CHHUZAGANG GEWOG NINTH PLAN (2002-2007)



SARPANG DZONGKHAG ROYAL GOVERNMENT OF BHUTAN

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1. CURRENT SITUATION

Chhuzagang gewog comprises of nine villages with 420 households. The gewog has an area of 57.6 Sq. Km. The forest coverage in the gewog is about 80% of the total geographical area (*LUPP Data*).

The soil types found in the gewog are sandy clay, clay, loam, sandy loam and clay loam. The general soil fertility and moisture conditions are good for agriculture and farming.

Of the total of 2558.88 acres of arable land in the gewog, about 1,510 acres (59%) are dry land and 974 acres (38%) are wetland. The gewog has good potential for agricultural development warm sub-tropical climate and good amounts of rainfall.

About 16% of the arable wetland is presently under rice cultivation. Other crops grown by the farmers are maize, buckwheat, barley, millet and mustard. The present annual production level of cereals is about 1,856.639 metric tones. Presently, orange is the main cash-generating crop of the farmers.

The households in the gewog are also rear livestock including Jersey, goat, pig and local cattle to meet their domestic requirement for livestock products. Any excess product they are able to generate, they take it to Gelephu market to sell and buy other necessities.

The gewog has one RNR Centre, eight kilometers of access road, 18.65 km of irrigation channel, one BHU, one malaria Center, one RWSS and a community school located in the gewog.

2. SUMMARY OF GEWOG PLAN OUTLAY

| # | Program/Activity | Outlay | Remarks |
|----|----------------------|--------|---------|
| 1. | Agriculture | 2.123 | |
| 2. | Livestock | 0.118 | |
| 3. | Forestry | 0.068 | |
| 4. | Education | 1.000 | |
| 5. | Health | 0.386 | |
| 6. | Gewog Administration | 1.465 | |
| | Total | 5.160 | |

3. GEWOG DEVELOPMENT PROGRAMMES

Agriculture Programmes

Paddy Improvement Program

Even though, agriculture in Chuzagang is rice based, the production of rice through use of local varieties is only 1,337.785 metric tones with yield of 1,134 Kg/Acre, which is just sufficient to meet the households' need. Under the paddy 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 bring about increased production level to 2,500 metric tones by the end ofninth plan, thereby securing food self-sufficiency in the gewog.

To substantiate the above improvement programs, extension intervention activities like two demonstration programmes, imparting of training on improved technologies to 40 households and an on-farm trial would be carried out. Moreover, as a mandatory and routine work, crop cuts and survey on seasonal production would be carried out to assess the production level involving all stakeholders.

Maize Improvement Program

New varieties of maize like Yangtsipa and Suwan would be promoted in the gewog, as in other gewogs. These varieties have not been promoted so far in the gewog. The present level of production of local maize is only 482.233 metric tones with average yield of 477 Kg/Acre. With these new varieties, it is expected that total production of maize in ht gewog would be increased to 800 metric tons by the end ofninth plan.

To support the above improvement programs, extension interventions would include two numbers of demonstrations, training on improved technologies to 50 households and one number on-farm trial. As a mandatory routine work, 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 in other gewogs, where these varieties have not been promoted. The present level of production of wheat is only 7.364 metric tones with 1571 Kg/Acre. Under this improvement program, the above new varieties that have been released by the RNRRCs would be tried and promoted to bring about increased production level of 20 metric tones by the end of ninth plan, thereby securing food self-sufficiency.

To support the above improvement programme, following extension interventions will be carried out:

- One demonstration;
- Training for 20 households on improved technologies;
- One on-farm trial; and
- Crop cuts and survey on seasonal production to assess the production level involving all stakeholders.

Oil Seed improvement program

Oil seed production in Chhuzagang 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 released by the RNRRCs would be tried and promoted in the ninth plan to increase production level of oil seeds.

To support the above improvement programme, following extension interventions will be carried out:

- Two demonstrations;
- Training for 30 households on improved technologies;
- One on-farm trial; and
- Crop cuts and survey on seasonal production to assess the production level involving all stakeholders.

