

# POULTRY FARMING

*An Intervention for Sustainable Livelihood in  
Tribal Districts (OTELP Blocks) of Odisha*



**Odisha Tribal Empowerment & Livelihoods Programme**

(ST & SC Development Department)

Govt. of Odisha

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## Introduction

Odisha has the 3<sup>rd</sup> largest concentration of tribal population in the country. About 44.70 % of state's geographical area which is known as scheduled area extends over to 118 blocks out of 314 blocks in 12 districts and covers ST population of 55.50 lakhs. Both ST & SC together constitute 38.66% of the total population of the state (ST-22.13% and SC-16.53%) as per the 2001 census. The ST population of the state constitutes 9.66% of the total population in the country. The tribal male & female literacy rates are 51.48% and 23.37% respectively. Over the last decade, there has been a significant improvement in the literacy level among the STs in the State which recorded an increase from 22.31% in 1991 to 37.37% in 2001. There are 21 Integrated Tribal Development Agency (ITDA) covering the Tribal Sub Plan (TSP) area for implementing Tribal Development Programs. Outside the TSP area there are 46 MADA pockets and 14 clusters where the programme implementation is done through blocks.

**The Odisha Tribal Empowerment & Livelihoods Programme (OTELP) of ST and SC Development Department is being implemented in 30 most backward remote blocks of 7 south-west tribal districts of Odisha since 2005 benefiting 56,180 households over 1034 villages.** Out of the total households in OTELP areas, 80% households constitute the Scheduled Tribes (ST) and 15% Scheduled castes (SC). About 75% of the households are below poverty line (BPL) and 24% are absolutely landless. These Tribal families depend on subsistence agriculture. The major contribution to their livelihood is from Non-Timber Forest Product (NTFP) collection, small livestock rearing like goat and backyard poultry. The food sufficiency is less than 6 months for 75% families. It adopts micro watersheds as a unit of planning and implementation with community participation for livelihood promotion including farm, off farm and non-farm enterprise interventions. The income from traditional agriculture is low. The climatic conditions are unpredictable, land holding becoming smaller and smaller with each generation and seasonal agriculture (rain fed) are unable to provide full employment to the working class. For the poorest of the poor and the landless, the major issues are food security and risk spreading through subsidiary income. Therefore there is a dependency on nonfarm activities like goatery and poultry for supplementary income. Backyard poultry farming requiring hardly any infrastructure set-up is a potent tool for upliftment of the poorest of the poor. Besides income generation, rural backyard poultry can improve food self-sufficiency. Small scale poultry production has the potential to stimulate economic growth of resource poor households.

There has always been a challenge to the Govt. to find some sustainable livelihood opportunity for these small marginal farmers and in particular the landless labourers' and tribal families. The

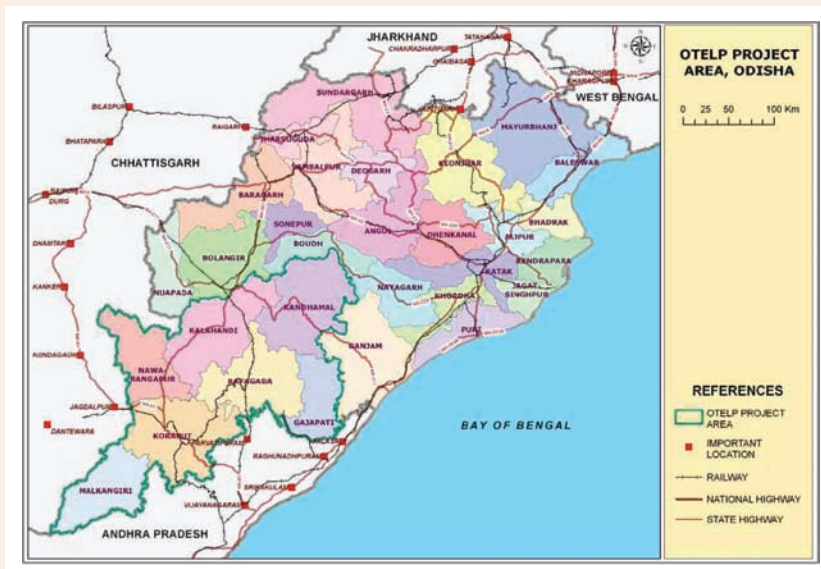


# POULTRY FARMING

An Intervention for Sustainable Livelihood in Tribal Districts (OTELP Blocks) of Odisha

tribal community invariably has higher incidence of diseases and intensity of poverty than any other population group. They rear goats, sheep, pigs, poultry birds, cattle etc. in a traditional way. Therefore the Govt. has given the thrust in this aspect of animal husbandry so as to rear genetically improved breeds of goats, sheep, pigs, cattle and poultry birds. At present there is availability of 35 lakh nos. of desi birds in backyard sector as per 2003 livestock census. Almost 60% of rural and 100% of tribal SC & ST households are rearing backyard poultry in the State. Rural backyard poultry contributing nearly 30% of the National egg production is the most neglected one. In order to overcome this problem, it may be necessary to take up scientific rural poultry production programmes by introduction of low input technology dual purpose birds & improved broiler farming to meet the requirement of the rural sector where the poultry farming constitute a source of subsidiary occupation, generating subsistence income to boost the nutritional standards, income levels and health of rural masses. Thus rural poultry farming not only generates income levels but provides employment opportunities to rural women and helps the desired socio-economic changes in rural areas.

Poultry rearing can enhance house hold food security and contribute to poverty reduction through provision of supplementary food, income and employment. Besides providing employment this will also generate additional income for the household. In addition to this, commercial activities under this poultry sector will also encourage the unemployed educated youths in a great manner to be involved in this enterprise. These activities will create sustainable means of livelihoods in the rural areas along with the bridging the gap of demand and production in poultry meat. **The backyard as well as improved broiler poultry farming have been accepted as a viable enterprise of mostly the landless tribal families below the poverty line.**



## Importance of Poultry Farming



The poultry industry in India was growing at 8 % to 10% in the last decades but presently the growth is over 15% in last 3 years and the poultry business is to cross Rs.1320 billion by 2015. The poultry meet demand in the country is expected to grow annually @ 20% and egg @ 5% to 7% and the poultry market is estimated to be Rs 490 billion per year as forecasted by Associated Chamber of Commerce and Industries (ASSOCHAM). India is now the 4<sup>th</sup>

largest producer of Poultry meat (2.9MMT/yr) and 3<sup>rd</sup> largest producer of eggs(57 billions/yr) in the world. The major poultry producing states in the country are Andhra Pradesh, Karnatak, Kerala, Tamilnadu, Maharashtra, Punjab & Haryana.

The consumption of egg and meat of poultry is increasing at a rapid rate in Odisha. The annual egg & poultry meat production in the State is insufficient to meet the demand of the State & therefore the demand is met by bringing the same from the neighboring States. Poultry products like egg & chicken constitute a primary source of animal protein. The present production of poultry meat in the state is 70 T.M.T. and there is a target to produce 100 T.M.T. of poultry meat by 2020. Similarly the production of eggs is 42 lakhs per day as against the demand of 64 lakhs eggs per day & it is targeted to produce 100 lakhs eggs per day by 2020. The per capita poultry meat consumption is 2.5 Kg. as against the recommendation of 11 KG. In tribal districts alone looked after by OTELP, there is a demand of more than 6 T.M.T. and part of this demand is met by Andhra Pradesh. The per capita consumption of eggs is 58 as against the recommended 180 eggs by National Institute of Nutrition (NIN), Hyderabad. The introduction of egg in the mid day meal programme by the State Govt. further increases the scope of poultry farming in the State. In view of this there is a large potential for covering more poorest and poor families under poultry farming so as to take these tribal families out of poverty line.

Though many urban entrepreneurs benefited by broiler revolution, poor rural people are still far away to get the benefits from broiler poultry farming. Due to non availability of organized poultry sector in rural area, broiler farming is not popular as an alternate livelihood for rural people. The growth, especially in the broiler sector, continues to be the subject of huge volatility leading to instability in terms of prices and sustainability. There has been a huge increase in disease problems.

## OTELP Intervention in Poultry Farming

Looking into vast scope of Poultry farming both in terms of backyard poultry farming with low input technology & dual purpose birds & improved broiler farming can be taken as a possible viable intervention amongst the rural poor & tribal families in OTELP operational area. The poultry intervention was made with the assistance under SCA to TSP.

The Special Central Assistance (SCA) is provided by the Ministry of Tribal Affairs to the State Govt. as an additive to the State TSP. SCA is primarily meant for family oriented income generation scheme in sectors of agriculture, horticulture, sericulture and animal husbandry and cooperation. A part of the SCA (not more than 30%) is also permitted to be used for development of Infrastructure incidental to such income generating schemes. Accordingly the proposals on Back Yard Poultry Farming and Improved Broiler Poultry Farming at house hold level as income generating schemes for tribal families were submitted & got approved under SCA to TSP during 2011-12 and fund sanctioned under SCA to TSP are mentioned below:

- i) A sum of Rs.190.01 lakhs has been sanctioned by ST & SC Dev. Deptt. as Grants-in-aid General for backyard poultry farming for 6 of the OTELP covered ITDAs namely Koraput, Gunupur, Nawarangapur, Malkangiri, Balliguda & Paralakhemundi for establishing 47 Mother units & benefit 1735 tribal families under backyard poultry farming. In addition to this assistance for establishing 7 no's of mother units along with night shelters for undertaking backyard poultry farming has been sanctioned from OTELP own resources for ITDA, Balliguda & Th. Rampur.
- ii) A sum of Rs.107.16 lakhs has been sanctioned by ST & SC Dev. Deptt. as Grants-in-aid for establishing 24 no. of mother units with night shelters for 1908 tribal families and benefit 2196 tribal families under backyard poultry farming under ITDA, Koraput, Paralakhemundi, Nawarangapur, Gunupur, Malkangiri & Balliguda.
- iii) A sum of Rs.127.28 lakhs has been sanctioned by ST & SC Dev. Deptt. as 1<sup>st</sup> year Grants-in-aid for establishing Improved Broiler poultry farming at household level with formation of poultry co-operatives by SwornaJyoti Women Co-operative Poultry federation Ltd. (SWPCFL) with the association of Harsha Trust under OTELP covered ITDAs namely Koraput, Gunupur & Nawarangapur out of the total approved project cost of Rs.462.50 lakhs under SCA to TSP to be implemented within 3 years from 2011-12 to 2013-14.



