UMLING GEWOG NINTH PLAN (2002-2007)



SARPANG DZONGKHAG ROYAL GOVERNMENT OF BHUTAN

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1. CURRENT SITUATION

Umling gewog comprises of 5 villages with 287 households. The total area of the gewog is 122 Sq. Km and the total arable land is about 1308 acres. The forest coverage accounts to about 82% of the total gewographical area (*LUPP Data*).

The farmers in the gewog grow areca nut as the main cash crop. Other field crops grown by the farmers include Paddy, Maize, Barley, Millet and Buckwheat. The present\ production level of the cereals is about 786.476 metric tones (RNR Census 2000).

In general, every individual household owns cattle - few Jersey and mostly local breeds mainly to meet their need for dairy products milk, butter, cheese and for manure.

As RNR service infrastructure, the gewog has on RNR center and 36.73 km of irrigation channel to facilitate agricultural development in the gewog.

With respect to Health and Education, immunization coverage is good at 99 %. There is one community primary school and one BHU, where people have easy accessibility to health and education.

Communication network is fairly good with two suspension bridges over the Taklai River facilitating the farmers in free movements even during the summer season.

2. SUMMARY OF GEWOG PLAN OUTLAY

#	Program/Activity	Outlay	Remarks
1.	Agriculture	5.088	
2.	Livestock	0.117	
3.	Forestry	0.213	
4.	Education	1.000	
5.	Health	0.852	
6.	Gewog Administration	1.465	
	Total	8.735	

3. GEWOG DEVELOPMENT PROGRAMMES

Agriculture Programmes

Paddy Improvement Program

The agriculture in Umling is rice based, but the production of rice through use of local varieties is only 392.115 metric tones with average yield of 807 Kg/Acre that hardly meet the requirement of the farmers in general. Under its improvement program, new varieties like IR-64, BR-153, Bajo-Kaap and Bajo-Maap that are released by the RNRRCs would be tried and promoted to increase production level to 400 metric tones by the end of ninth plan.

To support the above improvement programs, extension intervention activities include two demonstrations, imparting of training on improved technologies to 40 households and one on-farm trial. Moreover, crop cuts and survey on seasonal production would be carried out to assess the production level involving all stakeholders.

Maize Improvement Program

New varieties like Yangtsipa and Suwan would be promoted in the gewog, as these varieties have not been promoted. The present level of production of local maize is only 375.213 metric tones with average yield 606 Kg/Acre. Under its improvement program, the above new varieties that have been released by the RNRRCs would be tried and promoted to bring about increased production level to 400 metric tones by the end of ninth plan.

To support the above improvement programs, extension intervention activities to be carried out include two numbers demonstrations, imparting of training on improved technologies to 60 households and one on-farm trial. Moreover, crop cuts and survey on seasonal production would be carried out to assess the production level involving all stakeholders.

Wheat Improvement Program

New varieties like Sonalika would be promoted in the gewog as it has not been promoted. The present level of production of wheat is only 4.835 metric tones with average yield of 700 Kg/Acre. Under its improvement program, the above new varieties that have been released by the RNRRCs would be tried and promoted to bring about increased production level to 10 metric tones by the end of ninth plan.

To support the above improvement programs, extension intervention activities include one demonstration, imparting of training on improved technologies to 20 households and one on-farm trial. Moreover, crop cuts and survey on seasonal production would be carried out to assess the production level involving all stakeholders.

Oil Seed Improvement Program

Oil seed production in Umling is very minimal where the farmers mostly buy from the market for their domestic consumption. Hence, there is a need to explore and promote oil crops cultivation to meet their requirement at household level. Therefore, under its improvement program, new varieties like M-27 that are released by the RNRRCs would be tried and promoted in the ninth plan.

To support the above improvement programs, extension intervention activities include two demonstrations, imparting of training on improved technologies to 35 households and one on-farm trial. Moreover, crop cuts and survey on seasonal production would be carried out to assess the production level involving all stakeholders.

Millet Improvement Program

Farmers preferably grow Finger millet (locally called as Kodo) as an important millet crop basically for preparation of local wines. The present level of production of local millet is only 9.254 metric tones with yield of 233 Kg/Acre. With this production level, the farmers are just self-sufficient in millet. So, to bring about further improvement with increased production to about 100 metric tones, improved varieties released by the RNRRCs would be tried and promoted.

