

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,  
NEW DELHI**

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

in the matter of

Smt. Ganga Lalwani V/s Union of Indian

&

Others

Reply by way of Affidavit of Manmohan Kalia, Nodal Officer,  
Crop Residue Management-cum-Joint Director Agriculture  
Engineering (Officiating) on behalf of Government of Punjab,  
S.A.S Nagar.

I, Manmohan Kalia, Nodal Officer, Crop Residue  
Management-cum-Joint Director Agriculture Engineering  
(Officiating) on behalf of Government of Punjab, the above  
named deponent, aged about 55 years, having office at Kheti  
Bhawan, SAS Nagar, do hereby solemnly affirm and state as  
under:

1. That the Principal Bench of the Hon'ble National Green  
Tribunal was pleased to pass an order dated 5th July  
2019 in the above mentioned case, the relevant extract in  
para 4 to para of the order , which is reproduced herein  
below for kind perusal and reference:



*"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 Geo portal 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*

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*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*

*Dr. S. Mukherjee*



*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. 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 by 09.08.2019.*

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

2. That the status report in the above said matter has earlier been submitted to the Secretary, Ministry of Agriculture and Farmers Welfare, Government of India as directed by this Tribunal and the Ministry has already submitted a joint report in the Tribunal vide dated 21.06.2019 as observed in para 3 of this order itself.
3. a. That there has been a considerable reduction in the area under burning in 2018 as compared to 2017 and the equipment provided during 2018 & 2019 have been used

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in large tracts of area, as an effect about 12.20 Lakh Hectares of area has been covered under management practices out of 30 lakh hectares of area under paddy cultivation. Resultantly, the Air Quality Index has also been at comparatively lower levels during 2018 in the month of October & November.

- b. That the State of Punjab has focused on diversifying area from Paddy to alternate crops like Maize , Cotton & Basmati this Kharif Season 2019-20 . As a result, area 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 while under Maize has increased by 51000 hectares .
- c. Under a Project "National Adaptation Fund for Climate Change " 1000 hectare area in 5 districts has been brought under Maize with assistance for Marketing Compensation during 2018-19. During 2019-20, 20 Blocks in 11 districts are being covered under the project and an additional area of 4000 hectares is being brought under Maize.

- d. It is a general practice in the State to utilize straw from basmati as animal fodder. Moreover, Basmati is transplanted in rainy season. It consumes less water than paddy and has no adverse effect on other important resource of ground water table too.
- e. As per estimates, 70 % of the area under paddy has been brought under short term varieties, allowing farmers a longer window to manage paddy straw in the fields .

4. That it is humbly submitted that despite best efforts by the State, certain practical issues and concerns have arisen out of implementation of certain directions of the Hon'ble Tribunal. Farmers are still seeking compensation for management of paddy straw, due to financial stress being faced by farming community. The State Government cannot bear such compensation and has requested the Government of India to provide incentive for not burning , as financial assistance in the shape of Paddy Straw Management Compensation as Rs. 100/- per qtl. of Paddy produced and a copy of recent communication through D.O letter by Chief Minister , Punjab to Prime Minister as **Annexure R-PB/1** for

Dr. R. K. Singh



consideration of the Hon'ble Tribunal and for issuance of appropriate directions to Government of India .

5. That as directed by this Hon'ble Tribunal to create a mechanism of reporting fire incidents on the pattern of forest fires , the State of Punjab has already got a system prepared in the year 2016-17, for Monitoring crop residue burning through Punjab Remote Sensing Centre, Ludhiana . The Application sends alerts to the District Level Officials and other concerned simultaneously , which are visited by the teams in the next few hours to verify the genuinity of the incidents. It is working well so far as identification of crop residue burning is concerned.
6. The State has explored almost all options of use of Paddy Straw such as Incorporation, keeping as mulch over the soil surface. As part of the Ex-situ techniques , through collection & removal of Straw through Balers ; subsidy has been provided to 200 Baler Machines & 175 Rakes . The Equipment is being extensively used and the straw collected is being utilized for converting it into Bio Gas; Use in the Power Generation Plants; Briquette Making; Production of Biogas ; Converting it into Manure by burying paddy straw through Deep Pits; as mulch in

Dr. R. P.



Horticulture/Mushroom Cultivation; 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 Sampurn Agriventure is operating in the district Fazilka, in the state. However, State will welcome any viable proposal to set up plant for organic manure and decentralized composting units and will extend benefits under Punjab State Industrial Policy 2017. The proposal can further be explored provided satisfactory results are achieved. The latest position of Bio mass plants in the State is being attached as **Annexure R-PB/ 2** .

