



# Guidelines on Cost-Sharing Mechanism for the RNR Sector



**MINISTRY OF AGRICULTURE AND FORESTS**  
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**ROYAL GOVERNMENT OF BHUTAN**



## Foreword

The Ministry of Agriculture and Forests is pleased to share the revised “Guidelines on Cost-Sharing Mechanism (CSM) for the RNR Sector 2021.” The CSM aims to streamline the practise of support provisions for various RNR related activities and intends to encourage individuals, farmer groups, cooperatives, youth and youth groups to take up RNR sector activities across value chain (production to marketing). This is expected to contribute to achievement of the sector’s objectives of accelerating food and nutrition security and self-sufficiency of RNR products.

The CSM outlines various types of support packages depending on the type of activity (subsistence, semi-commercial, commercial) and size of enterprise. The CSM is aligned with existing policies, programmes, strategies and other related guidelines to address inconsistencies and emerging challenges in the RNR sector.

The CSM will follow standard governance modalities and systematic Monitoring and Evaluation (M&E) process prescribed under this guideline to ensure that all farming communities receive uniform support from the public sector investment and take complete ownership of the support provided for sustainability. The support will however be based on the availability of funds and fulfilling the requirement prescribed in this guideline. This CSM shall be applied uniformly across any donor or public based project funding and regular government plans and programmes within the Ministry.

The revised CSM for the RNR sector was developed through a series of consultations with all Departments and agencies under the Ministry of Agriculture and Forests. The guideline was endorsed at the 116<sup>th</sup> RNR-GNHC meeting held on 8 February 2021 and subsequently approved at the 121<sup>st</sup> RNR-GNHC meeting held on 15 June 2021.



**(Yeshey Penjor)**  
**Minister**

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## 1. Background

The word subsidy, derived from the Latin word subsidium means "support, assistance, aid, help, and protection". It is a measure that keeps the price for consumers below market level, or keeps prices of producers above market levels or that reduces costs for both producers and consumers by giving direct and indirect support (OECD). While World Trade Organization interprets it as a financial contribution by a government or any public body or any form of income or price support whereby a benefit is thereby conferred. In USA and France, subsidies have been designed primarily to increase farm income, either by raising level of prices above free market levels or by providing direct payments to farmers.

Subsidy within the RNR sector is defined as a separate and additional governments support either in kind or cash payments or both to producers and value chain intermediaries for the purpose of enhancing RNR goals and objectives such as increased food production, guaranteeing farmers' basic incomes and strengthening the RNR sector's contribution to the national economy.

Starting the 12<sup>th</sup> FYP, The Ministry of Agriculture and Forests (MoAF) has implemented Cost Sharing Mechanism (CSM) in place of the subsidy component, mainly in agriculture and livestock production. CSM document has been reviewed further to prioritize productions and to promote agricultural based enterprises. In general, CSM is a process by which the actors involved in the production/processing/marketing share the costs involved. As a government entity, MoAF has worked out various different cost sharing mechanisms for the RNR sectors (Agriculture, Livestock, Forests, Biodiversity and Marketing) depending on the type of products/services and the type of cost-function. Cost sharing components are concentrated to specified subsector interventions complementing regular development plans and programs of the RNR sectors.

One of the goals of CSM is to share the costs involved and this result in sharing the responsibilities too, therefore, in a way this ensures the success of the activity implemented and sustainable use of resources. The other goal is to divide the externality among the agents.

## 2. Historical evidences and evolution of subsidy under RNR Sector

In Bhutan, agriculture subsidies started as early as 1961 with the commencement of planned development as a necessary tool to promote agriculture and livestock farming. Farmers were provided with seeds and seedlings of improved varieties, improved breeds of livestock, fodder seeds, farm tools, plant protection chemicals, and fertilizers for increasing crop and livestock production. Later, the subsidies were gradually phased out. From the 8<sup>th</sup> FYP, the Government limited RNR subsidy to produce planting materials, improved livestock breeds and support transport cost of inputs. The Government continues to pay 10% commission of the sales value of inputs to the Sales & Service Representatives (commission agents) to facilitate distribution of agricultural inputs to ease their accessibility.

Until the end of 11<sup>th</sup> FYP, the subsidy from the Government was focused more towards the subsistence farming, which was aimed at poverty alleviation and securing household food and nutrition. The subsidy was provided mainly to the farmers' groups and cooperatives, while the enterprising individuals and private enterprises were not adequately supported.

### 3. Rationale, Goals and Objectives

#### 3.1. Rationale

The primary factor responsible for rural poverty in Bhutan is the small size of land holding that is not big enough to support the family livelihood and limited options for drudgery reductions. Further, about 31% of the agriculture land is located on slopes resulting in soil loss of 8.6 tons/ha annually. This loss of nutrients in the soil renders agriculture land less productive and becomes unsustainable, besides the difficulties faced in cultivation practices. Apart from these challenges, the productivity of the farms is low because farmers are unable to purchase more productive inputs and required tools/equipment for increasing the productivity of their farms.

The CSM on RNR inputs is therefore justified by the realities of rural poverty, food and nutrition insecurity, and increasing imports caused by low farm productivity. For this reason, the MoAF considers its CSM on RNR inputs and related services as direct production investment to increase crop and livestock production and productivity for the purpose of achieving food security and poverty alleviation.

The CSM will provide financial support across the value chain; starting from production to marketing interventions and agriculture-based enterprise development. CSM will provide various types of support packages depending on the type of activity level (subsistence, semi-commercial or commercial) and type and size of the enterprises. This is required as the CSM needs to be looked at from the perspective of its importance on rural poverty alleviation, food and nutrition security, commercialization of farming activities, enterprise development for employment and income, and contribution to the national economy.

With such focused interventions, CSM is expected to contribute to the agriculture development objectives much more efficiently in the 12<sup>th</sup> FYP and similarly in the following plans, thereby gradually helping in the transition of agriculture from a subsistence to a commercial production system.

To enhance productivity through commercialization and attain higher self-sufficiency in RNR products the proposed cost sharing mechanism shall therefore provide clarity on the type, proportion and governance modalities for incentives to be provided for primary production, post-harvest, inputs processing, products processing, value addition and marketing of RNR products. This cost sharing mechanism aims to streamline the practice of providing financial support for

consistency and uniformity throughout the country to enhance food and nutrition self-sufficiency.

Further, the mechanism will map all existing subsidies by types, proportions and governance modalities illustrating issues and gaps in the existing subsidy packages and modalities and recommend interventions and changes required for efficient implementation (Annex 1).

