



OLRDS

Annual Activity Report 2019-20



Odisha Livestock Resources
Development Society



Orientation Programme on Implementation of "Mo Sarkar" in F & ARD Department
chaired by Hon'ble Minister Dr. Arun Kumar Sahoo,
at Krushi Bhawan on 13th February, 2020

Annual Activity Report 2019-20



Odisha Livestock Resources Development Society



TABLE OF CONTENTS

Sl.	Subject	Page
	About OLRDS	1
	Highlights of the Activities for 2019-20	5
I	Increasing the Breeding Coverage	8
	a Introduction	8
	b Conversion of Non – AI Centres to AI compatible	8
	c Provision of mobile AI facility	8
	d Engagement of private AI worker (Gomitra)	8
	e Extending Breeding services through Milk Producers' Cooperative Society	8
	f Trend in AI done	9
II	Quality Control in Livestock Breeding Services	13
	a Rearing of donor Bulls	13
	b Strengthening of Frozen Semen Bank Laboratory	14
	c Recording and Performance Analysis of Cross Bred Bovines	14
III	Education and Training	15
IV	Meeting, work shop and Seminar	15
V	Risk Management & Livestock Insurance	21
VI	Private Players	21
VII	Strengthening of Frozen Semen Bank under National Dairy Plan - I	23
VIII	Users Charges	25
IX	Progress under different Infrastructural Projects	25
	Appendix A Comparative Statement of Artificial Insemination from 2014-15 to 2018-19	28
	Appendix B Artificial Insemination and Progeny born from 2015-16 to 2019-20	29
	Appendix C Frozen Semen Bank Production	30



About the Society

The Odisha Livestock Resources Development Society (OLRDS) is an autonomous body, which was formed in the year 2000 under the Societies Registration Act to reorganize breeding operations in cattle and buffalo of Odisha. This has been formed vide Government Notification No. 10220-3V (D)-7/99/FARD dt.29.05.1999.

OLRDS is the State Implementing Agency for all bovine breeding activities of the State. OLRDS is committed for the socio-economic development of the people through genetic up-gradation of existing cattle and buffalo. The improvement of local cattle and buffalo through genetic up-gradation under the assistance of Central and State sponsored schemes.

The Society focuses on

- I. Organized breeding through Artificial Insemination (AI) or Natural Service by high quality bulls.
- II. Improving access to quality livestock breeding services.
- III. Arranging and in time supply of breeding inputs to field AI institutions.
- IV. Educating farmers for genetic improvement of their cattle and buffaloes.
- V. Initiating appropriate research work for conservation of important indigenous breeds so as to prevent the breeds from deterioration and extinction.

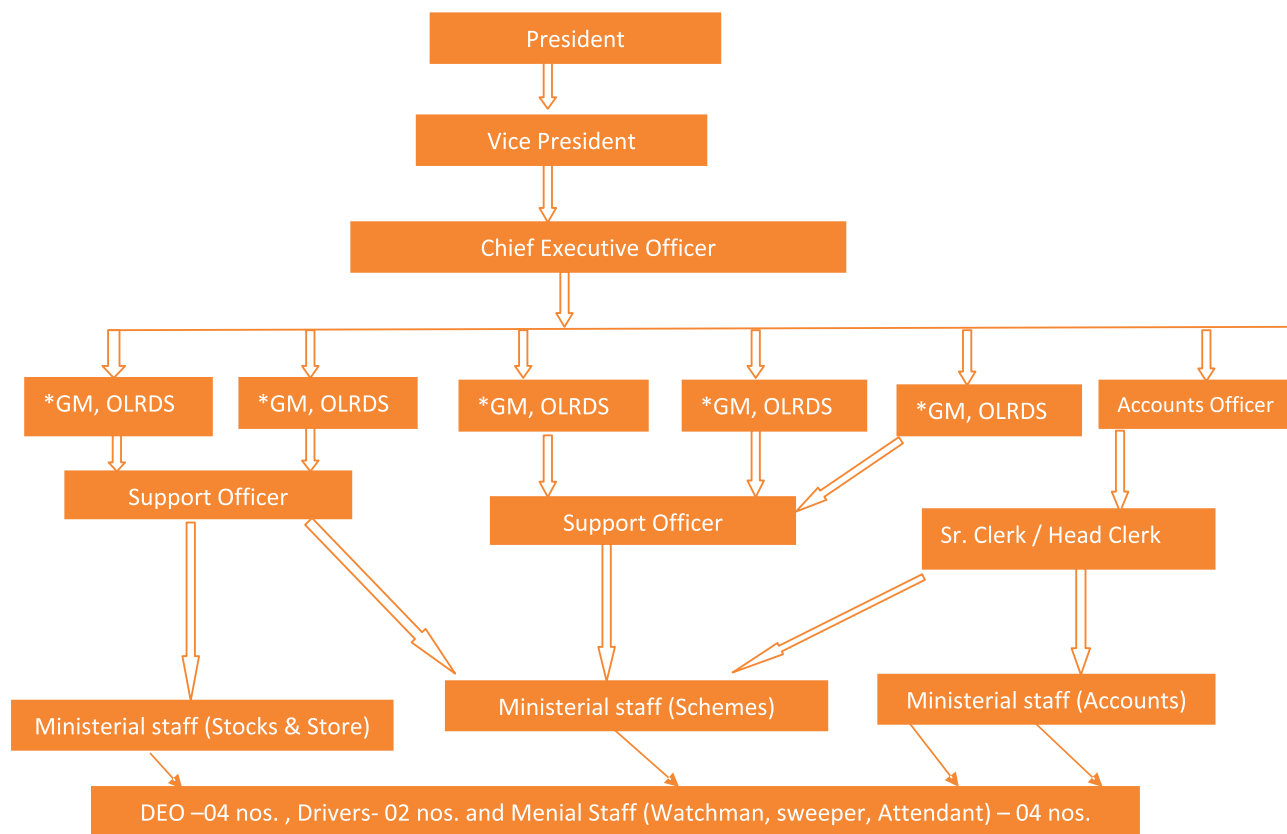
Functions of OLRDS

In Odisha, National Project for Cattle and Buffalo Breeding (NPCBB) has started since 2001-02, which is being implemented by a State Implementing Agency (SIA) i.e. Odisha Livestock Resources Development Society (OLRDS). The breeding project aims at providing systematic breeding services to cattle and buffaloes of the state to improve their genetic potentiality and productivity. It has adopted various approaches like production of quality semen, strengthening and expansion of AI network, provision of breeding services at the doorstep of the farmers, sexual health control measures, creating awareness among the farmers through trainings, shows and rallies, refresher training for the professionals etc. This has resulted higher transformation of existing cattle and buffalo resources in term of their genetic makeup and increase in total production, thereby substantially contributing to the state GDP.

