

Cattle Breed Improvement Project
for the establishment of
“Integrated Livestock Development Centres”
Under RKVY

Submitted By:

Department of Fisheries & ARD, Govt. of Odisha
Bhubaneswar

Cattle Breed Improvement Project through Establishment of Integrated Livestock Development Centers by JK Trust Gram Vikas Yozana

PROJECT AT A GLANCE

1. THE PROJECT : Cattle Breed Improvement Programme (CBIP) through the establishment of 64 Integrated Livestock Development (ILD) centers in Cuttack, Dhenkanal and Nayagarh districts of Odisha for providing the services of Artificial Insemination & Veterinary First aid to Cows & Buffaloes at the doorsteps of the farmers.

The project aims to provide breeding, feeding and management services at the door steps of the dairy farmers in the project area. These services will be provided through 64 '**Integrated Livestock Development (ILD) Centres**' in Cuttack, Dhenkanal and Nayagarh districts of Odisha.

Each of these ILD centres will be operated by a local educated unemployed youth called as 'Gopal' and will cover about 8-10 villages within a radius of 5-8 Kms.

This will provide much needed Artificial Insemination & veterinary support services to all the dairy farmers in the project area.

As mentioned earlier the objective of the project is to provide integrated services in breeding, feeding and animal management, in order to create an appropriate economic and production environment for the dairy farmers, who have very poor access to the existing services. Moreover this will help in the internal generation of dairy stock by small holders themselves. This would translate into more milk and more income to the dairy farmers, thus meeting our objectives of *reducing malnutrition, alleviate poverty and increased employment opportunities* to the rural youths as Gopals.

2. IMPLEMENTING AGENCY: **J. K. Trust Gram Vikas Yojana** (a leading NGO working in the field of Cattle Breed Improvement and Rural Development)

3. OPERATIONAL AREA : **Cuttack, Dhenkanal and Nayagarh Districts**

4. NO. OF CENTRES PROPOSED: **64 Integrated Livestock Development (ILD) Centres**

5. PROJECT PERIOD : **5 years**

6. IMPACT OF THE PROJECT:

PRODUCTION OF UPGRADED / CROSSBRED CALVES

1. The ILD Centres will offer mobile services of Artificial Inseminations at the door steps of the farmers for production of upgraded / crossbred calves from their existing non-descript indigenous cattle.
2. The target per centre for the project period of 5 years - As the availability of breedable population is about 500 in each of these proposed centers, the target for calf production will be **a minimum of 210 upgraded / crossbred calves per center in five years.**

6. FINANCIAL DETAILS OF THE PROJECT:

Total financial requirement for one centre for a project period of 5 years:

Year wise requirements of the funds for 5 years per centre (Rs. in lakhs)

Sr No.	Particulars	Ist Yr	IIInd Yr.	IIIInd Yr.	IVth Yr.	Vth Yr.	Total
1	Capital	1.57					1.57
2	Training & Baseline Survey	0.15					0.15
3	Operating & Monitoring cost of AI & AH services	1.81	1.95	2.11	2.28	2.46	10.61
4	Techno Management Cost	0.20	0.20	0.21	0.24	0.25	1.10
5	Contingency @5%	0.17	0.10	0.11	0.11	0.12	0.61
	Total	3.90	2.25	2.43	2.63	2.83	14.04

7. MONITORING OF THE PROGRAMME

Sr. no	Level	Period	Agency
1	Village level	Daily, Weekly & Monthly	Centre In charge, Vet. Officer of JK TG VY & AHD.
2	District level	Monthly, Quarterly, Yearly	District Level SGSY co-ordination Committee
3	State Level	Quarterly, Yearly	State level co-ordination committee

8. Implementation

- Every calf born out the programme will be photographed and ear tagged. The calf birth certificate along with the photograph of the calf will be issued which will be signed by the Veterinarian of JK TG VY, Govt. veterinarian and the Sarpanch of the village.
- Provision of other veterinary services such as deworming, castration, vaccination, infertility treatment, first aid medicines etc. through our ILD centres.
- Qualified veterinarian supervises the operations of the Gopal and provides expert technical services during health camps.
- Supply of mineral mixture, fodder seeds etc. at affordable rate to dairy farmers through the ILD Centres.

1. CONCEPTUAL BACKGROUND OF THE PROJECT

Development is about increasing the entitlements of the people in ways we have reason to value. It is about bringing sustainable positive changes, big or small, in the lives of people at large. The approach or the method adopted to achieve this noble goal is multi pronged. Only the space and time specificity defines the kind of intervention one shall make in order to result in substantial development.

This project is a sincere attempt by a well-known NGO (J.K Trust Gram Vikas Yojana) in the field of animal husbandry to bring the breeding, feeding and other veterinary support services to the dairy farmers of Orissa.