Millet Improvement Program

Farmers preferably grow Finger millet (locally called Kodo) as an important millet crop basically for preparation of Bangchang (Fermented wine) and Ara (Locally prepared wine). The present level of production of local millet is only 18.356 metric tones with the average yield of 154 Kg/Acre. So, to bring about further improvement and increase the production to about 100 metric tones, improved varieties released by the RNRRCs would be tried and promoted.

To support the above improvement programme, following extension interventions will be carried out:

- Two demonstrations:
- Training for 30 households on improved technologies;
- One on-farm trial; and
- Crop cuts and survey on seasonal production 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 by improving the sources of cash income to the farmers. The farmers of the gewog do not have adequate knowledge and skills on horticulture

Horticulture crops like aerecanut, mango and ginger rhizome would be supplied to the potential farmers with training on new packages, establishment of demonstration plots and on-farm trials the field. Crop cuts and seasonal production survey would be continued to establish a baseline for future planning and monitoring

Marketing Support

With respect to marketing support to the farmers, a community-based farmers' cooperative society would be formed. The main aim is to streamline the sale of marketable farm produces to the nearest market or to other agencies. All efforts would be made to involve all the households in the gewog in organizing and managing the cooperative. The dzongkhag would involve only to monitor and keep necessary records on the sale of produces. However, initially the dzongkhag would initiate the cooperative formation and impart necessary training to the members.

Establishment of Private Nursery

Chhuzagang 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 such 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 a nursery each in Shawapong 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 15 Kgs of spawn supplied by the dzongkhag to 30 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 Distribution Irrigation Channels

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.

Hence, the public of the gewog proposed for the construction of new distribution channels from Pangzor to Karbithang (2 Km) and Pangzor to Dawathang (2 Km) areas in the ninth plan. This irrigation channel would benefit a total of 20 households having catchments area of 95 acres of wetland. Also, this irrigation channel would benefit the nearby villages like in terms of utilizing for 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 existing Water User Association called as Lothuen Chuyur Tshogpa, following national irrigation policy would look after the maintenance of irrigation channel.

For this, a sum of Nu.1.200 million is provisioned. Further, future maintenance and minor repair works, called put right activities, would be carried out by the community with technical guidance from the dzongkhag.

Maintenance of Farm Road

During the ninth plan the existing ten kilometers of farm road within the gewog connecting from village to village need to be maintained in order to help the farmers in mobilizing farm machinery and transporting of farm produce for market. For this, as um of **Nu.0.500 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 the above activity, seeds like sunflower, banana suckers and papaya seedlings would be supplied to the farmers of the villages 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 estimate. Training and study tour to AMC on farm mechanization to 5 households would be given.

Training on Post Harvest Management of Crops

Lack of training on 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 trained on new technologies and skills. Hence, farmers training to 25 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 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 coordinated 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 mitigate total dependence on chemicals

Soil Fertility Development

Under Soil Fertility Development Program, Dhiancha seeds as a green manure fertilizer would be promoted with 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, 40000 numbers of vetiver grass slips would be supplied to the farmers initially, where the farmers shall multiply and grow in the soil erosion prone 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 help 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 farming in the gewog is not a new enterprise, yet the public expressed their need to have improved piglets as a substitution to their existing local breeds. Moreover, the gewog has a very low pig population, which are 222 (RNR Census 2000) of both local and improved pigs inclusive of piglets. Hence, in order to further increase the population of pigs for income generation and increase in nutritional uptake level, establishment of more piggery backyard units initially to about 40 households has been proposed by the public. Such initiation of backyard units would not only help the farmers generate cash income and improve their nutritional intake level but also enjoy its advantage in terms of availing bio-manure for agricultural farming purposes. The modality for establishment of such backyard would be through extension intervention where the Livestock Sector on cash payment basis would supply the piglets.