To support the above improvement programs, extension intervention activities include two demonstrations, imparting of training on improved technologies to 30 households and one on-farm trial. Moreover, crop cuts and survey on seasonal production would be carried out to assess the production level involving all stakeholders.

Horticulture Crops Promotion

Increasing the purchasing power of the farmers has become very important aspect of socio-economic development of the rural population. Horticulture development is a useful programme to increase the cash income of farmers. However, the farmers of the gewog do not have adequate accessibility in terms of knowledge and skills on horticulture

Horticulture crops like aerecanut, mango seedlings and ginger rhizome would be supplied to the potential farmers supplemented by imparting of farmers training on new packages, establishment of demonstration plots and on-farm trial on ginger rhizome at farmers field. Crop cuts and seasonal production survey would be continued to serve as a baseline for future planning and monitoring.

Marketing Support

With respect to marketing support to the farmers, one number community based farmers' cooperative society would be formed. The main aim is to streamline the sale and disposal of marketable farm produces to the nearest market or to other agencies. The dzongkhag would initiate the cooperative formation and impart necessary training to the members.

Private Nursery Establishment

Umlinge gewog has the potential to establish aerecanut nursery, as the venture on these horticulture crops has now become a lucrative business for the farmers. Moreover, consumption of aerecanut is very high throughout the country. Establishment of nurseries would not only help the farmers to sustain local supply to the farmers both within and outside the gewogs and dzongkhag but also generate cash income to the operators. Hence, establishment of one number each of nursery at Rijuk village has been proposed. For the establishment, the dzongkhag would initially support the operators with supply of locally adaptable varieties and provide technical guidance through training on nursery management practices.

Mushroom Production

Paddy straw mushroom production has been identified as a new venture for the farmers. Farmers would be trained on new packages using the locally available materials like paddy straw and 20 Kgs of spawn supplied by the dzongkhag to 20 households locally identified by the extension agent and Gup. The outstanding 4 mushroom growers would be sent on study tour to National Mushroom Center and RNRRCs for enhancing their knowledge and skills. Thus, this would enable the farmers to generate cash income and increase their nutritional intake level.

Construction of Ten Kilometers of Irrigation Channel

The aim of the program is to have assured irrigation facilities round the year basically for wet land cultivation thereby increasing the productivity and production of rice with further expansion of wet land cultivation. The public has proposed to construct 10 Km irrigation channel from Phansphallay source. This would benefit the whole public of the gewog.

Hence, the public of the gewog proposed for the construction 10 km irrigation channel in the ninth plan. This irrigation channel would benefit a total of 287 households having catchments area of 126.14 acres of wetland. Also, this irrigation channel would benefit the public in other farming purposes like conventional kitchen gardening and livestock purposes other than for wetland cultivation. Further, through such assured irrigation facilities there is a scope to increase the production area and yield level of rice. Thereafter, the beneficiary public through formation of Water User Association, following national irrigation policy would look after the said irrigation channel. For this, a sum of Nu.3.000 million is provisioned inclusive of WUA training. Further, future maintenance and minor repair works, called as put right activities, would be carried out by the community with a technical guidance from the dzongkhag.

Renovation of Six Kilometers of Irrigation Channel

The aim of the program is to have assured irrigation facilities round the year basically for Wetland cultivation thereby increasing the productivity and production of rice with further expansion of wet land cultivation. The said irrigation channel located at Rijuk, Dungmin, Dangling, Gaden and Chesopani that were constructed during late 80s has been washed away by heavy monsoon rainfall. Since then, renovation of the said channel could not be taken up owing to anti-national activities in the region.

The details of beneficiaries and other information is given hereunder:

#	Village	Name of	Source of	Length	Beneficiary	Catchments
		Channel	Irrigation	(Km)	(hhs)	Area (WL in
						Acres)
1	Rijuk	Rijuk Channel	Chesopani	1.00	57	100
2	Dungmin	Dungmin Channel	Langkharkhola	1.00	53	50
3	Dangling	Dangling Channel	Langkharkhola	1.00	35	50
4	GadenLingar	Gaden Channel	Taklaikhola	1.00	5525	7055
5	Chesopani	Chesopani Channel	Chesopani	2.00	11	75
	Total			6	236	400

Hence, the public of the gewog proposed for the renovation in the ninth plan. This irrigation channel would benefit a total of 236 households having catchments area of 400 acres of wetland. Also, this irrigation channel would benefit the nearby villages in other farming purposes like conventional kitchen gardening and livestock purposes.