- iv) Looking into the scarcity of day old chicks in the state a sum of Rs.238.38 lakhs was sanctioned by the ST & SC dev.Deptt.as Incentive Grant for creation of capital assets for development of a Vanaraja Parent stock layer farm with a capacity of rearing 16,000 Vanaraja layers under ITDA, Koraput and thereby produce annually 18 Lakh day old Vanaraja chicks to meet the requirement of mother units .
- v) A sum of Rs.556.23 lakhs has been sanctioned as incentive grant (grant-in-aid) for establishing mother units and backyard poultry farming in 9 ITDAs namely Kuchinda, Bonei, Koraput, Jeypore, Rayagada, Gunupur, Nawarangpur, and Balliguda & Phulbani. This will enable to establish 87 mother units and night shelters for 2871 tribal families and extend benefit to 3915 tribal families under backyard poultry farming.

With the sanction of above grant by the ST & SC Dev.Deptt, during 2011-12, OTELP has made the following poultry interventions broadly in 4 areas. They are enumerated as below.

- A) Establishment of day old chick rearing units (mother units) by the women SHGs.
- B) Backyard poultry farming by the tribal families
- C) Improved broiler farming by the individual tribal families
- D) Kuroiler farming by the individual tribal families



Interaction by the Commissioner-cum-Secretary, ST & SC Development Deptt. Sri Santosh Kumar Sarangi, IAS, Sri Bhupinder Singh Punia, IAS, Sub-Collector-cum-PA ITDA, Baliguda and other officials of OTELP & ITDA, Baliguda with the members of Laxmi Narayana SHG at the Mother Chick Unit, Digamilla, Balliguda



## Background Information

# Backyard Poultry Farming

The rural backyard poultry contributes nearly 30% of the National egg production, is the most neglected one. The fact is that the village poultry eggs and meat fetch a much higher price than that of commercial poultry. However 70% of the Poultry products and eggs are consumed in urban and semi-urban areas and the consumption in rural areas is quite low. This low consumption is attributed to limited availability and to some extent poor purchasing power of rural people. In order to overcome this problem, it may be necessary to take up specific rural poultry production programme with low input technology dual purpose birds to meet the requirement of the rural sector where the poultry farming constitute a source of subsidiary occupation, generating subsistence income to boost the nutritional standards, income levels and health of rural masses.



Backyard poultry is one of the important livelihoods of most of the tribal families. It has a strong potential as an income generation activity by sale of eggs or chickens. Almost 60% of rural and 100% of tribal ST & SC households are rearing backyard poultry in the state. The tribals as such rear desi birds under scavenging conditions. The tribals also use poultry birds for traditional rituals & sacrifices. The traditional backyard poultry is less remunerative than modern backyard poultry which practices by rearing low input technology dual purpose birds under scavenging conditions. This is a low-cost investment to enhance sustainable income generation to a tribal family which requires very little hand feeding but provides very handsome returns with minimum investment within a short period.

The newly developed low input technology birds namely Vanaraja, Giriraj, Krishibro, Kuroiler, etc. are reared under scavenging conditions. They are dual purpose multicolor birds with a higher genetic potential & resembling the desi (Indigenous)



birds in their physical characteristics. The birds scavenge in the natural habitat and little expenditure is incurred on feed, medicines etc. These birds have triple advantage of the characteristics of the indigenous bird in terms of hardiness & colour, high egg laying capacity like exotic layers & high weight gain like those of broiler birds. This dual purpose birds will have egg laying capacity 150 to 180 eggs per year in the scavenging (free ranging) condition as against 30 to 50 eggs by a desi bird per year. They also attain a body weight of 2.0 to 2.5 kgs in

90 days. The egg weight is 50 grams having tinted brown coloured shell similar to desi birds. There is always a demand for desi birds in market which fetch a good price. Generally the males are sold for meat purpose and hens are retained for egg production.

But due to non organized system the farmers are not able to make good profit from this activity. The main reason is high mortality rate due to lack of vaccination and low immune status of birds due to low-level of nutrition. The objective of backyard poultry under OTELP is to provide a good shelter to birds in order to save them from predators and also provide proper nutrition, health care with backward & forward linkages through poultry co-operatives. Each OTELP/ITDA district will have one poultry co-operative which in turn shall provide the feed, vaccines, medicines at the door step and also takes care of the marketing of the birds.



A tribal family is provided one time revolving fund under SCA to TSP to rear 30 nos 28 days old low input technology dual purpose chicks (Vanraja or Kuroiler) which are vaccinated against major poultry diseases. The family is assisted for construction of a night shelter at farmers level. The family will give feed and water in the evening and allow the birds to roam in the backyard/village in the day time so that the birds eat insects, white ants, grass and other kitchen waste. The birds are reared for 60 days and then marketed either in the nearby market or to the co-operative. Thus a farmer can rear 5 to 6 batches in a year and generates an incremental income of Rs.10,000/-to Rs.12,000/-per annum with an average profit of Rs.2000/- to Rs.2500/- per cycle of 60 to 65 days. Thus rural poultry farming not only generates additional income but provides employment opportunities to rural women and helps to bring about the desired socio-economic changes in the rural areas.



## Concept of Establishing Mother (Brooding) Units



Since the day old chicks are vulnerable to predators in free range conditions, they need to be reared under reasonably controlled conditions with proper brooding facility, balanced feeding, vaccination & medication say up to 28-30 days so that they are capable of thriving in open range conditions. Care is taken to maintain proper temperature inside the brooder looking into the ambient temperature so as to avoid chick mortality. This day old chick rearing unit with a capacity to rear 1000 chicks is called mother unit or brooding centre. This mother unit is made of 600 sq.ft.area with 1 ft.height brick wall over which wire mesh up to 5 feet on sides with asbestos roofing and having all the equipments & facilities for brooding of chicks. The investment cost on a mother unit including the working capital to meet the cost of day old chicks, chick feed, vaccines & medicines comes to almost Rs 1.98 lakhs including the members' contribution. One SHG takes the responsibility to

construct the mother unit of 600 s.q.feet and rear 1000 chicks up to 28 days. The mother unit gets the supply of low input day old chicks from state / central govt. poultry farms or private hatcheries. This variety of poultry birds reared under backyard poultry farming are namely, Vanaraja, Giriraj, Kuroiler, Kalinga Brown and Carigold etc. They are capable of producing more number of eggs and good quality meat. These birds can thrive & survive well on village/household waste.

Every SHG member looking after the mother unit & also backyard poultry farming is given 6 days



**Training on Backyard Poultry Farming from 1-8 August, 2011**  
Sponsored by OTELP, ST & SC Dev. Dept., Govt. of Odisha  
Organised by CPDO(E.R.), Govt. of India, Bhubaneswar

residential training on shed management, brooding, vaccination, feeding, watering, medication, disease diagnosis and treatment at the Central Poultry development Organization (CPDO), Bhubaneswar, an institution of Govt. of India. Normally 28 days old chicks 30 in numbers are supplied to member families of other SHGs in the same village or nearby village for rearing under scavenging condition for a further period of 2 to 3 months. Thereafter the birds can be sold for meat purpose after 60 to 90 days of rearing. The hens can be reared for egg purpose which starts laying eggs after 24 weeks. After egg laying period, the hens can also be sold for meat purpose at a cheaper rate. The SHG managing the mother unit makes on an average a net profit of Rs.9,000/- per cycle of 28 days & can at best rear 7 to 8 batches of chicks in a year and makes a profit of Rs.60,000/- to Rs.70,000/- per annum. The poultry co-operative organized in the district is responsible for capacity building of the farmers and ensures timely supply of chicks, feed, medicines, vaccines, medicines including marketing of the birds.



