

LUNGYI GEWOG

NINTH PLAN

[2002-2007]



PARO DZONGKHAG
ROYAL GOVERNMENT OF BHUTAN

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1. Current Situation

Lungnyi Gewog has an area of 59.7 sq. km with elevation ranging from 2,200 to 3,400 meters above sea level. The gewog, situated along the Pachhu, has seven villages and 265 households. The Paro-Thimphu national highway runs through the gewog. The gewog also has good feeder and farm road linkages.

Agricultural land use is dominated by dryland closely followed by wetland. Paddy and wheat are the principal cereal crops cultivated while apple and potato are the major cash crops cultivated in the gewog. Livestock rearing is an important economic activity for the farmers although local cattle dominate the livestock population.

There are many government institutions located in the gewog, namely the Druk Seed Corporation, Agriculture Machinery Center, Post-Harvest Unit, Civil Aviation, Wang Watershed Management Project, etc.

Majority of the households in the gewog have electricity and telephone connections although the coverage of rural water supply is only about 49%.

2. Summary of Gewog Plan Outlay

In Nu. Millions

Sl. No.	Programme	Current	Capital	Total	
1	Agriculture	0.000	16.017	16.017	
2	Livestock	0.000	1.205	1.205	
3	Forestry	0.000	0.326	0.326	
4	Education	0.000	0.000	0.000	
5	Health	0.000	1.400	1.400	
6	Suspension bridges/Mule Tracks	0.000	0.150	0.150	
7	Gewog Administration	0.885	2.440	3.325	
	Total	0.885	21.538	22.423	

3. Gewog Development Programs

Agriculture Programs

Cereal Crop Improvement

Under this program, improvement activities have been requested for rice, wheat, maize and mustard. Accordingly, there will be four sub-programs with the following objectives to:

- Increase rice production from 301 MT to 315 MT
- Increase wheat production from 42 MT to 46 MT
- Introduce improved maize variety and
- Increase mustard production so as to reduce import of oil.

The production targets have been fixed taking into account the farmers expressed needs, the present level of farmers knowledge in crop management, the production potentiality per unit area, acreage of cultivated land, and availability of high yielding varieties in some crops.

The activities identified to achieve the above objectives are:

- Farmers training,
- Demonstration
- Field day
- On-farm trial and
- Supply of improved and high yielding seeds

Horticulture crop improvement

Under this program, a number of horticulture crops are identified as the prioritized crops by the farmers based on the potentials for each of the crops. Hence, improvement on the yield and quality of apple, asparagus, strawberry, mushroom, vegetables and medicinal plants are proposed.

The objectives of these activities are to improve apple management, promote asparagus cultivation, income generation and to introduce medicinal plant cultivation.

The following activities will be taken up to achieve the objectives mentioned above:

- Farmers training in crop management, post-harvest and marketing
- Demonstration of new varieties
- On-farm trial and
- Supply of improved seeds

Rural livelihood support program

Under this program, the farmers in the gewog have identified a number of rural livelihood support activities on priority basis, namely the construction and renovation of irrigation channels, farm road construction, riverbank protection and farm mechanization.

The objectives of these activities are to increase the acreage of dryland brought under cultivation with the construction of irrigation channels, provide links between the production areas and potential markets through the construction of farm roads, protection of arable land through river training works and reduction of farm labor shortage problems through farm mechanization.

The following activities will be taken up to achieve the objectives mentioned above:

- Construction of a five km irrigation channel to benefit 19 households by irrigating a command area of 60 acres
- renovation of 10 km of existing irrigation channel to benefit 140 households by irrigating 385 acres
- Construction of five km farm road to benefit 125 households
- Maintenance works on 17 kms of farm roads in the gewog
- 1.5 Km of river training works and
- supply of available farm machinery to the farmers at full cost

Farmers' Study Tour

Under this program, institutional and capacity development activities have been identified as per the request of the farmers. The prioritized activities here are the farmers study tour within and outside the dzongkhag, so that they can enhance their knowledge and learn from other experiences and demonstrative activities.

Livestock Programs

A RNR center will be constructed in the gewog during the Ninth Plan, which will greatly benefit the farmers in terms of better coverage of livestock extension services. The budget for the RNR center construction will be with the Dzongkhag Livestock sector.

