त (एम एवं टी) / Dy. Commissioner (M & T)  
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Through:

**(ARDHENDUMAULI KUMAR PRASAD)**

PLACE: NEW DELHI

ADVOCATE

DATE: 23.09.2019

# ANNEXURE-R1

Item No.01 to 03

## **BEFORE THE NATIONAL GREEN TRIBUNAL PRINCIPAL BENCH, NEW DELHI**

Original Application No. 666/2018  
(Earlier O.A.No.451/2018)

WITH

Original Application No. 835/2018

WITH

Original Application No. 860/2018

Smt. Ganga Lalwani  
Applicant(s)

Versus

Respondent(s)

Union of India & Ors.

WITH

News item published in "Indian Express" Authored by Mallica Joshi  
Titled "All fiddle as crop stubble burns, farmers say solutions out of  
reach"

WITH

News item published in "The Times of India" Authored by Jasjeev.  
Gandhiok Titled "Day after Dussehra, air quality dives, slight haze  
over city"

Date of hearing: 05.07.2019

**CORAM:**

**HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON  
HON'BLE MR. JUSTICE S.P. WANGDI, JUDICIAL MEMBER  
HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER  
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER**

For Applicant(s):

Mr. Ardhendumauli Kr. Prasad, Mr. Shashank  
Saxena, Advocates for Ministry of Agriculture  
Mr. Ajay Jain, Advocate for GNCT Delhi

For Respondent (s):

### **ORDER**

1. The issue for consideration is the remedial action against air pollution caused by crop burning. It is reported that 25%-30% contribution to the air pollution in the NCR is caused by burning of crops in the

States of Punjab, Haryana, Uttar Pradesh and Delhi. The reason for burning of crop residue is that the time available for sowing next crop in October-November, after harvesting of the paddy crop is too less and burning of crop is a shortcut which enables the farmers to make the field ready for next sowing faster. The matter has been considered by this Tribunal on various dates. The view of experts is that *in-situ* management of the crop residue is beneficial to the soil organisms and has nutrient value. This benefit is ignored either on account of ignorance or on account of curiosity to sow the next crop at the earliest. The paddy crop residue is not useful as fodder on account of silica content. As per the newspaper reports, 15,000 deaths took place in the year 2016 in the NCR on account of air pollution which required exploring measures for controlling the air pollution.

2. This Tribunal passed an order on 10.12.2015 in O.A No. 118/2013, *Vikrant Kumar Tongad v. Environment Pollution (Prevention and Control Authority) & Ors.*, requiring the Ministry of Agriculture to take necessary steps in the matter including making the equipments available to the farmers for managing the crop residue. Further orders have been passed on 23.07.2018 in the subject of proper implementation of the scheme for supply of relevant machines in time and also training and awareness programmes for successful management of the crop residue. The Tribunal also held interaction with the Chief Secretaries of the concerned States. Finally, on 15.11.2018, the matter was exhaustively reviewed. The Tribunal noted that the Central Government had released a sum of Rs. 577.11 crores under the 'Crop Residue Management Scheme' which resulted in reduction of crop burning to the extent of 12.39%. The Tribunal also noted that a Committee was constituted by the Ministry of

Agriculture having representative of the Government of India and the concerned States to examine various aspects of the matter, including alternative crops, alternative uses of the crop residue and effectiveness of the schemes to prevent crop burning. The Tribunal noted that multi-pronged approach will be required including the Information, Education and Communication (IEC) activities and employing appropriate management strategies. It was also noted that incentives for free electricity for dealing with the prevention of crop burning, better monitoring mechanisms were being considered. The Tribunal directed the Ministry of Agriculture to continue to monitor the steps and furnish a further status report as on 30.04.2019.