## Cost Benefit Analysis

### 1. Investment of a Mother Unit

Sl No	Particulars	Rate	Amount ( Rs.)
<b>I CIVIL WORK FOR BROODER SHED</b>			
1	Brooder Shed area of 600 Sq.ft. (30 ft.x20 ft.).Civil work with KB brick masonry, CC (1:2:4) in flooring, Asbestos roofing, pipes for tubular trushes,iron door, iron mesh, cement paint & lime wash (As per estimate of OTELP enclosed)	L.S.	135000
<b>II EQUIPMENTS</b>			
1	Poultry Equipments (10 nos. each Chick feeder, chick drinker, Adult feeder & Adult drinker,total 40 nos.)	L.S.	9000
2	Chick guard 25 ft. long and 1.5 ft height made of aluminum sheet	L.S.	1500
3	Electric Brooder 4nos (1 brooder for 250 chicks)	L.S.	2000
4	Solar Light	1 no.	1500



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SI No	Particulars	Rate	Amount ( Rs.)
5	Flame gun	1 no	1500
6	Digital weighing balance	1no	2000
7	Spray machine	1no	2000
8	Plastic sheet	L.S.	1000
9	Water Tank	1 no	500
10	Farm cleaning equipments	L.S.	500
11	Sign Board (4 ft. x 3 ft.)		1500
	<b>Sub Total</b>		<b>23000</b>
	<b>Total Fixed Cost</b>		<b>158000</b>
<b>III WORKING CAPITAL</b>			
1	Day old Chicks(Vanaraja,Kuroiler)	19	19000
2	Chick Feed @ 0.750 Kg/chick @ Rs.23/- per Kg	23	17250
4	Vaccines & Medicines	L.S.	2000
5	Misc.expenses (Litter, lime, phenyle, kerosine, charcoal etc.)	L.S.	1750
	<b>Sub Total</b>		<b>40000</b>
	<b>Total Cost (Fixed cost + Working capital)</b>		<b>198000</b>

## 2. Income from a Mother Chick Unit ( 1000 capacity)

Particulars	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Total birds	1000	1000	1000	1000	1000
<b>Cost</b>					
Day Old Chicks Cost along with transportation	19000	19000	19000	19000	19000
Feed @ 0.75 kg/bird @ Rs.23/-per Kg	17250	17250	17250	17250	17250
Medicine & Vaccines	2000	2000	2000	2000	2000
Other Misc.cost	1750	1750	1750	1750	1750
<b>Total cost</b>	<b>40000</b>	<b>40000</b>	<b>40000</b>	<b>40000</b>	<b>40000</b>
<b>SALES</b>					
Total birds (2 % additional mortality excluding 3% supplied by the Farm)	980	950	950	950	950
Sale price Rs./Chick (28 days old)	50	50	50	50	50
<b>Total sales (in Rs.)</b>	<b>49000</b>	<b>49000</b>	<b>49000</b>	<b>49000</b>	<b>49000</b>
<b>Profit per batch</b>	<b>9000</b>	<b>9000</b>	<b>9000</b>	<b>9000</b>	<b>9000</b>
<b>Profit per year ( 8batches in a year)</b>	<b>72000</b>	<b>72000</b>	<b>72000</b>	<b>72000</b>	<b>72000</b>

## Economics of Rural Backyard Poultry Unit rearing for Meat purpose (30 birds under Scavenging condition) to be reared by one farmer under ITDA

Sl.No.	Particulars	Rate	Quantity	Amount(Rs.)
<b>A.</b>	<b>Fixed cost</b>			
a.	Cost of low cost Night Shelter of Size (8 feet x 5 feet )	2500	1	2500
b.	Adult Feeder 8 kg capacity & Adult drinker 5 lt. capacity (one no. each)	L.S	2	700
	<b>Sub Total</b>			<b>3200</b>
<b>B.</b>	<b>Variable Cost</b>			
a.	Cost of 28 days old Growers chick	50	30	1500
b.	Vaccines and Medicines	L.S.		100
c.	Cost of Feed @ 0.50 gms per day per bird for 65 days =3.25 Kg./bird	17	100	1700
	<b>Total</b>			<b>3300</b>
	<b>Grand Total (A+B)</b>			<b>6500</b>
<b>C.</b>	<b>BENEFIT</b>			
a.	Sale of birds at 3 months age of Body Weight 2.20 Kg @ Rs.90/ per kg i.e Rs 200/ Bird assuming 5% Mortality	200	28	5600
b.	<b>Total</b>			5600
c.	<b>Net Benefit=(Benefit- variable Cost)</b>			<b>2300</b>
d.	No. of batches reared per annum			6
e.	<b>Benefit per Annum per beneficiary</b>			<b>13800</b>

### Swornajyoti Women Poultry Cooperative Federation Ltd.

The Implementation of the Project on “Improved Poultry Farming at household level” is being executed through Swornajyoti Women Poultry Cooperative Federation Ltd.(SWPCFL), registered under Odisha Self Help Cooperative Act, 2001, having its Head Office at Jeypore, Koraput and its district level poultry cooperatives promoted by Harsha Trust at Koraput, Rayagada and Nawarangpur district. The federation has made the agreements with the respective ITDAs for fund flow and smooth operation of the project. The federation will build the capacity of the different stakeholders and provide both forward and backward linkages for better quality and output of the poultry project. Harsha Trust will support the intervention on the basis of their mandate for expanding the poultry

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intervention in tribal pockets of South Odisha. The PSU of OTELP and Harsha Trust will jointly monitor the implementation of the poultry programme executed by the district level cooperatives and their federation.

## Broiler Poultry Farming by Individuals under OTELP

This provides quick income to women farmers between 35 to 40 days duration in a cycle and requires less area (only 400 sqft. area) and little skill for farm Management. Due to good demand of poultry meat, marketing is not an issue. 400 tribal families will be covered under improved boiler Poultry farming in the ITDAs of Koraput, Gunupur & Nawarangpur by March, 2013. Till now 150 ultra poor families have been covered in these ITDAs. All the farmers will become the members of the district Poultry Cooperative after depositing their share capital and member fees. The cooperative will look after the capacity building of the farmers along with distribution of all inputs. The poultry federation shall look after the marketing of the poultry birds. The Governance of the cooperative will be done by the members only.





## Cost Benefit Analysis

### 1. Investment of a Broiler Poultry Farm (400 Capacity)

SI No.	Particulars	Unit	Rs./unit	Amount ( Rs.)
<b>A</b>	<b>FIXED COST</b>			
<b>I</b>	<b>Shed 400Sq.feet area (16 ft.x25 ft.)</b>			
1	Broiler Unit	400sqft	L.S.	27000
<b>II</b>	<b>Equipments</b>			
1	Feeders, drinkers, chick guard, gas brooder, cylinder, bucket, solar light, sheet etc	L.S	L.S	5000
<b>B</b>	<b>Total Fixed Cost</b>			<b>32000</b>
<b>C</b>	<b>Working capital</b>			
1	Chicks, feed, medicines and other Misc. expenses	Nos.	L.S	20000
	<b>Sub total</b>			<b>20000</b>
	<b>Total cost</b>			<b>52000</b>

### 2. Income from a 400 capacity Broiler Poultry Farm per annum

Particulars	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Total birds	400	400	400	400	400
<b>Cost</b>					
Chicks 400 nos	8800	8800	8800	8800	8800
Feed @ 3 kg/bird @ Rs.22/kg	26400	26400	26400	26400	26400
Medicine	1200	1200	1200	1200	1200
Other cost	1600	1500	1500	1500	1500
<b>Total cost</b>	<b>38000</b>	<b>38000</b>	<b>38000</b>	<b>38000</b>	<b>38000</b>
<b>SALES</b>					
Total live body wt. (380 bird x 1.7 kg/bird) = 646Kg. (5% mortality)	646	646	646	646	646
Sale price Rs. /kg	65	65	65	65	65
<b>Total sales (in Rs.)</b>	<b>41990</b>	<b>41990</b>	<b>41990</b>	<b>41990</b>	<b>41990</b>
<b>Profit per batch (in Rs.)</b>	<b>3990</b>	<b>3990</b>	<b>3990</b>	<b>3990</b>	<b>3990</b>
<b>Profit per year (6 batches per year)</b>	<b>23940</b>	<b>23940</b>	<b>23940</b>	<b>23940</b>	<b>23940</b>



## OTELP / ITDA Nawarangpur



The Teluguni Mata SHG members of village Sikadaguda of Kosagamuda block in Nabarangpur district were trained and exposed on scientific poultry management along with the Village Development Committee (VDC) Community mobiliser and paravet. Now they are managing 1000 nos. capacity day old chick rearing unit (MCU) in their village & have completed two cycles successfully by rearing vanaraja day old chicks and earned a net profit of Rs. 11,200.00 in the first cycle & Rs.9,400.00 in the second cycle. So much profit generated

within a very short span of time overwhelmed the members of Telugunimata SHG. The group which was formed during April, 2010 with 14 members mainly of agricultural wage earners & organized for social development is now taking up the commercial poultry business for their economic empowerment. Group president Smt. Hira Majhi and Secretary Smt. Sobha Majhi were quite excited and they said that, “rearing so many one day old chicks in one room initially posed a challenge for us but after observing their survivability at the end of 7<sup>th</sup> day gave us a moral boost to our members’ confidence on our management capability”.

By efficient chick management, veterinary care and nutrient feeding in MCU, reduced the risk of mortality. The marketing of birds in the village itself by the SHG members also reduced the cost as well as problem of transportation. Such entrepreneurship with involvement of low risk will generate direct and indirect employment for the rural people with a scope for many fold investment in backward and forward linkages. It created a regular source of income by unfolding a great opportunity for the rural people.

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## OTELP / ITDA Gunupur



Thirteen tribal women in the remote village named Gumkudi in Chandrapur block in the district of Gajapati under VDC Kedargouri formed a Self help group on 01-02-2006 with the support of OTELP/ITDA, Gunupur facilitated by Universal Service Organisation(USO) an NGO working for the poor & the destitute in the said block. All the women in the group are working as daily wage labourers to meet their daily needs. Apart from this they make some meager income from selling of non timber forest





products like mohua flowers, Kandul & salseeds etc. After intervention of backyard poultry farming in OTELP blocks with the support of the ST & SC Development Department under SCA to TSP, establishment & management of mother chick unit in their village was entrusted to the group. The SHG members of the village were trained and exposed on scientific poultry management along with the Village Development Committee (VDC) Community

mobiliser and Paravets at CPDO, Bhubaneswar. After completion of the chick rearing unit, the group brought their first batch of 1000 nos of day old Vanaraja chicks from Govt. poultry farm at Semiliguda in Koraput district. Two members from their group in rotation were entrusted to look after the feeding, watering, vaccination & medication of the chicks up to 28 days for which the group also paid a remuneration of Rs 1000/- to each member. The 28 days old chicks were sold to members of other SHGs for pursuing backyard poultry farming. The group made a net profit of Rs.9700/- after meeting all expenditures. The group has now further completed 2 cycles and has earned a net profit of Rs.11345/- in 2<sup>nd</sup>. Cycle and Rs.12300/- in 3<sup>rd</sup>. cycle respectively. The group president said that they have never earned more than Rs.5000/- in their life.