Establishment of Small-Scale Backyard Farms

Farmers will be encouraged to establish small- scale back yard farms. During the Ninth Plan poultry back yard units for 34 households with 900 birds, 19 dairy farms with 42 Jersey cows and 36 piggery backyard farms with 100 piglets were proposed. Assistance will be provided by the Dzongkhag to acquire loan wherever required through BDFC or other financial institutions.

Improvement of livestock breed

The main emphasis will be given to breed improvement through supply of breeding stock of high genetic make up with an objective to improve local breed of Livestock. The Dzongkhag will procure and distribute two pure jersey bulls. Three AI crates will also be installed in different locations in order to carry out mobile AI while 200 pullets and 50 piglets will be distributed to interested farmers on full cost during the plan period.

Feed and fodder development

In keeping with breed improvement activities, feed and fodder development will also be emphasized. Accordingly, 308 kgs of pasture seeds for 28 acres will be distributed to the farmers to develop the existing pastureland and 996 kgs of oat seeds for 29 acres of land will be also be distributed in order to over come the winter fodder shortage.

Animal health services

In addition to the deworming, vaccination, sterilization and general treatment services to improve livestock health in the gewog, three village animal health workers will also be trained in basic health services so that animal health services can be provided more effectively.

Farmers Training and Study Tour

Under the program a total of 550 farmers will be trained under different Livestock Management System with an objective to enhance skills and knowledge of the farmers on improved Livestock management.

In addition, 250 selected farmers will be taken for study tour, for a period of 10 days to different farms and dzongkhags, which will boost the knowledge of the farmers.

The farmers have also expressed interest to form a Farmers Association Milk Cooperative Society benefiting 30 households within the plan period.

Forestry Programs

Community and Private Forestry

The sector will establish five hectares community forestry in the Gewog on a pilot basis since the approach of community forestry is still new to the people

There are few who want to start private forestry. Five hectares of private land will be registered as private forest, which will benefit five households.

The tree seedlings will be distributed to the farmers for the establishment of both the private and community forestry.

Forest Fire Management

To have effective forest fire control, the Forestry sector will purchase fire-fighting equipment and distribute them to the gewog. It is also proposed to demarcate five km fire-line to prevent forest fire out break.

Farmers' Training and Study Tour

The farmers' training will be done with regard to private forestry establishment, community forestry establishment, dissemination of rules, formalities and procedures on rural house building timber, and forest fire management.

Selected farmers will be sent on study tours to the other Dzongkhags to enhance farmers' knowledge on all related subjects and to share experiences amongst the farmers from the other dzongkhags.

Health Programs

Construction of ORC shed

It is proposed to construct new ORC at Pongbesa village. Presently the clinic is conducted in VHW's house with a lot of inconveniences in delivery of quality MCH health services. The construction of the new ORC will benefit 18 households of Pongbesa.

The community will provide free labor for the construction while wages for two skilled labor and other essential hardware materials are requested from the government.

Health and sanitation promotion

Farmers will be encouraged to make decent latrines and other waste disposal pits so that the sanitary condition of the gewog will be improved. Also, farmers will be asked to make proper footpath with soling which will help for walking especially during monsoon seasons and make separate animal sheds far from their homes.

Provision of safe drinking water

The construction of seven new rural water supply schemes for about 123 beneficiaries will be taken up during the Ninth Plan. The rehabilitation of three existing schemes will also be given priority during the Ninth Plan.

Rural water supply schemes

Sl.No.	Villages/Places	No. of Beneficiaries
a.	New Schemes (7 Nos.)	
1	Getana Village	39
2	Damchibu & Jewshari	36
3	Jewnubri	13
4	Acholakha	12
5	Jewdado	8
6	Ugyen Guru Lhakahng	1
7	Pongbesa	14
	Total	123
b.	Rehabilitation (3 Nos.)	
1	Bondeylaptsalakha	26
2	Tshaphelu	13
3	Pongbesa	12
	Total	51

Education Programs

In order to achieve 100% literacy and enable all adults to read and write Dzongkha, two NFE centres were proposed, which will be established at Pepchu and Woochu junior high school. This NFE program will benefit about 68 households.

Renovation of suspension bridges (wooden) Programs

Three wooden bridges are proposed for rehabilitation at Gattana, Jue, and Woochu to facilitate mobility of farmers and transportation of agricultural, horticultural and livestock produces and products for marketing purposes in these villages.