Under this program, 40 households would be imparted with training on piggery husbandry and management out of which, three outstanding farmers 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 1,718 and 145 improved breeds. Hence, in order to further increase the population of improved breeds for the income generation and increase in nutritional uptake level, establishment of more dairy backyard units on improved ones initially to about 40 households has been proposed by the public. Such initiation of backyard unit 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 are 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, 40 households would be imparted with training on dairy husbandry and management out of which, 4 outstanding farmers 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 for income generation and increase in nutritional uptake level, establishment of more poultry backyard units on improved ones initially to about 40 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, 40 households would be imparted with training on dairy husbandry and management out of which, 3 outstanding farmers identified by extension agent would be sent on study to various Research centers, Center Farms and other dzongkhags

Cattle Breed Improvement Programme

The gewog does not have either pure Jersey and Jersey-X bulls for cross breeding with their local ones. In order to bring about increased improved cattle population, the farmers have proposed for one number pure Jersey bull. 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.0.014 million is provisioned in the ninth plan.

Feed and Fodder Development

Though the forest cover of Chhuzagang gewog is over 80%, there is need to develop pasture for maintaining coherent supply of fodder for cattle round the year. For this program, the farmers of the gewog have proposed to develop 10 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.

Forstry Programmes

Establishment of Community Forest

The main objective of this program is to handover a certain area of 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 the need for basic forest products like timber, fodder and fuel wood. So one community forestry would be established covering area of over 10 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 with input supply for the establishment of 8 hectares of community forestry. This would enable them not only to avail necessary forest produces but also help them in generating cash income through sale of timbers. For this, a sum of Nu.0.213 million is proposed.

Education Programes

Rehabilitation of Chhuzagang CPS to PS

The gewog has a total of 420 households where the gross primary enrollment in the gewog is fairly good. The existing school has to accommodate the primary section of the proposed Norbuling High School, which in turn also have to accommodate children from 172 households from Trashiphu, Pemaling and Norbuling as it is located near to the gewog center with a walking distance of only ten minutes to one hour. Besides, the proposed school would have to accommodate the growing population of school going children from its own villages. Thus, its rehabilitation has become a necessity 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 been proposed. For devising a system of resource management, resource center will be established at Gelephu Higher Secondary School (Presently High School). For the construction of infrastructure, the dzongkhag would assist in 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.1million is provisioned during the ninth plan for activities as mentioned hereunder:

- Construction of 12 additional class rooms with 6 rooms block (Nu.0.5 million)
- Water supply (0.100 million)
- Furniture and Equipment (0.2 00 million)
- Purchase of Library Books (0.200 million)

Health Programmes

Construction of Two RWSSs

In order to cater clean drinking water supply to the public of the gewog, 2 RWSS constructions are proposed at Chaskhar and Dawathang that would serve around 122 households as shown below:

| # | Village | Length (Km) | Source | Beneficiary (hhs) | Tap Posts (Nos) | Remarks |
|---|-----------|-------------|------------------|-------------------|--------------------|--|
| 1 | Chaskhar | 1.75 | Masineykhola | 42 | 15 | Will benefit 11 Hhs of Kaphong village. 5 posts |
| 2 | Dawathang | 5.00 | Jangkhurungkhola | 80 | 16 | Will benefit 40 Hhs of Karbithang village. 8 posts |
| | Total | 6.75 | | 122 | 31 | |

A sum of Nu.0.264 million budgets is provisioned for the above RWSS activity.

Rehabilitation of One RWSS

The present RWS scheme constructed earlier need to be rehabilitated in order to have adequate and safe drinking water supply to the public of Chhuzagang.

| # | Village | Length | Source | Beneficiary | Existing | Additional | Maintenance | Remarks |
|---|------------|--------|--------------|-------------|------------|------------|------------------|---------------|
| | | (Km) | | (Hhs) | Posts(Nos) | Posts(Nos) | Required on | |
| 1 | Chhuzagang | 5 | Jangkhurung- | 300 | 42 | 5 | New Intake | Inadequate. |
| | | | khola | | | | tank, CWR & | Will benefit, |
| | | | | | | | Additional Posts | School, RNR |
| | | | | | | | | BHU and |
| | | | | | | | | Lhakhang |
| | Total | 5 | | 300 | 42 | 5 | | |

Hence, a sum of Nu.0.122 million is proposed for the rehabilitation works.