3. In pursuance of the above directions, a report has been filed vide email dated 21.06.2019 by the Ministry of Agriculture. The report mentions the 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' providing for subsidy for purchasing the requisite machinery. Subsidy to an individual is 50% of the cost and 80% to the cooperative societies. There is also a scheme for providing the machinery on hire basis. The report notes that there are adverse effects of crop residue burning not only on air quality but also on soil properties. The crop residue burning is a source for greenhouse gases. More serious problem was known in respect of *Basmati* paddy which is not harvested manually. The burning was to the extent of 16.9% in Haryana and 49.47% in Punjab. The farmers are preferring long duration varieties considering it to be more profitable while short duration varieties can provide a solution by making larger window of time available, without any monetary loss. Alternatives to paddy cultivation are available which can be adopted by providing for relevant incentives. Maize can be one

alternative crop which can be promoted. Preference has to be for *in-situ* management though option of *ex-situ* management is available by using the crop residue for bio-energy or other projects. Recommendations of the Expert Committee include providing CRM machines timely by 30.09.2019, so as to be available for the entire sowing period; IEC campaign being strengthening through various media during August to October; shorter duration paddy varieties being preferred; the ICAR institute and Departments of Agriculture being supported so that they can increase their outreach and hand hold farmers; in the area of crops diversification, horticulture, vegetables and cultivation of maize being encouraged. For this purpose, the use of maize in industrial applications, mainly for ethanol and other products may be encouraged.

4. During the hearing, we have drawn the attention of the learned counsel for the Ministry of Agriculture to the observations in para No. 16 of the order dated 12.11.2018 noting the suggestion to consider incentives and dis-incentives to encourage those who do not indulge in burning of the crop residue by recording an entry in the field reports, by giving some incentives or dis-incentives out of the same kitty of the subsidy. Such strategy may be in respect of individuals or in respect of area in question. Even though the report mentions that certain awards have been given, some financial incentives/disincentives need to be considered.

5. We may also point out that need to explore coordination with the ISRO for developing an App through BHUVAN ISRO's Geoportol to alert the village level officers or the local police where crop burning is noticed. The use of drones may be considered apart from satellite imagery to map the hot-spots in the same manner as is done in

respect of forest fires and strategies be drawn accordingly. Finally, the monitoring network is required to be effective and more vigilant. Though *Bhuvan*, which is a geoportal of the ISRO, is said to have been used at macro-level, its use at micro-level so as to generate SMS alert needs to be explored at the ground level. These suggestions need to be considered by the Ministry of Agriculture in coordination with the concerned States and thereafter, further monitored at the grass root level by the concerned Deputy Commissioners/Collectors.

6. We may also note a suggestion which has transpired during the hearing and has been put forward by Dr. S. Mukherjee, Registrar, Jobner Agriculture University, Jaipur that the crop residue has huge potential for the organic manure and decentralized composting units could be set up either in the concerned fields or common composting units at community level in a village or in a cluster of villages. At least one such pilot project needs to be considered in each State. This aspect may be further explored in the meeting of the Ministry of Agriculture with the concerned States within one month. We are informed that in the State of Rajasthan, this has been successfully tried by Sri Karan Narendra Agriculture University, Durgapura, Jaipur. Further, the gap analysis study may be undertaken in regard to the current situation, the challenges be identified and the necessary steps taken to mitigate the situation.

7. A further affidavit in the matter may be filed by the Ministry of Agriculture after coordination with the concerned States within one month by email at [judicial-ngt@gov.in](mailto:judicial-ngt@gov.in). The concerned States may also file their respective progress reports which may include the strategies and proposed action plan proposed to be employed to tackle the

problem in the current year by email at [judicial-ngt@gov.in](mailto:judicial-ngt@gov.in) by 09.08.2019.

A copy of this order be sent by email to the Chief Secretaries of Punjab, Haryana and Uttar Pradesh.

List for further consideration on 13.08.2019.

