

# Uttarakhand Decentralized Watershed Development II Project (GRAMYA II)



## Animal Husbandry Component



**Watershed Management Directorate**  
Indira Nagar Forest Colony, Dehradun (Uttarakhand)  
Phone No. 91+135+2768712, 2764244  
Fax No. 91+135+2762839, 2760170  
[www.gramya.in](http://www.gramya.in); [wmd-ua@nic.in](mailto:wmd-ua@nic.in)

## ANIMAL HUSBANDRY COMPONENT

### INTRODUCTION

Livestock have been an integral part of farming system and source of livelihood for over 70% rural house hold population in the state and these household earn over a third of their income from livestock.

The total cattle population of state is approx 22.35 lakh, out of which approx 3.39 lakh cattle (15%) are cross bred, similarly the total buffalo population of state is approx 12.19 lakh, out of which approx 2.34 lakh buff (19%) are of improved breed. (According to 2007 census).

In the whole state about 41.69% of breedable population covered under the organized breeding set up. (23.17% through A.I & 18.52% through natural breeding).

There is an acute shortage of both dry & green fodder in the state. The shortage of dry fodder is about 30.84% and the shortage of green fodder is about 37.62%.

From the farming system point of view livestock is integrated with annual crops in symbiotic manner for the benefit of rural community. Livestock provides milk, meat, wool, hides, organic manure and draught power. Livestock produces are nutritive supplement for human beings and also provide economic support especially in rural area.

The UDWDP Phase-II is being implemented by the Govt. of Uttarakhand through Watershed Management Directorate, Dehradun. The project will

work in 509 Gram Panchayats under 18 blocks of 8 districts. The area of project is spread over in about 2.638 lakh ha.in 82 MWS.

In the project area livestock is equitably distributed among various sections of society and is a women centred economic activity.

Most of the cattle in hills are of non-descript breed which survive on low level of nutrition, disease resistant and produce small amount of milk.

Traditionally, animal husbandry is complementary and not competitive to agriculture. Livestock development programs are capital as well as labour intensive and have comparatively long gestation period then crop production.

In Uttarakhand over 80% of all livestock species are owned by the marginal and small farmers, along with some by the landless. Over 70% of the work force in state is involved with livestock either as owners or as hired labourer's. To these deprived section, livestock constitute as living bank providing flexible financial reserves in times of emergencies. It holds the key to release weaker sections from the poverty trap and open the gate to prosperity with social respect.

## **PROJECT OBJECTIVE**

*To increase the efficiency of natural resource use and productivity of rain-fed agriculture by participating communities in selected micro-watersheds of the State of Uttarakhand.*

## **OBJECTIVE OF LIVESTOCK COMPONENT**

The broad objectives of livestock component are concerned with improvement of genetic potential of local indigenous livestock and to increase availability of feed and fodder. The thrust was on reducing the livestock pressure on forest by encouraging stall feeding.

**The objectives of livestock component envisaged under UDWDP-II are as follows:-**

1. To improve the productivity of livestock by upgrading of local animals and better feeding and management practices, including health care.
2. To reduce the livestock pressure on the fragile land by reducing the extent of open grazing and encouraging stall feeding for Livestock.
3. To improve the contribution of livestock sector to natural resource management in the project.
4. To finally improve the livelihood of the people of the project area.

### **Major problem of livestock sector in project area**

The major problems of livestock sector in the project area are:-

- ❖ The poor quality/non descriptive breeds of animals.
- ❖ Deficiency of good quality fodder.
- ❖ Lack of livestock health facilities.
- ❖ Poor management practices.

## **Livestock Component Profile-**

To achieve the project objective and to address the livestock sector problems of the area the following livestock activities are taken up in the project.

### **1. Livestock Breeding Programme**

- ❖ Establishment of NBC.
- ❖ Establishment of paravet center.

### **2. Fodder Production Programme**

- ❖ Demonstration of on farm fodder crops.
- ❖ Napier crop border plantation in agriculture field bunds.

### **3. Livestock Health care programme**

- ❖ Organize animal Health care camps.

### **4. Stall feeding programme**

- ❖ Construction of Shelters and Mangers.

**1. Livestock Breeding Programs-**The livestock breeding programmes in project area will be taken up by establishment of N.B.C. & A.I. through paravet.

- ❖ **Establishment of N.B.C:-**In the project area most of the livestock are indigenous, non-descript category and breeding programmes are major thrust area to increase the production and productivity of livestock. The main emphasis will be upgradation of cattle, buffaloes and goat through jersey cross bull, Murrah buff bull and Sirohi/Barbari Buck respectively.

