

**S E C R E T**

THE GOVERNMENT OF ASSAM  
ANIMAL HUSBANDRY & VETERINARY DEPARTMENT,  
JANATA BHAWAN, DISPUR, GUWAHATI-06

NO. VFV. 237/2019/107-I

DRAFT CABINET MEMORANDUM

(Circulated under Rule 17 of the Assam Rules of Executive Business, 1968)

**1. SUBJECT:** Cabinet Approval on the proposed "State Cattle and Buffalo breeding Policy, 2020" for improvement of the genetic potentiality of the cattle population through cross breeding with exotic high genetic merit bulls and to conserve and improve indigenous cattle.

**2. INTRODUCTION:** Assam does not possess a high yielding milch breed of its own. The local cattle of low generic potential for milk production which discourages the farmer to take up dairy trade as a viable commercial venture. So to achieve maximum level of productivity from our low productive cattle, cross-breeding/upgradation with recognized dairy breed is the only way and to achieve that the state attempted to formulate a suitable policy for augmentation of milk production

**3. BACKGROUND:** Cattle breeding programme was started in Assam since first 5 year plan, it gained momentum in 1968 following the introduction of frozen semen technology and implementation of ICDP in the state. By the end of 1985-86 the department had been able to establish 11 ICDP and related infrastructural network in rural areas with a potential coverage of 1.1million breedable cattle in Assam. It covers 11 numbers ICDP, 26 nos Regional Artificial Insemination Centre(RAIC) and 547 nos of stockman centre. The deep frozen semen bank was establish under Indo-Australian cattle breeding project at Khanapara, Guwahati-22 was commissioned in March 1976 with a view to replace chilled semen with frozen semen and to assured supply of semen of proper inheritances as per state cattle breeding policy. During the year 1983-84 with the assistance of Government of India expansion of frozen semen bank at Khanapara along with setting up 2 (two) new frozen semen storage bank of Howly, Kokrajhar and Tezpur were taken up on the ARRSP, the department has started AI activity with frozen semen in 15 districts with 513 AI centres and 166 Gopal Mitras. Under ARRSP 7 frozen semen bank were renovated and established in 7 strategic locations to cater the need of the 15 districts. Under World Bank projects Bull Mother Farm Barapetta was also renovated. During the year 2004-2005 ALDA renovated the frozen semen Bull station at Khanapara under NPCBD page-1 as per standard set by minimum standard protocol as per Government of India.

**4. PROPOSAL:** The emphasis is on "State Cattle and Buffalo breeding Policy, 2020" updating the earlier existing Cattle & Buffalo Breeding Policy Frame Work, wherein under the following is prepared

**1.1 "AMENDMENT OF STATE CATTLE AND BUFFALO BREEDING POLICY, 2002 AND UPDATING THEREOF**

**1.2 Notifying afresh EXISTING STATE CATTLE AND BUFFAEO BREEDING POLICY 2020**

**1.3 The State Cattle and Buffalo breeding Policy, 2020 also suggests strategy intervention for policy for Milk Production including upgradation of local low productive non descript cows by Jersey (J)**

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and Holstein Friesian (HF) through Artificial Insemination Programme

#### 1.4

(a) The Breeding policy using Jersey exotic breed intends to increase level of exotic inheritance as follows

**(i) 50% level of exotic inheritance.**

- This will apply to the entire state. Large scale production of halfbreds (50% Jersey 50% Indigenous) will be the main goal.

**(ii) 62% level of exotic inheritance.**

- This will apply only to limited area on demand from farmers in some areas/herds, where there is plentiful of fodder availability, good market channel, educated entrepreneur with knowledge and capability of providing better knowledge.

**(b) Breeding policy using Holstein Friesian:**

- Holstein Friesian (HF) inheritance will be infused only in limited scale.
- In some defined geographic areas/ herds where fodder production and availability is more, a well developed milk market and in areas of high elevation with congenial climate, desired by farmers.
- The level of inheritance of H.F. in the crossbred will be fixed at 50% by intense mating of the crossbred coupled with selection of superior F<sub>1</sub> animals.

#### 1.5 Buffalo Breeding Policy

The buffalo breeding population of the state is primarily of swamp type distinctly different from the riverine breeds not only in behavior but also in respect of chromosome numbers. Though, in regard to milk yield, these buffaloes are not par with those of improved riverine breeds, the milk of the swamp buffaloes is very rich in fat and protein content.

**(a) Straight breeding of swamp buffalo with selection**

Improvement of the genetic potential of indigenous swamp type buffalo of Assam is done by selection and straight/pure breeding.

This breeding policy of indigenous swamp buffalo in Assam will fulfill three basic requirements. These are:-

- (a) Conservation of germplasm
- (b) Meeting a major part of the draft animal requirement for agricultural activities
- (c) Augment production of quality milk.

**(b) Pure breeding of murrah**

Murrah and Surti were found to have performed satisfactorily under organized farm environment in the agro-climatic conditions of Assam. Educated entrepreneurs and well to do farmers may be encouraged to rear these two riverine breeds in scientific manner under intensive system of management. The state Govt. will maintain atleast one elite herd of each of Murrah and Surti as a source of germplasm.