The implementing agency i.e. J.K Trust Gram Vikas Yojana (JKTGVY) is presently implementing the 'Breed Improvement Programme of cattle and buffalos' through 3867 Integrated Livestock Development (ILD) Centres in 8 states namely Chhattisgarh, Madhya Pradesh, Gujarat, Andhra Pradesh, Odisha, Bihar, Punjab & Haryana.

2. RATIONALE OF THE PROJECT

The ability of the rural poor to enhance their livelihoods is constrained by a range of inter-related structural, social, economic and institutional barriers. The situation of the poor is characterised by marginal and under-productive landholdings, periodic droughts, floods, insecure land tenure and a reliance on seasonal agricultural labour.

The low population, relative isolation and inadequate infrastructure development in some districts increases the cost of delivery thus resulting in poor access to agricultural inputs, extension services, credit services and markets.

Hence, the importance of animal husbandry comes in to picture as an alternate source of income to agriculture as it has less seasonal impact and less dependence on land holdings but provides year round income.

Although our Cattle Breed Programme has demonstrated that a mini Dairy of 2-3 upgraded/ crossbred cows can give sustainable income to the rural poor and will also partly take care of its nutritional needs. But these rural poor will need support of veterinary services to maintain the milk yield of his dairy animals and unfortunately there is no assured source from where he can expect this veterinary care.

The financial support is critical for development of infrastructure for veterinary care services in the initial project period of 5 years. During the project period of 5 years, majority of the non –descript cattle /

buffalos will be bred through Artificial Insemination for production of upgraded/ crossbred calves. The resulting upgraded/ crossbred cattle will help in improving the socio economic status of the rural farmers

In order to carry out the dairy development, farmers will be assisted with provision of veterinary services at their doorstep. It is therefore, necessary to avail assistance from RKVY Fund for bridging the critical service gaps in the rural area to increase productivity of livestock. The proposal is designed on the persisting ground reality and in view of the emerging requirements in order to ensure quality livestock breeding and other support services at the door step of the farm community and promote more effective use of funds allocated to the Department.

3. CATTLE BREED IMPROVEMENT PROGRAMME OF J.K TRUST GRAM VIKAS YOJANA THROUGH THE ESTABLISHMENT OF INTEGRATED LIVESTOCK DEVELOPMENT (ILD) CENTRES

The main objective of the programme is to upgrade/crossbreed the local indigenous low milk-yielding cows & buffalo with the use of frozen semen from highly pedigreed indigenous/exotic bulls. The resulting upgraded/crossbred calves will be better milk yielder and will help in improving the socio-economic status of the farmers especially the ones who are landless, marginal land holders and poor. The programme will be implemented through Integrated Livestock Development (ILD) centres

One ILD centre covers all the villages (approximately 5-10) falling within a radius of 5 - 8 Kms. Hence depending on the size of the block, the number of centres to be established will be decided.

Each of these ILD centres, are operated by a local educated unemployed youth called as “Gopal”.. He will be given four months intensive training to carry out Artificial Insemination in cows / buffaloes and other allied veterinary services, by Veterinarians at Raymond Embryo research Centre, in Gopalnagar, CG.

He goes to the very doorsteps of the farmers and carries out Artificial Insemination of cows and buffalos to provide AI and other veterinary support services. Thus the important feature of this programme is the doorstep delivery of services.

At present JKTGVY is operating 3867 ILD centres in 8 states namely Chhattisgarh, Madhya Pradesh, Andhra Pradesh, Gujarat, Bihar, Odisha, Punjab and Haryana. Besides, we operated 150 ILD centres in Chittoor and Anantapur districts of Andhra Pradesh since 1998. From 1st November 2005, after the completion of the project period, these centres were handed over to Andhra Pradesh Livestock

Development Agency. Since then, these centres are operating on their own, without any financial support from the Government.

4. PROJECT AREA

Odisha is India's 10th largest state with respect to area and 11th largest with respect to population. It was recognised as a separate province in 1936. The state of Odisha has an area of 155.707 sq. km and population of 36.80 million. There are 30 districts, 314 blocks and 51349 villages. Over 76 percent of the people are dependent on agriculture. Out of the gross cropped area of 87.46 lakh hectares, 18.79 lakh hectares are irrigated. The state contributes one-tenth of the rice production in India. Agriculture is the prominent sector in Odisha's economy, contributing 51% of the state's total domestic products in 1971. Land and soil play the most vital in the state's economy. Land is the chief source of an Odia Farmer. Therefore, agricultural economy of the state is much dependent on the productivity of land and the supporting activities of Animal Husbandry.