The N.B.C. will be established in the center place of 4 to 5 Revenue villages having the breedable population upto 200-250.

**The "Uttarakhand Livestock Development Board" (ULDB) is State Nodal Agency for implementation of cattle & buffalo breeding in the State.**

The ULDB provide Latest Livestock (Cattle& Buffalo) breeding techniques and services to the farmers in a self sustainable manner. So in UDWDP Phase II project the cow & Buffalo bull will be procured through ULDB.

- ❖ **Establishment of Paravet Center:-** Due to the difficult terrain in hilly areas the coverage of natural breeding programmes is low, so some times the livestock owners depend on local bulls for covering. To increase the coverage of breeding facilities A.I. center (through paravet's) will be established in the project area. The paravet will be trained in A.I. & minor veterinary services. These paravet will provide the A.I., vaccination, castration, mass drenching and vety. First Aid services at farmer's doorstep in supervision of technical staff. One paravet will provide A.I., & minor vety. services facilities to livestock owner of 5 to 6 G.P. and earn his livelihood by collecting the service charges from livestock owner's. For the paravets the four month training programme will be conducted at training center of Pashulok farm, Rishikesh & supply of all inputs (LN<sub>2</sub>, Container, Semon, LN<sub>2</sub> A.I. gun etc) will be done through the ULDB. The board had an ISO 9001:2008 certified DFS center at Rishikesh, which is producing the Semen doses of H.F., Jersey, red sindhi, sahiwal, murra and their cross

bulls. The center is supplying the semen & LN<sub>2</sub> for all the A.I. programme of the state.

In UDWDP-II, for the upgrading of existing goat species, the buck of sirhoi and barbari species will be procured through the "Central Goat and Sheep Research Center" Avikanagar (Rajasthan) and Makhdoom (U.P) respectively because these are the I.C.A.R.S institution which are working on upgradation of goat species.

**2. Fodder Production Programmes:** Livestock farming can be profitable only with cheap and easily accessible fodder resources. Large number of livestock small land holding is peculiarity of hill agriculture. More than 80% of livestock holding are with small, marginal and landless farmers. The fodder availability in the project area is too scarce and there is practically little scope for area expansion on private land also. The only hope to meet the challenge is to raise the production level of the cultivated fodder crops through improved production technology, rejuvenate existing community grazing land, hybrid perennial fodder grasses in community as well as forest lands and to harvest more forage from traditional and non traditional sources. This may be achieved by planting high yielding perennial fodder grasses like Napier (*Pennisetum purpureum*), Guinea (*Panicum Maximum*), Broom (*Bromus inermis*), Cenchrus (*Cenchrus ciliaris*), by sowing high yielding fodder crops (eg. Makchari (*Euchlaena maxicana*), Lobiya (*Vigna sinensis*), Maize (*Zeamays spp.*), Jaie (*Avina sativa*), Berseem (*Trifolium alexandrinum*) and planting fodder trees as Kachnar (*Bauhinia varigata*), Bheemal (*Grewia optiva*), Mulberry (*Morus alba*) etc.

In the UDWDP II, under the fodder production programme, following activities will be included.

- ❖ **On farm fodder production:-**To encourage the farmers for cultivating fodder crops and increase the production of good quality fodder. The minikits of improved variety fodder seed will be given in both kharif and Rabi Season. In kharif season the seeds of Makchari, Lobiya and maize and in rabi season the minikit of Jaie and Barseem will be distributed. One minikit will have the seed & fertilizer for 0.04 ha area. The fodder seeds will purchased from the T.D.C, NAFED, ULDB or private agencies.
  - ❖ **Napier crop border plantation:-**In this activity the Napier grass slips will be planted in the agriculture field boundaries. So that the farmer can easily get the improved variety fodder. The four grass slips will be planted at 10-10 cm running space. The Napier grass slips can be purchase through ULDB, forest Department or private nurseries, because these institutions are producing improved variety of Napier grass.
- 3. Livestock Health care programme:-**Genetically improved livestock are more susceptible to diseases in comparison to local animals. To sustain improved breed animals and to improve productivity of local animals emphasis will be given to provide healthcare facilities at farmers' doorstep. In the UDWDP Phase II area veterinary health camps will be organized at farmer's doorsteps. In these camps the facility of drenching, vaccination (against FMD/B.Q./H.S./PPR etc.), castration and curative treatment for various diseases, will be provided.



