Immediate

GOVERNMENT OF ODISHA
FISHERIES & ARD DEPARTMENT

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From:

Shri Trilochan Minz, OAS(SS)
Special Secretary to Govt.

To

The Director AH & VS, Odisha, Cuttack
The CEO, OLRDS, Bhubaneswar,
The Joint Director, FSB, Cuttack,
All CDVOs

Sub: Guidelines for implementation of "goat development and scientific breeding through goat artificial insemination" Under State Plan Scheme "Integrated Livestock Development Programme (ILDP) -78694- Small Animal Development Center" For the Year 2021-22

Sir,

I am directed to enclose herewith guidelines for implementation of "goat development and scientific breeding through goat artificial insemination" Under State Plan Scheme "Integrated Livestock Development Programme (ILDP) -78694- Small Animal Development Center" for the Year 2021-22 for your information and necessary action.

Yours faithfully,

7.8.21

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FARD-VP-3VP-0033-2021/2/2021

Modalities for implementation of the scheme 'Goat Development and Scientific Breeding through Goat AI during the year 2021-22

1.0 Background

Goat Husbandry is a major economic activity of the rural people, especially for poor and small farmers, which has a significant beneficial impact in reducing poverty in rural areas. As per the livestock census 2019, there are nearly 64 lakh goats in the State, which accounts for 4.3% of country's goat population.

Artificial insemination (AI) is a simple technique which is well adapted in dairy cattle and buffalo breeding. It has contribution to achieve increased milk production of the country. The Black Bengal goat breed is known for its meat quality, adaptability and prolificacy. It is the breed of choice for the farmers in many parts of Odisha. There is a scarcity in the availability of quality breeding bucks due to early castration and slaughter of male goats for meat purpose. As goats are mostly reared by small, marginal and landless farmers, with flock size of 3- 5 goats, it is economically unviable to keep a breeding buck for a small flock. Thus, the females are bred by nondescript males' resulting in loss of precious germplasm of the region. To prevent the dilution of valuable germplasm by indiscriminate mating and to preserve its purity and propagate this unique germplasm, State Government intends to promote artificial insemination in goat by using local germplasm like Black Bengal and Ganjam breed of Buck in consonance with SAMRUDHI - State Agriculture Policy, 2020 which advocates for use of modern technologies like goat Artificial Insemination for genetic improvement and higher productivity.

This scheme is a State Plan scheme that is designed to address the challenges faced by the farmers rearing goat for organized breeding in goats. In order to enhance the productivity like increase in birth weight, growth rate, prolificacy etc. Artificial Insemination technology will be introduced in a wider scale for genetic improvement of goats in our State.

1.1 Aim

The aim of the scheme is to genetically improve the local goat population of the State by adopting advanced scientific breeding technology, Goat Artificial Insemination.

27.7.21
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27/7

7.8.21
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1.2 Objectives

The objectives of scheme are

- To genetically improve the goat population by introducing Artificial Insemination using semen of superior sires.
- To sensitize the farmers for enabling rapid goat herd multiplication & strengthening through goat AI
- To produce superior kids with better production traits born out of AI
- To avoid inbreeding in the herd and restrict indiscriminate breeding.

1.3 Area of Operation

Under the scheme, **565** LACs/VD across the State will provide Goat AI services and cover around 1.5 lakh of female goats during the year 2021-22. *The tentative district wise target and requirement of semen straw is at Annexure – I.*

2. Programme Components

2.1 Capacity building of field AI technicians - Sixty Master Trainers (2 Veterinary Doctors in each district) will be imparted goat AI training for performing goat AI. These district level Master trainers shall provide on job training to other AI technicians in the respective district. The entire training program will be managed and supervised by the Veterinary Officers Training Institute in coordination with Directorate of AH&VS.

2.2 Procurement of equipment and instrument and consumables – The required input such as Frozen semen straw, Sheath, AI Gun, Speculum, Breeder thermometer, Head lens, Pregnancy detection Kit, lubricating gel tube etc. will be procured by the Directorate of AH & VS, Odisha, following approved financial procedure with technical support of OLRDS and FSB.

2.3 Training and awareness creation of farmers – Since identification of heat symptoms in goats are difficult, it is very crucial to undertake awareness programs among farmers by the farmers to detect heat symptoms. One day awareness cum training programmes should be organised at block levels by the concerned CDVO, to sensitize **20,000** farmers in batches; and emphasize on economic benefits of goat AI, methods of identification of heat, pre- and post-management care of inseminated doe, etc.

2.4 Breeding services through doorstep goat AI- The goat frozen semen will be used in the entire State for quick genetic up- gradation by using Black Bengal / Ganjam germ-plasm for improving the goat herd maintained by the farmers for enhancing the herd productivity within a shorter period of time. Total 1.50 lakh female goats will be covered under Artificial Insemination program.