7. The State Government is making earnest, concerted and continuing efforts to eradicate the problem of crop stubble burning in the state and is sincerely endeavoring to manage, control and consume the total generation of paddy straw / crop residue scientifically in the next few years. The task is huge and farmers being more than 8.00 Lakhs engaged in Paddy Cultivation in the State. It has been observed and scientifically proven that majority farmers will be able to understand after 2/3 years practical management of paddy straw in the soils which have been otherwise burnt for more than 30 years . State

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10 AUG 2019

is also working in tandem with the Ministry of Agriculture & Farmers Welfare , Government of India and at present in favor of educating and making them understand the benefits and at the same time , providing incentives for paddy straw management compensation . A Copy of the Action Plan for providing equipment and undertaking IEC Activities, **as Annexure R-PB / 3.**

8. That it is further, submitted that in light of the above, it is humbly prayed that this Hon'ble Tribunal may take the status reports and action plans on record, and pass appropriate directions.

Date 10.08.2019  
Place Chandigarh

*[Signature]*

**Deponent**

**Verified**

Verified that the contents of Para no. 1 to 7 of the above reply by way of affidavit are true and correct to my knowledge as derived from the official record. Para no. 8 is prayer. No part of the above affidavit is false and nothing material has been kept concealed therein.



Date 10.08.2019  
Place Chandigarh



*[Signature]*

**Deponent**

Address Case No.

tested of ID No. 470531772279  
Execution on Document

The Contents of this affidavit/Document has been explained to the deponent/ executants He/She has admitted the same to the correct. The deponent/executant has signed Register at Sr. No. 16  
P. No. 19 Date. 10-8-2019

ATTESTED AS IDENTIFIED,

*[Signature]*  
MANI RAM VERMA  
NOTRY, CHANDIGARH (U.T.)

10 AUG 2019

ਕੈ. ਅਮਰਿੰਦਰ ਸਿੰਘ  
Capt. Amarinder Singh



ਮੁੱਖ ਮੰਤਰੀ, ਪੰਜਾਬ  
Chief Minister, Punjab

DO No.CMP/Confi-2018/ 728

26th September 2018

Compensation for Zero Stubble Burning

Dear Prime Minister,

I draw your attention to my earlier D.O. letter No.CMO/Confi/2018/479 of 4<sup>th</sup> July 2018 on the subject cited.

The task of achieving zero stubble burning in the State is not only a herculean task, but it also puts additional financial burden on the farmers. Despite strict control measures, nearly 15 million MTsof paddy straw is being burnt in the State annually.

We are now providing new equipment at a subsidy to the farmers for in-situ management of crop residue. In addition, individual farmers and Custom Hiring Centers are also making huge investments in providing the equipment for crop residue management. However, use of new machines puts an additional cost burden of Rs.2500 to Rs.3000 per acre on the farmers, which they are unable to afford. In case, these machines are to be optimally utilized to achieve the objective of zero stubble burning, additional cost on management and use of these machines needs to be compensated. Accordingly, I had earlier requested that the farmers should be compensated for this additional crop residue management cost at the rate of Rs.100 per quintal. However no decision has yet been taken.

The harmful effects of stubble burning are well known and need not be reiterated. Punjab Government is serious about handling this problem and has started a campaign to educate and motivate the farmers to incorporate stubble in the soil itself rather than burning it in the fields. In order to effectively achieve our aim, we need to redress the concerns of the farmers also.

In the aforesaid background, I once again reiterate my request to you to provide cost compensation of Rs.100 per quintal to the farmers for paddy straw management to achieve zero stubble burning and protect our environment. The compensation should be given only to those farmers who refrain from burning paddy residue.

I am sure you will appreciate and have the needful done.

With warm regards,

Yours sincerely,

(Amarinder Singh)

Shri Narendra Modi,  
Prime Minister of India,  
New Delhi – 110 001.

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**PUNJAB ENERGY DEVELOPMENT AGENCY**

**The activities/projects undertaken by PEDA for utilization of Paddy Straw in Punjab.**

**(A) Biomass Power Projects in operation**

**(a) Rankine Cycle (Boiler & Turbine)**

- No. of Projects- 7 Projects
- Capacity- 63 MW
- Location- Channu & Gulabewala (Muktsar), Gaddadhob (Ferozpur), Khokhar Khurd (Mansa), Birpind, (Jalandhar), Binjon (Hoshiarpur), Ghanaur (Patiala)

**(b) Otto Cycle (Bio-methanation)**

- No. of Projects- 1 Projects
- Capacity- 4 MW
- Location- Binjon (Hoshiarpur)
- Status- In operation (yet to be synchronized with grid)

**Total projects in operation (a+b)= 67 MW capacity**

**(B) Co-generation Projects in Industry**

- No. of Projects- 55 Projects
- Capacity- 436 MW
- Location- Various industries such as sugar, paper, fertilizer chemical, textile & others.

**Total Paddy Straw utilization for projects at A & B:- 1 Million Ton approx.**

**(C) Biomass:-**

- Sukhbir Agro Energy Ltd.- Biomass rice straw based 2 Projects of 30 MW capacity in District Faridkot & Ferozpur- under installation.

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*ATK*

**(D) MAJOR PROPOSALS IN BIO-CNG/ BIOGAS/ BIO-COAL/ ETHANOL:-**

**I. Bio-CNG Projects in pipeline :**

Work in progress on paddy straw based 2.5Ton Bio-CNG capacity project of M/s. Mahindra Energy Ltd. in Vill. Mussepur, Distt. Mohali. The project is scheduled for commissioning in year 2020-21 (Paddy consumption- 8000 MT/annum approx.).