Unlike previous plans, the current and onward plans will strive to provide farming incentives with a structured and more focused approach. The justifications that call for the provision of farming incentives are further discussed below:

- The Food Act of Bhutan 2005 provides protection to human health through trade of food. Moreover, the Food and Nutritional Security Policy of Bhutan 2014 highlights the need to focus on food availability, access, utilization and stability.
- For an agrarian society with 51.1% of the population is directly engaged in farming for livelihood and contributing to 16.5% to the overall GDP, it is imperative to support farmers through farming incentives. Incentives to farmers will enhance production, stabilize price, increase export and contribute to import substitution and stabilize trade balance.
- The cultivated area in Bhutan is only 2.93% of the total geographic area. In order to meet the requirement of the growing population, food production needs to be enhanced, mainly through productivity. Thus, there is a need to incentivize farmers to enhance productivity. Incentivizing farming population will not only improve their livelihoods but would also contribute to the food need of the non-farming population residing in urban areas.
- It is important to reduce import of agriculture and livestock produce and to substitute with domestic production both for fresh and processed commodities. Sufficient supplies of cereals, essential vegetables and livestock products through in-country production is even more critical at the time of both global and national disaster outbreaks and supply chain disruptions. Farm inputs, equipment and structures in the field will ensure production continuity and gradual progressive farming that will ultimately help to increase production.
- There is a high potential for the large-scale production of export-oriented fruits, vegetables and livestock products in the country. High investment cost is one of the main limitations for the large-scale production. Limited access to credits and its associated cost thereafter also do not favour the farming communities including youth to venture into agriculture and livestock based enterprise development. Through this CSM, the income base of the farming communities and youth could be strengthened and build their skills, capital and confidence for the bigger investment on large scale commercial production to meet internal food self-sufficiency and export market.
- A rapid rural to urban migration is observed amongst the youth in search of better opportunities for income and livelihood mainly due to the farm drudgery and low returns in rural areas. Agriculture and livestock production transition from subsistence to modernized

farming is important to be adopted and implemented in the field. This is possible only through the government's support on critical inputs to enhance productivity, profit and comfort in farming practices.

- The overall RNR sector development in Bhutan is driven largely by an integrated crop and livestock system and is highly dependent on imported input. Similarly, food processing is still rudimentary and a maximum number of processed foods found in the market are imported. This dependency may even increase further with increasing demand for agriculture and livestock inputs to increase the production and demand for processed food with changing food habits of the consumers. Therefore, CSM should also be provided to farming communities and youth for the development of farm inputs processing and food product development including the development of storage systems, ware-housing, value addition facilities and marketing infrastructures.

Apart from ensuring fund support to the farming communities and youths, the proposed CSM is aligned to address support inconsistencies. This is also to overcome the current gaps in RNR sector and gear towards harmonizing the cost-sharing system so that all farming populations and youth receive uniform support from the public sector investment. The CSM shall also serve as a social safety net, as well as community ownership of the development interventions.

In addition, CSM is required to comply with donor funded project obligation/requirements that demands cost sharing and co-funding either from the Government or direct beneficiaries. CSM will be one of the strategic approaches to avail donors support through commitments and shared responsibility of the actual beneficiaries.

### 3.2. Goals and Objectives

The overall goal of the cost sharing mechanism is to enhance and sustain RNR sector growth, generate income, enhance rural livelihood, ensure food and nutrition security and employment opportunities for youth. The guideline on CSM will therefore strive towards following objectives:

- i. To ensure access, uniformity and consistency on types and level of RNR critical inputs supports for all Bhutanese farmers and youth.
- ii. To promote commercialization of farming and promote enterprise development for enhancing production, meet domestic food self-sufficiency, income and employment opportunities for youth.
- iii. To reduce vulnerability to food insecurity and poverty of subsistence and pro-poor (below poverty line) Bhutanese farmers.
- iv. To continuously increase and sustain growth in crop and livestock farming and improve livelihood of Bhutanese farmers.

- v. To promote economic growth and create synergy between the farmers' initiatives and the government's effort for rural poverty alleviation.
- vi. To persuade beneficiaries with sense of ownership and shared responsibility for the sustainability of the supports provided while minimizing the wastage of resources.

### **3.3. Scope**

The guideline shall be uniformly adopted and implemented by all departments, agencies, central programs, local government, commodity programs and projects within the RNR sector in dispensing any form of agricultural (agriculture, livestock, forestry biodiversity, and RNR marketing) incentives to farming communities and youth.

## **4. Commodity Prioritization and Sector-wise CSM**

### **4.1. Department of Agriculture**

The Department of Agriculture (DoA) shall strive towards achieving greater self-sufficiency in agriculture and create income and employment opportunities through agro-based enterprise development initiatives. The earlier subsidy packages were focused more to farmers' groups, cooperatives and priority programs such as vegetables and farm mechanization. The past subsidies were limited for individual enterprising farmers and private sector. Unlike the past subsidies, the incentives for agriculture production shall cover small, semi and commercial farms (groups/ individuals/private sector) and enterprise development (cottage, small, medium and large scale) with clear uniformity, type and governance modalities.

The priority of commodities may change based on the government's direction and importance of the production required to meet the domestic demand and to generate national revenue through exports. However, CSM may not be applied or could be relaxed at the time of emergency situation, where essential inputs may be supplied completely free, based on the instruction of the government.

The provisions for the incentives for production shall be a programme-based inputs requirement and enterprise development shall be on processing of organic inputs, post-harvest and marketing. However, the focused investment shall be made on priority commodities to avoid dilution of resources and to generate a desired impact. The focus shall be made on the priority commodities identified by the DoA with target to achieve during the planned period. The rationale for selection of commodity and enterprises for priority investment is discussed in Table 1. Under the current scenario of agriculture development, 7 priority commodities, organic production and 4 type of enterprises are identified considering their contribution and potential to address food and

nutritional security, income generation through commercialization/export, potential to address poverty, environmental benefits, beneficiary coverage, employment generation, and import substitution.

**Table 1: Rationale for selection of commodities and enterprises for priority investment**

| Sl. No. | Commodity/<br>Enterprise | Rationale                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | Rice                     | Rice is the staple diet and the domestic production meets just only half of the requirement. Rice production is labour intensive and the cost of production is high. There is potential to nearly double the current rice productivity from 1.6 MT per acre. The current policy on restriction on conversion of Chhuzhing to other forms of land use entails opportunity cost that has to be compensated in the form of incentives. The 12 <sup>th</sup> FYP target for rice self-sufficiency of 60 % is daunting and so incentives is needed to achieve the production target.                                                                                                                                                                                                                                                                                       |
| 2       | Maize                    | Maize is still a staple in the east and it has the potential to contribute to food self-sufficiency through product diversification and reducing the cost of product development. It has the potential to contribute to the cereal needs of the schools and other institutions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 3       | Vegetables               | These commodities have the potential for trade in the domestic as well as international market. It can help in import substitution and positively contribute to balance of trade for agricultural products. Additionally, these products will enhance the household nutritional security, and encourage youths into commercial agriculture production practices that will gradually motivate further to take up farming as business enterprise.                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 4       | Potato                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 5       | Fruits & Nuts            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 6       | Citrus                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 7       | Organic crops            | Given the natural farming condition, it is rational to invest in organic farming which has multiple social, economic and environmental benefits. Besides providing healthy food, Bhutan's agricultural commodities can only complete with the global market if it is organically grown and certified. Bhutan has reputation of having natural environment, being carbon negative and being situated in the Himalayas. This potential will have to be tapped for export and trade. Currently, the volume and consistent supply is an issue for trade of organic commodities. These constraints can be addressed with the provision of the incentives. Support for organic farming is essential for long term sustainability of agriculture for a fragile Himalayan country. It is also one of the options to produce and export high value and low volume commodities. |
| 8       | Organic Fertiliser       | Bhutan aims at achieving 100% organic production. However, the key challenge with organic agriculture is mainly with meeting organic inputs ( fertilisers/pesticides). Access to inputs are difficult and also costly, that might ultimately increase the cost of production and therefore the higher price of the organic commodities; reducing the scope of likely volume of consumption in the market. Therefore, it is important to set up organic fertiliser plants to produce the organic fertilisers domestically. This will not be possible without a certain capital investment by the government to initiate the production.                                                                                                                                                                                                                                |