Gewog Administration And Management

Construction of Gup's Office

The need to strengthen gewog administration has become crucial program with the process of decentralization. With the clear-cut bifurcation of the goeg and Dzongkhag programs in the ninth plan as separate entities, 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 concerned. In doing so, it's mandatory that the Gup should maintain proper records and files and pass it 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 Chhuzagang gewog requested for construction of Gup's office in theninth plan that would be carried out by themselves with technical support and guidance from the Dzongkhag.

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.

4. BUDGET ESTIMATES

| # | Program/Activity | Unit | Target | Unit | | Budget | Total | Remarks |
|---|----------------------------|------|--------|------|-------|--------|-------|---------|
| | | | | Cost | Rec | Cap | | |
| | | | | (nu) | | | | |
| 1 | Rice Improvement | | | | | | | |
| | Promotion | Kg | 1000 | 18 | | 0.018 | 0.018 | |
| | Farmers Training | Hhs | 40 | 150 | | 0.006 | 0.006 | |
| | On-farm trial | | 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 | |
| 2 | Maize Improvement | | | | | | | |
| | Promotion | Kg | 1000 | 14.5 | | 0.015 | 0.015 | |
| | Farmers Training | Hhs | 50 | 150 | | 0.008 | 0.008 | |
| | 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 | 0.033 | 0.033 | |
| 3 | Wheat Improvement | | | | | | | |
| | Promotion | Kg | 500 | 16 | | 0.008 | 0.008 | |
| | 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 | 0.017 | 0.017 | |
| 4 | Mustard Improvement | | | | | | | |
| | Promotion | Kg | 1000 | 37.5 | | 0.038 | 0.038 | |
| | 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 | 0.053 | 0.053 | |
| 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 | Nos | 500 | 17.5 | | 0.009 | 0.009 | |
| | Supply of Mango | Nos | 400 | 26 | | 0.010 | 0.010 | |
| | Supply of Ginger Rhizomes | Nos | 500 | 25 | | 0.013 | 0.013 | |
| | Farmers Training | Hhs | 100 | 150 | | 0.015 | 0.015 | |
| | 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 | 0.058 | 0.058 | |
| 7 | Marketing Support | | | | | | | |
| | Formation of Cooperative society | Nos | 1 | 5000 | | 0.005 | 0.005 | |
| | Farmers Training | Hhs | 40 | 150 | | 0.006 | 0.006 | |
| Щ | Sub Total | | | | 0.000 | 0.011 | 0.011 | |
| 8 | Private Nursery | | | | | | | |
| | Arecanut | Nos | 1 | 2000 | | 0.002 | 0.002 | |
| | Training | Nos | 1 | 1000 | | 0.001 | 0.001 | |
| | Sub total | | | | 0.000 | 0.003 | 0.003 | |
| 9 | Mushroom Production | | | | | | | |
| | Supply of paddy straw Spawn | Kgs | 15 | 90 | | 0.001 | 0.001 | |
| | Farmers Training | Hhs | 30 | 150 | | 0.005 | 0.005 | |
| | Study Tour | Hhs | 4 | 5000 | | 0.020 | 0.020 | |
| | Sub Total | | | | 0.000 | 0.026 | 0.026 | |
| 1.0 | - A .A | | | | | | | |
| 10 | · · | ** | | 200000 | | 1.200 | 4.200 | |
| 10 | Constr of distribution Irri Channel | Km | 4 | 300000 | 0.000 | 1.200 | 1.200 | |
| | Constr of distribution Irri Channel Sub Total | Km | 4 | 300000 | 0.000 | 1.200 1.200 | 1.200 1.200 | |
| 10 | Constr of distribution Irri Channel Sub Total Farm Road | | | | 0.000 | 1.200 | 1.200 | |
| | Constr of distribution Irri Channel Sub Total Farm Road Maintenance of Farm Road | Km | 10 | 300000 | | 1.200 0.500 | 1.200 0.500 | |
| 11 | Constr of distribution Irri Channel Sub Total Farm Road Maintenance of Farm Road Sub Total | | | | 0.000 | 1.200 | 1.200 | |
| | Constr of distribution Irri Channel Sub Total Farm Road Maintenance of Farm Road Sub Total Assistance to small farmers | Km | 10 | 50000 | | 0.500 0.500 | 0.500 0.500 | |
| 11 | Constr of distribution Irri Channel Sub Total Farm Road Maintenance of Farm Road Sub Total Assistance to small farmers Supply of sunflower seeds | Km | 10 | 50000 | | 0.500 0.500 0.004 | 0.500 0.500 0.004 | |
| 11 | Constr of distribution Irri Channel Sub Total Farm Road Maintenance of Farm Road Sub Total Assistance to small farmers Supply of sunflower seeds Supply of banana Suckers | Km Kgs Nos | 10 200 2000 | 50000 | | 0.500 0.500 0.004 0.022 | 0.500 0.500 0.004 0.022 | |
| 11 | Constr of distribution Irri Channel Sub Total Farm Road Maintenance of Farm Road Sub Total Assistance to small farmers Supply of sunflower seeds Supply of banana Suckers Supply of Papaya Seedlings | Km | 10 | 50000 | 0.000 | 0.500 0.500 0.004 0.022 0.013 | 0.500 0.500 0.004 0.022 0.013 | |