Adarsh Kumar Goel, CP

S.P. Wangdi, JM

K. Ramakrishnan, JM

Dr. Nagin Nanda, EM

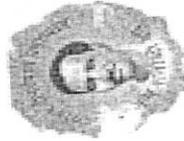
July 05, 2019

Original Application No. 666/2018 and connected matters

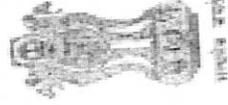
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NATIONAL GREEN TRIBUNAL, NEW DELHI

## ANNEXURE-R2



D.O. No. 2113 /AM



श्री एवं किसान कल्याण मंत्री  
भारत सरकार

MINISTER OF AGRICULTURE  
& FARMERS WELFARE  
GOVERNMENT OF INDIA

राधा मोहन सिंह

RADHA MOHAN SINGH

D. O. No. 13-41/2016-M&T(I&P)  
Sd/- October, 2018

Dear Capt. Amarinder Singh Ji,

Please refer to your letter No. CMO/CONFI/2018/479 dated 4th July 2018 addressed to the Hon'ble Prime Minister in regard to announcing compensation of Rs 100 per quintal, along with the increased MSP to be given only to those farmers who refrain from burning paddy residue.

The issue has been examined in consultation with the Commission for Agricultural Costs and Prices (CACP) and observed that the inclusion of cost of stubble removal in the MSP may not be a viable option as it will not help those farmers who are not getting the benefit of MSP and also it will create price distortion in the market.

The State Government should create massive awareness about Crop Stubble Management and promote Custom Hiring Centres under which machines for Crop Residue Management should be made available to the farmers at affordable price. The government has already approved central funds of Rs. 1151.08 crores for In-situ Management of crop residue in the States of Punjab, Haryana, Uttar Pradesh and NCT of Delhi.

With regards,

Yours sincerely,

  
(Radha Mohan Singh)

Capt. Amarinder Singh  
Chief Minister  
Government of Punjab  
Civil Secretariat  
Chandigarh 160 001

## **ANNEXURE-R3**

### **Minutes of meeting through Video Conferencing for Updated Progress under scheme on Crop Residue Management held on 09.07.2019**

A meeting through Video Conference with the Additional Chief Secretaries (Agriculture)/Principal Secretaries (Agriculture) of the Government of Punjab, Haryana and Uttar Pradesh was held on 09.07.2019 at 15.00 hrs. under the Chairmanship of Secretary, DAC&FW. The communication with the Government of Haryana could not be established.

During the meeting, the States were requested for actions with reference to the following:

- (i) The States should complete the task of identification of beneficiaries by 31<sup>st</sup> July 2019. The action plan with timelines for supply of machinery and establishment of Custom Hiring Centres may be sent to this Department as per the direction of PMO.
- (ii) Action plan for various activities under the Information, Education and Communication with timelines and dates of activities (district/block-wise) may be prepared and sent to DAC&FW.
- (iii) The States should prepare a strategic action plan for controlling crop residue burning specific to the districts reported high burning events during 2018.
- (iv) The State of Uttar Pradesh should focus on Easton Uttar Pradesh where more burning was reported during the last year. More funds (60% of the total) may be allocated to Saharanpur, Meerut, Rampur & Moradabad districts.
- (v) The States should examine the latest order of NGT dated 5<sup>th</sup> July 2019 and action may be taken accordingly. The action taken report with specific reference to the following may be communicated to this Department so that affidavit could be filed in the NGT.
  - (a) incentives or dis-incentives out of the same kitty of the subsidy those who do not indulge in burning
  - (b) Explore coordination with the ISRO for developing an App through BHUVAN to alert the village level officers or the local police where crop burning is noticed.
  - (c) Use of drones apart from satellite imagery to map the hot-spots in the same manner as is done in respect of forest fires
  - (d) Establishing at least one pilot project for decentralized composting units either in the concerned fields or common composting units at community level in a village or in a cluster of villages.

The meeting ended with vote of thanks to the chair.