Some of the key functions being performed by the State Implementing Agency (SIA) i.e., OLRDS are as follows;

- ◆ Conversion of non AI centers to AI centers.
- ◆ Provision of mobile AI facility for rendering doorstep services
- ◆ Self employment for the educated youths by engaging as Gomitras.
- ◆ Uninterrupted and timely supply of logistics and other inputs like LN2, straws, sheaths etc. to the AI Centers.
- ◆ Establishment of Natural Service centers for up-gradation of local cattle & buffaloes in inaccessible areas.
- ◆ Strengthening of the Bull Rearing Centers at Frozen Semen Bank.
- ◆ Production of quality bull semen by adopting strict Bio-security measures.
- ◆ Conduct Field Performance Recording (FPR) of bovines.
- ◆ Organization of fertility camps for sexual health control measures.
- ◆ Synchronization of estrus among cattle and buffaloes.
- ◆ Refreshing the knowledge of the professionals on animal breeding and reproduction through training and exposure visits.
- ◆ Production of Crossbred bulls by inseminating the elite cows with semen of proven sires.
- ◆ Conduct Progeny Testing Programme in field conditions for evaluation of the breeding bulls donating semen at FSB, Cuttack.
- ◆ Strengthening of Bull mother farms of State.
- ◆ Conservation and improvement of native germplasms through selective breeding.
- ◆ Implementation of Livestock Insurance Scheme.
- ◆ Partnering with agencies like BAIF, JK Trust, NDDDB and other external agencies for livestock development of the State.
- ◆ Implementation of Calf Rearing Programme in collaboration with OMFED.

Organogram



*GM, OLRDS \Rightarrow 5 nos. of General Manager Posts are sanctioned for OLRDS at FSB, Cuttack (4 nos.) & one at SFAL, Laxmisagar to work on deployment basis vide Gazette Notification, Dated 24th April 2012

Management

Odisha Livestock Resources Development Society (OLRDS) is having a Governing Council with following statutory members.

(A) Official members

1	Principal Secretary/ Secretary to Govt., Fisheries & Animal Resources Development Department, Govt. of Odisha	President
2	Director, Animal Husbandry & Veterinary Services, Odisha	Vice President
3	Addl. Secretary/ Joint Secretary to Govt. F & ARD Dept. Fisheries & Animal Resources Development Department	Member
4	Managing Director, OMFED	Member
5	Addl. Secretary/ Joint Secretary to Govt, Planning & Co-ordination Department	Member
6	Addl. Secretary/ Joint Secretary to Govt, Finance Department	Member
7	Joint Director (HID), Veterinary Directorate	Member
8	Joint Director-I, Veterinary Directorate	Member
9	Joint Director, Frozen Semen Bank, Cuttack	Member
10	Accounts Officer, Veterinary Directorate	Member
11	Chief Executive Officer, OLRDS	Member Secretary (Convener)

(B) Non-official Members

12	Joint Honorary Secretary, Utkal Gamangal Samiti, Cuttack	Member
13	Joint Honorary Secretary, Society for Prevention to Cruelty to Animals, Cuttack	Member
14	Persons nominated by Governing Council	Member

HIGHLIGHTS OF ACTIVITIES OF OLRDS FOR 2019-20

- 3324 Departmental institutions have been equipped with AI Facility out of which 2955 AI centres are also providing doorstep AI service.
- 556 Private AI workers (Gomitras) have been engaged to render breeding and health related services at farmers' door step in inaccessible areas.
- Basic AI technique training programme for 153 OMFED AI workers has been organised in LITC, Bhanjanagar, Frozen Semen Bank, Cuttack & OMTDC, Jagannathpur.
- Six Breeders' Societies namely Chilika Buffalo Promoters' Society (CBPS), Kalahandi Buffalo Producers' Society (KBPS), Binjharपुरी Cattle Promoters' and Producers' Society (BCPPS), Motu Cattle Promoters' Society (MCPS), Khariar Cattle Breeders' Society (KCBS) and Ghumsari Cattle Breeder Society (GCBS) have been set up in Native tract of Chilika & Kalahandi buffalo and Binjharपुरी, Motu, Khariar & Ghumsari Cattle respectively towards breed Improvement & Conservation of all registered breeds of Odisha.
- Semen straw production of Tharparker has been initiated.
- Micro-planning has been made during this year to distinguish the areas for Artificial Insemination Centres of various agencies such as Departmental AI Centres, OMFED Societies and BAIF centres as a measure of rationalization in providing breeding services to the cattle and buffalo and to avoid duplication.
- ISO certified 9001:2015, Grade-'A' Frozen Semen Bank, Cuttack has been modernized & the bull station has been strengthened.
- Bulk LN2 transportation system for different districts has been strengthened. 14,82,664 lts. of LN2 has been distributed to all the field AI centres of 30 districts.
- Construction of District level Semen depots in 20 districts are in progress.
- Construction work of Administrative building of OLRDS is under progress.
- Construction work of one Regional Training Centre at Koraput district is under process.
- 100 numbers of computers have been purchased under RGM have been supplied to field AI institutions.
- 3737 doses of sex sorted semen have been distributed to 10 districts.
- Action has taken to strengthen BBR&BM Farm, Kuarmunda for rearing of Sahiwal Bull mothers.