| 11 12 | Constr of distribution Irri Channel Sub Total Farm Road Maintenance of Farm Road Sub Total Assistance to small farmers Supply of sunflower seeds Supply of banana Suckers Supply of Papaya Seedlings Sub Total | Km Kgs Nos | 10 200 2000 | 50000 | | 0.500 0.500 0.004 0.022 | 0.500 0.500 0.004 0.022 | |
| 11 | Constr of distribution Irri Channel Sub Total Farm Road Maintenance of Farm Road Sub Total Assistance to small farmers Supply of sunflower seeds Supply of banana Suckers Supply of Papaya Seedlings Sub Total Farm Mechanization | Km Kgs Nos Nos | 10 200 2000 1000 | 50000 | 0.000 | 0.500 0.500 0.004 0.022 0.013 | 0.500 0.500 0.004 0.022 0.013 | |
| 11 12 | Constr of distribution Irri Channel Sub Total Farm Road Maintenance of Farm Road Sub Total Assistance to small farmers Supply of sunflower seeds Supply of banana Suckers Supply of Papaya Seedlings Sub Total Farm Mechanization Supply of Power Tiller | Km Kgs Nos Nos | 10 200 2000 1000 | 50000 | 0.000 | 0.500 0.500 0.004 0.022 0.013 | 0.500 0.500 0.004 0.022 0.013 | |
| 11 12 | Constr of distribution Irri Channel Sub Total Farm Road Maintenance of Farm Road Sub Total Assistance to small farmers Supply of sunflower seeds Supply of banana Suckers Supply of Papaya Seedlings Sub Total Farm Mechanization Supply of Power Tiller Supply of rice Huller | Km Kgs Nos Nos Nos | 10 200 2000 1000 | 50000 | 0.000 | 0.500 0.500 0.004 0.022 0.013 | 0.500 0.500 0.004 0.022 0.013 | |
| 11 12 | Constr of distribution Irri Channel Sub Total Farm Road Maintenance of Farm Road Sub Total Assistance to small farmers Supply of sunflower seeds Supply of banana Suckers Supply of Papaya Seedlings Sub Total Farm Mechanization Supply of Power Tiller Supply of rice Huller Supply of corn Flake Machine | Km Kgs Nos Nos Nos Nos | 10 200 2000 1000 5 2 | 50000 | 0.000 | 0.500 0.500 0.004 0.022 0.013 | 0.500 0.500 0.004 0.022 0.013 | |
| 11 12 | Constr of distribution Irri Channel Sub Total Farm Road Maintenance of Farm Road Sub Total Assistance to small farmers Supply of sunflower seeds Supply of banana Suckers Supply of Papaya Seedlings Sub Total Farm Mechanization Supply of Power Tiller Supply of rice Huller Supply of corn Flake Machine Supply of Paddy Thresher | Kgs Nos Nos Nos Nos | 10 200 2000 1000 5 2 1 10 | 50000 | 0.000 | 0.500 0.500 0.004 0.022 0.013 | 0.500 0.500 0.004 0.022 0.013 | |
| 11 12 | Constr of distribution Irri Channel Sub Total Farm Road Maintenance of Farm Road Sub Total Assistance to small farmers Supply of sunflower seeds Supply of banana Suckers Supply of Papaya Seedlings Sub Total Farm Mechanization Supply of Power Tiller Supply of rice Huller Supply of corn Flake Machine Supply of Paddy Thresher Supply of gator machine | Kgs Nos Nos Nos Nos Nos | 10 200 2000 1000 5 2 1 10 10 | 50000 | 0.000 | 0.500 0.500 0.004 0.022 0.013 | 0.500 0.500 0.004 0.022 0.013 | |
| 11 12 | Constr of distribution Irri Channel Sub Total Farm Road Maintenance of Farm Road Sub Total Assistance to small farmers Supply of sunflower seeds Supply of banana Suckers Supply of Papaya Seedlings Sub Total Farm Mechanization Supply of Power Tiller Supply of rice Huller Supply of corn Flake Machine Supply of Paddy Thresher Supply of gator machine Supply of Knap Sack sprayer | Kgs Nos Nos Nos Nos Nos Nos | 10 200 2000 1000 5 2 1 10 10 | 50000 | 0.000 | 0.500 0.500 0.004 0.022 0.013 | 0.500 0.500 0.004 0.022 0.013 | |
| 11 12 | Constr of distribution Irri Channel Sub Total Farm Road Maintenance of Farm Road Sub Total Assistance to small farmers Supply of sunflower seeds Supply of banana Suckers Supply of Papaya Seedlings Sub Total Farm Mechanization Supply of Power Tiller Supply of rice Huller Supply of corn Flake Machine Supply of Paddy Thresher Supply of gator machine Supply of Knap Sack sprayer Supply of Improved Plough | Kgs Nos Nos Nos Nos Nos Nos Nos | 10 200 2000 1000 5 2 1 10 10 10 | 50000 | 0.000 | 0.500 0.500 0.004 0.022 0.013 | 0.500 0.500 0.004 0.022 0.013 | |
| 11 12 | Constr of distribution Irri Channel Sub Total Farm Road Maintenance of Farm Road Sub Total Assistance to small farmers Supply of sunflower seeds Supply of banana Suckers Supply of Papaya Seedlings Sub Total Farm Mechanization Supply of Power Tiller Supply of rice Huller Supply of corn Flake Machine Supply of Paddy Thresher Supply of gator machine Supply of Knap Sack sprayer | Kgs Nos Nos Nos Nos Nos Nos | 10 200 2000 1000 5 2 1 10 10 | 50000 | 0.000 | 0.500 0.500 0.004 0.022 0.013 | 0.500 0.500 0.004 0.022 0.013 | |

