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Government of India
Ministry of Agriculture
Department of Agriculture & Cooperation
Crops Division
NFSM CELL


Krishi Bhawan, New Delhi
Dated: 16th December, 2009

Subject: Minutes of the Brain Storming Session for control of blue bulls held on 17.11. 2009 at 11.00 AM in ICAR's Committee Room No. 1, Krishi Bhawan, New Delhi under the Chairmanship of Agriculture Commissioner, Govt. of India – reg.

Please find enclosed herewith a copy of the Minutes of the Brain Storming Session for control of blue bulls held on 17.11. 2009 at 11.00 AM in ICAR's Committee Room No. 1, Krishi Bhawan, New Delhi under the Chairmanship of Agriculture Commissioner, Govt. of India for information and necessary action.

The receipt of this letter may please be acknowledged.

Encl : As above.


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PS to Agriculture Commissioner, DAC, Krishi Bhavan, New Delhi	
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PS to Director (Crops), DAC, Krishi Bhavan, New Delhi.	

MINUTES OF THE BRAINSTORMING SESSION ON MANAGEMENT OF BLUE BULLS HELD ON 17-12-2009 AT KRISHI BHAVAN, NEW DELHI UNDER THE CHAIRMANSHIP OF AGRICULTURE COMMISSIONER

1. A brainstorming session on the management of Blue Bulls (*Boselaphus tragocamelus*) or commonly known as the 'Nilgai', was held on 17th November, 2009 at New Delhi under the Chairmanship of Agriculture Commissioner, Ministry of Agriculture, Govt. of India.
2. List of the participants is enclosed at **annexure 1**.
3. Welcoming the participants, Agriculture commissioner stated that the objective of the brainstorming session was to bring out core strategies in consultation with the stakeholders for addressing the problem of damage to pulses crop from blue bulls. He requested Forest and Agriculture departments, and other organisations to come up with implementable suggestions for the control of damages from blue bulls.
4. Initiating the discussion, J.S (Crops) asked the representatives from MoEF and state Forest Departments to supplement the State agriculture Departments' views on blue bull menace from enforcement and containment angles.
5. Narrating the overall pulses production scenario in the country, national consultant (Agronomy) reported the extent of crop damage due to blue bulls to be 50-70% in U.P, 50-60 % in Haryana, and 10-20% in Gujarat. He stressed upon the necessity of blue bull control for saving the pulses crop in the background of stagnating production and higher expenditure incurred every year on imports.
6. **Bihar:** State Consultant (NFSM), highlighted the severity of blue bull damage during summer / Rabi seasons due to migration of blue bull to agriculture fields in search of food. It was estimated that blue bull damage accounts for nearly 18% loss in pulses yield amounting roughly Rs 1.35 crores annually. Measures such as castrating the alpha males ; erecting electric fencing; capturing and shifting blue bulls to forest areas; creating loud noise (crackers)/sound of carnivorous animals; vacating the encroached dwelling areas of blue bulls in the forest ;erecting effigies of human in the crop fields ; amendment of Wildlife Act were suggested for effective blue bull control.
7. Bihar also submitted a proposal for setting up of a "Survey Micro Team" at the sub division level headed by a zoologist; and "District Level Operational Team" headed by veterinary doctor for blue bull management. The overall management was stated to be under the control of DFO at district level and CCF (wildlife) at state level. State projected a budgetary

requirement of Rs 2 crores towards long/ short tranquilizing guns, Burdizzo castrators, medicines, video/still camera etc. Tagging was suggested for monitoring the number of castrated animals.