- Funds have been placed to DAH&VS Odisha for purchase of 20 numbers of LN₂ transport vehicle to be supplied to the districts for intra district transportation of LN₂.
- An amount of Rs. 2,87,26,955/- has been collected from the 30 districts towards AI user charges.
- Regional Training Centre (RTC), Koraput has been strengthened.
- Workshop on "ROLE OF ENTREPRENUR IN DAIRY DEVELOPEMENT" held on 10.09.2019 under Chairmanship of Hon'ble Minister Shri Arun Sahoo at KRISHI BHAWAN.
- 15,06,228 nos. of A.I. have been conducted during the 2019-20.
- 5,20,427 nos. of progenies were born out of Artificial Insemination.
- Frozen semen Bank, Cuttack has been strengthened under NDP-I.
- Annual semen production is 9,02,130 during the year 2019-20.
- 84,183 numbers of animals have been insured under Risk Management and Livestock Insurance.
- The Nationwide Artificial Insemination Programme (NAIP) is being implemented in campaign mode in all 30 districts of Odisha from 15th Sept. 2019 to 31st May, 2020 covering 9000 villages of the State. The AI services under the programme is provided free of cost to the dairy farmers. Under NAIP, 24,57,371 breedable bovine population targeted for coverage out of 37,16,584 total breedable bovine population.
- Incentive has been provided to AI technician @ Rs. 50/-per AI and @ Rs. 100/- per calf born basing on their achievement & uploading in INAPH as well as NADRS portal.
- 5,90,049 nos. of A.I. have been conducted through High Genetic Merit (HGM) bovine semen covering 4,90,787nos. of animals under NAIP.
- Creation of WhatsApp group including all AIT at OLRDS Level for follow up of activities under NAIP.
- Regular Monitoring of Progress of NAIP by Director, AH& VS and Commissioner-cum-Secretary to Govt., Dept. of F&ARD, Odisha & President, OLRDS.
- Engagement of DEO at district level for uploading of data in INAPH software under NAIP.
- To make the AI service delivery system more farmer's centric action has been taken for digitalisation of all breeding records using INAPH application for which internet connectivity is a mandatory requirement. To support the AI technicians an amount of Rs. 300/- per month

per technician towards internet connectivity was released to different districts.

- Organisation of the “State Level Review Committee (SLRC)” meeting of Integrated Livestock Development Programme (ILDPP) implemented by BAIF held on 22.10.2019 Chaired by APC-cum-Additional Chief Secretary, Govt. of Odisha.
- Action has been taken for procurement of AI equipments for conversion of 626 number of AI centres of Dept., MVU and OMFED against the target of 550.
- Recording and Performance Analysis (RPA) of 1000 Cross Bred Bovines has been completed in five blocks namely Baliapal, Binka, Raygada, Balipatna and Koksara of Balasore, Sonapur, Raygada, Khordha and Kalahandi districts respectively.
- **Key Achievements under NDP-I**
 1. Commissioning of Computer Assisted Semen Analyser (CASA) at FSB, Cuttack.
 2. Semi Automatic Distribution System of Liquid Nitrogen (SADLN) at FSB, Cuttack.
 3. Establishment of Irrigation System (in 30 Ac. Land) at Fodder Farm, Patha of FSB, Cuttack under NDP-1.

A Activities under Rastriya Gokul Mission (RGM)

I. Increasing the breeding coverage of bovines

a. Introduction

The Odisha Bovine Breeding Policy, 2015 has been notified by the State Government intending to improve socio economic condition of people through genetic up-gradation of cattle and buffaloes through systematic Bovine Breeding.

Odisha is having a good livestock potential, where most of the animals are Indigenous. During the year 2019-20, 14.39 lakh Artificial Insemination (A.I.) in bovines have been achieved covering around 27% of the breedable population of the State. Steps have been taken to make departmental Non-A.I. centers to AI compatible and static AI centers were provided with mobile facility in order to provide breeding services at the doorstep of farmers.

Govt. of India is emphasizing on doubling the income of dairy farmers within coming 5 years. In order to increase the income of the farmers, the productivity of livestock has to be increased. It is planned to cover 100% of bovine breedable population in organised breeding with special focus on genetic up-gradation of indigenous non-descript bovines under RGM.

In the current year, micro-planning was made to demarcate the areas for Artificial Insemination Centres of various agencies such as Departmental AI Centres, OMFED Societies, BAIF and JK trust centres. Keeping in view the vacancies of staff in the Departmental AI centres, those operational areas were distributed amongst the other agencies in order to ensure availability of bovine breeding services to the farmers.

b. Conversion of Non – AI Centres to AI compatible

At present 3324 number of static AI centers is functioning in our State and during this year 626 numbers of Non-AI Centres will be converted to AI centres.

c. Provision of mobile AI facility

Mobile AI facilities are available in 2955 nos. of departmental AI centers for providing AI services at the doorstep of the farmers.

d. Engagement of private AI worker (Gomitra)

556 Private AI workers (Gomitra) are working in the field. People are able to avail A.I. services for their cattle and buffaloes at their doorstep. The institutional gap is bridged to a great extent by providing service in the areas where department service is out of reach.

e. Extending Breeding services through Milk Producers' Co-operative Society

At present 866 nos. of Milk Producer's Cooperative Services (MPCS) are providing breeding services, where Government AI facility is not available. The Artificial Insemination activity is being taken up in a

coordinated manner so that more number of breedable population can be covered under organized breeding. Possible support is being rendered from the department to these AICs managed by the district milk unions for maintaining the optimum reproductive health status of the animals through Infertility Treatment camps.

f. Trend in A.I. done

The number of AI achieved and progenies born for the year 2019-20 is 15.06 lakh and 05.20 lakh respectively. The district wise AI and progenies born from the year 2014-15 to 2019-20 has been placed at *appendix A* and the graphical representation has been placed at *appendix B*.

AI TARGET & ACHIEVEMENT OF LAST 6 YRS OF ODISHA											
2014-15		2015-16		2016-17		2017-18		2018-19		2019-20	
AI TARGET	Achievement	AI TARGET	Achievement	AI TARGET	Achievement	AI TARGET	Achievement	AI TARGET	Achievement	AI TARGET	Achievement
1801969	1517543	1829838	1633839	1880000	1544048	2400585	1424418	2602400	1439571	2600000	1506228



ARTIFICIAL INSEMINATION



Engagement of DEO under NAIP



Engagement of DEO under NAIP

NATIONWIDE ARTIFICIAL INSEMINATION PROGRAMME (NAIP)

The NAIP is covered under the scheme Rashtriya Gokul Mission under the component of development and conservation of indigenous breeds with 100 % grant in aid basis.

The Nationwide Artificial Insemination Programme (NAIP) is being implemented in campaign mode in all 30 districts of Odisha from 15th Sept. 2019 to 31st May, 2020 covering 9000 villages of the State.