**(c) Cross breeding of swamp and urrah**

The possibility of crossing of Murrah Bulls and swamp female to enhance milk production is kept open due to its chromosomal differences. In absence of sufficient data on the performance and fertility status of swamp x riverine crossbreds, the approach of such a crossbred programme has to be

cautious. Therefore, initially such a crossbred programme will be taken up experimentally in limited scale using the bulls of organized elite herd of Murrah and crossing them to swamp females.

**2. The Amendment being incorporated in the State Cattle and Buffalo Breeding Policy, 2020 has been recommended by the Expert Committee for inclusion by revision by the Existing Cattle and Buffalo Breeding Policy of Assam, 2002.**

The existing policy advocates crossing of non-descript indigenous cattle of Assam by temperate breeds of cattle name Jersey. The policy does prohibit the use of Holstein Friesian to upgrade indigenous cattle of the state. This the thrust of the cattle improvement programme under the policy which will continue unchanged. To address stakeholder's requirement and demand as well as the changed scenario of the Animal Husbandry sector in Assam, following amendments are suggested:-

- (a) Establishment of nucleus breeding herd(s) of indigenous cattle with its foundation stock selectively drawn from different regions of Assam that are of high productive potential.
- (b) Establishment of nucleus herd(s) for outstanding Indian milch breeds like Sahiwal may also be tried, primarily to gain experience and to have some idea of adoptability of such breed in Assam environment.
- (c) In a limited scale, semen of high value bull from breed like Sahiwal, Gir breed may be procured outside the state for crossing with non-descript cattle in defined geographical areas.
- (d) In a limited scale, sex sorted semen of high yielding may procured from outside the state for interested elite farmers of the state.
- (e) In order to avoid indiscriminate crossing in the execution of the Artificial Inseminate programme, cluster approach is suggested. In cluster approach, different types of breeding plans are advocated
- (f) The progeny testing programme, which is an integral part of existing breeding policy, needs to be incorporated suitably with the AI programme so that progeny tested bulls of required type can be locally procured. Advanced breeding and reproductive technologies like Genomic Selection, MOET can also be adopted for this purpose. Required database be developed to avoid genetic slippage.
- (g) Steps are taken for facilitation of import of semen or even embryos of high yielding breeds like Jersey and Holstein Friesian to interested Dairy Entrepreneur for establishment of breeding of such pure breeds.
- (h) Establishment of Breeders's Association and involving them actively with AI activities along with proper record keeping adopting advanced digital record keeping technology.
- (i) Specific programme for improvement and production of drought animals no longer appear very justified, particularly when draft ability is negatively associated with milk production capacity of animal
- (j) The indigenous buffaloes of Assam are to be bred true for milk and also draft animal. It may be noted that although the Swamp type buffaloes of Assam are often blamed for low milk yields, their milk quality is very good and they produce milk at a very harsh conditions of feeding and management. Also, for enhancing their milk yield, crossing of Swamp type buffaloes with improved riverine breeds is not suggested because of chromosomal

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incompatibility.

- (k) Outstanding riverine breeds like Murrah may be allowed to be inducted and reared under intensive system.
- (l) AI in buffaloes to be reared under intensive system to be taken up in phased manner.
- (m) Production of Carabeef (buffalo meat) from indigenous swamp type buffalo and their cross with riverine breed(s) is to be explored. This may be the thrust area in buffalo breeding in Assam in due course promoting export market.
- (n) Indigenous buffaloes of Assam found to possess 50 nos of chromosomes (2N=50) on screening may be crossed by AI with riverine buffalo like Murrah ins aphased manner to increase production.
- (o) Screening of diseases and disease free status of animal for entry permission to the state will be required for induction of animal (Cattle & Buffalo) in to the state. Animal inducted in to the state must be free of all communicable diseases. The department of Animal Husbandry & Veterinary Assam will have the authority to provide permission for new induction, based on certificates of disease free or pathogenic organism free animal.
- (p) The recommended amendments as well as existing policy provisions would necessitate proper plan of work to be chalked out separately in order in order to to ensure proper implementation of the policy. Therefore policy recommends taking up of action plan accordingly.

**3. State level policy Monitoring Committee**


There will be a state level monitoring committee that would monitor and riview as well as suggest measure for proper implementation of the policy on regular basis with atleast two sitting in an year.

**4. Revisiting The Policy**

It is very important to revisit the policy periodically. As the cattle and buffalo sector enterprises are dynamic and global scenario is also changing rapidly with palpable effects in Assam as well. Therefore, the present breeding policy requires to be examined time to time to ensure its relevance quinquennial review of this policy is recommended.

**5. JUSTIFICATION:** The State Cattle and Buffalo Policy,2020 by “Amending the State Cattle and Buffalo Breeding Policy, Assam, 2002” intends to make genetic improvement of cattle buffaloes in the state as well as defined policy need to be formulated so that production is augmented and the desirable genes of local animal are preserved in achieving maximum genetic gain by way of crossing of indigenous low potential female with high genetic merit bulls of exotic origin, for conservation of local indigenous animal and important Indian milch breed.