## **ANNEXURE-R3**

### **Minutes of the meeting through Video Conferencing held on 08.08.2019 to review the progress of “Crop Residue Management Scheme” in the States of Punjab, Haryana and Uttar Pradesh.**

A meeting through Video Conferencing to review the progress of “Crop Residue Management Scheme” being implemented in the States of Punjab, Haryana and Uttar Pradesh was held on 08.08.2019 under the chairmanship of Secretary, Department of Agriculture Cooperation and Farmers Welfare, Ministry of Agriculture & Farmers Welfare, New Delhi.

The Joint Secretary (M&T) and Technical Officers of the Mechanization & Technology Division, Officers of the State Department of Agriculture of Punjab, Haryana & Uttar Pradesh and ATARI Ludhiana participated in the meeting.

Secretary (DAC&FW) welcomed all the participants and informed that all the States should plan the strategies to achieve zero stubble burning during the current year. The focus should be on the districts reported high burning events during the year 2018.

The Director ATARI informed that they have planned various Information, Education and Communication (IEC) activities in identified 98 villages covering 58 blocks. The literature including package of practices have been developed for education and awareness of farmers. The villages that have reported high burning during 2018 will be targeted for extensive IEC activities. The training programmes will be started from the 1<sup>st</sup> week of September 2019. Kisan melas and live demonstrations of the machinery have been planned in the months of September & October. Mobilizing school children will be started from the 2<sup>nd</sup> week of September and will continue till last of November 2019.

The Secretary DAC&FW pointed out that the strategic action plan from the State of Uttar Pradesh is yet to receive. Specific inputs/response with reference to the order of NGT dated 05.07.2019 has also been not received from the Government of Uttar Pradesh.

In response, the Principal Secretary, Government of Uttar Pradesh informed that against the target of 184 CHCs, the State has received 1047 applications and against the target of 277 Farm Machinery Banks (FMBs), 245 applications are received so far. However, the response is not good so far in case of individual farmers. In case of in-sufficient number of applications of individual farmers, the targets allocated will be suitably diverted to CHCs and FMBs

The Principal Secretary, Government of Uttar Pradesh further pointed out that the financial assistance for CHCs under in-situ scheme is @ 80%. However, under SMAM it is 40% for the individuals and 80% is available for establishing village level Farm Machinery Banks by the group of 8-10 farmers. Combined use of 80% subsidy components of SMAM and CRM may be allowed for group of farmers. The State is of the opinion that the farmers should come forward at their own and for this the date for inviting applications may be extended up to 20<sup>th</sup> August 2019. The State has planned IEC activities targeting more than one lakh farmers in the higher burning areas. The State has already provided inputs with reference to the order of NGT. However, any additional inputs/specific information will be provided shortly.

On the issue of combined use of subsidy of 80% under SMAM and CRM scheme, the Joint Secretary (M&T) clarified that the subsidy of SMAM which is given to the group of 8-10 farmers @ 80% can be clubbed with the 80% subsidy on CHC under CRM scheme provided that the maximum project cost of non-CRM machines under SMAM does not exceed Rs. 10 lakhs and the total project cost includes at least 35% cost towards the CRM machinery. These norms will be applicable only for the group of farmers.

The representative of Government of Haryana informed that the State has received very high number of applications and the machinery will have to be distributed through draw of lots. The process is expected to be completed by 31<sup>st</sup> August 2019.

The representative of the Government of Punjab informed that the State has received more than 11800 applications under the individual category against the target of 15000 machines. Against the target of 1835 CHC, the number of applications received from the Cooperative Societies and Groups are more than 7500 numbers. The State has given more targets of supply of machinery in the areas reported high burning during 2019. More funds will be required to meet the demand. The State has already started IEC activities and the detailed action plan together with the district-wise and block-wise targets for distribution of machinery will be submitted shortly. He has requested for mapping of new bank account in the PFMS. The State is already using remote sensing based application for sending fire alerts to district level officers and field functionaries.