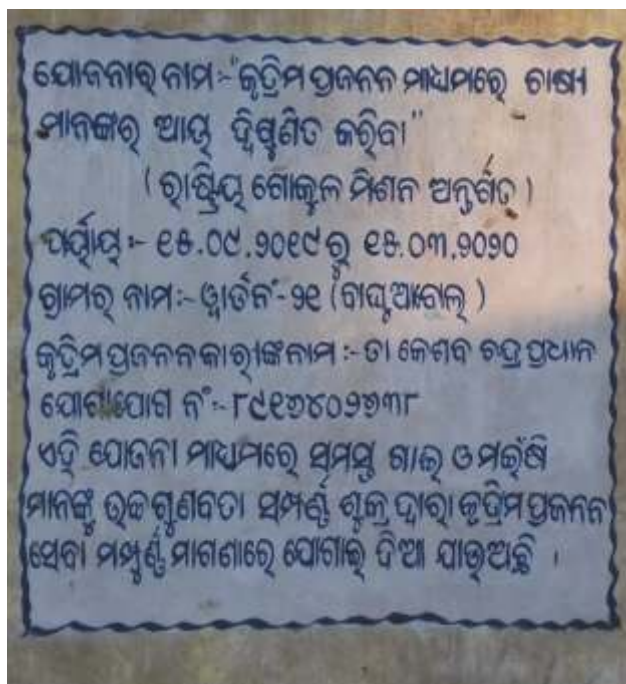
ACHIEVEMENTS MADE :

- ♦ 7,90,320 doses of High Genetic Merit (HGM) semen doses was procured having lactational milk yield ranging from 3,000 lit. to 10,000 lit in addition to production of semen straws at FSB, Cuttack.
- ♦ 287 departmental, 60 OMFED centers and 279 MVUs total to 626 centres have been converted from non-AI to AI center.
- ♦ 6,77,809 doses of high pedigree indigenous bull semen of breeds like Gir, Sahiwal, Tharparkar has been procured.
- ♦ User ID and Password for all 5115 AI technicians (AIT) was created & communicated to all for uploading of AI related data in two National level data platform i.e. Information Network for Animal Productivity & Health (INAPH) and National Animal Disease Reporting System (NADRS).
- ♦ Internet Connectivity was provided to all AITs for uploading of data.
- ♦ Wide publicity through Awareness meetings, leaflet &



Pamphlet distribution, wall writing and Catchy Radio Jingles & TV advertisement was made.

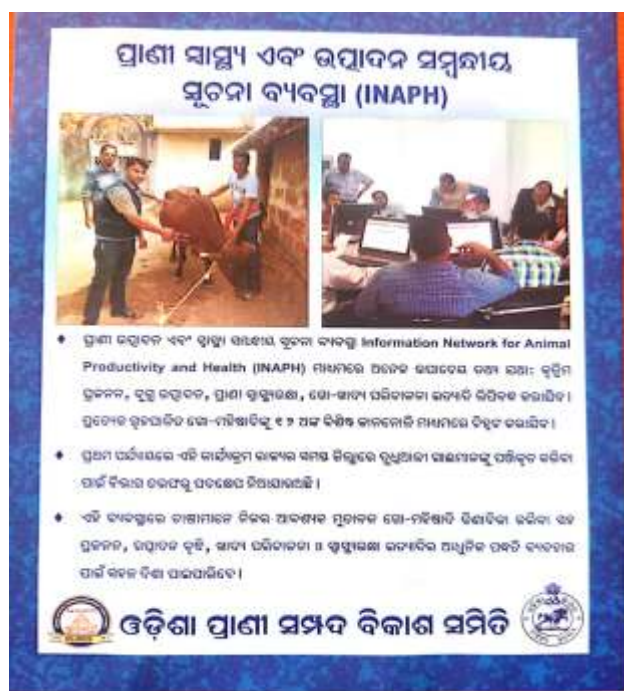
- ◆ 90,000 ear tags purchased under NMBP and exclusively meet the requirement of district for AI under NAIP.
- ◆ 3,28,998 AI data have been uploaded in NADRS portal.
- ◆ 3,99,405 data have been uploaded in INAPH portal .



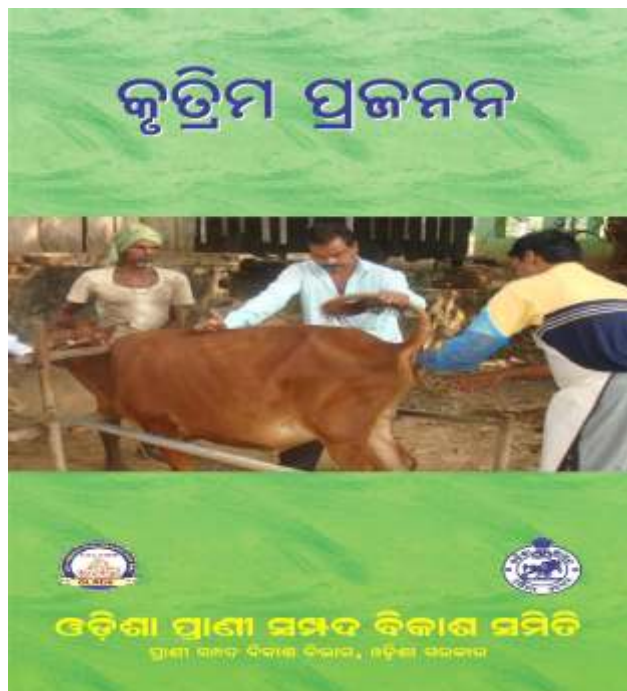
WALL WRITING under NAIP



AI UNDER NAIP



LEAFLET ON INAPH



LEAFLET ON AI

Inauguration meeting of NAIP on 11th September, 2019

AI UNDER NAIP



Weekly review meeting of NAIP at block level

STEPS IN CREATION OF ANIMAL DATA BASE



II. Quality Control in Livestock Breeding Services

Steps have been taken to maintain the quality of the frozen semen, which is the critical input for livestock breeding. As per the field requirement, the production schedule was planned and the shortfall in the production level was bridged by procuring good quality crossbred and buffalo frozen semen from leading organizations of our country.

a. Rearing of Donor Bulls

Single pen accommodation has been created for rearing bulls in the frozen semen station, Cuttack. About 109 donor bulls of different breeds like Hariana-12, Red Sindhi-8, Gir-1, Binjharपुरi-8,

Crossbred HF -17, Crossbred Jersey -39 and Tharparkar-1 are being maintained in the Frozen Semen Station for collection of semen. Moreover, 14 nos. of donor bulls namely 05 CBHF, 01 Sahiwal, 03 Gir & 05 CBJY were purchased this year and maintained at FSB, Cuttack for semen collection.