Further, through such assured irrigation facilities there is a scope to increase the production area and yield of rice. Thereafter, the beneficiary public through formation of Water User Association, following national irrigation policy would look after the said irrigation channel.

For this, a sum of Nu.0.900 million is provisioned. Further, future maintenance and minor repair works, called as put right activities, would be carried out by the community with a technical guidance from the dzongkhag.

Maintenance of 15 Km Farm Road

During the ninth plan, the existing 15 Km farm road within the gewog connecting the villages need to be maintained in order to benefit the farmers in mobilizing farm machinery and transporting of farm produce to the market. For this, as um of Nu.0.750 million is provisioned during the ninth plan.

Assistance to Small Farmers

The main aim of the program is to assist farmers in generating cash income for domestic purposes. For the above activity, seeds like sunflower, banana suckers and papaya seedlings would be supplied to the farmers of the villages locally identified by the extension agents.

Farm Mechanization

As per the demand from the farmers, farm machineries and other tools and implements would be supplied on cash payment as indicated in the budget matrix. Training and study tour to AMC on farm mechanization to five households would be given.

Training on Reduction of Post Harvest Losses

Lack of training on reduction of post harvest losses has become a major impediment in the gewog in general in addition to the loss already incurred during pre-harvest time. So, in order to mitigate such unwarranted losses from pests and diseases' infestation and infection, the public expressed the need to have them imparted with training on new technologies and skills. Hence, farmers training to 20 Households on better storage methods would be given after carrying out trials and survey on post harvest loses.

Plant Protection Program

Presently, the gewog does not have any commission agent and the farmers have difficulty in availing timely supply of chemicals from the dzongkhag. So, streamlining of timely deposit of money and supply of chemicals to the farmers has become an important element both for the gewog and dzongkahg. At gewog level, farmers' organization on plant protection would be formed. The objective is to have them organized and coordinate in procuring plant protection chemicals through the Dozngkahg Agriculture Officer. A jointly operated bank account would be opened where they will withdraw the money as and when required for the procurement. The extension agent in the gewog will monitor and keep strong vigilance on judicious utilization of the chemicals. Moreover, farmers training on Integrated Pest Management would be given to the farmers in order to reduce dependence on chemicals.

Soil Fertility Development

Under Soil Fertility Development Program, Dhiancha seeds as a green manure fertilizer would be promoted to after imparting proper training to the farmers. Moreover, training on organic farming would be given to them.

Soil Conservation

In the soil erosion prone areas of the villages, 40,000 numbers of vetiver grass slips would be supplied to the farmers initially, where the farmers shall multiply and grow in the soil erosion areas. This would also prevent the fertile soil especially in the sloppy areas being washed away by heavy rain during the monsoon season. Growing vetiver grasses in the sloppy areas can make contour bunds. For this, farmers training with on the spot demonstration would be given initially.

Livestock Programmes

Establishment of Piggery Backyard Units

Though piggery in the gewog is not a new enterprise, yet the public expressed their need to have improved piglets to substitute their existing local breeds. Moreover, the gewog has a very low population of 96 pigs (RNR Census 2000) of both local and improved pigs. Hence, in order to further increase the population of pigs to increase public's income generation and increase in nutritional uptake level, establishment of more piggery backyard units initially by about 50 households has been proposed by the public. Such initiation of backyard units would not only help the farmers to generate cash income and improve their nutritional intake level but also enjoy its advantage in terms of availing bio-manure for their agricultural farming purposes that is ecofriendly. The modality for establishment of such backyard units would be through extension intervention where the Livestock Sector on cash payment basis would supply the piglets.

Under this program, 50 households would be trained on piggery husbandry and management and out of which, 3 outstanding farmers locally identified by extension agent would be sent on study to various Research centers, Center Farms and other dzongkhags.