| Sl. No. | Commodity/<br>Enterprise  | Rationale                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9       | Postharvest and marketing | Marketing of agricultural produces in Bhutan is poor mainly due to the limited infrastructures and supply chain & value chain management. Cold chain system is essential to ensure smooth supply of fresh produces, regular supplies and to reduce imports. Processing of various produces to products is another opportunity within the country to sustain ourselves with diverse and adequate supply of processed products and to gradually substitute all possible processed products that are imported. Processing is another form of preservation that will also help to sustain ourselves with food availability for a longer duration. Therefore, it is important to encourage enterprise development in food processing and marketing of agriculture produces and products. |
| 10      | Floriculture              | Floriculture is largely seen with opportunities for commercial production, irrespective of farmers or the urban population. Many of the vendors import from nearby border towns of India to sell in the market, and likewise many do access nursery materials to produce in Bhutan. Apart from imports, many of the indigenous and local varieties could be explored for commercial production and have export market. Therefore, to enhance floriculture enterprise development, it is important to have provision to support aspiring entrepreneurial through CSM.                                                                                                                                                                                                                |
| 11      | Agriculture Nursery       | Limited availability of quality planting materials is one of the main limitations with the development of agriculture in the country. The Nation Seed Centre and a few of existing private nurseries do not meet the requirement/demand of the farmers and private agriculture enterprises. Some of the supplies are met through import of seeds/ seedlings/spawns by these companies. Therefore, agriculture nursery including spawn production can be promoted as an enterprise to facilitate consistent supply of seedlings and spawns. This type of enterprises could help both the entrepreneurial and clients/growers in terms of income and employment.                                                                                                                      |



#### 4.1.1. Categorisation of beneficiaries

Under the agriculture sectors, CSM shall be applied both for Crop production and Enterprise development.

##### **Crop Production**

The beneficiaries under agriculture sector are categorized into subsistence, semi-commercial and commercial based on following criteria:

- i. Subsistence: Farmers with cultivable land holding <1 acre or proposed investment value not exceeding Nu. 0.200 million.
- ii. Semi-commercial: Farmers with cultivable land holding/long term leased land ranging from 1 to 3 acres or with proposed investment size not exceeding Nu. 1.00 million.
- iii. Commercial: Farmer/individual/groups with cultivable land holding/leased land > 3 acres or investment value exceeding Nu. 1.00 million.

*Note: General under beneficiaries indicates all categories of farmers/beneficiaries (subsistence, semi-commercial and commercial).*



Table 2: Commodity based proposed cost-sharing packages

| VALUE CHAIN                | TYPE OF SUBSIDY (INPUT) | JUSTIFICATION                                                                       | BENEFICIARIES (SUBSIDY-GOVERNMENT: BENEFICIARY %)                                                               |                      |                | MODALITIES                                                                                                |
|----------------------------|-------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------------|----------------|-----------------------------------------------------------------------------------------------------------|
|                            |                         |                                                                                     | Subsistence (S)                                                                                                 | Semi-commercial (SC) | Commercial (C) |                                                                                                           |
| Priority commodity 1: Rice |                         |                                                                                     |                                                                                                                 |                      |                |                                                                                                           |
| Value Chain                |                         |                                                                                     | 100:0                                                                                                           | 100:0                | 100:00         | S-Once in 3 years for each HH for improved varieties recommended by DoA.                                  |
|                            | Production              | Seeds                                                                               | Increase SSR from 45% to 60%, high cost of production, import substitution, low productivity, Labour constraint |                      |                | SC & C-Once in 5 years for each HH/Individual/group for improved varieties recommended by DoA.            |
|                            |                         | Materials/ including water pump for irrigation lines/ distribution lines/ channels. |                                                                                                                 | 100:00               | 100:00         | 70:30                                                                                                     |
|                            |                         |                                                                                     |                                                                                                                 |                      |                | Labour costs to be borne by beneficiaries.                                                                |
| Marketing                  | Packaging materials-    | To improve storage for longer duration/ marketing                                   | 100:00                                                                                                          | 100:00               | 100:00         | Support to be extended only to growers cultivating varieties recommended by the Department of Agriculture |

**Priority commodity 2: Maize**

|             |            |                                                                    |                                                                                                |        |        |        |                                                                                                                                                                                 |
|-------------|------------|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------|--------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Value Chain | Production | Seeds                                                              | Increase SSR from 84% to 92%, high seed cost (Hybrid), low productivity, Labour constraint,    | 100:00 | 100:00 | 50:50  | S-Once in 3 years for each HH for improved varieties recommended by DoA.<br><br>SC & C- Once in 5 years for each HH/Individual/group for improved varieties recommended by DoA. |
|             | Marketing  | Packaging materials                                                | To improve storage and sustain availability                                                    | 100:00 | 100:00 | 100:00 | Once for promotion of improved packaging.                                                                                                                                       |
|             |            | Transportation support from farm to feed mill / distillery/market. | Huge cost of transport, difference in production cost and price offered by AWP/BCD/ Feed mills | 100:00 | 70:30  | 50:50  | SC & C-Minimum quantity to qualify for support should be 7 MT<br><br>S- Minimum quantity to qualify both for support should be 1 MT                                             |
|             |            |                                                                    |                                                                                                |        |        |        |                                                                                                                                                                                 |

| Priority commodity 3: Vegetables |            |                                                                 |                                                       |        |       |       |                                                                                                                                                                                                                                        |
|----------------------------------|------------|-----------------------------------------------------------------|-------------------------------------------------------|--------|-------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Value Chain                      | Production | Seeds                                                           | To enhance vegetable production and reduce imports    | 100:00 | 70:30 | 50:50 | S- Every 2 years per HH for crop/ varieties recommended/notified by DoA<br>SC & C- for initial 2 years per HH for crop/ varieties recommended/ notified by DoA                                                                         |
|                                  | Marketing  | Transportation                                                  | To boost production, availability and price stability | 100:00 | 70:30 | 50:50 | Support provided only during severe market failure determined by the government.<br>Only for vegetables prescribed by the DoA/DAMC.<br>Minimum one ton of prescribed vegetable meeting minimum quality parameters set by the DoA/DAMC. |
|                                  |            | Packaging materials- Recommended jute sacks/poly ethylene bags. | To improve packaging                                  | 100:00 | 70:30 | 50:50 | Specifications of the packaging materials has to be as per NPHC/ DOA/DAMC recommendation                                                                                                                                               |