Donor Bull at FSB, Cuttack

b. Strengthening of Frozen Semen Bank Laboratory

- ♦ The frozen semen-processing laboratory established in 1978 has been strengthened during this year. The laboratory was renovated to provide more space and by creating a separate room for storage and despatch of semen. It is well equipped with modern equipments to produce 20 lakh doses of semen per year. All the critical equipments are under AMC and measuring equipments are calibrated by Regional Reference Standard Laboratory, Bhubaneswar.

22845 Frozen semen doses produced out of 8 numbers Binjharpuri bulls at FSB, Cuttack will be supplied to the AI centers in the native tract of Binjharpuri Cattle of Jajpur district for selective breeding.

The breed-wise semen production is given in *appendix C*.

c. Recording and Performance Analysis of Cross Bred Bovines:

To augment milk production through progressive enhancement of the genetic make-up of the CB bovine population of an area it is highly necessary to inseminate the cow with semen having more production potential than that of the particular animal. So, estimation and analysis of the milk production performance of the CB bovine population of an area is of utmost importance in order to make effective breeding intervention to boost milk production. To access the milk production potential of Cross Bred (CB) Bovine Stock in a specific area so as to Plan for future breeding intervention a Participatory Research Activity called "Recording and Performance Analysis (RPA) of Cross Bred Bovines" involving the farmers has been conducted in five blocks namely Baliapal, Binka, Raygada, Balipatna and Koksara of Balasore, Sonapur, Raygada, Khordha and Kalahandi district respectively with a physical target of 1000.

III. Education and Training

- Basic AI technique training programme for 153 OMFED AI workers have been organised in LITC, Bhanjanagar, Frozen Semen Bank, Cuttack & OMTDC, Jagannathpur.



Basic AI Training of OMFED AI workers

In order to gather practical experience on modern breeding practices, 100 Veterinarians of our State will be send in batches (20 per batch) to various reputed organizations namely KLDB, NBAGR, IVRI, NDDDB, ULDB etc. for experiencing upon the modern livestock breeding and management practices under RGM.

IV. Meeting, workshop and Seminar

- ✓ Organisation of "State Monitoring Committee (SMC)" meeting under NAIP under Chairmanship of Director, AH & VS, Odisha on monthly basis
- ✓ Organisation of Orientation programme on implementation of "MO SARKAR" in F & ARD Dept. on 13.2.2020 at KRISHI BHAWAN Chaired by Hon'ble Minister Dr. Arun Ku Sahoo.
- ✓ Workshop on "ROLE OF ENTREPRENUR IN DAIRY DEVELOPEMENT" held on 10.09.2019 under Chairmanship of Hon'ble Minister Dr. Arun Ku Sahoo at KRISHI BHAWAN.
- ✓ Organisation of "WORLD EGG DAY" Chaired by Hon'ble Minister Dr. Arun Ku. Sahoo at OUAT GROUND on 11.10.2019.
- ✓ Organisation of Regional workshop at Koraput, Balasore, Sambalpur and Cuttack on "Bovine Breeding Activities" under RGM.
- ✓ The Society participated in State level "Krushi Odisha" organized at Bhubaneswar from 20.01.2020 to 24.1.2020 at the Janata Maidan, Bhubaneswar.
- ✓ Meeting through VC to deliberate on co-ordination among INAPH, NADRS & reporting of NAIP held on 21.10.2019 in Krishi Bhawan, New Delhi under the Chairmanship of Secretary (AHD).



Krushi Odisha, 2020

- ✓ Meeting held through VC to review of different ARD activities including NAIP under Chairmanship of APC-cum-Additional Chief Secretary, Govt. of Odisha at OCAC, Bhubaneswar on dt. 03.12.2019.
- ✓ The "State Level Review Committee (SLRC)" meeting of Integrated Livestock Development Programme (ILDP) implemented by BAIF held on 22.10.2019 Chaired by APC-cum-Additional Chief Secretary, Govt. of Odisha.
- ✓ Review of physical progress & uploading of AI in INAPH as well as NADRS portal under NAIP under the Chairmanship of Commissioner-cum-Secretary, Dept. F&ARD, Govt. of Odisha at conference hall of F&ARD on dt. 31.12.2019, 13.2.2020, 17.03.2020 and every fortnight basis.



Implementation of "Mo Sarkar" in ARD Department.



SMC meeting of NAIP Chaired by Director, AH&VS, Odisha



Regional workshop on "Bovine Breeding Activities" under RGM held at Koraput



Regional workshop on "Bovine Breeding Activities" under RGM held on 17.01.2020 at Balasore



Regional workshop on "Bovine Breeding Activities" under RGM held at Sambalpur



Regional workshop on "Bovine Breeding Activities" under RGM held at Koraput



Regional workshop on "Bovine Breeding Activities" under RGM held at Cuttack

V. Risk Management & Livestock Insurance under NLM

Govt. of India assisted National Livestock Mission carries the component of Risk Management and Insurance of the Livestock is currently under implementation covering 30 districts of the State of Odisha with OLRDS as the State Implementing Agency. The scheme envisages management of risk and uncertainties by providing protection mechanism to Livestock owners against any eventual loss of their animals due to death along with demonstration of benefit of the insurance of the Livestock. The scheme extends benefit of subsidies to the livestock owners with marginal /nominal reciprocation

Category	Target	Animals Insured
Large animal (Cattle, Buffalo)	60000	62952
Small Animal (Sheep, Goat)	20000	21231
Total	80,000	84183



Binjharpuri Cow with calf

VI. Private Players

Integrated Livestock Development Programme (ILDP) By BAIF Development Research Foundation, Pune

To boost up Artificial Insemination of Non Descript Dairy cows, Integrated Livestock Development Programme has been launched in Odisha with joint collaboration of Govt. of Odisha and BAIF Development Research Foundation, Pune with a budget allocation of Rs.24.83 Crore for a period of three years. The programme is being implemented through establishment of 285 Cattle Development Centers (CDC) covering 16 districts of the State such as Angul, Bargarh, Bolangir, Boudh, Cuttack, Ganjam, Jagatsinghpur, Jajpur, Kalahandi, Kendrapara, Koraput, Nawarangpur, Nuapada, Puri, Sambalpur and Sonapur.