The cost of bridge parts, cement, royalty of timber and skilled labor wages have been requested from the government while the beneficiaries will provide free labor for the construction.

Gewog Administration and Management Programs

Construction of Gup Office and GYT hall

Presently, there is no Gup's office and the GYT meetings and other village meetings are being conducted in the lhakhang. In line with the government policy of gewog-based planning from the Ninth Plan, the roles and responsibilities of the Gups and GYT members have increased substantially.

The construction of the Gup's office and GYT hall will be taken up as a priority activity during the Ninth Plan.

The necessary office furniture, typewriter, stationeries and provision of telephone connection will also be provided.

Maintenance of Lhakhangs

Lungnyi gewog has important lhakhangs and chortens dotting the villages viz. Dzongdrakha lhakhang, Dzongdrakha chorten lhakhang, Dado lhakhang, Bondey lhakhang, Laptse Goempa, Ugyen Guru lhakhang, Dzongdrakha Guru lhakhang, Dzongdrakha Tshering lhakhang, Getana lhakhang, Woochu lhakhang etc.

In order to preserve and promote the rich religious and cultural heritage of the kingdom, it is of paramount importance to maintain the lhakhangs and chortens at all cost. Many lhakhangs need minor to major renovations. Government support in terms of CGI sheet for roofing, electrification, traditional painting, replacement of rotten timber etc. are requested during the Ninth Plan.

However, based on the actual budget allocation and the technical competence of the Dzongkhag Engineering personnel, only 3-4 lhakhangs will be renovated during the plan period. Further, if additional resources become available during the plan period, renovation of a few more lhakhangs will be taken up.

4. Budget Estimates

In. Nu. Millions						
Sl. No.	Program/Activity	Target	Budget			Remarks
			Rec.	Capital	Total	
I	Agriculture Programs					
a	Cereal crop improvement					
1	Rice improvement					Costs borne by dzongkhag
-	Farmers training	80 HH		0.024	0.024	
-	Demonstration	3 Nos.		0.018	0.018	
-	Field day	3 Nos.		0.015	0.015	
-	On-farm trials	3 Nos.		0.012	0.012	
-	Supply of seeds		-	-		Supply based on demand
2	Wheat Improvement					Costs borne by dzongkhag
-	Farmers training	35 HH		0.011	0.011	
-	Demonstration	2 Nos.		0.012	0.012	
-	Field day	2 Nos.		0.010	0.010	
-	On-farm trials	2 Nos.		0.008	0.008	

-	Supply of seeds		-	-		Supply based on demand
3	Maize Improvement					Costs borne by dzongkhag
-	Field day	2 Nos.		0.010	0.010	
-	On-farm trials	2 Nos.		0.008	0.008	
-	Supply of seeds		-	-		Supply based on demand
4	Mustard Improvement					Costs borne by dzongkhag
-	Farmers training	35 HH		0.016	0.016	
-	Demonstration	3 Nos.		0.018	0.018	
-	Field day	3 Nos.		0.015	0.015	
-	On-farm trials	3 Nos.		0.012	0.012	
-	Supply of seeds		-	-		Supply based on demand
	Sub-total		0.000	0.189	0.189	
b	Horticulture crops					Costs borne by dzongkhag
1	Apple improvement					
-	Farmers training	60 HH		0.018	0.018	
-	Demonstration	3 Nos.		0.015	0.015	
-	Field day	3 Nos.		0.015	0.015	
-	Supply of seeds		-	-		Supply based on demand
2	Asparagus improvement					Costs borne by dzongkhag
-	Farmers training	60 HH		0.018	0.018	
-	Demonstration	2 Nos.		0.020	0.020	
-	Field day	2 Nos.		0.010	0.010	
-	Supply of seeds		-	-		Supply based on demand
3	Strawberry improvement					Costs borne by dzongkhag
-	Farmers training	70 HH		0.021	0.021	
-	Demonstration	2 Nos.		0.016	0.016	
-	Field day	2 Nos.		0.010	0.010	
-	Supply of seeds		-	-		Supply based on demand