| | Farmers Training | Hhs | 5 | 150 | | 0.001 | 0.001 | |
|----|-------------------------------|-------|-------|-------|-------|-------|-------|--|
| | Study tour | Hhs | 5 | 5000 | | 0.025 | 0.025 | |
| | Sub Total | 11110 | | | 0.000 | 0.026 | 0.026 | |
| 14 | Post Harvest | | | | | | | |
| | Farmers Training | Hhs | 25 | 150 | | 0.004 | 0.004 | |
| | Trial on Storage Methods | Nos | 1 | 1000 | | 0.001 | 0.001 | |
| | Survey on Storage Loses | Nos. | 5 | 1000 | | 0.005 | 0.005 | |
| | Sub Total | | | | 0.000 | 0.010 | 0.010 | |
| 15 | Plant Protection | | | | | | | |
| | Farmers organization | Nos | 1 | 5000 | | 0.005 | 0.005 | |
| | IPM Training | Hhs | 12 | 150 | | 0.002 | 0.002 | |
| | Sub Total | | | | 0.000 | 0.007 | 0.007 | |
| 16 | Soil Fertility | | | | | | | |
| | Promotion of Dhiancha | Kgs | 1500 | 20 | | 0.030 | 0.030 | |
| | Organic farming Training | Hhs | 40 | 150 | | 0.006 | 0.006 | |
| | Sub Total | | | | 0.000 | 0.036 | 0.036 | |
| 17 | Soil conservation | | | | | | | |
| | Supply of Vetiver Grass | Slip | 40000 | 1 | | 0.040 | 0.040 | |
| | Farmers Training | Hhs | 60 | 150 | | 0.009 | 0.009 | |
| | Sub Total | | | | 0.000 | 0.049 | 0.049 | |
| 18 | Estb of more Piggery backyard | | | | | | | |
| | Backyard unit | Nos | 40 | | | | | |
| | Farmers Training | Hhs | 40 | 150 | | 0.006 | 0.006 | |
| | Study Tour | Hhs | 3 | 5000 | | 0.015 | 0.015 | |
| | Sub Total | | | | 0.000 | 0.021 | 0.021 | |
| 19 | Estb of more Dairy backyard | | | | | | | |
| | Backyard unit | Nos | 40 | | | | | |
| | Farmers Training | Hhs | 40 | 150 | | 0.006 | 0.006 | |
| | Study Tour | Hhs | 4 | 5000 | | 0.020 | 0.020 | |
| | Sub Total | | | | 0.000 | 0.026 | 0.026 | |
| 20 | Estb of more Poultry backyard | | | | | | | |
| | Backyard unit | Nos | 40 | | | | | |
| | Farmers Training | Hhs | 40 | 150 | | 0.006 | 0.006 | |
| | Study Tour | Hhs | 3 | 5000 | | 0.015 | 0.015 | |
| | Sub Total | | | | 0.000 | 0.021 | 0.021 | |
| 21 | - | | | | | | | |
| | Supply of Jersey Bull | Nos | 1 | 12000 | | 0.012 | 0.012 | |
| | Progeny Born Allowances | Nu. | 40 | | 0.055 | 0.000 | 0.000 | |
| | Sub Total | | | | 0.000 | 0.012 | 0.012 | |
| 22 | Feed and Fodder deve | | 4000 | _ | | 0.00- | 0.00- | |
| | Purchase of Urea | Kgs | 1000 | 5 | | 0.005 | 0.005 | |
| | Supply of FTS | Nos | 2857 | 4 | | 0.011 | 0.011 | |
| | Pasture development | Ac | 20 | 1100 | | 0.022 | 0.022 | |

