GUJARAT
Breeding Policy 2018

ED-I

GMCAHB

Notification

Agriculture,Farmer Welfare and Co-operation Department,

Sachivalaya, Gandhinagar

Dated 23th April,2018

No. GHKH/237/2017/CDS/10/2017/1497/P1

The Government of Gujarat has issued the Notifications No. GHKH/107 /2012/CDS/2002/2691/P.1, Dt.-4/1/2013 regarding Livestock (Bovine) Breeding Policy to promote breeding and development of livestock especially in Cattle and Buffalo in the state. The Breeding policy was required to revise and after careful consideration, the Government of Gujarat is pleased to notify the revised Livestock (Bovine) Breeding Policy-2018 which is shown as under.

After the revision of Livestock (Bovine) Breeding Policy, the old Notification No. GHKH/107/2012/CDS/2002/2691/P.1, Dt.-4/1/2013 regarding Livestock (Bovine) Breeding Policy-2013 is hereby cancelled.

# Livestock (Bovine) Breeding Policy-2018

1. **Vision**

The Policy in the next two decades intends to build in the state a progressively modern bovine sector that provides employment and income to its keepers and ensures not only food, nutrition and environmental security to its people in the state, but also contributes to the development of national genetic resources and the achievement of national food security. The main objectives are to augment the availability of quality animal protein in human diet, conserve animal bio-diversity, develop strategies for increasing productivity of cattle and buffaloes, develop infrastructure for providing breeding and other technical inputs and services, plan for manpower development, and create required facilities to undertake research on contemporary issues.

2. **Objectives of breeding policy**

The main objectives include:

2.1 To increase milk production in the state through enhancing the productivity of cattle and buffaloes and thereby income of farmers.

2.2 To conserve and further develop the excellent indigenous cattle and buffalo breeds that the state has.

2.3 To put in place appropriate genetic improvement programmes for enhancing the genetic potential of each breed in its native tract and produce and select best quality bulls required for semen production and natural service for the entire state.

2.4 To phase out low yielding non-descript cattle and buffaloes.

2.5 To develop rational crossbreeding strategies enabling farmers to get sustained profit from their crossbred animals.

2.6 To identify the bulls of low genetic merit and scrub bulls and keep them out of breeding programme either through castration or other legal means to avoid indiscriminate breeding.

2.7 To follow the Standard Operating Procedures recommended by GoI and adopted by the state for progeny testing and pedigree selection programmes, semen production and processing, AI delivery and AI training institutes.

2.8 To make the state an important source of quality genetics for breeds of national importance that exists in the state.

2.9 To expand the existing AI service delivery network to breed the majority of breedable cattle and buffaloes with high quality disease free semen doses.

2.10 To augment the availability of animal protein in human diet.

## 3. Recommended breeding policies

The state has three important cattle breeds namely Gir, Kankrej and Dangi and four important buffalo breeds namely Jaffarabadi, Mehsana, Surti, and Banni. In addition, there are a large number of crossbred cows, graded buffaloes and non-descript cows and buffaloes. The broad policies, strategies and programmes envisioned for sustainable development of the genetic resources of the state are given below.

### 3.1 Identification of core area for each breed/genetic resource

For systematic conservation and development of the cattle and buffalo breeds and putting in place an organised genetic improvement programme for production of quality bulls for each breed, it is important to identify a core area for each breed, based on the predominance of a particular breed in a district. Based on the latest available population figures of different breeds in the state, the core area for each breed has been identified as detailed in Table 1.

**Table 1 Identification of districts for each cattle and buffalo breed**

| Sr. No | Breed/Genetic resource | Core districts |
|---|---|---|
| 1 | Kankrej | Banaskantha, Patan, Mehsana, Gandhinagar, Kachchh, Surendranagar, Ahmedabad, |
| 2 | Gir | Junagadh, Amreli, Bhavnagar, Surendranagar, Jamnagar, Rajkot, Porbandar, Botad, Dwarka, Gir-Somnath, Morbi |
| 3 | Dangi | Tapi, Dang, Narmada, Surat, Valsad |
| 4 | Banni | Kachchh |
| 5 | Jaffarbadi | Junagadh, Amreli, Bhavnagar, Rajkot, Jamnagar, Porbandar, Surendranagar, Botad, Dwarka, Gir-Somnath, Morbi |
| 6 | Mehsana | Banaskantha, Patan, Mehsana, Gandhinagar, Ahmedabad |
| 7 | Surti | Anand, Kheda, Vadodara, Surat, Tapi, Bharuch, Chhotaudepur, Panchmahal, Dahod |
| 8 | Graded buffaloes (Mehsana/Surti/ Murrah) | Sabarkantha, Arvalli, Panchmahal, Kheda, Anand, Dahod, Vadodara, Bharuch, Chhotaudepur, Surat, Tapi, Navsari and Dang |
| 9 | Crossbred and non-descript cows and buffaloes | All districts. |

## 3.2 Breeding policy and strategies for genetic improvement of each breed / genetic resources in the identified core area

### 3.2.1 Cattle breeds/genetic resources

I. All cows of the respective breed in the core area shall only be bred by semen or bull of the respective breed by all agencies operating in the core areas. This means Kankrej cows in the Kankrej core area shall only be bred with high quality semen of Kankrej bulls or by Kankrej bulls for natural service by all agencies. Similarly, Gir cows in the core Gir area shall only be bred by Gir semen or Gir bulls, and Dangi cows in the core area of Dangi cows by Dangi semen or Dangi bulls.