4	Mushroom improvement					Costs borne by dzongkhag
-	Farmers training	40 HH		0.012	0.012	
-	Demonstration	3 Nos.		0.015	0.015	
-	Field day	3 Nos.		0.015	0.015	
-	Supply of seeds		-	-		Supply based on demand
5	Vegetable improvement					Costs borne by dzongkhag
-	Farmers training	60 HH		0.018	0.018	
-	Demonstration	2 Nos.		0.014	0.014	
-	Field day	2 Nos.	-	0.010	0.010	
-	Supply of seeds		-	-		Supply based on demand
6	Medicinal plants					Costs borne by dzongkhag
-	Demonstration	2 Nos.		0.010	0.010	
-	Field day	2 Nos.		0.010	0.010	
	Sub-Total		0.000	0.247	0.247	
c	Irrigation channel & farm road					Machines provided
-	Renovation of irri. Channel	10 Kms	-	1.500	1.500	labor contribution
-	Const.of irri. Channel	5 Kms	-	1.250	1.250	labor contribution
-	Farm Road Const.	5 Kms	-	5.000	5.000	by beneficiaries.
-	Farm Road maintenance	17 kms	-	7.500	7.500	by beneficiaries.
	Sub-Total		0.000	15.250	15.250	
d	Farm mechanization					
-	Power tillers	25 Nos.				Supply will depend
-	Transplanter	5 Nos.				availability .
-	18 HP Tractor	5 Nos.				Costs borne by farmers
	Sub-total		0.000	0.000	0.000	
e	River bank Protection					
-	River training works	1.5 km		0.075	0.075	Machines from Gov't. Labor by beneficiaries
	Sub-total		0.000	0.075	0.075	
f	Farmers study tours					

-	Tours within the dzongkhag	30 HH		0.009	0.009	Costs borne by
-	Tours to other dzongkhags	35 HH		0.247	0.247	the dzongkhags
	Sub-total		0.000	0.256	0.256	
	Total for Agriculture		0.000	16.017	16.017	
II	Livestock programs					
1	Breed Improvement					
-	Const. of AI crate	3 Nos.	-	0.018	0.018	Costs borne by dzongkhag
-	Supply of Pure Jersey Bulls	2 Nos.	-	0.024	0.024	
-	Supply of pullets	200 Nos.				Costs by farmers
-	Supply of piglets	50 Nos.				Costs by farmers
-	Training of VAHW	3 Nos.	-	0.006	0.006	Costs borne by dzongkhag
	Animal health services			0.450	0.450	
	Sub-Total		0.000	0.498	0.498	
2	Farmers Training					Costs borne by the dzongkhag
-	Poultry	150 HH	-	0.090	0.090	“do”
-	Piggery	100 HH	-	0.060	0.060	“do”
-	Dairy	200 HH	-	0.120	0.120	Full cost by farmers
-	Pasture management	100 HH	-	0.060	0.060	
-	Study tours to other dzongkhags	250 HH		0.300	0.300	Costs borne by the dzongkhag
	Sub-Total		0.000	0.630	0.630	
3	Feed & Fodder Develop’					
-	Supply of Pasture Seeds	308 kgs	-	0.032	0.032	28 Acres
-	Supply of Oat Seeds	996 kgs	-	0.045	0.045	29 Acres
	Sub-Total		0.000	0.077	0.077	
4	Estab. Of backyard farms					Full costs borne by farmers/BDFC
-	Dairy (19 HH)	42 Nos.				
-	Poultry (34 HH)	900 Nos.				
-	Piggery (36 HH)	100 Nos.				
	Sub-Total		0.000	0.000	0.000	
	Total for Livestock		0.000	1.205	1.205	
III	Forestry					
1	Community forestry	5 Hec	-	-	0.000	Recurrent expenses with the dzongkhag
2	Private Forestry	5 Hec	-	-		