**4. Stall Feeding Programmes:-**The wastage has been observed in fodder crop and grasses, when these fodder are given to animals in open space. The demonstration of manger has been introduced and the beneficiaries were motivated to use mangers. This will improve the practice of stall-feeding and help in reducing the wastage of fodder. The increase in number of animals on stall-feeding has certainly reduced the unwanted grazing pressure on forest and ultimately help in degradation of forest and environment. These programmes were introduced in project area for the benefit of poor farmers to demonstrate modern animal husbandry practices. The size and specification of the manger will be 2.45 mt(L)X1.00 mt(W)X 0.45/0.25mt(H). This will help in reduction of 10 to 15% wastage of fodder.

## ANIMAL HUSBANDRY- UNIT COSTS

### BREED IMPROVEMENT PROGRAMME

TABLE-1 NBC

S. No.	Particulars	Quantity	Rate(Rs.)	Amount(Rs.)
1	Purchase of bulls, with Insurance of bulls and bull attendant(for 3 yrs)	2	35,000.00	70,000.00
2	Transportation of bulls	2	8,000.00	16,000.00
3	Cost of mis. items (like-chain, rope etc,)	2	500.00	1,000.00
4	Management /Service provider expenditure for ULDB	2	1,500.00	3,000.00
5	Construction cost of bull shed	2	40,000.00	80,000.00
6	Construction cost of manger	2	5000.00	10,000.00
	<b>Total</b>			<b>1,80,000.00</b>

Unit Cost	1,80,000.00
Project Share	90%

Beneficiary share (20% of approx on item 5&6)	10%
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**TABLE-2**  
**PARAVET CENTER**

S. No.	Particulars	Quantity	Rate(Rs.)	Amount(Rs.)
1	Training expenses for 4 Month	-	LS	31,000.00
2	Travelling expenses of trainees (per trainee)	-	LS	1000.00
3	Cost of A.I. Instrument and Inputs	-	LS	58,000.00
	<b>Total</b>			<b>90,000.00</b>

Unit Cost	90,000.00
Project Share	100%

**TABLE-3**  
**LIVESTOCK HEALTH CARE CAMP**

S. No.	Particulars	Quantity	Amount(Rs.)
1	Cost of vet. medicines(i.e.- antibiotics, Herbal medicines, Anthelmintics, vaccine etc.)	LS	20000.00
2	Cost of Transportation for Experts/Material etc.	LS	1500.00
3	Experts honorarium	LS	1500.00
4	Expenditure for Farmers Training/Extension material etc.	LS	2000.00
	<b>Total</b>		<b>25000.00</b>

Unit Cost	25000.00
Project Share	100%

**TABLE -4**

**FODDER MINIKITS (0.04 HA.)**

S. No.	Item	Quantity	Unit Rate(Rs.)	Amount (Rs.)
1	Cost of Seed	4 kg	Rs.60/kg	240.00
2	Preparation of field, ploughing, Weeding, irrigation etc.	-	LS	100.00
3	Bio fertilizers/ FYM	LS	LS	160.00
	<b>Total</b>	-	-	<b>500.00</b>

Unit Cost	500.00
Project Share	80%
Beneficiary share(100% of item no.2)	20%

**TABLE -5**  
**NAPIER CROP BORDER PLANTATION**

S. No.	Work Description	Quantity	Rats (Rs)	Amount (Rs)	Project Share (Rs)	Beneficiary Share (Rs)
1	Site clearance	-	L.S	1000.00	-	1000.00
2	Cost of Napier grass Tuffs	20000 Slips (Approx 15 Qt)	300/Qu	4500.00	4500.00	-
3	Transportation of Napier grass (For 100 Km)	20000 slips (Truck)	5/100 slips	1000.00	1000.00	-
4	Loading/unloading of grass	20000 slips (Truck)	500/-per	500.00	500.00	-
5	Head load transport (for 1 km)	50 head load	10/per load	500.00	500.00	-
6	Digging for plantation	20000 slips	L.S	1000.00	1000.00	-
7	Planting of grass slips	20000 slips	L.S	1000.00	1000.00	-
8	Cost of FYM	L.S	L.S	500.00	-	500.00
			<b>Total</b>	<b>10000.00</b>	<b>8500.00</b>	<b>1500.00</b>

Unit Cost	10000.00
Project Share	85%
Beneficiary share	15%