| Priority commodity 4: Potato                              |            |                                                                                    |                                                                                                                                        |        |       |       |                                                                                                                                                                                |
|-----------------------------------------------------------|------------|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------|-------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Value Chain                                               | Production | Seed (replacement only)                                                            | 12 <sup>th</sup> plan priority commodity, food security crop and export potential crops                                                | 100:00 | 50:50 | 30:70 | Once in 5 years for each HH/ group only for improved varieties recommended by DoA.<br>For C -up to 10 acres                                                                    |
|                                                           | Marketing  | Cold storage charges for potato to be made available during off-season (Nov-March) |                                                                                                                                        | NA     | 30:70 | 30:70 | Support provided only during severe market failure determined by the government.                                                                                               |
|                                                           |            | Recommended jute sacks/ Reusable containers (trays)                                |                                                                                                                                        |        |       |       | Minimum quantity of one ton<br>Applicable only when stored in government recommended private/ government/SOEs owned cold stores.                                               |
|                                                           |            |                                                                                    |                                                                                                                                        |        |       |       | 10:90                                                                                                                                                                          |
| Priority commodity 5: Fruits and nuts ( including citrus) |            |                                                                                    |                                                                                                                                        |        |       |       |                                                                                                                                                                                |
| Value Chain                                               | Production | Seedlings                                                                          | DoA priority commodity, certain crops need re-plantation, emerging crops that have high value, domestic market demand and export value | 100:0  | 70:30 | 50:50 | S-Once in 5 years for each HH for improved varieties recommended by DoA (need basis)<br><br>SC & C- Once at the time of establishment only and maximum support up to 10 acres. |
|                                                           |            |                                                                                    |                                                                                                                                        |        |       |       |                                                                                                                                                                                |
|                                                           |            | Trellis materials                                                                  | To increase vine crop production                                                                                                       | NA     | 70:30 | 50:50 | One time up to 10 acres                                                                                                                                                        |

|             |            |                                                                             |                                                              |                                                                                               |       |       |                                                                                  |                                                                                                                                                                                                            |
|-------------|------------|-----------------------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-------|-------|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Value Chain | Marketing  |                                                                             |                                                              | To encourage storage and marketing to substitute import and retain for off-season consumption | 30:70 | 30:70 | 30:70                                                                            | For long term storage (>1month) for apples and pears only.<br>Minimum volume required will be one ton.<br>Applicable only when stored in government recommended government/private/SoEs owned cold stores. |
|             |            | Improved packaging material for export-Fibre board box/ improved wooden box | To reduce post-harvest loss and improve export market image. | NA                                                                                            | 10:90 | 10:90 | Fibre board box and improved wooden box only for export of apples and mandarin.  |                                                                                                                                                                                                            |
|             |            | Priority commodity 6: Quinoa                                                |                                                              |                                                                                               |       |       |                                                                                  |                                                                                                                                                                                                            |
| Value Chain | Production | Seeds                                                                       | New super food, high nutrient, diversity, export potential   | 100:00                                                                                        | 70:30 | 50:50 | Once in 5 years for each HH for improved varieties recommended/ notified by DoA. |                                                                                                                                                                                                            |
|             | Marketing  | Price gap support between cost of production and final market price         | New super food, high nutrient, diversity, export potential   | 100:0                                                                                         | 70:30 | 50:50 | Until the promotion program gains production momentum.                           |                                                                                                                                                                                                            |
|             |            | Packaging material support                                                  |                                                              | 100:00                                                                                        | 70:30 | 50:50 | For 3 years initially for export only                                            |                                                                                                                                                                                                            |

| Priority commodity 7: Organic Agriculture |            |                                                                                                |                                                                                             |        |       |       |                                                                                                                                                                                          |
|-------------------------------------------|------------|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------|-------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                           | Production | Organic Seeds and seedlings                                                                    | To promote landscape based and area-wide large-scale organic production                     | 100:00 | 80:20 | 80:20 | Once in 2 years for each HH /group for improved cereals/vegetables varieties recommended/notified by DoA.<br>For fruit crops, modality will remain same as described under fruits & nut. |
| Value chain                               |            | Organic crop certification                                                                     | To promote organic crop production and recognition in the domestic and international market | 100:00 | 70:30 | 50:50 | Once at the time of initial certification.<br>Government will only facilitate the renewal and will not bear other related costs.                                                         |
|                                           | Marketing  | Similar to marketing supports indicated under other crops (packaging/ storage/ transportation) |                                                                                             |        |       |       |                                                                                                                                                                                          |
| Priority commodity 8: Mushroom            |            |                                                                                                |                                                                                             |        |       |       |                                                                                                                                                                                          |
| Value chain                               | Production | Household based spawn production (lab equipment)                                               | Nutrition, diversity, niche market, income generation                                       | NA     | 70:30 | 50:50 | One-time support for only                                                                                                                                                                |
|                                           |            | Spawn supply                                                                                   |                                                                                             | 100:0  | 70:30 | 50:50 | One-time support for Semi commercial and commercial farmers.                                                                                                                             |

|                                       |            |                                                                      |                                                              |       |       |       |                                                                                             |
|---------------------------------------|------------|----------------------------------------------------------------------|--------------------------------------------------------------|-------|-------|-------|---------------------------------------------------------------------------------------------|
|                                       |            | Production support (driller, injector, sterilization, straw chopper) | *                                                            |       | 70:30 | 50:50 | *For Subsistence farmers NMC will provide equipment for use on returnable basis or in group |
| <b>Priority commodity 9: Oilseeds</b> |            |                                                                      |                                                              |       |       |       |                                                                                             |
| Value chain                           | Production | Seeds                                                                | SSR is only 3%; import substitution, to enhance productivity | 100:0 | 70:30 | 50:50 | Up to three years                                                                           |
|                                       | Marketing  | Packaging support (finished product)                                 |                                                              | NA    | 70:30 | 50:50 | One-time supply                                                                             |
| <b>Priority commodity 10: Pulses</b>  |            |                                                                      |                                                              |       |       |       |                                                                                             |
| Value Chain                           | Production | Seeds                                                                | Soil fertility, nutrition, diversity                         | 100:0 | 100:0 | 70:30 | One-time supply                                                                             |

| Priority commodity 11: Medicinal & Aromatic Plants, and Spices |            |                                            |                                 |       |       |       |                                                                                                                                                                                                                                            |
|----------------------------------------------------------------|------------|--------------------------------------------|---------------------------------|-------|-------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Value Chain                                                    | Production | Seeds and Seedlings                        | Conservation, Income generation | 100:0 | 70:30 | 50:50 | One-time supply; upto 5 acres of cultivation.                                                                                                                                                                                              |
|                                                                | Marketing  | Recommended jute sacks/poly ethylene bags/ |                                 | 10:90 | 10:90 | 10:90 | Support provided only during severe market failure determined by government.<br><br>Minimum quantity of 0.5 MT<br>Support for 2 years initially.<br>Specifications of the packaging materials has to be as per NPHC, DOA's recommendation. |