-	Distribution of seedlings	2600 Nos	-	0.016	0.016	Recurrent expenses with the dzongkhag
-	Printing of ownership certificates		-	-	0.000	
3	Fire management & control					Recurrent expenses with the dzongkhag
-	Purchase of fire equipment	1 set		0.070	0.070	
-	Demarcation of fire line		-			
-	Light refreshments		-			
4	Farmers Training					
-	Private Forestry	20 Nos.		0.030	0.030	
-	Community forestry	20 Nos.		0.030	0.030	Recurrent expenses with the dzongkhag
-	Pvt. Nursery raising	20 Nos.		0.030	0.030	
-	Forest fire management	20 Nos.		0.030	0.030	
-	Environmental awareness	20 Nos.		0.030	0.030	
6	Farmers tour to other dzongkhags	6 Nos.		0.090	0.090	
	Total for Forestry		0.000	0.326	0.326	
IV	Education					Establishment & other recurrent costs with the dzongkhag
1	Estab. of NFE centres	2 Nos.	-	-	0.000	
	Total Education		0.000	0.000	0.000	
V	Health					At Pongbesa Only technical guidance provided by the dzongkhag
1	Construction of ORC	1 No.	-	0.110	0.110	
2	Construction of Latrines	124 HH	-	-	0.000	
3	Const.of Garbage pits	310 HH	-	-	0.000	
4	Const. of Proper Foot Path	426 HH	-	-	0.000	
5	Const.of Separate Shed	426 HH	-	-	0.000	
6	RWSS					
-	New Schemes	7 Nos.	-	0.924	0.924	
-	Rehabilitation	3 Nos.	-	0.366	0.366	
	Total Health		0.000	1.400	1.400	
VI	Suspension bridges					
1	Maintenance of bridges	3 Nos.	-	0.150	0.150	
	Total bridges		0.000	0.150	0.150	
VII	Gewog Administration					Typewriters
1	Const. of Gup's Office	1 No.	0.000	0.850	0.850	
2	Purchase of furniture		0.000	0.050	0.050	
3	Purchase of office equipment		0.000	0.020	0.020	
4	Installation of telephone		0.000	0.020	0.020	

5	Office stationary		0.015	0.000	0.015	
6	Gups & assistant's salary		0.870	0.000	0.870	
7	Maintenance of Lhakhangs	3 Nos.	0.000	1.500	1.500	
	Total Gewog Admn.		0.885	2.440	3.325	
	Grand Total		0.885	21.538	22.423	

5. Plan implementation, Monitoring and Evaluation

The GYT *Chathrim* 2002 delineates specific roles and responsibilities to all functionaries involved in development administration and management in the gewog. It is, however, deemed necessary to underscore some essential processes that must be observed in executing the above roles and responsibilities.

The financial powers and authority of the Gewog Administration for the implementation of the planned activities are also enshrined in the GYT *Chathrim* 2002.

Plan implementation

The Gup, GYT *Tshopas* and the community as a whole will take on full accountability and ownership of gewog development activities. The clear delineation of implementation time frames, responsibilities and contributions from the community should be developed for the effective implementation of gewog activities.

Annual and Quarterly Plans

Based on the Five-Year Plan, the Gup will prepare Annual Plans and Budgets (AP&B) in consultation with the gewog sectoral staff and submit it to GYT. After the GYT discusses and approves the Draft AP&B, it will be put up for approval to the DYT.

Once the DYT approves the AP&B, the GYT will develop a Quarterly Work Plan and Budget in consultation with the sectoral staffs and other functionaries in the gewog such as Mangmi, Chimi and Tshopas. The implementation of the Quarterly Work Plan will be the responsibility of the Gup and the Tshopas with technical support from the staff of the concerned sectors.

Based on the Quarterly Work Plan, the concerned sectoral staff responsible for the implementation of any planned activity will elaborate a detailed implementation plan and budget for approval and budget release by the Gup. Copy of this plan will be sent for information to the concerned sectoral heads and relevant agencies. Upon completion of the activity, the responsible person will submit a report to the Gup and the concerned sectoral heads and relevant agencies.

Monitoring and Evaluation

Monitoring

The GYT in the Gewog will be responsible for progress and performance monitoring of the planned activities. The GYT should convene monthly meetings with technical staff and other responsible persons for implementation to review the progress in the implementation of every activity and to take timely corrective actions when required. The gewog will seek technical back-up services from the Dzongkhag Administration when necessary.

Based on the received reports and monthly meetings the Gup will submit a quarterly report to the Dzongkhag administration. Technical reports from the different sectors will be attached to the Gup's quarterly report.

The Gup will verify the travel claims of all sectoral personnel in the gewog so that the performance of the gewog staff can be monitored.

Evaluation

To assess the impact and benefit of development programs and projects in the gewogs, the Government will launch periodic evaluation missions in coordination with the Dzongkhag Administration.