

**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

Union of India & Ors.

Respondent(s)

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):

For Respondent (s):

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

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 Geoportal 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. 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.

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
AK