Establishment of Dairy Backyard Units

The gewog has a local cattle population of 979 and 20 improved breeds. Hence, in order to further increase the population of improved breeds in terms of the public's income generation and increase in nutritional uptake level, establishment of more dairy backyard units on improved ones initially by about 50 households has been proposed by the public. Such initiation of backyard units would not only help the farmers to generate cash income and improve their nutritional intake level but also enjoy its advantage in terms of availing bio-manure for their agricultural farming purposes that is eco-friendly. The modality for establishment of such backyard would be through extension intervention where the Livestock Sector on cash payment basis would supply the improved Jersey cows. Under this program, 50 households would be trained on dairy husbandry and management and out of which, four outstanding farmers locally identified by extension agent would be sent on study to various Research centers, Center Farms and other dzongkhags.

Establishment of Poultry Backyard Units

In order to further increase the population of improved breeds poultry to increase income generation and increase in nutritional uptake level, establishment of more poultry backyard units on improved ones initially by about 50 households has been proposed by the public. Such initiation of backyard units would not only help the farmers to generate cash income and improve their nutritional intake level but also enjoy its advantage in terms of availing bio-manure for their agricultural farming purposes that is eco-friendly. The modality for establishment of such backyard units would be through extension intervention where the Livestock Sector on cash payment basis would supply the improved poultry birds.

Under this program, 50 households would be imparted with training on dairy husbandry and management and out of which, three outstanding farmers locally identified by extension agent would be sent on study to various Research centers, Center Farms and other dzongkhags.

Cattle Breed Improvement Program

The gewog does not have either pure Jersey or Jersey-X bulls for cross breeding with their local ones. In order to bring about increased improved cattle population, the farmers have proposed for supply of one each of pure and cross Jersey bulls. This would enable the farmers to have enough dairy products for their livelihood through progenies born for high production capacity. To encourage the farmers further, progeny born allowances to the owners would be awarded with a sum of Nu.50/progeny as an incentive. For this, a sum of Nu.0.024 million is provisioned in the ninth plan.

Feed and Fodder Development

Though the forest cover of Umling gewog is over 80%, there is need to develop pasture for maintaining adequate supply of fodder for cattle round the year. For this program, the farmers of the gewog have proposed to develop ten acres of pastureland in the gewog. The dzongkhag would supply 2857 numbers of fast growing fodder tree species to the farmers. Moreover, the farmers would be trained on urea treatment of paddy straw as a supplementary fodder during the winter months.

Forest Programmes

Establishment of Community Forest

The main objective of this program is to handover the government reserve forest to the local community to plant trees and manage on their own to reduce the pressure on reserve forest and to meet their need for basic products like timber, fodder and fuel wood. So one community forestry would be established covering over ten acres on pilot basis. The

Dzongkhag Forestry extension service along with TFD, Land Record and the farmers will identify the site proposed and demarcate the boundaries. The dzongkhag would provide technical guidance supported with input supply for the establishment. This would enable them not only to avail necessary forest produces but also help them in generating cash income through sale of timbers.

Education Programmes

Rehabilitation of Umling CPS

The gewog has a total of 287 households where the gross primary enrollment in the gewog is low at 94 %. The children of the gewog, besides attending school at Umling Community Primary School, also attend schools in the other gewogs. The existing school cannot accommodate the growing population of school going children of the gewog and with the objective of providing primary education within the gewog, expansion of infrastructure like construction of extra buildings and other supportive facilities as reflected hereunder have become a felt necessity. For devising a system of resource management, a resource center at Norbuling High School (Presently Junior High School) would be established. For the construction of infrastructure, the dzongkhag would assist in providing leadership, planning construction and providing construction materials that are within the budget limit granted by the government. Other extra expenditure that would incur for the construction shall be borne by the beneficiary community.

Hence, a sum of Nu.1.000 million is provisioned during the ninth plan as mentioned hereunder:

- Construction of 6 additional class rooms (Nu.0.500 million)
- Water supply (0.100 million)
- Furniture and Equipment (0.200 million)
- Purchase of Library Books (0.200 million)

Health Programmes

Construction of an ORC

In order to cater basic primary health care to the public of Bawanitar village comprising of 30 households, one ORC construction is being proposed. For this, a sum of Nu.0.110 million is provisioned.