The specific objectives of the programme are:

- I. Creation of awareness among farmers, about the socio economic benefits of improving the local animals.
- II. Production of improved animals out of local non descriptive low productive animals.
- III. Generation of employment & income for rural families through Livestock component

The total number of AI done under ILDP programme is 1,81,919 and number of calf born is 55,019



Activities under BAIF



Activities under BAIF



Activities under BAIF



Activities under BAIF



“State Level Review Committee (SLRC)” meeting of Integrated Livestock Development Programme (ILDP) implemented by BAIF held on 22.10.2019 Chaired by APC-cum-Additional Chief Secretary, GoO.

VII. Strengthening of Frozen Semen Bank under National Dairy Plan - I

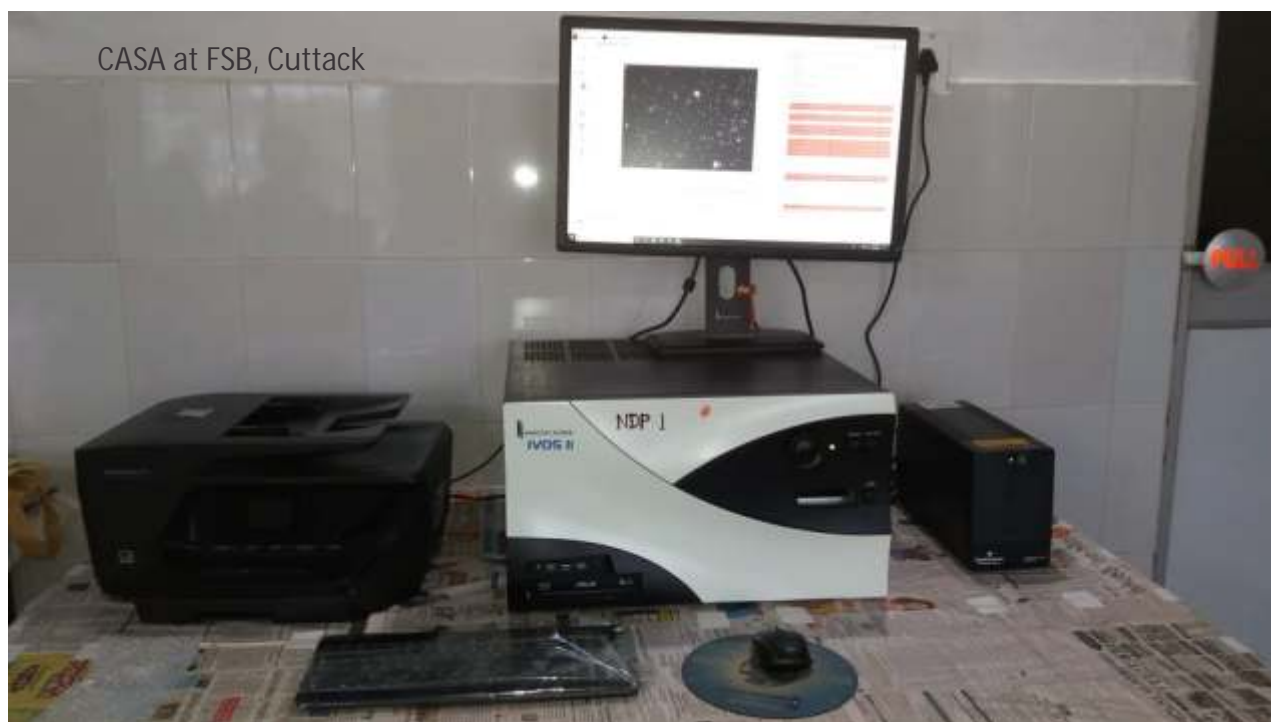
NDDB has released an amount of Rs. 60.00 lakh out of the sanctioned amount of Rs. 753.27 lakh for the period 2017 - 18 & 2018 - 19 in favour of OLRDS, Bhubaneswar (End Implementing Agency) for implementation of the project National Dairy Plan-I in the State of Odisha. The project primarily aims at strengthening of Frozen Semen Bank, Cuttack.

Key Achievements (Success stories) under NDP-I

Frozen Semen Bank, Cuttack

1. Commissioning of Computer Assisted Semen Analyser (CASA)

The Frozen Semen Bank, Cuttack has been accorded as "A" grade Semen Station by Central Monitoring Unit of GoI. The CASA operational in FSB, Cuttack prior to NDP-I was procured about 10 years back. The software of old CASA has become obsolete & it was not also possible to up-grade the software. The Semen Station got an opportunity for procurement of the latest version of CASA through the NDP-I project.



After procurement of CASA (IVOSHI, Hamilton Throne, USA) many sperm characteristics can be studied in detail, like Sperm motility, Progressive motility, Path velocity, Linearity etc. which, helped in production of quality Semen to the dairy farmers of the State. Sperm concentration in individual straws (20 million) is being measured accurately as per MSP for better conception rate & fertility. The morphology of Spermatozoa could also be studied which helps in discard of semen samples having more abnormal Spermatozoa. Therefore the overall quality of Frozen Semen has improved after commissioning & efficient utilization of new CASA provided under NDP- 1.

2. Semi Automatic Distribution System of Liquid Nitrogen (SADLN)

Prior to NDP-I liquid nitrogen was handled manually at FSB, Cuttack even after being an "A" graded Semen Station. Previously to fill-up the cryo-vessels like vats, Jumbo cryo-containers (used in processing Lab, semen storage and dispatch section) and liquid nitrogen (LN_2) containers used in the field AI institutions were usually poured from BA-35 containers manually.

By doing it manually more labour was being used and there was every chance of hazard. The evaporation rate of LN_2 was also high. Previously for freezing the semen straws the bio-freezer was brought from outside of the laboratory for filling the container (Dewar) which is costly equipment. The CMU, Gol during their visit had recommended for filling the Dewar inside the processing lab itself.



Semi-automatic LN_2 distribution

Now due to operation of semiautomatic LN_2 Distribution system the same Dewar is being filled at the place where it is located in the processing laboratory itself without been shifted to outside. Previously, there was chance of damage to these high costly and sensitive equipments during its movements from laboratory to the filling area, but presently there is no such risk. The evaporation loss has been significantly minimised.

3. Establishment of Irrigation System (in 30 Ac. Land) at Fodder Farm, Patha of FSB, Cuttack under NDP-1

The total available land of Fodder cultivation under FSB, Cuttack is about Ac 70.00 . Out of that about 60 Ac. is cultivable land and 10 Ac. is under roads & buildings. Out of those 60 Ac. cultivable lands previously only 30 Ac. was covered under irrigation and remaining was rain fed.