| Cross-cutting support services |                                                                                                   |                                                                                                  |        |       |       |                                                                                                                     |
|--------------------------------|---------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------|-------|-------|---------------------------------------------------------------------------------------------------------------------|
| Value Chain                    | Farm Machine hiring                                                                               | Address labour constraint & drudgery, reduce cost of production;                                 | 50:50  | 50:50 | 50:50 | As per Farm Machineries Hiring Guideline and hiring charges approved by annual pricing committee.                   |
|                                | Land development-fallow land revival, consolidation                                               |                                                                                                  |        |       |       | As per agriculture land development guideline 2017. Priority will be given for revival of fallow agricultural land. |
|                                | Basic irrigation materials (pipes, syntax, silpaulin, concrete tank construction materials)       | To provide water supplies for vegetable production and fruit crops.                              | 100:00 | 70:30 | 50:50 | One-time support<br>Maximum command area of 10 acres.                                                               |
|                                | Climate Smart Irrigation materials-sprinkler, drip, including water pumps (solar hydraulic, etc.) | Enhance efficient irrigation systems for commercial vegetable production and orchard irrigation. | NA     | 70:30 | 30:70 | One-time up to 10 acres of command area.                                                                            |
|                                | Household based -Compost shed (compost, vermi-compost, bio-digester)                              | To promote organic production-domestic production                                                | 80:20  | 70:30 | 50:50 | One -ime support with production capacity <10 MT/Year                                                               |
|                                |                                                                                                   |                                                                                                  |        |       |       |                                                                                                                     |

|             |                                                                                    |                                                                                              |                                          |       |       |                                                                            |
|-------------|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|------------------------------------------|-------|-------|----------------------------------------------------------------------------|
| Value Chain | Bio inputs (organic fertilizer, pesticides, bio pest control materials- traps etc) | Improve fertility, enhance yield, promote organic farming                                    | NA (for bio-pesticide and traps- 100:00) | 50:50 | 30:70 | For Organic farmers in identified production area. -up to maximum 10 acres |
|             | Low cost poly tunnel and shade house (plastic and shed net)                        | Protected cultivation, saving time, environmental and climate smart production.              | 80:20                                    | 80:20 | 80:20 | S- once in 5 years<br>SC & C-One-time maximum of 5 numbers.                |
|             | Poly house set (pre-fabricated)                                                    |                                                                                              | 80:20                                    | 80:20 | 80:20 | S- upto 1 GH<br>SC- upto 3 GH<br>C- upto 5 GH                              |
|             | Packaging machine and materials (e.g. crates, super grain bags, fibre box, etc.)   | To encourage the use of proper packing materials avoid transportation and handlings damages. | 100:00                                   | 70:30 | 50:50 | Only for one-time supply                                                   |
|             | Basic agriculture tools (secateurs, pruning saw, grafting knives .. etc).          | To promote improved farming practices                                                        | 80:20                                    | 50:50 | 50:50 | One-time supply ( single set only)                                         |
|             | Basic storage and food processing infrastructures ( materials) and equipment.      |                                                                                              | 100:00                                   | 70:30 | 50:50 | One-time supply<br>Installation costs ( labour) to be borne by beneficiary |
|             |                                                                                    |                                                                                              |                                          |       |       |                                                                            |

|             |                                                         |                                                                                    |       |       |       |                                                                                 |
|-------------|---------------------------------------------------------|------------------------------------------------------------------------------------|-------|-------|-------|---------------------------------------------------------------------------------|
| Value Chain | Electric Fencing materials (wooden pole based)          | Reduce Human Wildlife Conflict, encourage farming, reduce crops guarding required. | 60:40 | 60:40 | 60:40 | As per existing guideline<br>Once in 10 years.<br>For Commercial upto 10 acres. |
|             | Electric Fencing materials (Alternative materials)      |                                                                                    | 90:10 | 70:30 | 50:50 | One time supply<br>For Commercial upto 10 acres                                 |
|             | Barbed wire fencing (barbed wire, chain link) materials | To protect crops from wild animals and stray animals                               | 90:10 | 50:50 | 30:70 | One-time supply<br>For maximum area of 10 acres                                 |
|             |                                                         |                                                                                    |       |       |       |                                                                                 |
|             |                                                         |                                                                                    |       |       |       |                                                                                 |
|             |                                                         |                                                                                    |       |       |       |                                                                                 |

## 4.2. Department of Livestock

The Department of Livestock is focused on strengthening livestock interventions in the field in order to increasingly enable farmers to transition from subsistence livestock farming to a more semi-commercial and commercial mode of livestock farming. In the 12<sup>th</sup> FYP, there is a move towards farm with improved production efficiency, enhanced animal nutrition and health services to achieve the targeted increased self-sufficiency rate of 47% in the meat sector, 91% in dairy products and maintenance of 100% self-sufficiency in eggs. The overall vision and goal of the Department is to secure household food and nutrition security, enhance income and improve rural livelihoods, encourage youth in livestock farming and achieve greater self-sufficiency in quality livestock products. Moreover, in pursuit of livestock development interventions, the Department will also give due attention to formalize livestock value chains.

In addition, in order to provide an alternate source of energy for households in the rural communities as well as to promote green energy alternatives in keeping with the green image of the country, biogas production using animal manure was started in the 11<sup>th</sup> FYP. This has been a successful initiative which is upscaled in the 12<sup>th</sup> FYP to ensure better outreach and coverage. Another intervention of the Department is the highland development program which is initiated to improve the income, employment opportunities and livelihood of highlanders. In particular, focus on yak-sheep based enterprise development will receive greater attention to enhance the livelihood of nomads.

In order to pursue the successful implementation of the livestock sector's interventions in the field aimed primarily towards achieving food and nutrition self-sufficiency and security in the country, the subsidy package developed and implemented during 11<sup>th</sup> FYP needs to be revised. This is because the current Cost Sharing Mechanism (CSM) package does not provide an adequate platform to encourage enterprising farmers and youth who are interested in establishing livestock farms with economies of scale since it is geared more towards farmers' groups and cooperatives to support subsistence livestock farming activities. Therefore, now the proposed revised CSM package will cover all farming communities and youth (individual or in groups or as cooperatives) irrespective of the size of the farms with clear uniformity, type and governance modalities.

To implement the CSM, the Department has identified the following commodities as per Table 3 below for investment. The identified commodities are dairy, piggery, poultry (egg & broiler), fishery (warm & cold water), goat and honey and highland programs including biogas. Organic livestock farming is also identified as a priority area in line with the national vision to adopt a 100% organic production system and increasing demand for organic food globally.

Prioritization of these livestock commodities are based on their contribution and potential to address national food and nutritional security, income generation through commercialization, potential to address poverty, environmental benefits, beneficiary coverage, employment generation, and import substitution.