8. **Uttar Pradesh** The number of blue bulls was estimated to be more than two lakhs in the state and Bundelkhand was reported to be the most affected region. Extinction of forest areas was reported to be responsible for the migration of blue bulls towards human habitations resulting in destruction of crops. Killing of the animals was reported to be difficult due to social/religious sentiments treating it as "*gal*", a sacred animal and due to protection provided under Wild Life Protection Act. : Mission Director (NFSM), Uttar Pradesh informed that Sub divisional Magistrates and Block Development Officers were authorized to issue permits for killing the animal. He suggested general measures such as barbed wire / bamboo fencing ; plantation of jatropha along the borders of crop fields ;cultivation of aromatic plants such as Basil, menthe, zerenium, opium, lemon grass, citronella and palm Rosa etc; erecting human effigy, burning crackers and specific watching of the crop fields; and application of *kamdhenu bio pesticides* (mix of 20 liters of cow urine, 5 kg neem, 5 kg datura, 500 gm tobacco leaves, 250 gm garlic leaves and 1.5 kg of dry chili and kept airtight for 40 days) –for effective control of blue bulls. Issue of open hunting permits for killing the blue bulls outside the reserve forest areas and compensation to the pulse growers towards crop damage were also suggested. Importance of coordinated effort of State Forests and Police Departments in enforcing the administrative orders was specified.
9. Inspector General, Ministry of Environment & Forests, mentioned that Blue bull is included in schedule 3 of the Wild Life Protection Act. As per Section 11 of the Wildlife (Protection) Act, 1972, Chief Wildlife Warden or the authorized officer could grant permit for hunting of blue bulls that become dangerous to human life or to property (including standing crops on any land). However, the remains of the kill, like skin, meat should be handed over to forest department. He stated that being a bulky animal its translocation was not easy.
10. During the discussions, it was pointed out by most of the participants that reduction in status of blue bull to 'Vermin' category, would ease out the procedures as killing of vermin would not attract the attention of Wild Life Protection Act. IG, Forests cautioned that even killing of vermin should be conforming to the provisions of Prevention of Cruelty to Animals Act. He also informed that relevant research material on bluebull menace and its control in other countries could be obtained from Wild Life Institute of India
11. CCF, Meerut circle, UP stated that Range Officers of the Forest Department, BDOs in the Revenue Department of the State were

empowered to issue permits for killing the animal. It was intimated that the proposal of the State Government for declaration of blue bull as vermin was returned by MoEF on the ground that the proposal was required to be substantiated with detailed data/ statistics on crop damage. Agriculture Commissioner asked the state forest officials to provide the copy of administrative orders empowering the range officers to issue permits for killing the animals.

12. **Haryana:** Joint Director of Agriculture, Haryana suggested for change in nomenclature of blue bull to "*Banrose*". Initiation of massive awareness campaign through media, block level training programme to farmers for creating awareness on blue bull problem was proposed. He further requested for allocation of adequate funds at block level to address the problem.
13. **Madhya Pradesh:** PCCF (Wildlife), reported the details of compensation offered by the state towards damage of crops by blue bulls. He also supported the decision on submission of a consolidated proposal to MoEF for making necessary changes in Wild Life Protection Act. Both translocation of animals and protection of crops by fencing were said to be costlier and therefore not feasible. State proposed for trenching, bio-fencing, castration of males, use of chemical repellents as alternative measures for control of blue bulls. State Forest department was asked to submit the details of the damage assessed.
14. **Gujarat:** Extensive damage in North Gujarat, Saurashtra and Kutch were reported in castor, groundnut, bajra, sugarcane, wheat, cotton, mustard besides pulses. Gujarat suggested for bio / solar fencing, appointment of Sarpanch as honorary Wildlife Warden and translocation of blue bull for controlling the problem. Empowerment of Panchayats in the states for issuing killing permits was appreciated.
15. **Punjab:** Wildlife Warden, Punjab suggested to allow hunting permits in heavily infested areas as was in vogue prior to 1992 in order to maintain the balance of biodiversity.
16. **Rajasthan:** PCCF, Rajasthan opined that changes in laws alone would not be sufficient until the mind set of the people on "*Gai*" status of the animal is changed. He advocated multipronged approach for controlling the menace. Adoption of preventive measures such as acacia plantation on bunds of the field, use of chemical repellents to control blue bulls was suggested. The number of blue bulls in the sanctuary areas of Rajasthan was estimated to be around 20,580. Tehsildars were vested with the power of issuing permits to kill blue bulls in the state.