After discussion and hearing the comments from all the State Governments, it has been advised as under: -

- (a) All the State Governments, should complete the task of inviting applications by 20<sup>th</sup> August 2019 and thereafter simultaneously should start distribution of machinery so as to ensure that the machines and equipments are available with the farmers and CHCs well before the paddy harvesting season.
- (b) 80% subsidy component under SMAM which is given to the group of farmers for establishing village level Farm Machinery Banks (FMBs) may be used in combination with the 80% subsidy available for CHCs under CRM scheme provided, the ceiling limit of 10 lakhs project cost of SMAM is followed and the total project cost of the combined CHCs includes at least 35% cost towards the CRM machinery. The financial assistance under this arrangement may be extended only to the group of farmers such as SHGs, Cooperative Societies of farmers, FPOs and any such other entities as per existing guidelines of SMAM. The funds of SMAM on 60:40 (Centre: State) sharing basis will be used towards non-CRM machines. The sample calculation of the project cost is given in Appendix-1
- (c) The States should provide the detailed district-wise and block-wise plan of IEC activities with timelines. The dates and places of the major events planned should be shared with DAC&FW.
- (d) Mapping of the new bank account of the Government of Punjab will be examined and sorted out. However, it should be noted by all the States that there is no further change in the bank accounts.
- (e) The Government of Uttar Pradesh should examine the fire alert system available with Government of Punjab & Haryana and adopt the same in the State.
- (f) All the three States should examine the NGT order of 5<sup>th</sup> July 2019 and the inputs/information with specific reference to the following should be forwarded to DAC&FW immediately for filing an affidavit to the NGT.
  - (i) Providing incentives or dis-incentives out of the same kitty of the subsidy to those who do not indulge in burning.
  - (ii) Encouraging crop diversification and use of maize in industrial applications, mainly for ethanol and other products.
  - (iii) Exploring coordination with the ISRO for developing an App through BHUVAN to alert the village level officers or the local police where crop burning is noticed and further to be monitored at the grass root level by the concerned Deputy Commissioners/ Collectors.
  - (iv) Use of drones apart from satellite imagery to map the hot-spots in the same manner as is done in respect of forest fires

- (v) Establishing at least one pilot project for decentralized composting units either in the concerned fields or common composting units at community level in a village or in a cluster of villages.

The meeting ended with vote of thanks to the chair.

### Appendix – I

Sample calculation of the project cost combining the assistance under CRM Scheme and SMAM Scheme

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	Happy Seeder (10 tine)	01	1.53	1.53	80%	1.22
2.	Paddy Straw Chopper	01	2.68	2.68	80%	2.14
3.	Hydraulically Reversible M.B. Plough (3 bottom)	02	1.86	3.72	80%	2.98
4.	Laser land leveler	01	4.00	4.00	80%	3.20
5.	Self-Propelled Crop Reaper	01	1.50	1.50	80%	1.20
6.	Thresher/Multi crop Threshers upto 4 tonne/hr. capacity	02	2.00	4.00	80%	3.20
	<b>Total</b>			<b>17.43</b>		<b>13.94</b>

Project cost of in-situ crop residue management machinery (Sl. No. 1 to 3) = 7.93 lakhs (45% of total project cost)

Project cost of other than in-situ crop residue management machinery (Sl. No. 4 to 6) should not be more than Rs. 10 lakhs. In the above sample case it is Rs 9.50 lakhs (55% of total project cost).

## **ANNEXURE-R3**

### **Minutes of the meeting through Video Conferencing held on 22.08.2019 to review the progress of “Crop Residue Management Scheme” in the States of Punjab, Haryana and Uttar Pradesh.**

A meeting through Video Conferencing to review the progress of “Crop Residue Management Scheme” being implemented in the States of Punjab, Haryana and Uttar Pradesh was held on 22.08.2019 under the chairmanship of Joint Secretary (M&T), Department of Agriculture Cooperation and Farmers Welfare, Ministry of Agriculture & Farmers Welfare, New Delhi.

The Technical Officers of the Mechanization & Technology Division, Officers of the State Department of Agriculture of Punjab, Haryana & Uttar Pradesh participated in the meeting.