**Table 3: Rationale for selection of commodities for priority investment**

| Sl. No. | Commodity                                                                | Rationale                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | Meat (Chicken, Pork, Chevon, Fresh Fish- both cold and warm water)       | Meat is the most common food item and consumed almost daily by most of the Bhutanese population. There is ever increasing demand for meat in the country. Currently the self-sufficiency in meat is only 37% and there is huge import. Thus, the Department gives highest priority on domestic production of meat and aims to achieve 47% by the end of 12 <sup>th</sup> FYP. There is great scope to enhance meat production through commercialization and reduce import in some of the potential Dzongkhags where there is no/less social stigma. |
| 2       | Dairy                                                                    | Dairy is the most popular livestock enterprise in the country and economically important for smallholders farmers to meet HH food, nutrition and income. The dairy farming is practiced across Dzongkhags and there is no social stigma attached to this enterprise and it has huge potential for commercialization to meet self-sufficiency of milk and milk products in the country. Current self-sufficiency ratio of dairy products is 88.8% and the Department aims to increase to 91 % by the end of 12 <sup>th</sup> FYP.                    |
| 3       | Egg                                                                      | Currently, the country is meeting the demand for egg through domestic production. However, as per FAO standard, the present production does not meet the per capita requirement. There is a huge scope to increase domestic production to meet internal requirements as per FAO recommendation and has potential for export as table egg and egg products.                                                                                                                                                                                          |
| 4       | Highland livestock development support for (Yak, Sheep, Equine, Mastiff) | During 12 <sup>th</sup> FYP, the targeted Highland development program has great potential to promote sustainable livelihood of the highland communities, promote and preserve the socio-cultural traditions of the highlanders. The focus development interventions to promote Yak and Sheep based enterprises and Yak-Horse based ecotourism to boost the income of highland communities and engage youth is still untapped. The proposed CSM will encourage highland communities and youth in these targeted interventions.                      |
| 5       | Animal Nutrition services support                                        | The animal nutrition support services such as supply of fodder seeds and seedlings has been provided free of cost to the farming communities. Other support services such as fencing materials and labour saving devices to promote and upscale fodder development interventions are provided to livestock farming communities under cost sharing basis. Such support from the Govt. are very critical and shall be continued during 12 <sup>th</sup> FYP and beyond to all interested individual farmer, groups, cooperatives and aspiring youth.  |
| 6       | Animal Health services support                                           | The animal health services such as medicines, vaccines and Veterinary clinical services are provided free of cost to all farming communities (individual farmer, group, cooperatives) and the same modalities shall be continued during 12 <sup>th</sup> FYP and beyond.                                                                                                                                                                                                                                                                            |
|         |                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

## Support to promote and upscale Livestock Enterprise Development

During 12<sup>th</sup> FYP, the Department has proposed to promote and upscale seven livestock enterprises. These enterprises are expected to commercialize livestock farming with economies of scale, boost income, gear toward achieving self-sufficiency in livestock products, bring in higher employment opportunities especially to youth/youth groups and curb import substitution. Thus, the proposed CSM of the Govt. shall be applied to encourage individual farmer, groups, cooperatives, youth and youth groups to set up livestock enterprises during 12<sup>th</sup> FYP and beyond. The seven livestock enterprises comprise of the following;

- Dairy enterprises
- Forage enterprise
- Poultry enterprise (both broiler and layer farming)
- Piggery enterprise (both contract piglet production and fattening purposes)
- Fishery enterprise (both warm and cold water fishery farming)
- Chevron enterprise (promotion of goat farming)
- Honey enterprise



The details of support from the Govt. in the form of CSM and its dispensing modalities for each livestock commodity is detailed out below:

### Priority commodity 1: DAIRY

Justification: Dairy is the biggest livestock enterprise with 78% of rural population rearing dairy cattle for food, nutrition and livelihood. It is socially accepted by Bhutanese society.

**Table 4: Dairy**

| VALUE CHAIN | TYPE OF SUBSIDY                                 | JUSTIFICATION                                     | BENEFICIARIES<br>(SUBSIDY-GOVERNMENT: BENEFICIARY %) |                                                 |                                                     | MODALITIES                                                                                                       |
|-------------|-------------------------------------------------|---------------------------------------------------|------------------------------------------------------|-------------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
|             |                                                 |                                                   | Subsistence<br>(up to 5 cows)                        | Semi-commercial<br>(6-20 cows)                  | Commercial<br>(≥21 cows)                            |                                                                                                                  |
| Value Chain | Dairy animal                                    |                                                   |                                                      |                                                 |                                                     |                                                                                                                  |
|             | 1.1 Animal procurement                          | To overcome the shortage of quality dairy animals | 70:30 of actual cost for maximum of 5 cows           | 50:50 of actual cost for maximum of 15 cows     | 40:60 of actual cost for maximum of 25 cows         | One-time support for maximum number of cows under subsidy program. The cost to be determined by NDRDC, Yusipang. |
|             | 1.2 Transport cost                              | Lack of capacity of farmers                       | 100:0                                                | 100:0                                           | 100:0                                               | One-time support for maximum number of cows under subsidy program                                                |
|             | 1.3 Insurance                                   |                                                   | 20:80 of actual cost per animal for max. 5 cows      | 20:80 of actual cost per animal for max 15 cows | 20:80 of actual cost per animal for maximum 25 cows | One-time insurance.                                                                                              |
|             | 1.4 Quarantine-feed, management and labour cost | Proper risk management of animals                 | Nu. 3000/animal to the maximum of 5 cows             | Nu. 3000/animal to the maximum of 15 cows       | Nu. 3000/animal to the maximum of 25 cows           | One-time support only                                                                                            |

| Dairy breeding and production inputs |            |                                                                             |                                                              |                                                                                    |                                                                       |                                                                       |                                                                                                                                                   |
|--------------------------------------|------------|-----------------------------------------------------------------------------|--------------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Value Chain                          | Production | 2.1 Dairy breeding inputs (AI inputs such as semen, LN2, gloves and sheath) | To encourage farmers to maintain high quality animals        | 100:0                                                                              | 100:0                                                                 | As and when required to promote breed improvement program.            |                                                                                                                                                   |
|                                      |            | 2.2 Cattle shed for new farms                                               | To encourage clean milk production and ensure animal welfare | 70:30 of estimated cost as per standard design from DoL up to 5 cows               | 50:50 of estimated cost as per standard design from DoL up to 15 cows | 40:60 of estimated cost as per standard design from DoL up to 25 cows | One-time support (shed design and maximum amount ceilings to be determined by NDRDC, Yusipang                                                     |
|                                      |            | Vacuum milking machine facility                                             | To save labour and avoid drudgery                            | 50:50 of the actual cost                                                           | 40:60 of the actual cost                                              | 40:60 of the actual cost                                              | One-time support and cost to be determined by NDRDC, Yusipang                                                                                     |
|                                      |            | Dairy nutrition inputs                                                      |                                                              |                                                                                    |                                                                       |                                                                       |                                                                                                                                                   |
|                                      |            | 3.1 Seed/Seedling/ Planting material                                        | Improve quality of fodder and nutrition for animals          | 100:0                                                                              | 100:0                                                                 | As and when required                                                  |                                                                                                                                                   |
|                                      |            | 3.2 Fencing materials: Unails/poles/ barb wire                              | Improve quality of fodder and nutrition for animals          | 60:40 (Max 3 acres)                                                                | 40:60 (Max 7 acres)                                                   | 30:70 (Max 10 acres)                                                  | One-time support. Department may consider electric fencing proposed by DoA as an alternate option based on cost effectiveness and sustainability. |
|                                      |            | 3.3 Electric/ Solar Fencing Material for Pasture and Fodder Seed Fields     | To protect the fodder seed and pasture fields from wildlife  | 60:40 Materials (Energizer, GI wire, Polyethylene pipe and nails) for max. 3 acres | 60:40 (3-5 acres and Max. of 5 acres)                                 | 60:40 (6-10 acres and Max. 10 acres)                                  | One time support                                                                                                                                  |