Construction of a RWSS

In order to cater clean drinking water supply to the public of the gewog, one number RWSS construction is proposed at Gurungtar that would serve around 20 households. Hence, a sum of Nu.0.132 million is provisioned for the purpose.

Rehabilitation of five RWSSs

The present RWS scheme constructed earlier need to be rehabilitated in order to have adequate and safe drinking water supply to the public of Gaden, Lingar, Dungmin, Dangling and Rijuk. The details are:

#	Village	Length (Km)	Source	Beneficiary (Hhs)	Existing Posts(Nos)	Additional Posts(Nos)	Maintenance Required on	Remarks
1	Gaden	4	Dongray-	55	7	7	New Intake tank,	Inadequate.
	Lingar		kholaa	25	2	4	CWR &Additional	Will benefit,
	Dungmin			50	7	7	Posts.	School, RNR,
	Dangling			30	3	5	Rectification of	BHU and
	Rijuk			57	7	8	distribution lines	Lhakhang
	Total	4		217	26	31		

Hence, a sum of Nu.0.610 million is proposed for the rehabilitation works.

Gewog Administration and Management

Construction of Gup's Office

The need to strengthen gewog administration has become a crucial programme in keeping with the process of decentralization. With the clear-cut bifurcation of the goeg and Dzongkhag programs in the ninth plan as a separate entity, gewog level administration system need to be strengthened further. The program activities that are to be implemented in the gewog have to be transparent and accountable to all the concerned. In doing so, it's mandatory that the Gup should maintain proper records and files and pass on to the successors. Proper filing and records keeping in a manner workable to local institutions at par with Dzongkhag system is a felt necessity, as most of the programs in the ninth plan are decentralized to the gewog institutions.

Hence, the public of Umling gewog requested for construction of Gup's office in the ninth plan that would be carried out by themselves with technical support and guidance from the Dzongkhag in terms of modality and prototype models.

In order to strengthen and supplement the gewog administration, the following stationery and office equipment are provisioned:

- Construction of Office (Nu. 0.300 million)
- Stationery (Nu. 0.050 million)
- Office furniture (Nu. 0.040 Million)
- Electricity (0.015 million)
- Equipment like Type Writers (Both English and Dzongkha) (Nu.0.040 million)
- Telephone Installation (0.150 million)
- Establishment Cost -For Gup, Mangmi and Dungyig's salary (Nu.0.870 million)

A sum total of Nu.1.465 million is provisioned for gewog administration and management.

5. BUDGET ESTIMATES

#	Program/Activity	Unit	Target	Unit]	Budget		Remarks
				Cost	Rec	Cap	Total	
				(Nu)				
1	Rice Improvement							
	Promotion	Kg	1660	18		0.030	0.030	
	Farmers Training	Hhs	40	150		0.006	0.006	
	On-farm trial	Nos	1	1000		0.001	0.001	
	Demonstration	Nos	2	5000		0.010	0.010	
	Crop cut	Nos	15					
	Survey on production	Nos	5					
	Sub Total				0.000	0.047	0.047	
2	Maize Improvement							
	Promotion	Kg	1000	14.5		0.015	0.015	
	Farmers Training	Hhs	60	150		0.009	0.009	
	On-farm trial	Nos	1	1000		0.001	0.001	
	Demonstration	Nos	2	5000		0.010	0.010	
	Crop cut	Nos	15					
	Survey on production	Nos	5					
	Sub Total				0.000	0.035	0.035	
3	Wheat Improvement							
	Promotion	Kg	1500	16		0.024	0.024	
	Farmers Training	Hhs	20	150		0.003	0.003	
	On-farm trial	Nos	1	1000		0.001	0.001	
	Demonstration	Nos	1	5000		0.005	0.005	
	Crop cut	Nos	15					
	Survey on production	Nos	5					
	Sub total				0.000	0.033	0.033	
4	Mustard Improvement							
	Promotion	Kg	700	37.5		0.026	0.026	
	Farmers Training	Hhs	35	150		0.005	0.005	