**6. VIEWS OF OTHER DEPARTMENTS**

<p>Transformation and Development Department</p> 	<p><b>Views/comments of Transformation and Development Department is reproduced as follows</b></p> <p>“Your endorsement above</p> <p>Transformation and Development Department has no objection on the Draft Consolidated Cabinet Memorandum and draft breeding policies for formulation on Animal Husbandry &amp; Veterinary</p>	
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	<p>Department. However representative from Agriculture Department may also be in the State Level Approval Committee.</p> <p>Director PC Transformation and Development Department”</p>	
Agriculture Department	<p><b><u>Views/comments of Agriculture Department is reproduced as follows</u></b></p> <p>“Your endorsement above</p> <p>It is to be mentioned that Agriculture Department has not found any objectionable matter on the Cabinet Memorandum of Animal Husbandry &amp; Veterinary Department for Amendment of State Cattle and Buffalo Breeding Policy, Assam, 2002, Assam Pig Breeding Policy, 2019, Assam Poultry Development Policy, 2019 and Goat Breeding Policy, 2019 has covered various aspects to be boost production and productivity under the import sector</p> <p>This has the approval of Secretary, Agriculture Departments</p> <p>Under Secretary Agriculture Department”</p>	
Panchayat & Rural Development Department	<p><b><u>Views/comments of Panchayat &amp; Rural Development is reproduced as follows</u></b></p> <p>“Your endorsement dated 14/05/2019 in the file No.VFV. 234/20/2019/Pt-VII</p> <p>Panchayat and Rural Development Department have no objection on the Draft consolidated Cabinet Memorandum (Flag-E) and the draft policies i.e. Amendment of State Cattle and Buffalo Breeding Policy, Assam, (Flag-A), Assam Pig Breeding Policy, 2019 (Flag-B), Assam Poultry Development Policy, 2019 (Flag-C) and Goat Breeding Policy, 2019 (Flag-D)</p> <p>Sd/- (Joint Secretary to the Govt. of Assam) Panchayat &amp; Rural Development Department”</p>	
Legislative Department	<p>F/No. VFV 234/2019/Pt-VII</p> <p><b><u>Views/comments of Legislative Department is reproduced as follows</u></b></p> <p>“Your endorsement at prepage.</p> <p>The draft policies at Flag-'A', 'B', 'C' and 'D' along with the Cabinet Memorandum has been examined. Legislative Department is not required to give views on the draft policies as they are administrative matter of the department and not statutory policies.</p> <p>This has the approval of the Commissioner &amp; Secretary, Legislative Department</p> <p>Sd/- (Deputy Secretary) Legislative Department”</p>	
Finance Department(EC-I)	<p><b><u>Views/comments of Finance Department is reproduced as follow</u></b></p> <p>Ref: Your end. Dated 15/10/19 at page- 21/RNS in the file No.VFV. 234/2019</p>	

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	<p>Finance Department has no objection to the proposed Draft Cabinet Memorandum to formulate/amend the following policies as long as policies are for confining to genetic composition and breed improvement also on condition that there will be no financial liabilities on the State Exchequer on implementation of the proposed policies:</p> <ol style="list-style-type: none"> <li>1) Amendment of State Cattle and Buffalo Breeding Policy, 2002</li> <li>2) Assam Pig Breeding Policy, 2019</li> <li>3) Assam Poultry Development Policy, 2019</li> <li>4) Assam Goat Breeding Policy, 2019</li> </ol> <p>Sd/- Deputy Secretary Finance (EC-I) Department</p>	
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**7. VIEWS OF CONCERNED DEPARTMENT:** Cabinet Approval on the proposed “State Cattle and Buffalo breeding Policy, 2020” for improvement of the genetic potentiality of the cattle population through cross breeding with exotic high genetic merit bulls and to conserve and improve indigenous cattle.

**8. FINANCIAL IMPLICATIONS IF ANY:** The amended of State Cattle and Buffalo Breeding Policy, 2020 will focus on core issue of cattle and buffalo breeding for conservation and germ plasm improvement and other associated issues, to be addressed for sustainable growth of the sector.

In regard to financial implications, it is to be stated that, it is a breeding policy matter, hence, there is no direct financial involvement. The policy essentially aims at providing a broad guideline and direction in which the local cattle and Indian germ plasm improvement programmes will be carried out through selective breeding via ONBS. Once the draft policy is approved by the Government, the Animal Husbandry & Veterinary Department, Government of Assam will necessarily work out detailed involvement programme wise.

**9. APPROVAL OF THE HON'BLE MINISTER OF THE DEPARTMENTS:** Approval of Hon'ble Minister is obtained (Page 21<sup>NS</sup>).

**10. APPROVAL REQUIRED:** Approval of the cabinet is sought on the proposed “ State Cattle and Buffalo breeding Policy, 2020” at Annexure-I.

  
 (Shyam Jagannathan, IAS)  
 Commissioner & Secretary to the Govt. of Assam,  
 A.H & Veterinary Department