Progress of Irrigation system under NDP-I at Patha Farm, Cuttack

But the remaining 30 Ac. was made cultivable for fodder production throughout the year through NDP-I after sinking of 8" Bore well as well as establishment of irrigation system under NDP-I. Presently the total land of farm was covered under irrigation. The annual requirement of green fodder for Bulls reared at FSB Khapurja is roughly 15,000 quintal. Previously the semen station was able to produce below 10,000 Q. Now we can produce more green fodder due to assured irrigation & can fulfill our requirement. Also we can able to produce Hay from excess green fodder.

Secondly the fodder requirement of proposed Bull Calf rearing unit at Sagadi , Cuttack can be managed by introduction of high yielding variety perennial fodder (which need assured irrigation) at Fodder farm, Patha, along with the green fodder being produced at Sagadi farm .

VIII. Users Charges

To make the Artificial Insemination programme self driven user charges is being collected at prescribed rate from the farmers. With the approval of the Govt. the user charge for AI was enhanced to Rs. 40 /- per AI for both Govt. and private players involved in AI service delivery. During the year 2019-20, an amount of Rs.2,87,26,955/- has been deposited by CDVOs towards user charges at OLRDS .

IX. Progress under different Infrastructural Projects

Construction of OLRDS Administrative Building -

The work has been awarded in favour of Bridge & Roof Co. (India) limited taking into account the lowest agency charges @ 7% as offered with additional provision of CSR activities as admissible. Accordingly a DPR amounting Rs 198.556 lakh has been prepared by the agency. The Director A.H

& V.S has been requested for additional fund during 2019-20. At present the construction work is under progress.



New building of OLRDS.

ii. Construction of Semen Depot -

Under Rastriys Gokul Mission 2018-19 funds amounting Rs 200.00 lakh has been received to take up "Strengthening of 20 District Semen Depot at different districts namely Balasore, Bhadrak, Bolangir, Boudh, Deogarh, Dhenkanal, Gajapati, Jajpur, Jharsuguda, Khandamal, Kendrapada, Keonjhar, Khurdha, Malkanagiri, Nawarangpur, Nayagarh, Nuapada, Rayagada, Sonapur and Sundergarh. The work has been awarded in favour of Bridge & Roof Co. (India) limited. The work is under progress



Sundargarh



Nuapada



Nayagarh



Kandhamal

iii. Construction work of Regional Training Centre, Koraput-

Under Rastriya Gokul Mission 2018-19 funds amounting Rs 198.50 lakh has been received for establishment of a new Regional training Centre at Koraput for AI workers. The work has been awarded in favour of Bridge & Roof Co. (India) limited taking into account the lowest agency charges @ 7.75 %. The work is under progress



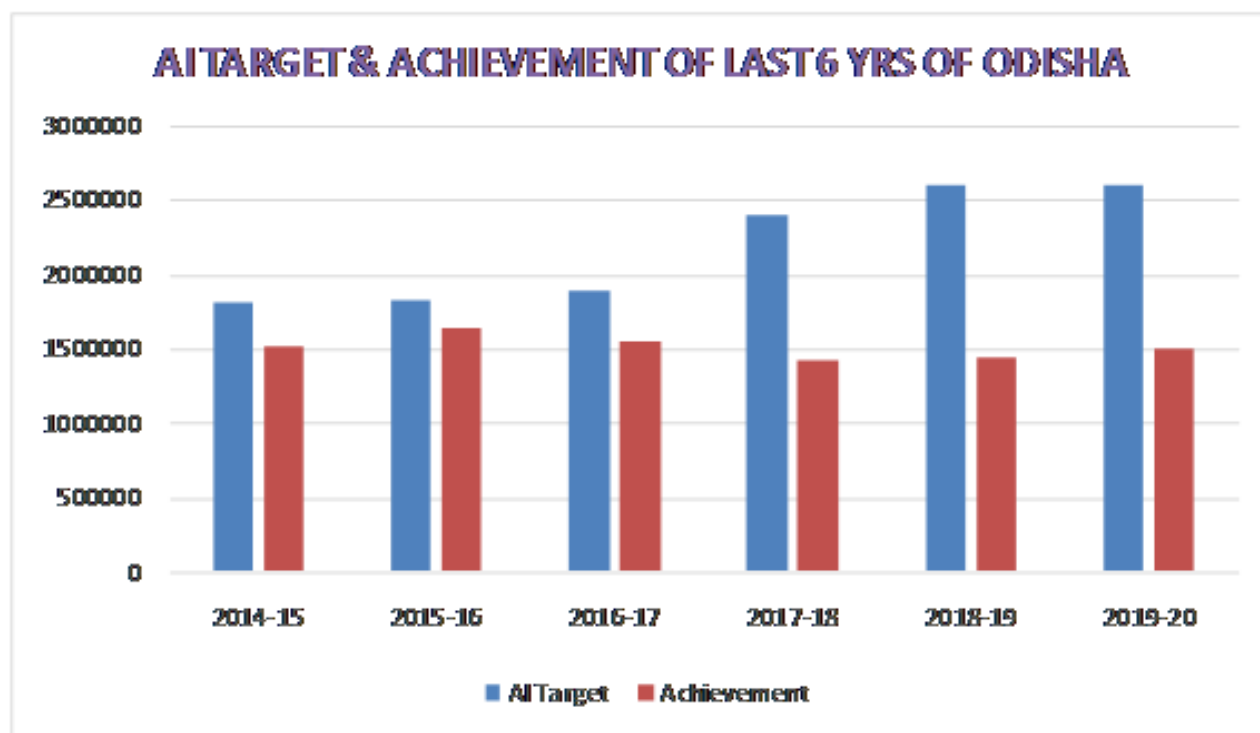
iv. Strengthening of FSB, Cuttack under RGM-

Under Rastriya Gokul Mission, Govt. of India has released an amount of Rs. 100.00 lakh towards strengthening of existing frozen Semen Station under RGM, 2018-19. Accordingly, the Joint Director, Frozen Semen Bank, Khapuria, Cuttack has submitted the proposal for strengthening of existing frozen Semen Station, Cuttack amounting to Rs. 100.00 lakh and said amount has been released in favour of the Joint Director, Frozen Semen Bank, Cuttack for implementation of the programme.