	On-farm trial	Nos	1	1000		0.001	0.001	
	Demonstration	Nos	2	5000		0.010	0.010	
	Crop cut	Nos	15					
	Survey on production	Nos	5					
	Sub Total				0.000	0.043	0.043	
5	Millet Improvement							
	Promotion	Kg	400	14.5		0.006	0.006	
	Farmers Training	Hhs	30	150		0.005	0.005	
	On-farm trial	Nos	1	1000		0.001	0.001	
	Demonstration	Nos	2	5000		0.010	0.010	
	Crop cut	Nos	15					
	Survey on production	Nos	5					
	Sub Total				0.000	0.021	0.021	
6	Horticulture Promotion							
	Supply of Arecanut seedlings	Nos	500	17.5		0.009	0.009	
	Supply of Mango	Nos	400	16		0.006	0.006	
	Supply of Ginger Rhizomes	Nos	500	25		0.013	0.013	
	Farmers Training	Hhs	60	150		0.009	0.009	
	On Farm Trial	Nos	1	1000		0.001	0.001	
	Demonstration	Nos	3	5000		0.015	0.015	
	Crop Cut	Nos	10					
	Survey on Production	Nos	5					
	Sub Total				0.000	0.053	0.053	
-	Marketing Support							
7	0 11							
	Formation of Cooperative society		1	5000		0.005	0.005	
, 	Formation of Cooperative society Farmers Training	Nos Hhs	1 40	5000 150		0.006	0.006	
	Formation of Cooperative society Farmers Training Sub Total				0.000			
8	Formation of Cooperative society Farmers Training Sub Total Private Nursery	Hhs		150	0.000	0.006 0.011	0.006 0.011	
	Formation of Cooperative society Farmers Training Sub Total Private Nursery Arecanut	Hhs		2000	0.000	0.006 0.011 0.002	0.006 0.011 0.002	
	Formation of Cooperative society Farmers Training Sub Total Private Nursery Arecanut Training	Hhs	40	150		0.006 0.011 0.002 0.000	0.006 0.011 0.002 0.000	
8	Formation of Cooperative society Farmers Training Sub Total Private Nursery Arecanut Training Sub total	Hhs	1	2000	0.000	0.006 0.011 0.002	0.006 0.011 0.002	
	Formation of Cooperative society Farmers Training Sub Total Private Nursery Arecanut Training Sub total Mushroom Production	Nos Hhs	1 1	2000 150		0.006 0.011 0.002 0.000 0.002	0.006 0.011 0.002 0.000 0.002	
8	Formation of Cooperative society Farmers Training Sub Total Private Nursery Arecanut Training Sub total Mushroom Production Supply of paddy straw Spawn	Nos Hhs Kgs	1 1 20	2000 150 90		0.006 0.011 0.002 0.000 0.002	0.006 0.011 0.002 0.000 0.002	
8	Formation of Cooperative society Farmers Training Sub Total Private Nursery Arecanut Training Sub total Mushroom Production Supply of paddy straw Spawn Farmers Training	Nos Hhs Kgs Hhs	1 1 20 20	2000 150 90 150		0.006 0.011 0.002 0.000 0.002 0.002 0.003	0.006 0.011 0.002 0.000 0.002 0.002 0.003	
8	Formation of Cooperative society Farmers Training Sub Total Private Nursery Arecanut Training Sub total Mushroom Production Supply of paddy straw Spawn Farmers Training Study Tour	Nos Hhs Kgs	1 1 20	2000 150 90	0.000	0.006 0.011 0.002 0.000 0.002 0.002 0.003 0.002	0.006 0.011 0.002 0.000 0.002 0.002 0.003 0.020	
9	Formation of Cooperative society Farmers Training Sub Total Private Nursery Arecanut Training Sub total Mushroom Production Supply of paddy straw Spawn Farmers Training Study Tour Sub Total	Nos Hhs Kgs Hhs	1 1 20 20	2000 150 90 150		0.006 0.011 0.002 0.000 0.002 0.002 0.003	0.006 0.011 0.002 0.000 0.002 0.002 0.003	
8	Formation of Cooperative society Farmers Training Sub Total Private Nursery Arecanut Training Sub total Mushroom Production Supply of paddy straw Spawn Farmers Training Study Tour Sub Total Construction	Nos Hhs Kgs Hhs Hhs	1 1 20 20 4	2000 150 90 150 5000	0.000	0.006 0.011 0.002 0.000 0.002 0.003 0.002 0.0025	0.006 0.011 0.002 0.000 0.002 0.003 0.020 0.025	
9	Formation of Cooperative society Farmers Training Sub Total Private Nursery Arecanut Training Sub total Mushroom Production Supply of paddy straw Spawn Farmers Training Study Tour Sub Total Construction Irrigation channel	Nos Hhs Kgs Hhs	1 1 20 20	2000 150 90 150	0.000	0.006 0.011 0.002 0.000 0.002 0.003 0.020 0.025 3.000	0.006 0.011 0.002 0.000 0.002 0.002 0.003 0.020 0.025	
9	Formation of Cooperative society Farmers Training Sub Total Private Nursery Arecanut Training Sub total Mushroom Production Supply of paddy straw Spawn Farmers Training Study Tour Sub Total Construction Irrigation channel Sub total	Nos Hhs Kgs Hhs Hhs	1 1 20 20 4	2000 150 90 150 5000	0.000	0.006 0.011 0.002 0.000 0.002 0.003 0.002 0.0025	0.006 0.011 0.002 0.000 0.002 0.003 0.020 0.025	
9	Formation of Cooperative society Farmers Training Sub Total Private Nursery Arecanut Training Sub total Mushroom Production Supply of paddy straw Spawn Farmers Training Study Tour Sub Total Construction Irrigation channel Sub total Reno of irrigation channel	Nos Hhs Kgs Hhs Hhs	1 1 20 20 4	2000 150 90 150 5000 300000	0.000	0.006 0.011 0.002 0.000 0.002 0.003 0.020 0.025 3.000 3.000	0.006 0.011 0.002 0.000 0.002 0.003 0.020 0.025 3.000 3.000	
9	Formation of Cooperative society Farmers Training Sub Total Private Nursery Arecanut Training Sub total Mushroom Production Supply of paddy straw Spawn Farmers Training Study Tour Sub Total Construction Irrigation channel Sub total Reno of irrigation channel Renovation of Irrigation Channel	Nos Hhs Kgs Hhs Hhs	1 1 20 20 4	2000 150 90 150 5000	0.000	0.006 0.011 0.002 0.000 0.002 0.003 0.020 0.025 3.000 3.000	0.006 0.011 0.002 0.000 0.002 0.003 0.020 0.025 3.000 0.900	
9 10 11	Formation of Cooperative society Farmers Training Sub Total Private Nursery Arecanut Training Sub total Mushroom Production Supply of paddy straw Spawn Farmers Training Study Tour Sub Total Construction Irrigation channel Sub total Reno of irrigation channel Renovation of Irrigation Channel Sub Total	Nos Hhs Kgs Hhs Hhs	1 1 20 20 4	2000 150 90 150 5000 300000	0.000	0.006 0.011 0.002 0.000 0.002 0.003 0.020 0.025 3.000 3.000	0.006 0.011 0.002 0.000 0.002 0.003 0.020 0.025 3.000 3.000	
9	Formation of Cooperative society Farmers Training Sub Total Private Nursery Arecanut Training Sub total Mushroom Production Supply of paddy straw Spawn Farmers Training Study Tour Sub Total Construction Irrigation channel Sub total Reno of irrigation channel Renovation of Irrigation Channel Sub Total	Nos Hhs Kgs Hhs Hhs	1 1 20 20 4	2000 150 90 150 5000 300000	0.000	0.006 0.011 0.002 0.000 0.002 0.003 0.020 0.025 3.000 3.000	0.006 0.011 0.002 0.000 0.002 0.003 0.020 0.025 3.000 0.900	

