ODISHA BOVINE BREEDING POLICY - 2015

FISHERIES & ARD DEPARTMENT, ODISHA

Introduction:

Livestock is an integral part of India's agricultural economy and plays a multifaceted role in providing livelihood support to the rural population. Livestock sector apart from contributing to national economy in general and to agricultural economy in particular, also provides employment generation opportunities, asset creation, coping mechanism against crop failure and social and financial security. Livestock is the main source of animal protein for the population. It is estimated that about 70 million rural households own livestock of one species or the other. Women constitute about 69% of workforce engaged in livestock sector. The resource-poor small and marginal farmers and landless labourers own majority of the livestock resources. Hence sustainable development of the livestock sector would lead to more inclusive development and empowerment of women.

Objective:

1. To produce economically productive milch animals in large numbers.
2. To combine productivity and adaptability including draught ability to meet the local requirement.
3. Conservation and improvement of indigenous Germplasm, and
4. Genetic improvement of the buffalo population for increased milk production.

Action Plan for Cattle and Buffalo Breeding in Odisha:

The plan will progressively bring under organized breeding operations increasing numbers of adult female populations of cattle and buffalo during the period 2015-2020 i.e. 40 per cent of the non-descript cattle, 70 per cent of the cross bred cattle and 40 per cent of the buffaloes.

The development tasks under the cattle and buffalo breeding plan will be:

(a)   Transfer of breeding assets to Odisha Livestock Resource Development Society (OLRDS) as the State Implementing Agency for successful

implementation of bovine breeding activities in the state like: (i) Frozen Semen bank (ii) Bull Mother Farms (iii) Bull Calf Rearing Farms (iv) Quarantine Center. All these units will function under the administrative control of OLRDS & the policy measures relating new technical interventions of these organizations will be finalized by OLRDS with approval of the government.

A task force will be constituted to suggest transfer of these assets to OLRDS.

(b) The field Artificial Insemination (AI) network is to be strengthened by opening new Artificial Insemination Centers (AICs) & converting static AICs to mobile AICs.

(c) The existing FSB, at Cuttack is to be strengthened and effort is to be made for establishment of a second Semen Station in the State to meet the need of semen straws in future.

(d) The district level semen depots are to be strengthened to assure smooth delivery of various artificial Insemination inputs to field AICs.

(e) The bulk procurement & distribution of Liquid Nitrogen (LN) & other breeding inputs is to be taken up effectively without any interruption. There should not be any compromise in procurement of critical breeding inputs like LN & others. Moreover, a separate unit for procurement & distribution of inputs particularly for liquid nitrogen is to be set up at Frozen Semen Bank (FSB) under OLRDS.

(f) Moreover, replacement of the Liquid Nitrogen containers is to be made from time to time for uninterrupted breeding services to the farmers.

(g) Steps to be taken to cover maximum number of breedable female bovines under Artificial Insemination. The field Artificial Insemination network of the State will be extended through reputed Non- Government Organizations (NGOs) and other agencies to reach out the areas not covered under Artificial Insemination.

(h) Monitoring of AI activity will be made by putting identification marks with unique ID number to the animals inseminated & progenies born.

(i)   The Training infrastructures will be strengthened and the Artificial Insemination Workers are to undergo refresher training or basic training on Animal Breeding & Reproduction. Accreditation of the Training Institutes are to be made as per the GoI norms.

(j)   Appropriate and effective interventions are to be made for Conservation and improvement of recognized Native Breeds of the State. Survey & characterization of livestock populations is to be made for establishment of their uniqueness in terms of their confirmation, production and reproduction performances.

(k)   Systematic Field Performance Recording System (FPRS) & Field Progeny Testing Programme are to be established for performance analysis of genetic resources and evaluation of breeding value of breeding bulls.

(l)   Quality Programme covering all aspects of the AI service in the state: Bulls, Semen, Semen Production Stations and AI Service are to be assured.

(m)   The genetic gain through crossbreeding should be evaluated against its economic gain which is dependent upon the nutritional provision and climatic suitability of the area. Wherever do not show positive indicators of success, the expert evaluation by OLRDS should suggest to restructure the breeding policy for that area which would bring out economic success.

(n)   For establishing wide genetic variations among the population, inclusion of suitable germplasm for genetic up-gradation of non-descript bovines may be taken up.

(o)   The exotic inheritance of crossbred animals should not be disturbed by inseminating with different crosses; CBJ should not be bred with CBHF to avoid mosaic genetic inheritance & incoherent heritability in subsequent generations.

(p)   For production of good quality stock with higher production potentiality, imported and progeny tested exotic semen can be used in potential areas covering the elite cows duly supported by systematic field performance recording system by the farmers who will be duly trained for the purpose. Use of sorted semen for creation of more number of

productive animals in form of female calves may be taken up in selected areas. Moreover, Embryo Transfer Technology will be taken up for production high quality bulls and mothers and also for breed improvement of native bovine breeds.

(q)   Further steps to be taken to restrict Artificial Insemination activities through crossbreeding in the native tracts of the registered bovine breeds of the State.

(r)   Control of infertility among female bovines is to be emphasized.

(s)   Arrangements are to be made for removal of stray bulls.