The Cattle Breed Improvement Project (CBIP) will be implemented in Cuttack, Dhenkanal and Nayagarh districts of Odisha by establishing 64 Integrated Livestock Development (ILD) centres under this project as per the following details:

District	Block	Centres		
		New	Gomitras	Total
Cuttack	Badamba	10	9	19
	Narasinghpur	5	12	17
Nayagarh	Daspalla	3	2	5
	Gania	2	0	2
	Khandapada	6	1	7
Dhenkanal	Sadar	2	0	2
	Hindol	6	6	12
		34	30	64

5. OBJECTIVES OF THE PROJECT:

- Improve productivity of the local cattle and buffalo through artificial insemination, balanced feeding, veterinary services and management
- Improve draft strength of good quality bulls produced through the ‘Cattle Breed Improvement Programme’ through scientific feeding & management
- To strengthen the existing network of govt. veterinary services.
- Establish the ‘Integrated Livestock Development centres’ to provide integrated breeding, feeding and cattle management services to the dairy farmers.
- To increase the productivity of the animals through breed up gradation.
- Promotion of fodder cultivation to meet the need of animal nutrition.
- Provide information on the latest scientific animal management practices to the dairy farmers.
- To decrease the inter-calving period of milch animals by providing timely breeding facility at the doorstep of the farmers.
- To minimize the infertility problems through proper treatment of the animals by organising infertility camps.
- To help in increasing per capita availability of milk.
- To reduce the risk of milch animal and calf mortality by protecting them through prophylactic vaccinations.
- Helping the farmer in reducing the financial loss due to reduced milk yield and/or death of the animals by providing Veterinary First Aid services in time.
- To increase the percentage coverage of breedable population under A.I. programme.
- Enhance income of the poor dairy farmers and thus reduce migration and provide year-round employment them.

6. PROJECT STRATEGY AND KEY PROJECT ACTIVITIES

JKTGVY with its decades of experience in cattle breed improvement and biotechnology, has established itself in the field by successfully running mobile AI & AH service centres. The local youth who will be selected from project area, as centre operator is called ‘**GOPAL**’, is intensively trained to carry out the work in field with confidence.

JKTGVY has successfully demonstrated the feasibility of establishing integrated livestock development centres in States namely Chhattisgarh, Andhra Pradesh, Madhya Pradesh, Bihar, Gujarat, Haryana, Punjab, and Uttaranchal.

7.1 Project Period:

a) Preoperational Phase: (1 to 2 months)

After approval of project report, the same shall be discussed with the concerned officials to finalise the location of centres.

b) Preparation Phase: (4 – 6 months)

- Selection and Training of GOPALS and recruitment of veterinarians and other staff.
- Cattle population- Conducting Household survey
- Equipment Procurement
- Finalization of ILD centre locations
- Establishment of project offices
- Logistics finalisation
- Publicity in operational area

c) Operational Phase: (60 months)

- Starting of centres
- Village cattle owner groups
- Regular AI & AH services at farmers door step
- Monitoring

JKTGVY commits to run the program in field for 60 centre months after establishing the centre in field i.e., from the month GOPAL is in place at centre.

7.2 Project impact cycle:

- 1st year is gestation period in which establishment; progress in AI & AH services and pregnancies can be achieved.
- 2nd year is the beginning of calf crop and calf maintenance and rearing.

- 3rd year is the period in which F1 generation heifers coming into heat and also improved confidence on the services
- 4th year – Progeny born out of program coming into milk and improved milk situation
- 5th Year - Increased performance of progeny born & F2 generation pregnancies.

7.3 Services to be provided by the implementing agency:

- Dairy cattle management:** Necessary training will be imparted to beneficiaries with livestock holdings, to adopt better dairy cattle management techniques. The guidance will be required in the areas of balanced feed, improving the quality of local feed and fodder, supplementation of minerals, fodder cultivation and preservation techniques.
- Breeding:** JKTGVY will undertake breeding of Cattle & Buffaloes. The genetically superior progeny born out of this programme will be better milk yielder. Breeding services will be provided at the doorstep of the farmers with the use of high quality of frozen semen. Farmers will be charged for these door step services.
- Animal Health Care:** This aspect will be covered by the Gopal with the help of qualified veterinarians.
- Castration:** Castration of the scrub bulls will be done to prevent servicing by the local bulls.
- Vaccination:** Preventive vaccination against H.S. & B.Q. will be undertaken every year with the support of Dept of Animal Husbandry.
- Deworming:** Deworming tablets will be given regularly to the newborn crossbred calves at affordable rates. Dairy farmers will be encouraged to treat their present non-descript cattle also with the deworming tablets, which will be supplied to him at a discounted price.
- First aid:** First aid services will be provided on need basis by Gopals and the veterinarians.
- Infertility Treatment:** Cattle camps will be arranged in the project area to address the issues related to infertility among the cattle population. These will be conducted with the active participation of qualified veterinarian from the Trust.
- Fodder and nutritional feed supplementation:** These will be supplied through the gopals to the beneficiaries at a subsidised price.
- Beneficiaries will be familiarized with the techniques of fodder cultivation and preservation.