17. Director, Agribusiness Management Centre, KVK, Barabanki highlighted the role of paraffin base from Indian Oil and bio-fertilisers of different organic sources in repelling the blue bulls.
18. ADG (ICAR) indicated the necessity of policy level decision in controlling the blue bulls, wild pigs and bear taking into consideration the legal aspects under provisions of the existing laws.
19. Director, NCIPM (ICAR) suggested for an integrated participatory blue bull Management Plan involving dedicated surveillance teams to assess the blue bull population. He suggested use of chemical repellants for control of the menace. He was asked to explore the feasibility of declaring the animal under "pest" category under relevant statutes for effective control.
20. State Farms Corporation of India indicated the extent of damage caused by blue bull in their seed production farms to be 3190 qtls (about 7%) during 2006-07 and 12721 qtls (about 36%) during 2008-09. Solar fencing erected at Jetsar farm for keeping the animal away from approaching the farm area by a mild non-fatal shock was illustrated. The total cost was estimated to be around Rs. 2-3 Lakhs / Km. Solar fencing was reported to be cheaper, affordable, easy to construct and maintain, durable and reported to have more longevity.
21. Crown Solar Power Fencing Systems, Hyderabad also presented a proposal on solar fencing with pre-fabricated wooden / RCC / Stone posts. It was projected to be much cheaper and easy to install since pre-fabricated poles are used for solar fencing.
22. Expressing satisfaction on the outcomes of the deliberations, Chairman said that the suggestions emerged would be taken up at policy level for further needful action. It was further decided that an Expert Group including the key officials of MOEF, Agriculture and other relevant departments, representatives from Peoples organisations, Wild Life Institute of India would be constituted for ensuring an integrated approach for the control of the menace.
23. The following action points emerged at the end of the brainstorming session on blue bull menace:
 - Multi-pronged, integrated approach including changes in the existing rules/law position, short and long term measures is required for effective control of blue bull. These includes planting acacia plants along the borders of the fields, declaring the animal to be under "Vermin" category, suitable amendments of the schedules where the powers for issuing hunting permits have been entrusted till the level of *Tehsildar* as of now, be taken downwards further upto the *Panchayat* Level.

Changes suggested in the existing rules/ laws:

- Suggestion for submitting a proposal from Ministry of Agriculture to Ministry of Environment and Forests regarding change in status of blue bull from Schedule 3 to **vermin** under Wild Life Protection Act, 1972 for effective control of blue bull was considered (**Action : MoA, MoEF**)
- As a precursor to the above proposal, detailed report on extent of crop damage due to blue bull on pulses and other crops especially in NFSM districts is required to be submitted to NFSM cell , Ministry of Agriculture immediately (**Action: Mission Directors, U.P, Bihar, Rajasthan, Haryana, Gujarat, M.P and Punjab**)
- Also, Wild life wings of respective State Forest Departments have been requested to submit a detailed report on the notifications issued for controlling the blue bulls and measures taken in reducing the menace such as castration by tranquilisation, translocation, trenching, protective live fencing etc. immediately (**Action: Wild life wings, Forest Departments of U.P, Bihar, M.P, Haryana, Punjab, Rajasthan)**
- Delegation of power upto panchayats for issue of licenses to kill blue bull in Gujarat was well appreciated. Other states might also consider delegating the powers upto the panchayat levels for effective control of blue bulls.(**Action: State Forest Departments of U.P, Bihar, M.P, Rajasthan, Haryana, Punjab**)
- Declaration of blue bull as "pest" under relevant act should be considered (**Action: J.S(P.P)**)

Short term strategy:

- Options such as use of traditional/ chemical repellants, trenches, live / solar electric fencing, social fencing and other innovative methods for protecting the crops from blue bulls should be actively considered and proposals for pilot projects in this regard should be submitted to Ministry of Agriculture. Awareness generation activities , block level training for propagating the methods of control could also be considered as part of the proposals(**Action: state Mission Directors (NFSM) of Agriculture Departments**)

Long term strategy:

- Creation of scientific database on existing blue bull population was felt necessary for understanding the extent of the problem. It was decided to conduct pilot projects on "Participatory Blue bull Management" model for

assessing/ creating data base on existing blue bull population, extent of damage through Wild life Institute of India, and NCIPM. Accordingly, proposals for pilot projects were requested to be submitted to Ministry of Agriculture (**Action: WII, NCIPM**)

- Type of repellants existing and their efficacy should be properly assessed; identification of suitable manufacturers be made. (**Action: NCIPM**).
- An Expert Group including the key officials of MOEF, Agriculture and other relevant departments may be constituted to suggest measures and find out solutions in the blue bull problem (**Action: NFSM Cell, MoA, DAC**).

Meeting ended with vote of thanks to the Chair.

ANNEXURE-I

List of participants of the Brain Storming meeting on 17.11.2009 held at the Committee Room (ICAR), Krishi Bhawan, New Delhi

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