	Sub total				0.000	0.750	0.750	
13	Assistance to small farmers							
	Supply of sunflower seeds	Kgs	200	20		0.004	0.004	
	Supply of banana Suckers	Nos	2000	11		0.022	0.022	
	Supply of Papaya Seedlings	Nos	1000	13		0.013	0.013	
	Sub Total				0.000	0.039	0.039	
14	Farm Mechanization							
	Supply of Power Tiller	Nos	5					
	Supply of rice Huller	Nos	5					
	Supply of corn Flake Machine	Nos	2					
	Supply of Paddy Thresher	Nos	10					
	Supply of gator machine	Nos	10					
	Supply of Knap Sack sprayer	Nos	10					
	Supply of Improved Plough	Nos	15					
	Supply of secateurs	Nos	50					
	Supply of tools and implements	Sets	50					
	Farmers Training	Hhs	5	150		0.001	0.001	
	Study tour	Hhs	5	5000		0.025	0.025	
	Sub Total				0.000	0.026	0.026	
15	Post Harvest							
	Farmers Training	Hhs	20	150		0.003	0.003	
	Trial on Storage Methods	Nos	1	1000		0.001	0.001	
	Survey on Storage Loses	Nos.	1	1000		0.001	0.001	
	Sub Total				0.000	0.005	0.005	
16	Plant Protection							
	Farmers organization	Nos	1	5000		0.005	0.005	
	IPM Training	Hhs	30	150		0.005	0.005	
	Sub Total				0.000	0.010	0.010	
17	•							
	Promotion of Dhiancha	Kgs	1500	20		0.030	0.030	
	Organic farming Training	Hhs	50	150		0.008	0.008	
	Sub Total				0.000	0.038	0.038	
18	Soil conservation							
	Supply of Vetiver Grass	Slips		1		0.040	0.040	
	Farmers Training	Hhs	80	150		0.012	0.012	
	Sub Total				0.000	0.052	0.052	
19	00 V							
	Backyard unit	Nos	50	4-0		0.000	0.005	
	Farmers Training	Hhs	50	150		0.008	0.008	
	Study Tour	Hhs	3	5000	0.000	0.015	0.015	
	Sub Total				0.000	0.023	0.023	
20	,		~ ~					
	Backyard unit	Nos	50	1=0		0.000	0.000	
	Farmers Training	Hhs	50	150		0.008	0.008	