## OTELP / ITDA Koraput



### MCU – A Livelihood Armor

Livelihood enhancement through group action and group efforts are some of the examples reflected in the village of Kulab in Subai GP of Semiliguda Block in Koraput district. The women labourers have effectively organized

themselves and took up productive activities like establishment of a Day old chick rearing unit (Mother Unit) in their village for a sustainable livelihood.

The women in the village were mainly engaged in the unorganized sector as labourers with an uncertainty of income and livelihoods for years. They were organized into a Self Help Group few years back under the facilitation of OTELP-TSRD.

Initially for a period of 2 years, they have been confined with credit and thrift activities as a preliminary function and had a greater vision of adopting the effective strategy of livelihoods in near future and to their fortune the implementation of OTELP programmes in the village made their dream come true.



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The concept of MCU was well communicated to the group in a village meeting where all the 15 members of the group unanimously agreed to take up the activities with some group contributions. The funds from SCA to TSP were targeted for establishment of day old chick rearing unit in 11 SHGs out of which Maa Sarala SHG was one of them.

Before taking up the activities the SHG were well trained on rearing of day old chicks in a MCU and had exposures to State poultry farm at Chiplima, Sambalpur and Central Poultry Development Organisation (CPDO), Bhubaneswar. Under the facilitation of TSRD, they were mobilized to contribute a tune of Rs.30, 000 towards the expenses to be incurred for brooder shed, feeder, drinker, Electricity connection in addition to the tune of Rs. 1.67 Lakh as grant received by the VDC from ITDA, Koraput under SCA to TSP for the construction of the Chick rearing unit with a capacity to rear 1000 nos day old chicks.

As soon as the construction MCU got completed, Maa Sarala SHG with the help of OTELP managed to collect 1000 day old chicks from Govt. Poultry Farm, Chiplima, Samablpur

as a first attempt and reared them up to for a period of 28 days. Thereafter the chicks were supplied to the tribal families having individually constructed the night shelters in the village. The SHG made a a net profit of Rs.14000/- in 1<sup>st</sup>.cycle. As marketing of the chicks was not a constraint for the SHG, they continued the second cycle with same process of management resulting in a profit of Rs. 9,000/- in the second cycle.

Now, the 15 members of SHG are individually sharing their responsibility in day today management of this MCU. They are now well trained on feeding, drinking, vaccination of chicks at the right time. This has remarkably supplemented to hone their livelihood in a sustainable way. Further, they have planned to scale up their business by rearing not only day old chicks but also for producing broiler & layer birds for meat and eggs in a large scale. ***“OTELP has now taught us to earn our livelihood through Mother chick unit which has been supporting us with good income to our families. Now we have planned to give much attention on this poultry activity to make an end to our age old problems of livelihood” says the president of the Group.***

### Tribal Self Help Group Venture

***“Now we hope to earn our livelihood through this activity, which has been supportive for us with some income in our very first attempt”*** says Tulasi Gadwa, the president of a SHG named as “Om Namah Shivay” at KAUGUDA, a small tribal concentrated village in A. Malakangiri GP of Dasmantpur Block under

Koraput District. The women Self Help Group consisting of 15 members belonged to the families of marginal farmers and wage earners, who have been engaged in the fields as agriculture laborers and daily wage earners seasonally for the past few years. Livelihood, they understand nothing but working as daily laborers and feed their families whatever they earn.



With the intervention of OTELP under the facilitation of CYSD, these 15 members were organized into a group and were trained on group norms and activities. Being nurtured under due guidance of OTELP, the group initially got involved in credit and thrift activities but later on had taken up the activities like nursery raising /supply of seedlings with a meager income.

The experience what they gathered on taking up IGA helped them to adopt the concept of Mother Chick Unit, an activity promoted under OTELP to promote backyard poultry programme in the tribal districts. Under this programme, a Mother unit to rear day old chicks is constructed where the chicks are reared for a period of 28 days with proper care & supervision. The total project cost for establishment of one MCU with an area of 600 sq.ft. with AC Sheet Roofing is Rs. 1.98 lakhs which includes the members' contribution of Rs.31,000/-.

The Women SHG members after being understood the business plan joined their hands together for managing the MCU under technical/ financial support of OTELP. They were mobilized to contribute to the tune of Rs. 31,000/- towards labour and other inputs besides the grant released under by the ST & SC development department under SCA to TSP. To have a proper

knowledge on this activity they were given due trainings and exposures on taking proper care of the day old chicks for avoiding diseases and mortality. They were facilitated in procuring the day old chicks of 1030 nos. from KEGG, Farm Choudwar. All the 15 members have distributed their responsibility in giving watch and ward to the MCU round the clock daily.

The group successfully completed the first cycle and the complete stock of chicks were sold to the poor/ultra poor tribal families who had constructed the night shelters for raising Backyard poultry units to be managed by their families. The first cycle of rearing fetched the group an income of Rs. 11,000/- which made them more positive towards this venture. Now with the second cycle, their businesses have taken off and continued with more vigor & expectations to earn additional income which



can pave the way for a sustainable livelihood in the future.

The SHG have now much more aspirations of boosting their business by not limiting to the activity of only rearing day old chicks but also they will invest more time and labour towards rearing layer birds for producing eggs to supply directly to the local town & markets.



# POULTRY FARMING

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## OTELP / ITDA Th. Rampur

### Poultry Farming by SHG – An Alternative Livelihood Option



Poultry farming is a good alternative option for income generation of the poor tribal households mostly by the SHG members. When we take poultry as a livelihood option, starting from Day old chick rearing unit upto household level Backyard poultry farming comes to the mind as a total and complete process to be adopted for better management of the Poultry farming.

To take up this poultry farming as an alternate option for income generation, an orientation programme on poultry management was given at field level and one SHG named Maa



Tarini of Kosabara village of Gramvikas (ph-II) area under Th.Rampur block was selected for taking up this activity in a commercial manner.

Maa Tarini SHG consists of 10 women ST members and all the members were more or less engaged in labour work and some agriculture activities. All the members have been oriented and provided training on starting this poultry farming and management of the Mother chick rearing unit(MCU). Then we started searching land for construction of shed for Day old Chick rearing unit, it was found that there is no



availability of suitable govt / community land. Then we started searching for private land for the shed.

At the time of searching land for construction of shed, a suitable private land was found for constructing the MCU but the same belonged to Mr.Rukta Majhi (Husband of Damang Majhi –member of Maa Tarini SHG).

After discussing with him regarding Poultry farming he said that **“I will give the land to the SHG & I don't have any objection for this”**. and made a gift deed of the said land in favour of the SHG.

Initially some of the group members were very much afraid of taking up this activity as they were going to rear Vanaraja variety (Day old chicks) instead of local desi poultry birds and they had a fear that whether the birds will sustain or not and if not then it will be a great loss to the members. But after orienting them and ensuring support (financially and technically) from OTELP, they started the activity. The financial support from OTELP and contribution from the group members was well understood by the members and finally they said Yes. **They started the brick making immediately required for the civil work of MCU and made 6000 bricks from their contribution.**

After finalizing the land and making of the bricks, the civil work was started and all the members cooperated in the construction work.

In the mean time the members became so anxious about completion of the unit that they quite often enquired about the arrival of the chicks.

The civil work was completed and the day old chicks were brought from the Govt. poultry farm, Phulbani and the rearing started. The smile appeared on the face of the group members which showed their achievement after hard work. The members were also trained about management, vaccination, feeding, of the chicks etc. Now the day old chicks have become 25 days old and weighed 350-400 gms each and the group is awaiting for selling to other members for backyard poultry farming once they attain 28 days.

**It was reported later on that the group has made a profit of Rs.18,303/-by selling of the chicks in this batch. This back yard poultry activity has now brought enthusiasm amongst the other SHGs and mean while another four no's of mother units at different locations have come up & are in different stages of construction in OTELP area under ITDA, Th. Rampur.**

## OTELP / ITDA Paralakhemundi

### Poultry Farm –Fair & sustainable way to alleviate poverty.

Orissa Tribal Empowerment & Livelihoods Programme (OTELP) first planned an Exposure visit to see the day old chick rearing units, hatcheries, poultry rearing farms under backyard poultry programme to different places like KVK, Mayurbhanj, Central Poultry development



Organization(ER) CPDO, Bhubaneswar & Poultry Breeding Farm at Semiliguda, Koraput for the

## POULTRY FARMING

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members of VDC, SHG, FNGO & ITDA prior to starting of the Mother Chick Units (MCU). The ST & SC development department sanctioned fund in favour of ITDA, Gunupur, Rs. 40.43 lakhs towards establishment of 10 nos of Mother Chick Units with benefit to 369 beneficiaries by provision of night shelter, supply of 30 nos 28 days old chicks & feed etc. under SCA to TSP during 2011-12. The tribal families were selected from the poorest of poor, vulnerable and destitute groups from the community. Out of 10 nos of Mother Units, 6 nos of MCUs have been established in Mohana Block & balance 4 MCUs have been established in R. Udayagiri block out of that a snapshot can be seen from one MCU.