| | Sub Total | | | | 0.000 | 0.038 | 0.038 | |
|----|------------------------------------|------|---|--------|-------|-------|-------|---|
| 23 | Estab of Community Forestry | | | | | | | |
| | Establishment of CF | Ha | 8 | 8500 | | 0.068 | 0.068 | |
| | Sub Total | | | | 0.000 | 0.068 | 0.068 | |
| 24 | Construction of RWSS | Nos | 2 | 132000 | | 0.264 | 0.264 | |
| | Sub Total | | | | 0.000 | 0.264 | 0.264 | |
| 25 | Rehabilitation of RWSS | Nos | 1 | 122000 | | 0.122 | 0.122 | |
| | Sub Total | | | | 0.000 | 0.122 | 0.122 | |
| 26 | Rehab of Chhuzagang CPS | | | | | | | |
| | Constr 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 | |
| 27 | Constr & estb. of Gup Office | | | | | | | |
| | Construction of Office | Nos | 1 | 300000 | | 0.300 | 0.300 | |
| | Purchase of Furniture | Sets | 1 | 40000 | | 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 | | 0.870 | |
| | Sub Total | | | _ | 1.125 | 0.340 | 1.465 | _ |
| | Grand Total | | | | 1.125 | 4.036 | 5.160 | |

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 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.