	Study Tour	Hhs	4	5000		0.020	0.020	
	Sub Total				0.000	0.028	0.028	
21	Estb of more Poultry backyard							
	Backyard unit	Nos	50					
	Farmers Training	Hhs	50	150		0.008	0.008	
	Study Tour	Hhs	3	5000		0.015	0.015	
	Sub Total				0.000	0.023	0.023	
22	Breed Improvement							
	Supply of Jersey Bull	Nos	1	12000		0.012	0.012	
	Supply of Jersey Cross	Nos	1	10000		0.010	0.010	
	Progeny Born Allowances	Nu.	100					
	Sub Total				0.000	0.022	0.022	
23	Feed and Fodder development							
	Purchase of Urea	Kgs	100	5.5		0.001	0.001	
	Supply of FTS	Nos	2857	4		0.011	0.011	
	Pasture development	Ac	10	1100		0.011	0.011	
	Sub Total				0.000	0.023	0.023	
24	Community Forestry							
	Estab of CF	Ha	25	8500		0.213	0.213	
	Sub total			0.000	0.213	0.213	0.213	
25	Rehabilitation of Umling CPS							
	Construction of additional							
	classroom	Nos	1	500000		0.500	0.500	
	Water supply	Nos	1	100000		0.100	0.100	
	Furniture and Equipment	Sets	1	200000		0.200	0.200	
	Purchase of Library books	Sets	1	200000		0.200	0.200	
	Sub total				0.000	1.000	1.000	
26		Nos	1	110000		0.110	0.110	
	Sub Total				0.000	0.110	0.110	
27	Construction of RWSS	Nos	1	132000		0.132	0.132	
•	Sub Total				0.000	0.132	0.132	
28	Rehabilitation of RWSS	Nos	5	122000	0.000	0.610	0.610	
20	Sub Total				0.000	0.610	0.610	
29	Const & estb. of Gup Office	.,,		200000		0.000	0.000	
	Construction of Office	Nos	1	300000		0.300	0.300	
	Purchase of Furniture	Sets	1	40000	0.017	0.040	0.040	
	Electricity	Nos	1	15000	0.015		0.015	
	Purchase of Stationery	Sets	1	50000	0.050		0.050	
	Office Equipment	Sets	1	40000	0.040		0.040	
	Telephone	Nos	1	150000	0.150		0.150	
	Establishment cost	Nos	3	290000	0.870	0.040	0.870	
	Sub Total				1.125	0.340	1.465	
	Grand Total				1.125	7.610	8.735	

7. 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 Tshogpas. The implementation of the Quarterly Work Plan will be the responsibility of the Gup and the Tshogpas 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.