Chudangpur village under Mohana Block is situated 24 Kms away from Chandragiri GP. Jihobajiri Self Help Group came forward to run the mother chick unit after decision in the panchayat. Prior to intervention of backyard poultry programme under OTELP, the poor tribal's were rearing desi poultry birds and ultimately selling the same to the outsiders at a very minimal rate. Due to ignorance they were not capable for large scale rearing of poultry birds in their backyard. But after intervention of OTELP, a spectacular achievement has been noticed.

On 07.05.2012, 1000 nos of Day Old chicks of "KUROILER" variety brought from M/s Kegg Farms, Chowdwar as the chicks were not available in near by Govt. Farms/CPDO, Bhubaneswar. All SHG members took much care of the rearing unit in rotation basis for rearing in a systematic manner up to 28 days and thereafter the birds were disposed off amongst the selected beneficiaries @Rs.60/- per grown up



chick and got a net profit of Rs.12360/- in the 1<sup>st</sup> cycle. The tribal families shall also rear for another 60 to 65 days and thereafter shall sell for meat purpose and it is anticipated that each family will also get Rs.1500-2000/- per cycle as net profit.

It is now planned by the Jihobajiri SHG to run at least six cycles in a year with an anticipation to get Rs.60,000/- to Rs.70,000/- in a year out of this microenterprise. Really this scheme not only supports their livelihoods but also is a sustainable way to alleviate poverty. Smt Nayami Raita and Smt Guddi Raita president and secretary of the SHG respectively expressed with much pleasure that "They will not attend to any work except looking after the Mother Chick Unit" established in their village through OTELP.



## I. Case study of an Individual Broiler Poultry farmer:

### 1. Farmer's family background:

Ghasi Jayapuria, a landless tribal lady is staying with her husband at Kumariput Village of Semiliguda block. Her family is an ultra poor family & they have no children. They are staying in a Kacha house. They have very limited assets viz. one kacha house, 2 cows. They don't have any agricultural land & their main source of income was wage labour. At the age of above 60 also they have to do hard labour to meet their day to day minimum needs. In spite of that they are unable to fulfill their minimum needs as they were getting only 60 to 90 days wages in a year. Their annual income was Rs. 7500 only. So they had 6-7 months of food security in a year.

### Programme Intervention:

Improved poultry farming of OTELP started their operation in that village through "Swornajyoti Women Poultry Cooperative Federation Ltd." to support the ultra poor families for their economical enhancement & livelihood promotion. After baseline survey & village meetings the family of Ghasi Jayapuria was selected for this programme. Then Ghasi &

other farmers of that village were trained on poultry farm management. Ghasi got the support of Rs. 32,000 towards house construction, and equipments & Rs. 20,000 as working capital towards the purchase of chicks, feed, medicines & vaccines etc. for poultry farming from ITDA Koraput. She also contributed about Rs. 15000 towards the supply of bricks by making the same in her own land and labour for construction. After getting the financial support, she completed house construction within a month. Her first batch placement was made on 22/04/2012. She has opened a bank account in local bank to make all the transactions with the ITDA & the Co-operative.

### 2. Benefit to Sh. Ghasi jaypuria

On 22-04-2012 Ghasi jaypuria have started her first batch of broiler farming with 412 nos of Cobb 400 day old chicks. Within 34 days she sold all the birds to traders of semiliguda and earned a profit of Rs.15000.00 after meeting all the expenses. She is now very happy as she has never earned so much money in 1month of time. Their family income now increased from mere 6-7 thousand per annum to 20-25 thousand per year.

SI	Particulars	Description	Amount (Rs.)
<b>A</b>	<b>Expenditure</b>		
1	Chicks	cobb 400 , 412 nos	7400
2	Feed	Pre starter, starter and finisher, 1075 kg	26015.50
3	Medicine	medicine and vaccine	1916.50
4	Other cost	litter, lime , transportation etc	1740
	<b>Total cost</b>		<b>37072</b>
<b>B</b>	<b>SALES</b>		
1	Bird sales	396 birds , 643.5 kg with an average body wt. of 1.625 Kg. @ Rs. 81/kg	52123.5
<b>C</b>	<b>Profit</b>	<b>B - A</b>	<b>15051.50</b>

## Kuroiler Poultry Farming by the individual Tribal Families

### Introduction

The Kuroiler variety has been scientifically developed as a low input technology cum dual purpose poultry bird after long research by M/S Kegg. Farms, Gurgaon, Haryana as a better substitute of country chicken. This bird grows on household waste and reared under scavenging condition. The male chicken gain weight 2.0 Kg to 2.5 Kg. in 90 days and the females lay 3 to 4 time more eggs than its conventional counter parts. Unlike the desi hen that produces 40 eggs in its 18 months cycle, a female Kuroiler lays 200 eggs (5 times more) in the same period under backyard condition. The system of rearing is very similar to the country chicken but there is a distinct economic advantage of rearing Kuroiler when grown as a substitute under backyard farming system where the birds survive on scavenging, consuming farm waste, kitchen waste and grains. No balance feed is required.

### I. Kuroiler Individual Model

In this model one family will rear 600 kuroiler day old chicks for 28 -30 days and sale the birds to the tribal families who are the members of other SHGs in the same or nearby village @ 30 birds per family for rearing under backyard poultry farming. In a batch one farmer will be able to earn about Rs. 4000-5000 within a period of 30 days.

### II. Cost benefit Analysis

#### 1. Investment of Individual Kuroiler Poultry farm ( 600 caapcity)

SI No.	Particulars	Unit	Rs./unit	Amount (Rs.)
<b>A</b>	<b>FIXED COST</b>			
I	Shed 400 Sq.feet area (16 ft.x25 ft.)			
1	Broiler Unit	400sqft	L.S.	27000
II	Equipments			
1	Feeders, drinkers, chick guard, gas brooder, cylinder, bucket, solar light, sheet etc	L.S	L.S	5000

SI No.	Particulars	Unit	Rs./unit	Amount (Rs.)
<b>B</b>	<b>Total Fixed Cost</b>			<b>32000</b>
<b>C</b>	<b>Working capital</b>			
1	Chicks (Vanaraja/Kuroiler FG) feed, medicines and other Misc. expenses	600 Nos.	19	11400
2	Chick feed @ 0.75 Kg. per chick @ Rs.23/- per Kg.	450 Kg.	23	10350
3	Medicines and Vaccines Rs.2.50 per chick	600	2.5	1500
4	Misc. Expenses		L.S	1750
	<b>Sub total</b>			<b>25000</b>
	<b>Total cost</b>			<b>57000</b>

## 2. Income from a 600 capacity Kuroiler farm per annum

Particulars	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Total birds	600	600	600	600	600
Chicks (600 nos.)	11400	11400	11400	11400	11400
Feed @ 0.75kg/bird @ Rs.23/kg	10350	10350	10350	10350	10350
Medicine	1500	1500	1500	1500	1500
Misc.expenses (Litter, lime, phenyle, kerosine, charcoal etc.)	1750	1750	1750	1750	1750
<b>Total cost</b>	<b>25000</b>	<b>25000</b>	<b>25000</b>	<b>25000</b>	<b>25000</b>
Cost of production per chick (in Rs.)	42.50	42.50	42.50	42.50	42.50
<b>SALES</b>					
Total birds (2 % additional mortality excluding 3% supplied by the Farm)	588	588	588	588	588
sale price Rs./Chick (28 days old)	50	50	50	50	50
<b>Total sales (in Rs.)</b>	<b>29400</b>	<b>29400</b>	<b>29400</b>	<b>29400</b>	<b>29400</b>
<b>Profit per batch</b>	<b>4400</b>	<b>4400</b>	<b>4400</b>	<b>4400</b>	<b>4400</b>
<b>Profit per year (6 batches per year)</b>	<b>26400</b>	<b>26400</b>	<b>26400</b>	<b>26400</b>	<b>26400</b>



Case study of an Individual Kuroiler Poultry farmer:

1. Family History of Sh. Dhabani Jayapuria

Dhabani Jayapuria, a tribal lady is staying with her husband at Kumariput Village of Semiliguda block. Her family is an ultra poor family & they have 8 members in their family. They are staying in a Kacha house. They have very limited assets viz. one kacha house, 1 cow, 2 bullocks, 2 sheep, 1 cycle. They have 1 acre agricultural land & their main source of income was wage labour. At the age of above 50 also they had to do hard labour for their day to day minimum needs. Their annual income is about Rs.20, 000 and they had 6-7 months of food security in a year.



Programme Intervention:

Improved poultry farming of OTELP started their operation in that village through “Swornajyoti Women Poultry Cooperative Federation Ltd.” to support the ultra poor families for their economical enhancement & livelihood promotion. After baseline survey & village meetings the family of Dhabani Jayapuria was selected for this programme. Then Dhabani & other farmers of that village were trained on poultry farm management. Dhabani got the support of Rs. 32,000 towards house construction, equipments & Rs. 26,000 for the running capital cost for poultry farming. After getting the financial support she completed house construction within a month. Her first batch of Kuroiler placement was started on 2/05/2012. She has opened a bank account in local bank for the all the financial transactions.

2. Income from first batch

Sl	Particulars	Description	Amount (Rs.)
<b>A</b>	<b>Expenditure</b>		
1	Chicks	632 nos kuroiler chicks	10500
2	Feed	1700 kg	40730
3	Medicine	Medicine and vaccine	1474
4	Litter	paddy husk	1905
5	Other cost	Transportation, lime etc	1500
	<b>Total cost</b>		<b>56109</b>
<b>B</b>	<b>SALES</b>		
1	Bird sales	799.5 kg @Rs.90/kg	71958
<b>C</b>	<b>Profit</b>	<b>B - A</b>	<b>15849</b>

The farmer sold all the poultry birds for meat purpose as the night shelters for other tribal families were not ready. As because the improved variety of Kuroiler (Kuroiler FG) has the potential to grow to a body weight of 1.2 to 1.4 kg in 45 days & thus can provide good income to the farmers. The other backyard poultry variety like Vanraja also could be used for both egg and meat production.