|            |                                                                                                               |                                                                          |                                                                                                   |                                                                                                   |                                                                                                   |                                                                                  |
|------------|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
|            | 3.4 Plastic house for forage enterprise                                                                       | To enhance forage availability and diversify feed and fodder productions | 60:40 on materials (frame and plastic) for 1 set; 80:20 for low cost plastic house (only plastic) | 60:40 on materials (frame and plastic) for 1 set; 80:20 for low cost plastic house (only plastic) | 60:40 on materials (frame and plastic) for 1 set; 80:20 for low cost plastic house (only plastic) | One-time support irrespective of the farm sizes                                  |
|            | 3.5 Labor Saving Device (Eg. Chaff cutter and TMR machine, mower machine, scythe)                             | Improve quality of fodder and nutrition for animals                      | 60:40 Maximum one per farm                                                                        | 40:60 Maximum one per farm (exclusive of PSL loans)                                               | 30:70 one per farm-PSL (exclusive of PSL loans)                                                   | One-time support                                                                 |
|            | 3.6 Forage processing equipment (Feed Block making machine, vacuum packing machine)                           | Enhance forage utilization and value addition                            | 60:40 Maximum one per farm                                                                        | 60:40 Maximum one per farm                                                                        | 60:40 Maximum one per farm                                                                        | One-time support.                                                                |
|            | <b>Dairy processing</b>                                                                                       |                                                                          |                                                                                                   |                                                                                                   |                                                                                                   |                                                                                  |
| Processing | Complete and ready to operate (turnkey) post production facilities (eg. MCC, MPU, Chilling, Unit, Processing) | Value addition and product diversification                               | 100:0 (Milk can, butter churner, cream separator – one                                            | 100:0 (under turn key)                                                                            | 100:0 (under turn key)                                                                            | One-time support. Local materials and labour contribution from the beneficiaries |

|           |                                                                                                                                                   |                                                    |                                                                   |        |                                                                                                                                                  |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------|
|           | Plant, Milking can, deep fridge, butter churners, cream separator, cooling tank, cheese vat, vacuum packing machine, yoghurt processing facility. |                                                    | set at household level) provided there is no MPU' in the locality |        |                                                                                                                                                  |
|           | <b>Dairy product marketing</b>                                                                                                                    |                                                    |                                                                   |        |                                                                                                                                                  |
| Marketing | Integrated Marketing infra-structures (sales outlet)                                                                                              |                                                    |                                                                   |        | One-time support, one per each dzongkhag and support to the maximum of 1 million, the structure to be operated by groups/cooperative/youth group |
|           | Dairy marketing equipment (chiller/deep Freezer, display refrigerator, cool box)                                                                  |                                                    |                                                                   |        | One-time support Only to farming individuals, groups and cooperatives                                                                            |
|           | Buy back price for dairy products                                                                                                                 | Price gap (should not be below Cost of production) |                                                                   |        | As and when there is market glut                                                                                                                 |
|           |                                                                                                                                                   |                                                    | 100:00                                                            | 100:0  | 100:0                                                                                                                                            |
|           |                                                                                                                                                   |                                                    | 50:50 (only cool box)                                             | 50:50  | 30:70                                                                                                                                            |
|           |                                                                                                                                                   |                                                    | 100: 00                                                           | 100:00 | 100:00                                                                                                                                           |

### Priority commodity 2: PIGGERY

Justification: Pork is the second highest imported item in the country (1820 MT, 2017) with only about 4% of households rearing pig. There is a huge shortage for piglets which is a prerequisite to establish fatteners' farms for pork production and as such major investments are needed to promote contract breeder farms. Besides, production and demand are increasing but there are limited interventions in the areas of processing and value addition.

**Table 5: Piggery**

| VALUE CHAIN | TYPE OF SUBSIDY (INPUT)                                           | JUSTIFICATION                                                                                                                                      | BENEFICIARIES (SUBSIDY – GOVERNMENT: BENEFICIARY %)                        |                                                                                                   |                                                                                                         | MODALITIES                                                    |
|-------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
|             |                                                                   |                                                                                                                                                    | Subsistence (<10 pigs)                                                     | Semi-commercial (10-50 pigs)                                                                      | Commercial (>50 pigs)                                                                                   |                                                               |
| Value Chain | Piggery Inputs supply                                             |                                                                                                                                                    |                                                                            |                                                                                                   |                                                                                                         |                                                               |
|             | 1.1 Procurement of piglets from the CPB (Contract Pig Breed-ers)  | To supplement the government farms in overcoming the piglet shortage, generate income to the farmers during market crash (no buyers)               | 43:57 subsidy of the production cost of piglet (43% of Nu. 3500= Nu. 1500) | 43:57 subsidy of the production cost of pig-let (43% of Nu. 3500= Nu. 1500)                       | 43:57 subsidy of the production cost of piglet (43% of Nu. 3500= Nu. 1500) upto maximum of 100 piglets. | As and when required.                                         |
|             | 1.2 Supply of Breed-ing stock (gilt + young boar) to CPBs farmers | To meet the requirement of piglet from the breeders and en-courage community participation in the breeding pro-gramme. Also, to prevent inbreeding | 0:100                                                                      | 54:46 subsidy of the cost of production with maximum of 10 sow level (54% of Nu. 11200= Nu. 6000) | 54:46 subsidy of the cost of production with maximum of 20 sow level (54% of Nu. 11200= Nu. 6000)       | Replace after 6th lactation in the ratio of Gilt : boar (5:1) |
|             | 1.3 Piggery breeding inputs (AI)                                  | For efficient pig breeding, produc-tion and faster genetic gain                                                                                    | 100:0                                                                      | 100:0                                                                                             | 100:0                                                                                                   | Continuous                                                    |

|            |  |                                                                                        |                                                                       |                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                     |                                                                                                                                                                                    |
|------------|--|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            |  |                                                                                        | 1.4 Transportation of piglets and breeding stock to the farmers       | The transport of the piglets and breeding stocks is done by the government to reduce the cost of transportation in bulk. It is also to reduce the mortality and ensure the minimum welfare requirement to the animals during transportation. | 100:0                                                                                                                                                                                                                                              | 100:0                                                                                                                                                                                                                                              | 100:0                                                                                                                                                                                                               | As and when required                                                                                                                                                               |
|            |  | 2 Construction of sheds for both fatteners and breeders                                |                                                                       |                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                     |                                                                                                                                                                                    |
| Processing |  |                                                                                        |                                                                       | Improved housing required to ensure optimum piglet productivity, hygiene, and animal welfare and also to reduce disease incidences.                                                                                                          | 70:30 subsidy. Govt 70% to include shed materials i.e. cement, bricks, iron door, iron roof truss, CGI, electric mainline cable (100 mtrs), materials transport cost. Beneficiary (30%) which include the costs of labour & other local materials. | 70:30 subsidy. Govt 70% to include shed materials i.e. cement, bricks, iron door, iron roof truss, CGI, electric mainline cable (100 mtrs), materials transport cost. Beneficiary (30%) which include the costs of labour & other local materials. | 70:30 subsidy. Govt 70% to include cement, bricks, iron door, iron roof truss, CGI, electric mainline cable (100 Mtrs) transport cost. Beneficiary (30%) which include the costs of labour & other local materials. | Standard shed design and costing to be determined by NPiRDC, Gelephu. For establishment of new Contract Breeder Farms. Eligible till 50 breeding sow level farm. One-time support. |
|            |  | 2.1 Breeding shed support under government subsidy package as per standard shed design |                                                                       |                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                     |                                                                                                                                                                                    |
|            |  | 2.2 Fattening shed support as per standard shed design                                 | Improved housing required to ensure optimum pork production, hygiene, | 70:30 subsidy. Govt 70% to include shed                                                                                                                                                                                                      | 70:30 subsidy. Govt 70% to include shed                                                                                                                                                                                                            | 70:30 subsidy. Govt 70% to include shed                                                                                                                                                                                                            | 70:30 subsidy. Govt 70% to include cement,                                                                                                                                                                          | Standard shed design and costing to be determined by                                                                                                                               |