2.5 Ear tagging- Prior to Artificial Insemination, ear tagging of the goat shall be mandatory and to be done by the AI technician.

2.6 Database of goat AI- The AI technician shall maintain the data base of the goat inseminated, with date of insemination, details of farmer & address, ear

27.7.21 27/07 7.8.21

Special Secretary to Govt

tag no. of the goat inseminated, ear tag no, aadhar no ; contact no of farmer; follow up; kid born, etc in the online Decision Support System (DSS) portal.

2.7 Follow up & Pregnancy diagnosis – The AI Technician will follow up the animals inseminated regularly after AI and maintain the records of confirmed conception, progeny born corresponding to the AI done in the online DSS portal. Early Pregnancy detection Kit will be used in 20% of the goats inseminated to

ascertain pregnancy. Frequent field visit will be made by District supervising officers and Directorate level senior officers to access the progress of the scheme.

3. Modalities of Implementation

1) Priority shall be given to SCs and STs beneficiaries for taking up Goat AI programme at field level. The data of SC & ST benefitted under the scheme need to be captured properly to access the flow of benefits under the scheme.

2) The scheme will be implemented in all 30 districts through 565 field AI Centres.

3) As per breeding policy 2002, semen of only Black Bengal and Ganjam breed will be used for Artificial Insemination under the scheme. Choice of breed will be area specific. The CDVO will decide the breed of semen straw to be used basing on prevalence of breed in the district.

4) Goat AI centers should be carefully decided by CDVOs to avoid genetic dilution of local breed of goat like Bolangir, Malkanagiri, Ghumusari and Raighar.

5) The selection of AI Centres and AI Technicians to undertake goat AI will be finalized by respective CDVO.

6) The entire goats inseminated under the scheme will be ear tagged if not done earlier.

7) The data base of the goats inseminated, follow up & kids born will be maintained by the inseminator in the online DSS portal. The list of farmers, Aadhar number and mobile number of each beneficiary will be kept for verification.

8) An incentive amount of Rs. 20/- per AI for insemination and subsequent follow up will be given to AI technicians. The incentive will be paid only after Artificial Insemination and follow up activities are completed and duly entered in the online DSS portal by the AI technician.

27.7.21

7.8.21

Special Secretary to Govt.
F & ARD Department

9) The Directorate AH & VS will take steps for procurement of semen, equipment, instrument and consumable items like AI straw, pregnancy diagnosis kits etc following approved financial procedure with technical support of OLRDS and FSB.

10) The goat frozen semen shall be procured from reputed organization with germ-plasm from proven bucks of Black Bengal/ Ganjam breed through open tender process.

11) The Frozen Semen Bank (FSB) Cuttack will check/evaluate the quality of semen procured such as concentration, post-thaw motility rate, morphology, incubation test, etc. at FSB lab.

12) The goat frozen semen straws will be distributed by JD, F.S.B, Cuttack to Goat AI centers through respective CDVOs.

13) After certification of BVO based on record maintained and random field visit (5-10%), payment of incentive will be made through RTGS to AI worker. Incentive can be paid if the animal repeats and AI is done in next cycle.

14) No additional manpower or Consultants shall be engaged for implementation of the scheme. This scheme shall be implemented with existing field staff.

4. Health Care Measures

The BVO/ VAS / AVAS in the respective blocks shall provide all technical guidance to the farmers for maintaining proper veterinary health care and timely immunization of the goats.

5.0 Management

Odisha Livestock Resources Development Society (OLRDS) shall be the Nodal Agency for implementation of the project. The Chief Executive Officer, OLRDS will act as the Nodal Officer of this project and will facilitate the project implementation. The existing hierarchy of the directorate of AH & VS at District level will monitor the schemes regularly.

The State level Committee (SLC) comprising of the following members will be constituted to review the progress of Scheme at periodic interval.

27.7.21

7.8.21

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Director, AH & VS, Odisha	Chairman
CEO, OLRDS	Member convener
Additional Director, LD	Member
Joint Director (Small Animal & Poultry)	Member
Joint Director (VOTI)	Member
Deputy Director, Small Animal Development	Member
Associate Professor, Animal Reproduction & Obstetrics & Gynaecology College of Veterinary Science & Animal Husbandry	Member

The SLC will provide necessary guidance for implementation of the project.

The SLC shall closely monitor, evaluate and document the success and impact of the programme.