## Way Forward

The tribal areas of Odisha are marked by abject poverty and are inhabited mostly by landless, small or marginal farmers. Here 75% of households have only 3-6 months of food sufficiency, the families are thus forced to migrate to meet their household consumption needs. The children of these are malnourished depending mostly on low protein cereal based diet resulting in high incidence of disease and morbidity. As tribal in general do not milk their cattle and don't prefer consuming milk and milk products; their prime sources of protein are mostly meat and eggs. However, due to low purchasing power, the consumption of protein both in terms of poultry meat and egg are less in these areas. In addition, the little demand of meat and eggs in these areas are mostly met from production centers at distant locations.

Addressing the need of providing adequate protein and a sustainable livelihood to the families of these areas, the SC & ST Development Department has aimed to expand the Rural Poultry Farming as one of the focus activity in all the 21 ITDAs. The focus has been to promote backyard poultry farming with the poor landless and marginal farmers especially the women to generate surplus income of at least Rs 10,000/ year. The proposal is to establish women SHG managed, 177 mother units each of 1000 chicks capacity by the end of March, 2013. Apart from these 400 numbers of individual broiler units each with a capacity to rear 400 chicks shall be established. The thrust however would be to promote low input technology dual purpose birds of Vanraja, Giriraj, Krishibro and Kuroiler breeds etc. which are less susceptible to the diseases and thrive on scavenging. There are also plans to establish layer poultry farming units at village level managed by women members of SHGs in OTELP operational areas during 2012-2013. There is plan to promote the poultry cooperatives in each tribal district which would build the capacity of the new rearers, supply feed, chicks, medicines, veterinary care and establish market linkages for sale of birds. A tie-up would be done with the Poultry Cooperative and the ITDA promoted residential schools and as well as the other schools in the area. The meat and eggs thus produced could be directly marketed to the residential schools to meet the requirement of the hostel mess. The eggs would be procured for the mid day meal programme of the schools especially in the tribal districts.

Thus the initiative would ensure high quality protein rich diet to school going children. The marketable surplus produced would on the other hand cater to the needs of the local market increasing the overall consumption of protein rich food as well as enhancing the local economy of the area. Protein consumption in rearers' family would increase and the poultry enterprise will provide a sustainable livelihood for the poor landless and small and marginal farmers of the tribal areas of Odisha.



### Suggested vaccination schedule for rearing Day old Vanaraja Chicks

Sl.No.	Age of Chick	Vaccines to be administered	Mode of administration & Dose
C	1st. day	Marek's disease (MD)Vaccine in Hatchery on payment basis	Subcutaneously at the neck fold. The dose is 0.2ml injection
3	5th-7thdays	Ranikhet (F1 or Lasota) Vaccine against Newcastle Disease	Intranasal/Intraocular. The dose is one to two drops(0.03 ml) by dropper
4	14th-18th day	IBD(Infectious Bursal Disease)/ Gumboro Vaccine	Intranasal/Intraocular, one to two drops (0.03 ml ) by Dropper
6	21st.-27 <sup>th</sup> day	Lasota/F-1 BOOSTER DOSE (Vaccine) against Newcastle Disease	In Drinking Water with milk powder & Ice@ 1 dose/chick(1000 Doses per 1000 Chicks)
6	35th. days	IBD (Gumboro) Vaccine (BOOSTER DOSE)	In Drinking Water with Ice@1000 Dose per 1000 Chicks
7	42nd. days	Fowl pox Vaccine	Sub Cutaneously by Injection in Wing Web @ 0.2 ml s/c per bird.
8	56th days	Ranikhet disease (R2B) Vaccine against Newcastle Disease	Subcutaneous in wing Web or I/M in leg muscle @ 0.5 ml per bird
9	84 th Day	Ranikhet disease (R2B) Vaccine (REPEAT PRICK)	Subcutaneously in wing Web or I/M ly in leg muscle @0.2 ml per bird
10	112 th day	Ranikhet disease (R2B) Vaccine (REPEAT PRICK)	Subcutaneously in wing Web or I/M ly in leg muscle @ 0.5 ml/ bird
<p>Vaccines are either to be given in Early Morning or In Late evening, i.e. the coolest part of the day.Vaccines are to be kept in the Refrigerated condition at 2 to 4 degree Centigrade in Freezer and Diluant is to be kept in 4 to 6 degree centigrade</p>			

Annexure - II

Medication, Cleaning and Fumigation Schedule

Day	Medicines to be Administered	Dose	Route	Uses
First 2 days	GLUCOSE	10 g/100 chicks	drinking water	Instant energy
1 TO 7	Neodox Forte	1 g/10 lit water	drinking water	To prevent early chicks mortality , combination of Neomycin and Doxycycline
1 TO 7	CHICKTONIC	10 ml/100 chicks	drinking water	Amino Acids, Vitamin A, Vitamin D3 , Vitamin E, Vitamin K, Vitamins B-group
1 to 30	ZYSEPT	1 ml/10 lit water	drinking water	Water sanitizer
8 ,9,10	ACIPRO WS	0.5 g/lit water	drinking water	Lactic acid producing bacteria <i>Pediococcus acidilactici</i> , Organic acids and Electrolyte
15,16,17	Liv 52	10 ml/100 chicks	drinking water	Liver tonic
22-28	Gipromin	15ml/100 birds	drinking water	Growth promoter for Broiler
30-35	Liv 52	10 ml/100 Birds	drinking water	Liver tonic for Broiler

CLEANING, DISINFECTION AND FUMIGATION PROCESS

- Immediately after sale of chicks from the mother unit remove all litter, dust and dispose the same inside a pit at a distance from the Mother Chick unit. Then wash the house floor and equipments thoroughly with a pressurized water jet for 3 to 4 times. Use cocoonat broom for through cleaning of the floor. Make sure by use of the iron brush so as to remove the organic matter & the dirt from the floor from inside and outside of the house. All wire nets, iron structures, concrete structure and roof are to be thoroughly cleaned.
- Wash the floor with black phenyle @ 1ml. per ltr. of water.
- Wash the floor with detergent, bleaching powder mixed with lime powder (100 gm. Detergent, 200 gm. Bleaching powder & 500 gm of lime in 20 ltr. of water).
- Wash with clean water and make the room dry and use flame gun to burn the floor and and wire mesh.
- Wash all the equipments (feeders, drinkers, chick guard, plastic covers etc.) with detergent and soak it with phenyl water over night and dry under sunlight and keep them inside the house.
- Spray X-185 inside the room, floor, wall, wiremesh @ 1ml /2 ltrs. of water and lock the room up to next chicks arrival.
- When the building gets completely dried, use selected disinfectants like quaternary ammonium compounds, idiophores, liquid ammonia or other commercially available approved disinfectants.
- If there is any outbreak of Ranikhet & IBD diseases, then wash the floor with CUSO4 (Copper sulphate) @ 1gm./ltr and spray B904 @ 1ml./4 ltr. water.
- Lime paint inside the house 4 days before arrival of the chicks.

**Fumigation** is effective in poultry houses which are reasonably air tight and at a temperature of 70°F (21°C) and 65% relative humidity. Close all openings and fumigate while building is still wet. Use 400 mL of Formaldehyde and 200 g of potassium permanganate for each 1000 cubic ft. of air space (28 cubic m). Keep the building closed for 24 hrs. Fumigation should only be done under strict supervision of authorized skilled person.



### Estimate for establishment of chickshed (Mother Unit) for rearing of 1000 Nos. of day old chick under backyard poultry farming.

Sl.No.	Description	No.	L	Br	ht	Total	Rate(Rs.)	Amount(Rs.)
1.	Earthwork in excavation in hard soil							
	Column	2.00 nos	3.50 ft.	3.50 ft	3.00 ft	73.50		
	Wall	2.00 nos	34.00 ft	1.50 ft	1.00 ft	102.00		
		2.00 nos	16.00 ft	3.00 ft	2.50 ft	240.00		
						415.50 cft		
						11.74 cum	61.56	722.71
2.	Sand filling to foundation and plinth							
	Column	2.00 nos	3.50 ft	3.50 ft	1.00 ft	24.50		
	Wall	2.00 nos	34.00 ft	1.50 ft	0.25 ft	25.50		
		2.00 nos	16.00 ft	3.00 ft	0.50 ft	48.00		
	Plinth	1.00 no	30.00 ft	20.00 ft	1.00 ft	600.00 cft		
						698.00		
						18.89 cum	194.35	3671.27
3.	Cement concrete (1:5:8) using 40 mm size metal							
	Column	2.00 nos	3.25 ft	3.25 ft	0.25 ft	5.28		
	Wall	2.00 nos	30.00 ft	1.50 ft	0.25 ft	22.50		
		2.00 nos	16.00 ft	2.50 ft	0.25 ft	20.00		
	Floor	1.00 no	30.00 ft	20.00 ft	0.12 ft	72.00		
						119.78 cft		
						3.39 cum	1937.50	6565.10
4.	RCC work (1:2:4) in column base & footing using 12 mm chips							
		2.00 nos	3.00 ft	3.00 ft	0.83 ft	14.94		
						0.42 cum	3460.40	1462.47
5.	RCC work (1:2:4) in column using 12 mm chips							
		2.00 nos	1.00 ft	1.00 ft	12.00 ft	24.00		
						0.68 cum	6178.97	4195.06
6.	Cutting, bending, binding of MS Rods					1.10 cum		
						1.10 Qtls	4355.62	4797.96
7.	KB Brick masonry in (1:6) CM							
	SW 1st footing	2.00 nos	17.50 ft	2.08 ft	0.50 ft	36.40		
	SW 2nd footing	2.00 nos	18.00 ft	1.25 ft	0.50 ft	22.50		
	SW SS	2.00 nos	20.00 ft	0.83 ft	11.00 ft	365.20		
	SW gabble	2.00 nos	20.00 ft	0.83 ft	3.00 ft	99.60		
	LW 1st footing	2.00 nos	30.00 ft	2.08 ft	0.50 ft	62.40		
	LW 2nd footing	2.00 nos	30.00 ft	1.25 ft	0.50 ft	37.50		
	LW SS	2.00 nos	30.00 ft	0.83 ft	2.00 ft	99.60		
	Parapet	4.00 nos	10.00 ft	0.83 ft	0.50 ft	16.60		
						680.40 cft		
	Total					19.25 cum	1826.20	35149.83
8.	Supplying, fitting, fixing of grills (net) and ventilators cutting					290.00 kg	45.00	9000.00