**II. Bio-coal :**

Work in progress of M/s. Neway Renewable Energy (Bathinda) Pvt. Ltd. For production of 225Ton Bio-fuel per day in Village Mehma Sarja, Distt. Bathinda. The project is likely to be commissioned in F.Y. 2020-21 (Paddy consumption- 1 lac ton per approx.).

**III. Bio-CNG Projects :**

Work in progress on paddy straw based 33.23Ton Bio-CNG capacity project of M/s. Verbio India Ltd. in Vill. Bhutal Kalan, Block Lehra, Distt. Sangrur. The project is scheduled for commissioning in year 2021-22 ((Paddy consumption-1.10 lac MT/annum approx.).

**IV. Bio-Ethanol :**

Work on one project of 100KL capacity Bio-ethanol per day which is in progress by M/s. HPCL at Village Nasibpura in Talwandi Sabo, Distt. Bathinda is likely to be commissioned in F.Y. 2021-22 (Paddy consumption- 450 ton/day of paddy straw).

*True Copy*  
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**ACTION PLAN FOR DISTRIBUTION OF EQUIPMENT AND IEC ACTIVITIES UNDER CSS FOR PROMOTION OF AGRICULTURAL MECHANIZATION FOR IN SITU MANAGEMENT OF CROP RESIDUE WITH TIMELINES (TENTATIVE) FOR 2019-20**

DEPARTMENT OF AGRICULTURE & FARMERS WELFARE AND DEPARTMENT OF INFORMATION & PUBLIC RELATIONS, GOVERNMENT OF PUNJAB

	Name of the Activity	The date by which the activity will be completed
(i)	Selection of beneficiary	15 th August, 2019
(ii)	Supply of machines	15th September, 2019
(iii)	Disbursal of subsidy	*7 th October -15 th Nov, 2019

( \*Tentative )

**Action Plan for IEC Activities**

S. No.	Particulars	No. of activities to be conducted and Date and place where the activities will be conducted				
		Nos.	Date	Place		
1	Advertisement in Print media	200	10-08-19 to 30-11-19	Across the State		
2	Award for village/ Gram Panchayat for achieving zero stubble burning	425 Panchayat	26-Jan-2020 or earlier	-do-		
3	Awareness programme (camp/ kisan mela etc.) conducted			-do-		
I	(i) State level	2	10-Nov-19 to 30-Nov-19	do		
ii	(ii) District level	44	10-08-19 to 30-Oct-19	do		
iii	(iii) Block level	116	10-08-19 to 15-09-19	do		
iv	(iv) Village Panchayat level	6495	10-08-19 to 15-09-19	do		
4	Column / Articles in newspaper and magazines etc.	30000	10-08-19 to 15-11-19	do		
5	-Hoarding fixed (at Mandi/Road side/Market/Schools/Petrol pump/Panchayat etc.)	120000	10-08-19 to 15-09-19	do		
	-Wall Painting/Wall Wraps	across 22 districts	Upto 1-09-19			
	-Bus Stand Panel	1300 Bus	Upto 15-08-19			
6	Poster/Banner placed at different location/buses etc.	-Poster-40000		do		
7	Publicity material such as leaflets/pamphlets etc. to be distributed	1200000 (3000 - 5000 copies of each pamphlets)		do		
8				do		
I	(i) Jingles on radio/TV	Spot s/Day	No. Of Days	do	10-08-19 to 15-11-19	do
		6	90	60		

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li	(ii) Scroll message on TV	30 nos			10-08-19 to 15-11-19	do
iii	(iii) Audio -Visual clips on TV	Spot s/Da y	No. Of Days	spot duration (sec)		do
		5	90	60		
iv	Films (HD) ( One minute)	4 Films 206 Screens			upto 30-Aug- 19	do
v	One Films on TV Channel	60 sec Duration 90 days			15-08-19 to 15-11-19	do
vi	One Motivational Songs	2 – 5 minutes			15-08-19 to 15-11-19	do
9	Mobilization of schools and colleges students through essay completion, painting, debate etc.	3030			10-08-19 to 31-10-19	do
i	(i) No. of schools to be mobilized	3030			10-08-19 to 31-10-19	do
ii	(ii) No. of students to be participated	150000 approx.			10-08-19 to 31-10-19	do
10	Nos. Demonstration to be conducted (ha)/ Nos. of farmers to be participated in demonstrations	4000			20-sep-19 to 15-Nov-19	do
11	Nos. of Training Programmes to be conducted/ Nos. of Trainees to be Participated in training programmes.	2190			20-08-19 to 10-11-19	PAU, Ludhiana, PAMETI, KVKs, Kheti Bhawan, SAS Nagar
12.	TV programmes / panel discussions Doordarshan/ DD- Kisan and other private channels	30 Discussion				do

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