II. As in the respective core areas of Kankrej, Gir, and Dangi breeds of cattle at present the number of animals artificially inseminated is not adequate to implement a progeny testing programme, further genetic improvement of these breeds shall be taken up initially through pedigree selection primarily for milk production and later through progeny testing once an adequate

number of animals are artificially inseminated. The Standard Operating Procedures (SOP) and Minimum Standards (MS) circulated by DADF, GoI for Pedigree Selection (Reference: F. No. 3-13/2012- AHT (NPCBB), Dated 6th June 2012) shall be adopted for implementing these programmes. A large infrastructure for milk recording of animals will be developed in these core areas, and an information system will be put in place. These programmes shall meet the complete state's requirement and a major portion of country's requirement of bulls for semen production of these breeds. Apart from the bulls required for semen production, these programmes would also produce bulls for natural service, if required.

III. The exotic inheritance in crossbreds in all districts in the state shall be maintained around 50%. This means Holstein Friesian crossbreds shall be bred with semen of 50% selected HF crossbred bulls, and Jersey crossbreds shall be bred with semen of 50% selected Jersey crossbred bulls. However, resource-rich farmers residing in favorable environmental areas shall be permitted to raise exotic inheritance up to 75%.
At present many Dairy Union and other institute perform HF crossbred progeny testing programme, so procure HF crossbred bulls from that, provided that the implementers of progeny testing program shall follow the SOP and MS circulated by the Department of Animal Husbandry and Fisheries (DADF), Government of India (Reference: F. No. 3-13/2012- AHT (NPCBB), Dated 6th June 2012) for implementing their progeny testing programme.

IV. For non-descript cows in the core breed area, farmers will be given a choice to breed their non-descript cows with either semen or bull of the core breed or HF breed. For example, a farmer having a non-descript cow in the Kankrej core area will be given a choice to breed his non-descript cow with either semen or bull of Kankrej or HF breed.

### 3.2.2 Buffalo breeds/Genetic Resources

I. All Buffalos of the respective breed in the core area shall only be bred by semen or bull of the respective breed by all agencies operating in the core areas. This means Mehsana Buffalo in the Mehsana core area shall only be bred with high quality semen of Mehsana bulls or by Mehsana bulls for natural service by all agencies. Similarly, Banni Buffalo in the core Banni area shall only be bred by Banni semen or Banni bulls, Jaffarbadi Buffalo in the core Jaffarbadi area by Jaffarbadi semen or Jaffarbadi bulls and Surti Buffalo in the core area of Surti Buffaloes by Surti semen or Surti bulls.

II. As in the respective core areas of Jaffarabadi, Banni and Surti breeds of buffaloes at present the number of animals artificially inseminated is not adequate to implement a progeny testing programme, further genetic improvement of these breeds shall be taken up initially through pedigree selection primarily for milk production and later through progeny testing once an adequate number of animals are artificially inseminated. The SOP and MS circulated by DADF, GoI for Pedigree Selection (Reference: F. No. 3-13/2012- AHT (NPCBB), Dated 6th June 2012) shall be adopted for implementing these programmes. A large infrastructure for milk recording of animals will be developed in these core areas, and an information system will be put in place. These programmes shall meet the complete state's requirement and a major portion of country's requirement of bulls for semen production of these breeds. Apart from the bulls required for semen production, these programmes would also produce bulls for natural service, if required.

III. As the respective core areas of Mehsana buffaloes and graded buffaloes have a good infrastructure for AI services and have efficient cooperative institutions, further genetic improvement of these breeds shall be taken up through selective breeding primarily for milk production based on progeny testing. The SOP and MS circulated by the Department of Animal Husbandry and Fisheries (DADF), Government of India (Reference: F. No. 3-13/2012- AHT (NPCBB), Dated 6th June 2012) shall be adopted for implementing progeny testing programmes. A large infrastructure for milk recording of animals will be developed in these core areas, and an information network for collecting data and disseminating information will be put in place. These programmes shall meet the complete state's requirement and a major portion of country's requirement of bulls for semen production of respective breed. Superior male calves could also be produced under these programmes for natural service, if required.