# POULTRY FARMING

An Intervention for Sustainable Livelihood in Tribal Districts (OTELP Blocks) of Odisha

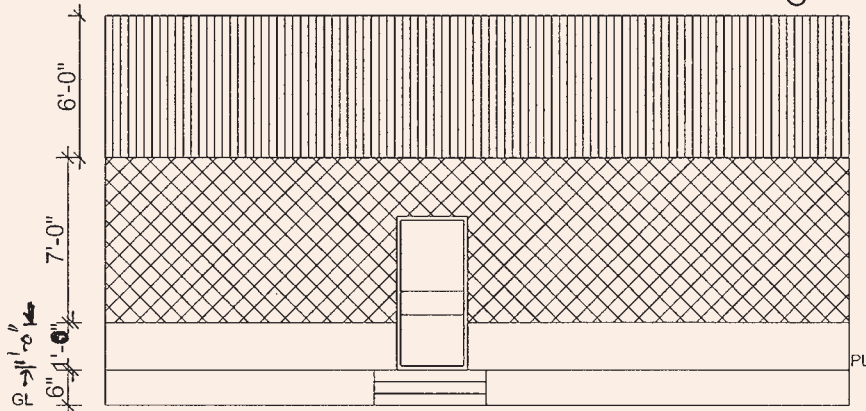
9.	a. Supply of material of tabular trusees in proper				0.50 Ton	50000.00	25000.00
	b. Errection of tabular trusees in proper design				0.50 Ton	3921.38	1960.69
10.	Supply % fixing of AC sheet in roof including						
		2.00 nos	30.00 ft	14.00 ft			840.00
				78.07 sqm		289.66	22612.86
11.	Tarfeting over Asbestos				5.00 sqm	144.00	720.00
12.	12 mm thick cement plaster with (1:6) cement						
	Inside	2.00 nos	30.00 ft	3.00 ft		180.00	
		2.00 nos	20.00 ft	9.00 ft		360.00	
		2.00 nos	20.00 ft	3.00 ft		120.00	
	Outside	2.00 nos	32.00 ft	2.00 ft		128.00	
		2.00 nos	22.00 ft	9.00 ft		396.00	
		2.00 nos	22.00 ft	3.00 ft		132.00	
	Parapet	4.00 nos	10.00 ft	3.00 ft		12.0.00	
						1436.00 sft	
						133.46 sqm	
							51.25
							6839.68
13.	Cement paint 2 coats over wall						
	Cement wash				133.46 sqm	9.00	1201.12
	Cement paint				0.00 sqm	22.00	2936.06
14.	Painting pf two coats with approved quality paint						
		2.00 nos	30.00 ft	7.00 ft		420.00	
						39.03 sqm	
							77.00
							3005.58
15.	CC (1:2:4) in flooring with 12 mm chips						
	Floor	1.00 no	30.00 ft	20.00 ft	0.08 ft	48.00	
	DPC	2.00 nos	30.00 ft	0.83 ft	0.08 ft	3.98	
		2.00 nos	20.00 ft	0.38 ft	0.08 ft	1.22	
						53.20	
						1.50 scum	
							3378.49
							5084.46
16.	Cement punning over flooring				55.76. sqm	12.28	684.76
<b>Grand Total :</b>							<b>135609.91</b>