6.0 Monitoring and Supervision

- Directorate of AH & VS will monitor and review the progress regularly.
- Odisha Livestock Resources Development Society (OLRDS) shall be the Nodal Agency for implementation of the project.
- At field level, CDVOs and SDVOs will make regular monitoring and supervision of the programme through field visit and in the monthly review meeting.
- At Block level Monitoring and supervision shall be done by the respective Block Veterinary Officers.
- The ADVO (Livestock Production) of the districts concerned will be Nodal Officer at District level.
- The monthly progress report will be submitted by CDVO every month in the online DSS portal.
- The AI centres shall maintain all the records regarding details of the farmers, AI done, conception and progeny born, which will facilitate the monitoring and assessment of success of the programme. The AI Technician should follow up animal regularly after AI and maintain the records of confirmed conception, progeny born corresponding to the AI done in a designated register. (Annexure-II)
- Frequent field visit will be made by OLRDS and DAHVS team to access the progress of the scheme.

27.7.21 27/07

7.8.21

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F & ARD Department

7.0 Scheme Outlay FY (2020-21)

Component	Amount (Rs in lakh)
Consumables, and equipment	807.50
Training & Awareness	110.0
Administrative Cost	4.50
Total Project Cost	**922.0**

Detailed cost break-up

Sl. No.	Particulars	Tentative Cost/ unit	Total unit	Total (Rs in Lakhs)
	Consumables			
1	Semen straw	70	450000	315.00
2	Sheath	6	450000	27.00
3	Lubricating Gel tube (50 g)	140	40000	56.00
4	Incentive to AI technician for AI and follow up	20	450000	90.00
5	Early Pregnancy detection Kit (20% of the inseminated animal)	300	90,000	270.00
	Sub-Total			**758.00**
	Equipment/instrument			
6	Vaginal speculum	1000	1500	15.00
7	AI Gun for goat	500	1500	7.50
8	Head lamp	1000	1500	15.00
9	Breeders thermometer	300	4000	12.00
	Sub-Total			**49.50**
	Training & Awareness			
10	Creating Master Trainer	20,000	60	12.00
11	Training of VAS	8,000	200	16.00
12	Training of LI/ AIT	6,000	700	42.00
13	Awareness of farmer	200	20,000	40.00
	Sub-Total			**110.00**
	Administrative cost			4.50
	Total			**922.00**

8.0 Time Frame

The project will be implemented during the year 2021-22

27.7.21

7.8.21

Special Secretary to Govt
F & ARD Department

9.0 Expected Output

- Around 1.5 lakh goats will be bred with superior goat semen and desirable genotype will be introduced into the goat population at a faster rate.
- Approximately, 80,000 goats of genetically superior kids will be born under the Scheme.
- 960 AI Workers will be introduced into the advanced technology in goat breeding
- There will be improvement in the productivity of goat thereby augment the meat production in the State.
- The Black Bengal and Ganjam Breed germplasm will be conserved and improved.
- Investment on maintenance and housing of breeding sire in organized farms or in smallholdings will be reduced.

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Dy. Director (SAD)

27.7.21
Joint Director (P & SAD)

Addl. Director (LD)

DIRECTOR
AH & VS, Odisha, Cuttack

7.8.21
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Annexure- I

Tentative District-wise Target for the year 2021-22

Sl. No.	District	Animals to be covered under AI Programme	AI Straw to be supplied
1	Anugul	7880	23640
2	Balangir	9720	29160
3	Baleshwar	5000	15000
4	Bargarh	6220	18660
5	Bhadrak	2500	7500
6	Boudh	4540	13620
7	Cuttack	6040	18120
8	Deogarh	3000	9000
9	Dhenkanal	3000	9000
10	Gajapati	3500	10500
11	Ganjam	6200	18600
12	Jagatsinghapur	5900	17700
13	Jajapur	6540	19620
14	Jharsuguda	2000	6000
15	Kalahandi	7040	21120
16	Kandhamal	5500	16500
17	Kendrapara	5040	15120
18	Kendujhar	8000	24000
19	Khordha	2300	6900
20	Koraput	3500	10500
21	Malkangiri	2500	7500
22	Mayurbhanj	9500	28500
23	Nabarangpur	2320	6960
24	Nayagarh	2500	7500
25	Nuapada	2860	8580
26	Puri	3520	10560
27	Rayagada	2600	7800
28	Sambalpur	8240	24720
29	Sonepur	4540	13620
30	Sundargarh	8000	24000
	Total	**150000**	**450000**

27.7.21

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Annexure – II

Format – Goat AI Register

Sl. No.	*Dt. of AI*	*Name and Address*	*Adhar No*	*Mobile No.*	*Colour, Ear tag No. and Age of the goat*	*Type of semen used/ Buck ID*	*Fresh/ Repeat*	*Date of PD (Kit test)*	*Result Of PD*	*Date of Kidding*	*Signature of farmer*

Format – Kid born Register

Sl. No.	*Date of AI as per Goat AI register*	*Name and Address of the farmer*	*Ear tag No.*	*Date of Kidding*	*No of kids born*	*Signature of the verifying officer*

27.7.21

7.8.21

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