Breeding Policy Recommendations

i)   Basing on the type of availability of nondescript animals in different localities of the State, genetic up-gradation programme will be taken up with introduction of germplasms of Sahiwal, Gir, Tharparkar in addition to Haryana, Red Sindhi and Binjharpuri. Haryana will slowly be eliminated by replacing with Tharparkar and Binjharpuri. Farmers' preference will be prioritized while upgrading the animals.

In case of Binjharpuri, it is recommended for adoption of selective breeding for improvement of the breed. It is also appropriate that the same process may be adopted in improvement of other recognized breeds like Motu, Khariar, Ghumusari cattle.

ii)   Jersey and HF will be continued as breeds of choice for genetic improvement of the local stock through crossbreeding in areas, where infrastructure facilities for the health care and organized marketing of milk are available. In areas, where such infrastructure facilities are not available or inadequate, genetic up-gradation as indicated in sub-para (i) above would be adopted. HF is to be used in those animals with better configuration in terms of size and weight and also animals reared by resourceful farmers.

iii)   The exotic blood level in crossbred and inter se mated population should maintained between 50 to 75%.

iv) In buffaloes, Murrah is considered as the breed of choice for up gradation of local buffaloes. In recognized breeds like Chilika and Kalahandi it is appropriate to take up selective breeding for improvement of the stocks.

v) Efforts are to be made for preservation of native breeds of cattle including buffaloes to preserve them from their extinction or dilution.

vi) Participatory research activities on cattle and buffalo breeding like Field Performance Recording Scheme [FPRS] and Field Progeny Testing Program [FPTP] for genetic evaluation and bull production are to be taken up. Molecular characterization of native breeds may be conducted for identification of their unique characteristics in order to produce animals with high genetic merit. Technology like Embryo Transfer technology [ETT] can be adopted.

vii) Production of quality bulls through identified elite female bovine population maintained by the farmers in the State would be taken up following a procedure similar to the procedure followed by NDDB under National Dairy Plan. The database of elite as well as exotic female and male bovines would be maintained through INAPH database of NDDB to facilitate scientific management.

viii) Healthy animals are key to genetic improvement. Farmers would be sensitized for ensuring proper documentation of feeding, breeding and for systematic field performance recording system as well as use of balanced feeding (as in ration balancing system of NDDB) and use of area specific mineral mixture for better reproductive health. For this purpose, a program for capacity building and training of farmers through progressive farmers would be implemented.

Implementation

Four implementing agencies will be involved with project implementation in addition to other voluntary agencies and bilateral projects designated by the Government of Odisha: (i) Odisha Livestock Resource Development Society (OLRDS), (ii) Department of Fisheries and ARD, (iii) Odisha State Co-operative Milk Producers Federation (OMFED), and (iv) Utkal Gomangal Samiti.

Odisha Livestock Resources Development Society (OLRDS) will be the **Principal Implementing Agency** for the cattle and buffalo breeding plan. It will generate all the genetic inputs for breeding like evaluated bulls, frozen semen, liquid nitrogen and will deliver the semen and liquid nitrogen to all AI practitioners in the state, on a regular, systematic and continued basis. All infrastructures for AI except the field AI centers will be transferred to the society. The Society will establish additional facilities needed like units for Bull Production, Breed Conservation and other programmes for its successful implementation. Odisha Livestock Resources Development Society (OLRDS) will impart training for basic AI & refresher courses for the Inseminators. However, all Inseminators under all agencies practising AI in the state will be tested and licensed by OLRDS. Odisha Livestock Resources Development Society will carry out the field recording programme & progeny testing in collaboration with OMFED suitably in milk shed areas.

The Department of Fisheries and ARD will continue to own and operate all the AI centres, but will progressively open new AICs & convert them into mobile practices delivering AI at the farmers' door-step. The animals inseminated and the progenies born will be identified for their follow up. The inseminated mothers after calving will be put under recording for its performance assessment.

OMFED will convert all the existing DCS AI centers into mobile centers. However, the germplasms to be used by them should be as per the breeding policy of cattle & buffaloes of the State.

The Utkal Gomangal Samiti (UGS) will be responsible for launching a large Natural Service (NS) Bull programme for providing breeding facilities in villages where AI is not feasible. They will select and raise the Haryana, Red Sindhi, Binjharpuri and Murrah bulls required for the NS Scheme. The UGS will also launch a promotion and rearing programme for popularizing cross bred bullocks among the farming community.

In addition to these four agencies, other voluntary & Non-Government Organizations (NGO) can also be associated in the conservation and genetic up-gradation of cattle and buffaloes of the State. However, they have to clearly spell out

the possible output of the programme before it is launched. Monitoring and evaluation of these programs is to be made by independent agencies. Moreover, while taking up Artificial Insemination program in their operational areas, they have also to follow the policy for bovine breeding of the State.

Monitoring Mechanism:

A high level Committee under the Chairmanship of Chief Secretary will be constituted by Government with representatives of ICAR, NDDB and representative of OUAT, who is an expert in the area of bovine breeding and two experts to be nominated by Government. The Committee would approve an Action Plan to implement the Policy and review the progress from time to time.