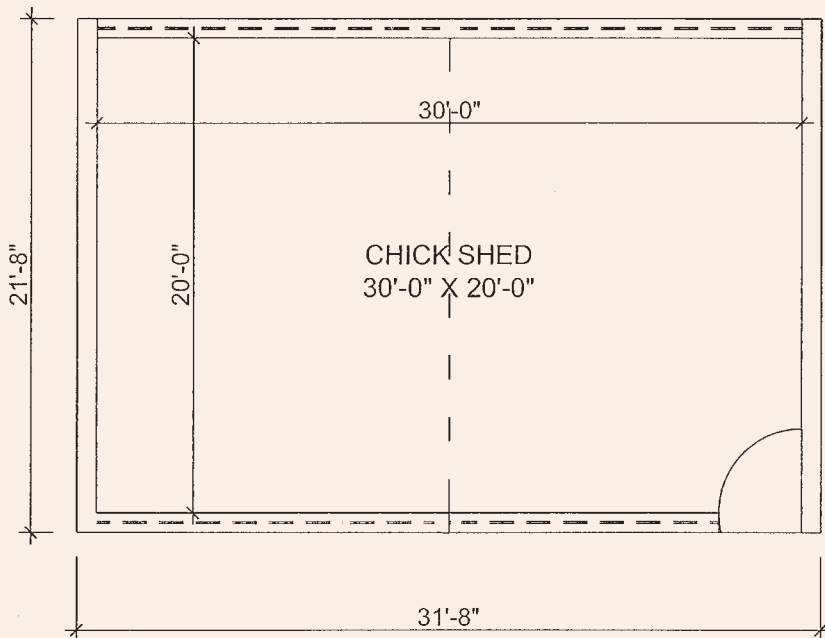


Annexure - IV

**Design of Chickshed (Mother unit), for Rearing of 1000 nos. of dayold chick under Backyard Poultry Farming**

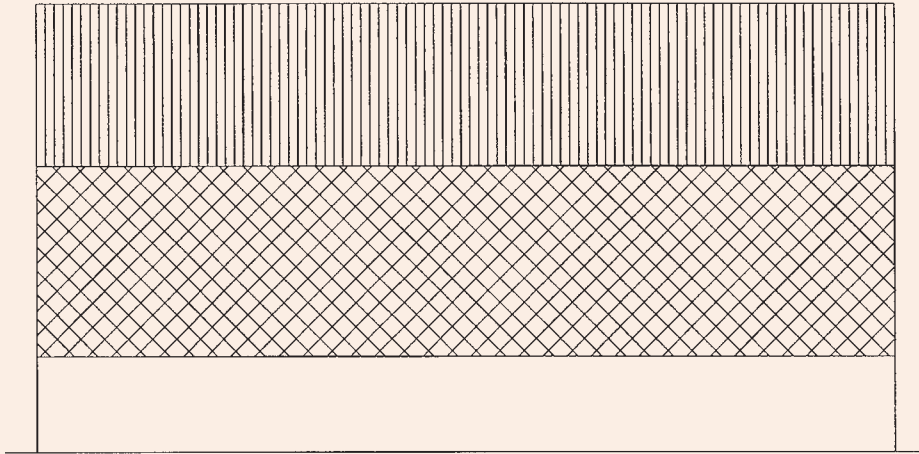


**FRONT ELEVATION**

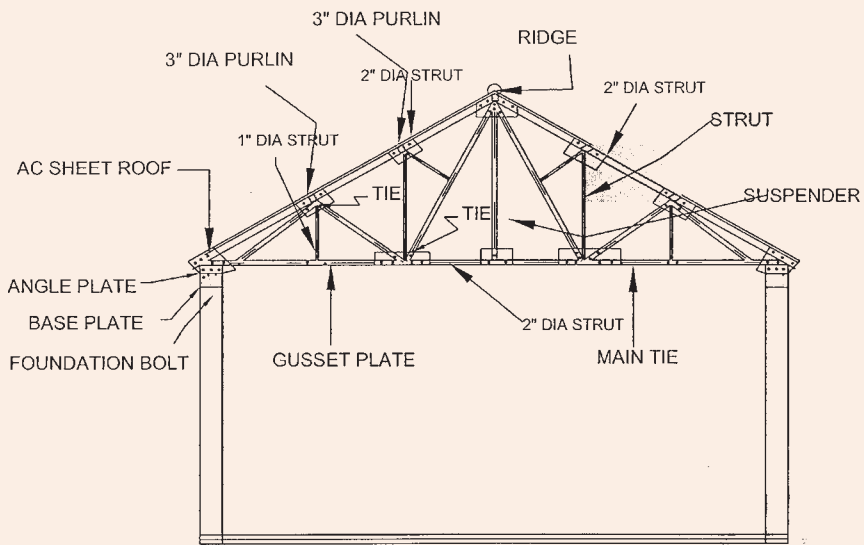


**GROUND FLOOR PLAN**





## REAR ELEVATION

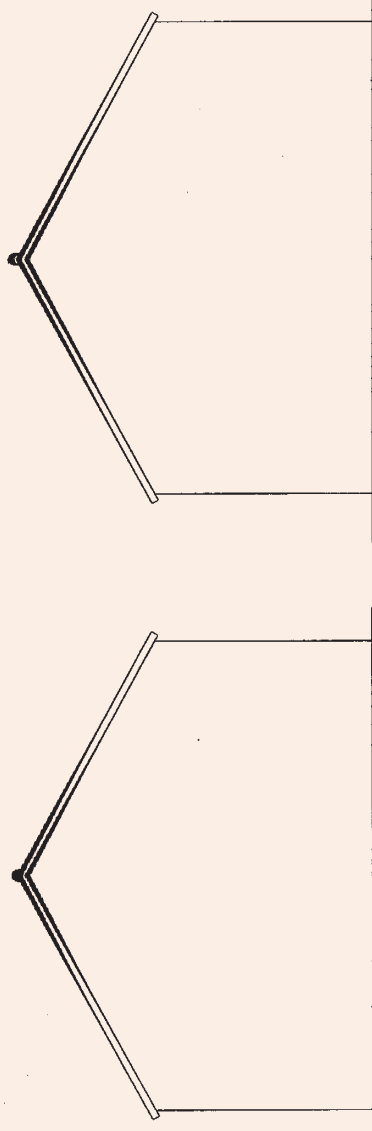


## SECTION ON A-B

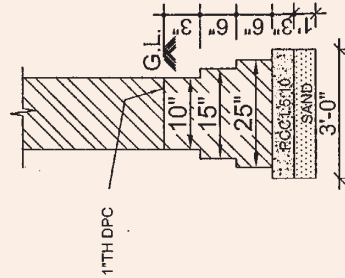
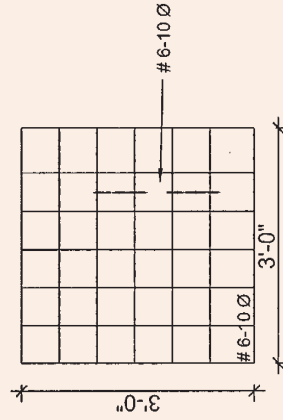


# POULTRY FARMING

An Intervention for Sustainable Livelihood in Tribal Districts (OTEELP Blocks) of Odisha

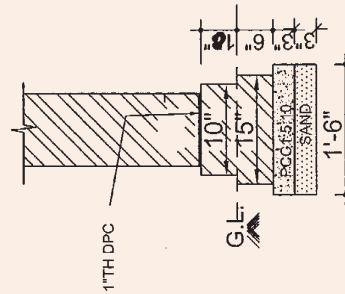


**RIGHT SIDE ELEVATION**

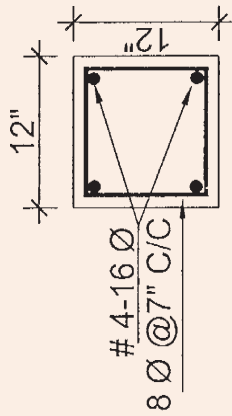


**FOUNDATION DETAIL (SW)**  
SCALE - 1"=4'-0"

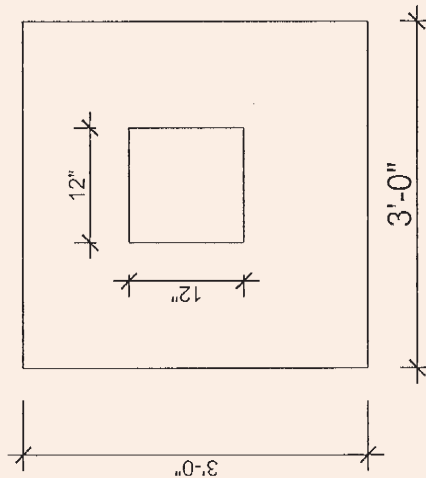
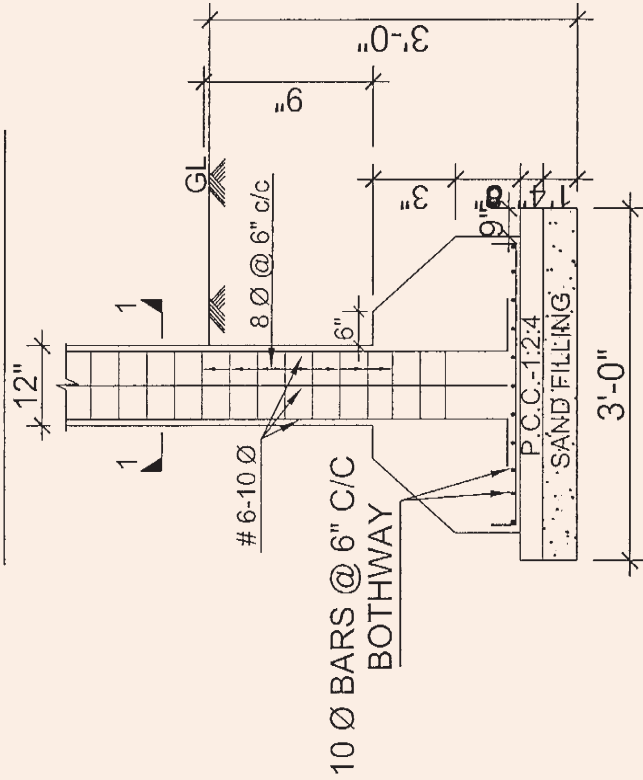
**LEFT SIDE ELEVATION**



**FOUNDATION DETAIL (LW)**  
SCALE - 1"=4'-0"



**SECTION AT 1-1**



**DETAIL OF COLUMN  
FOOTING**

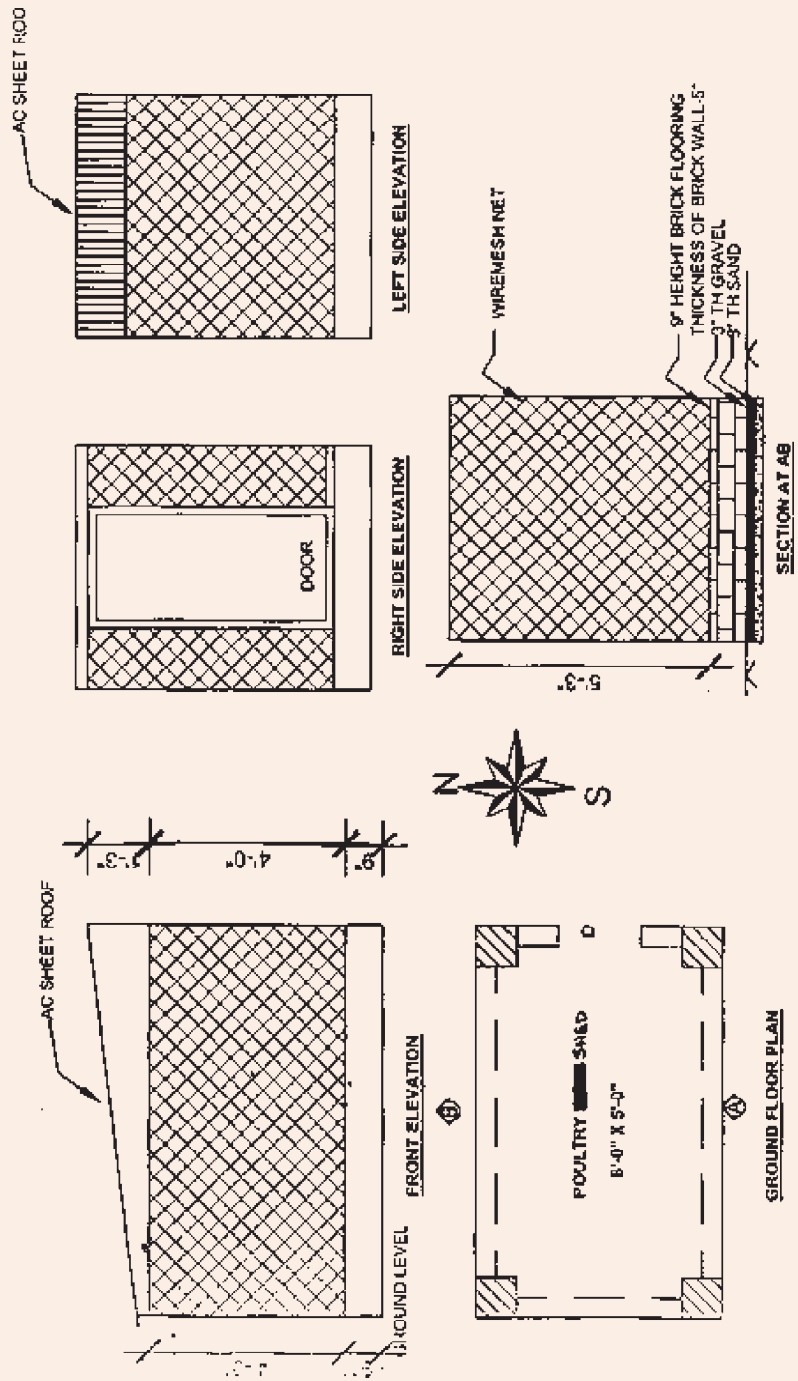


# POULTRY FARMING

An Intervention for Sustainable Livelihood in Tribal Districts (OTELP Blocks) of Odisha

## Annexure - V

### Proposed Low-cost night shelter for rearing 30 nos. Vanaraja Poultry Birds





Sri Susanta Nanda, IFS, Project Director, OTELP visited Vanaraja Mother Chick Unit in A.Malkangiri village, Dasmantapur block.



Visit of Sri S. R. Jadhav, IAS, Collector, Koraput & Sri Tuku Barik, OWS, PA, ITDA, Koraput to Vanaraja Mother Chick Unit in Village Parajapuki, Dasmantapur Block



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