7.4 Supply of following feed inputs will be organized by JKTGVY

a) Cattle feed:

It will be made available to the beneficiaries at affordable rate

b) Mineral Mixture:

JKTGVY will make available good quality mineral mixture to crossbred heifers and cows owned by the beneficiaries at affordable rates.

7.5) Technical Know how

The beneficiaries will be provided with latest knowledge in matters related to dairying. The veterinary officers employed by JKTGVY will provide them with regular inputs in cattle rearing as part of extension activities.

8 PHYSICAL TARGETS:

The targets will be in terms of production of upgraded/crossbred cattle & buffalo calves. Based on the data available with us and as given by OLRDS, about 500 breedable population will be available at each ILD centre for the breeding activities. As such, JKTGVY proposes to **produce minimum 210 upgraded/ crossbred (CB) cattle and buffalo calves at each centre during the 5 year project period.**

However, base line survey will be conducted after department allocates us the area of operation. This survey will indicate the availability of breedable cattle and buffaloes in the allotted area of operation.

The year wise target of upgraded/crossbred cattle & buffalo calves to be produced per centre is given below. However, project pooled targets will be considered for assessing the achievement of targets in the district.

The targets per centre of production of upgraded/ crossbred calves [year wise]:

Year	1st Year Target per ILD centre	2nd Year Target per ILD centre	3rd Year Target per ILD centre	4 th Year Target per ILD centre	5th Year Target per ILD centre	Total target per ILD centre
No. of upgraded /crossbred calves	5	20	40	60	85	210

9. SALIENT FEATURES OF THE PROGRAM:

- Centre in charge 'GOPAL' is a local youth – Hence, employment generation as well as skills enhancement in remote areas
- Village organisation/ Cattle owners committees in every centre village to ensure better monitoring of GOPAL & for effective service utilisation.
- Target oriented monitoring to ensure value for money spent.
- Aiming at self sufficiency of the program by strategically fixing the service charges in consultation with stake holders.
- Formation of SHGs to ensure capacity building of the beneficiary farmers to ensure sustainability of the programme.
- Interface with AH department to ensure support services after withdrawal of the implementing agency.

10. PROJECT FINANCIALS

Year wise requirements of fund per centre for 5 years (Rs. in lakhs)

Sl. No.	Particulars	Ist Yr	IInd Yr.	IIIInd Yr.	IVth Yr.	Vth Yr.	Total
1	Capital	1.57					1.57
2	Training & Baseline Survey	0.15					0.15
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4	Techno Management Cost	0.20	0.20	0.21	0.24	0.25	1.10
5	Contingency @5%	0.17	0.10	0.11	0.11	0.12	0.61
	Total	3.90	2.25	2.43	2.63	2.83	14.04

(A) Fund requirement for 34 ILD Centres (New): (In Rs. Lakhs)

	1st year	2nd year	3rd year	4th year	5th year	Total
Total Fund Requirement for 34 ILD Centres (New)	132.6	76.5	82.62	89.42	96.22	477.36

(B) Fund requirement for 30 ILD Centres (Gomitra): (Rs. in Lakhs)

	1st year	2nd year	3rd year	4th year	5th year	Total
Total Fund Requirement for 30 ILD Centres (Gomitras)	107.48	71.1	76.44	79.02	84.99	419.03

Note: 1. Capital : 10 new sets will be purchased over a period of 3 [years @Rs.35,000/-](#) starting from the 1st year itself.

2. Training : As Gomitras are practicing AI activity, the training duration may be shortened to 2 months only. The cost accordingly has been reduced to Rs.7500/- per person.

11. MONITORING AND EVALUATION OF THE PROGRAMME

To ensure proper planning, implementation by establishing centres in time, to ensure quality service at doorstep of the farmers, to ensure quality input supply, to ensure breeding policy in place, to ensure follow up corrective actions it is very essential to design and implement proper MIS from the beginning of the program.

11.1 Monitoring Systems:

- Baseline data on ND/CB bovine population, milk production, consumption, procurement facilities, income levels etc.
- Various monitoring tools like AI register, farmer data base etc in place
- Monitoring systems to ensure quality outputs by improved efficiency

11.2 Monitoring Indicators

- Increase in crossbred population
- Increased incomes of 'GOPALS'
- Awareness and practice of improved breeding
- Improved dairy management practices
- Asset creation & improved incomes of dairy farmers
- Increased milk consumption and improved nutrition status of children
- Increased productivity of the progeny born & milk production
- Employment generation

Year wise total fund requirement (A+B):

	2013-14	2014-15	2015-16	2016-17	2017-18	Total
Total Fund Requirement for 64 ILD Centres (New + Gomitras)	240.08	147.6	159.06	168.44	181.21	896.39