IV. All non-descript buffaloes in the core area of respective breed shall only be bred with the breed of the core area. This means all non-descript buffaloes in the Mehsana buffalo core area shall be bred with semen of Mehsana buffalo or by bull of Mehsana breed only, those in the Jaffarabadi core area by Jaffarabadi semen or bulls, those in the Banni core area by Banni semen or bulls and those in the Surti core area by Surti semen or bulls. All non-descript buffaloes outside the respective core areas of the breeds shall be upgraded with either Mehsana, Surti or Murrah semen or bulls for natural

service. Likewise all graded buffaloes shall be bred either with Mehsana, Surti or Murrah semen or bulls for natural service.

## 4. Operational aspects of implementing the recommended breeding policy

### 4.1 Semen Production

The present infrastructure of semen production shall be expanded and modernized to meet the complete requirement of the state and a partial requirement of the country. All semen stations in the state shall follow the SOP and MS laid down by DADF, GoI (Reference No: F. No. 3-13/2012- AHT (NPCBB), Dated 6th June 2012), and set an example of quality standards for semen production and bio-security measures for other states to emulate. Frozen semen doses produced at only 'A" or "B" grade-semen stations shall only be used in the state.

### 4.2 Dissemination of genetics

All agencies providing artificial insemination services in the state – government, cooperatives, NGOs, private etc. – would be encouraged to expand their AI network so as to increase the percentage of breedable animals inseminated in the state. All AI service providers will follow the standard operating procedures and minimum standards circulated by DADF, GoI for AI delivery.

Bulls for natural service shall be used in places that are remote and inaccessible. The bulls used for natural service shall meet the SOP and MS specified for bulls for natural service by DADF, GoI. Bulls for natural service shall be obtained from either Progeny testing or Pedigree selection programmes implemented in the core area of the respective breed.

### 4.3 Identification and Registration of animals and putting in place an Information Network

It shall be mandatory for all agencies operating in the core areas to ear tag and register all animals that are inseminated, milk recorded, vaccinated, and treated. Minimum information required for animal registration, AI, pregnancy diagnosis, calving, milk recording, vaccination, treatment, disease outbreak shall also be collected by the agencies on an individual animal basis. An information network would be set up to collect data and provide information to all stakeholders including farmers. These data should also be used for proper futuristic planning and programming implementation.

### 4.4. Quality control

All semen stations will be evaluated biannually by the Central Monitoring Unit (CMU) of DADF. Frozen semen doses produced at only 'A" or "B" grade-semen stations shall only be used in the state. All genetic improvement programmes will be evaluated annually under the evaluation mechanism set under National Dairy Plan I. The state government shall establish a system of annual evaluation of all AI service providers in the state.

### 4.5 HRD

A massive drive shall be initiated by the Department to educate farmers, inseminators, veterinarians and other officials on the Breeding Policy and its benefits. The breeding policy would be an integral part of any training programme of farmers, AI technicians, para-vets and veterinarians. It would also be added in course curriculum of the veterinary colleges of the state.

## 5. Implementation of the Policy

5.1 The state should establish an independent authority to regulate all breeding operations including evaluation and production of bulls, production and processing of semen doses, AI delivery, AI training institutions and bulls for natural service.

5.2 Meanwhile, an empowered committee shall be formed involving all stakeholders under the Chairmanship of Secretary (AH) to oversee the implementation of the Breeding Policy.

5.3 This policy will be reviewed and revised every five years or earlier as deemed necessary by the Department of Animal Husbandry, Government of Gujarat.

By order and in the name of the Governor of Gujarat,

(Sudhir Upadhyay)

Deputy Secretary

Agriculture,Farmer Welfare And Co-Operation Department

To,

- Principal Secretary to H.E. The Governor, Rajbhavan, Gandhinagar(by letter)
- Secretary,Vidhansabha, Gandhinagar (by letter)
- Hon'ble Chief Minister,Sachivalaya,Gandhinagar.
- All the Ministers,Ministers of States, Parliamentary Secretaries, Sachivalaya, Gandhinagar.
- Leader of Opposition, Vidhansabha, Gandhinagar.
- Chief Secretary, Sachivalaya,Gandhinagar.
- All Departments, Sachivalaya, Gandhinagar.
- Secretary to Legislative Department, Sachivalaya... with request to publsh in official Gazette.
- All Collectors and District Magistrates.
- All District Development Officers.
- Director,Animal Husbandry, Gujarat State,Gandhinagar.... With request to draw attention to all officers and Directorate.
- Member Secretary, Gau Seva Ayog, Gandhinagar... with request to draw attention to all Gaushala, Panjarapols, Infirmaries etc.
- Vice Chancellors of State Agricultural Universities.
- Deputy Registrar, Kamdhenu University.
- M.D.NDDB,Anand,Gujarat.
- M.D.,GCMMF,Anand,Gujarat.
- All District Co-Operative Dairy Unions.
- Select File.