The Joint Secretary (M&T) welcomed all the participants and requested the representatives of the State Governments to inform the status of the follow up action on the minutes of the last meeting held on 08.08.2019.

The representative of the Government of Haryana informed that the State has received 896 applications for CHCs against the target of 784. So far permits have been issued to 343 applicants. The process is going on and will be completed within a week. Against the targets of 17376 individual implements, 51274 applications have been received and so far 11406 applicants have been selected. The permits are being issued to them for purchase of machines. The State so far does not have any demand for additional funds. However, the same may be informed after consultation with the senior officers.

The representative of the Government of Uttar Pradesh informed that against the targets of 277 Farm Machinery Banks, 397 applications are received and they have stopped receiving applications after 17<sup>th</sup> August 2019. Against the target of 184 CHCs, 1547 applications are received and their selection will be done by 23<sup>rd</sup> August 2019. Some more time i.e. up to 23<sup>rd</sup> August 2019 may be required for selection of individual beneficiaries. Additional funds of 20 crores may be required. However, it may be confirmed after 23<sup>rd</sup> August 2019.

The representative of the Government of Punjab informed that the applications have been received by 9<sup>th</sup> August 2019 and further no applications are accepted. Against the target of 7600 machines under individual category, 8874 applications are received and so far 1023 permits have been issued in 3 districts. Against the earlier targets of 2300 CHCs, 6419 applications are received. Taking into consideration the more number of applications, the targets have been revised by way of reducing the ceiling limits for the CHCs. So far 975 permits in the districts of Faridkot, Hoshiarpur, Ludhiana, Mansa have been issued. Remaining permits are being issued and the process will be completed within a week. He further informed that the State may require additional funds of about 120 crores to meet the demand. The State has done the mapping of the locations where more burning events were reported during 2018. He further requested that the State may be allowed to utilize SMAM funds for CRM machines.

The Joint Secretary (M&T) informed that the farmers conference is being held at Pusa, New Delhi on 09.09.2019. The State Governments in association with KVKs should identify the farmers for participation and list of such farmers may be sent to DAC&FW. The JS (M&T) further pointed out that the States were requested to share the details of district-wise burning events of last year, actual burning events after the physical verification, the penalty imposed and the penalty recovered. However, so far the details are not received from the State. The States should give priority to new CHCs and only those existing CHCs which may require additional machines that could not be purchased during last year, may be allowed. More focus should be on popularization of the Happy Seeders and Zero Till Seed cum Fertilizer Drills. The State should submit their comments/information with reference to the NGT Order dated 05.07.2019 with specific reference

to dis-incentivizing farmers those who indulge in burring of residues, diversification of crops, use of drones, use of app for fire alerts and decentralized composting units.

After discussion and hearing the comments from all the State Governments, it has been advised as under: -

- (a) All the State Governments, should start issuing permits to the selected beneficiaries for purchase of machinery so as to ensure that the machines and equipments are available with the farmers and CHCs well before the paddy harvesting season.
- (b) The States should share the dates and places of the major events planned with under the IEC campaign.
- (c) The State Governments in association with KVKs should identify the farmers for participation in the Farmers Conference being held in New Delhi on 09.09.2019 and list of such farmers may be sent to DAC&FW.
- (d) States should share the details of district-wise burning events of last year, actual burning events after the physical verification, the penalty imposed and the penalty recovered, as earlier requested.
- (e) The States should immediately submit their demand for additional funds if any required under the scheme during 2019.
- (f) The States should give priority to new CHCs and only those existing CHCs which may require additional machines that could not be purchased during last year, may be allowed. More focus should be on promoting happy seeders and Zero Till Seed cum Fertilizer Drills
- (g) The State should submit their comments/information immediately against the issues of NGT Order dated 05.07.2019 with specific reference to dis-incentivizing farmers those who indulge in burring of residues, diversification of crops, use of drones, use of app for fire alerts and decentralized composting units. The next date of hearing in NGT is 06.09.2019.

The meeting ended with vote of thanks to the chair.