Comparative Statement of Artificial Insemination from 2014-15 to 2019-20

SL NO	DISTRICT	2014-15			2015-16			2016-17			2017-18			2018-19			2019-20		
		TARGET	Achievement	Progeny Born	TARGET	Achievement	Progeny Born	TARGET	Achievement	Progeny Born	TARGET	Achievement	Progeny Born	TARGET	Achievement	Progeny Born	TARGET	Achievement	Progeny Born
1	Angul	57836	42058	15877	57834	47478	16664	58000	46277	17655	76415	48963	19005	80000	49924	20172	84100	53197	63
2	Bolangir	60000	57437	13818	61682	61297	24359	63000	55166	26004	80301	57474	21745	99100	60598	21570	94500	65195	69
3	Balasore	101000	92767	30892	101807	100194	34363	105000	90278	38603	171663	97391	33966	170800	97768	33744	120500	94940	79
4	Bargarh	93500	84414	37364	93506	93100	34879	95000	91069	36266	112732	85055	41881	124200	84875	37789	100200	72938	73
5	Bhadrak	72068	52364	18610	72448	60047	19769	74000	61042	19736	101783	47195	21606	114400	47872	18346	80500	57168	71
6	Boudh	26288	24866	7088	27194	27463	9151	28000	26316	6327	31850	20927	8488	21000	15228	4864	68800	22576	33
7	Cuttack	167000	157650	63672	168871	169233	65899	172000	174162	69706	237675	143956	61938	245800	144867	58842	162100	140709	87
8	Deogarh	16600	11997	4769	16175	12534	4981	17000	11888	5382	17479	11270	5492	19700	10338	6077	64600	14801	23
9	Dhenkanal	52889	37540	14989	52836	40710	16811	53000	41494	17839	63943	38692	17607	82800	36610	16541	73500	39545	54
10	Gajapati	13300	6611	2452	13073	8334	2982	14000	7754	3512	14636	6244	3517	26600	6445	3097	63000	18272	29
11	Ganjam	83156	52737	20241	83027	50975	18899	83500	47274	18524	81751	38725	17371	134700	50774	15885	90000	65054	72
12	Jagatsinghpur	134643	131469	51863	135473	139195	55530	139500	135583	57326	180460	122246	48254	175800	128613	50117	159000	116515	73
13	Jaipur	79791	52268	16145	79797	57572	20253	81000	55181	23282	88780	52960	20881	110300	56395	20413	85000	58426	69
14	Jharsuguda	16299	10089	4649	16031	10960	4047	16500	9862	4723	15905	13555	6132	22200	13216	6113	65500	13569	21
15	Kalahandi	51000	48965	16402	51897	51389	13162	53000	42799	12803	60897	38853	16752	70300	33453	13361	78600	37672	48
16	Kandhamal	16631	11532	2112	16426	10992	2104	17000	9907	2173	27951	15494	1963	35000	20939	2608	68654	38898	57
17	Kendrapara	79171	78073	26411	80266	86985	33206	87000	77396	32221	120511	60242	24251	102700	68809	29020	99800	73121	73
18	Keonjhar	76525	50850	21410	76528	54663	20527	77000	54246	23538	89475	54510	23599	102100	48570	22932	85900	61985	72
19	Khurda	66525	49953	19594	66555	52493	19828	69500	49015	22067	90859	43694	21276	88300	39412	20186	75000	32789	44
20	Koraput	46344	50909	9942	55613	44269	11345	57500	38537	8661	63667	39536	11159	65600	29092	7786	73810	31840	43
21	Malkanagiri	19603	18717	5316	21465	20382	5551	23500	15989	2661	37634	13253	4295	15500	6552	1709	63003	14459	23
22	Mayurbhanj	86561	60399	21410	85965	65440	22888	90000	60932	25629	89263	54315	24370	114300	56054	21474	83500	59580	71
23	Nowrangpur	34405	32086	11897	36566	34487	10072	39000	26791	6846	49747	34687	9676	48500	35347	8242	74715	34267	46
24	Nayagarh	36147	28736	9693	36146	32525	11562	37500	33334	12887	40838	30667	13030	52000	33924	13440	75157	37279	50
25	Nuapara	22615	21764	4532	25224	23585	6165	25500	23920	5770	28317	22382	6141	35900	20832	4628	68698	19407	28
26	Puri	129602	112469	48973	129975	131296	45160	132000	124169	59944	202870	98148	50197	194500	105752	50113	139023	94341	68
27	Rayagada	28741	27721	6705	32847	29522	7617	34000	24174	5680	39804	24316	6530	50400	25584	5188	72423	30481	42
28	Sambalpur	49894	38582	15792	49894	39670	15761	51000	39453	16926	58234	39971	17516	71100	43214	22743	80000	42787	53
29	Sonepur	33941	30450	11263	34249	33845	10071	35000	32415	14404	43416	31275	14507	50000	31365	13664	75917	28460	37
30	Sundargarh	49894	42070	14973	50468	43204	15413	52000	37625	15752	81729	38422	14392	78800	37149	12756	74500	35957	48
TOTAL:		1801969	1517543	548854	1829838	1633839	579019	1880000	1544048	612847	2400585	1424418	587537	2602400	1439571	563420	2600000	1506228	58

Artificial Insemination and Progeny born from 2015-16 to 2019-20



FROZEN SEMEN PRODUCTION

Year-wise Semen Production during 2014-15 to 2019-20

Breeds	20014-15		2015-16		2016-17		2017-18		2018-19		2019-20	
	Total Bulls	Production	Total Bulls	Production	Total Bulls	Production	Total Bulls	Production	Total Bulls	Production	Total Bulls	Production
Jersey	17	3.04	10	2.26	10	2.08	20	2.68	25	5.43	23	252840
CB	17	2.27	28	3.38	27	4.82	27	3.59	28	6.20	39	326115
CBHF	0	0	0	0	0	0	08	0.98	14	1.86	17	106950
Hariana	14	1.90	15	2.34	13	2.26	15	1.84	10	2.73	12	102820
RS	13	1.79	18	2.17	10	2.05	10	1.46	8	1.81	8	87995
Gir									1	0.05	1	2300
Binjharpuri									4	0.04	8	22845
Tharparker											1	265
Total:	61	9.02	71	10.15	60	11.21	80	10.56	90	18.12	109	902130



Gir Cow of Swember Patel of village Rankabahal



Sahiwal bull calves



Calf born under NAIP



Female Calf born under NAIP of Ghasiram Kumar, Tundala



Female Calf born under NAIP of Dayasagar Majhi, Tundala



Calf borm under NAIP of W/o Rabi Meher, Burdhipada



Calf borm under NAIP of Magharaj Meher, Burdhipada



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