|                                        |                                                                              |                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                             |                                                                                                                                                                                                             |                                                                                                                                                                    |                                                                                                              |
|----------------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
|                                        |                                                                              | and animal welfare and also to reduce disease incidences.                                                                                                                                                                                                                     | materials i.e. cement, bricks, iron door, iron roof truss, CGI, electric main-line cable (100 mtrs), materials transport cost. Beneficiary (30%) which include the costs of labour & other local materials. | materials i.e. cement, bricks, iron door, iron roof truss, CGI, electric main-line cable (100 mtrs), materials transport cost. Beneficiary (30%) which include the costs of labour & other local materials. | bricks, iron door, iron roof truss, CGI, electric mainline cable (100 Mtrs) transport Beneficiary (30%) which include the costs of labour & other local materials. | NPjRDC, Gelephu. For establishment of new fattener farms. Eligible till 100 fattener farm. One-time support. |
| <b>3 Processing and Value addition</b> |                                                                              |                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                             |                                                                                                                                                                                                             |                                                                                                                                                                    |                                                                                                              |
|                                        | 3.1. Equipment support for hygienic pork-based processing and value addition | In order to ensure animal welfare and clean pork production through humane approach, the need for quality value added equipment (stunner, scalding facility, dressing table, vacuum packing machine) is required. This will also ensure reduced TAT on the processed product. | 100:0                                                                                                                                                                                                       | 100:0                                                                                                                                                                                                       | 100:0                                                                                                                                                              | One-time supply to all types of farm.                                                                        |



### Priority commodity 3: POULTRY

Justification: Highest contributor to domestic meat production (36%). Production and demand are increasing but there is limited intervention in processing, value addition and marketing. Marketing has been the Achilles heel for chicken farming. Self-sufficiency in eggs. This needs to be maintained and taken up further to increase per capita consumption as per WHO standard of 200 eggs/ person/ year.

**Table 6: Poultry**

| VALUE CHAIN | TYPE OF SUBSIDY (INPUT)                                                                                                       | JUSTIFICATION                                                                                                                                                                                                                                                                                                                                                                                                                                   | BENEFICIARIES (SUBSIDY-GOVERNMENT: BENEFICIARY %)                                           |                                                                                                                                                  |                                                                                                   | MODALITIES                                                                                                                |
|-------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
|             |                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Subsistence (<500 birds)                                                                    | Semi-commercial (500-1000 birds)                                                                                                                 | Commercial (>1000 birds)                                                                          |                                                                                                                           |
| Value Chain | Supply of poultry DOC and associated costs                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                             |                                                                                                                                                  |                                                                                                   |                                                                                                                           |
|             | 1.1 Supply of Layer DOC from government input farms                                                                           | Large number of semi-commercial and backyard poultry farms still exist in rural pockets of the country. High recurrent cost (especially in feed and poultry inputs), therefore to provide an equal level playing field for farm types; certain subsidy % on DoC's produced from Government input farm needs to be continued to poultry farmers to encourage and keep them gainfully engaged in poultry farming and enhance domestic production. | Subsidy of 60:40 in kind for DOC from the total cost of production.                         | Subsidy of 60:40 in kind for DOC from the total cost of production                                                                               | Subsidy of 50:50 in kind for DOC from the total cost of production                                | NPRDC, Sarpang and other sister units will institute on-line farm registration system to qualify the farm categorization. |
|             |                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 100% support package in kinds (CGI sheet, cement, wire mesh, electrical fittings and nails) | 70: 30 support in kinds. (CGI sheet, cement, wire mesh, electrical fittings and nails) based on the technical design and farm layout from NPRDC, | 60:40 support in kind. (CGI sheet, cement, wire mesh, electrical fittings and nails) based on the |                                                                                                                           |
|             | 1.2 Construction of broiler/layer farm shed (construction materials, eg. cement, CGI sheet, nets, nails, electrical fittings) | Given high investment in shed construction and recurring cost especially for feed, it will be a huge capital burden for interested entrepreneurs (youth/farmers) to venture into poultry farming. Therefore, to encourage and gainfully engage farmers/youth into poultry                                                                                                                                                                       |                                                                                             |                                                                                                                                                  |                                                                                                   | One-time Support package shall be provided to new proponents to establish the farms.                                      |

|             |            |                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                 |                              |                                                                                                          |                                                                                                                                                                            |
|-------------|------------|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Value Chain | Production |                                                                             | Therefore, to encourage and gainfully engage farmers/youth into poultry farming; a subsidy package support would be a great start to venture into poultry farming.                                                                                                                                                                                                                                                                                                                     | based on the technical design and farm layout from NPRDC, Sarpang (flock size). | Sarpang (flock size).        | technical design and layout from NPRDC, Sarpang (flock size).                                            | Labour cost, timber, sand and other local materials to be borne by the proponents. Support package doesn't cover upscaling existing farms.                                 |
|             |            | 1.3 Farm equipment feeder/drinker/nest/br ooders/de-beakers                 | The productivity of bird and performance of farm business is directly equated to the types of equipment installed. Having a well- designed and standard equipment can minimise feed and water wastage, decrease wet litter, less manned labour hour and enhance product quality. Therefore, providing subsidy for poultry equipment will ensure good farm management practices and standards from animal welfare perspective, product quality and reduced management related diseases. | 100% subsidy of the actual cost                                                 | 70:30 subsidy of actual cost | 60:40 subsidy of actual cost                                                                             | One time subsidy support shall be provided as a package to the proponents while establishing new poultry farms. Existing farmers are not eligible for the support package. |
|             |            | 1.4 Farm semi automation as labor saving device (nipple drinker/pan feeder) | With rural urban migration, getting a required number of farm labour for carrying out daily farm activities has become challenges. Therefore, to address such challenges, farm automation would be an alternative to minimize dependency on                                                                                                                                                                                                                                            | Not viable                                                                      | Not viable                   | 30:70 subsidy on actual cost for the farm automated waterer and feeder (pan- feeder and nipple drinker). | One-time support to the farmer starting the business for the first time. One-time support to the existing commercial farms. Remodification cost                            |

|                                     |                                           |                                                                                       |                                                                                                                                                                                                                                                     |                                                                                                                                                                                                     |                                   |                                                                                                                                                                                                                                            |
|-------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                     |                                           |                                                                                       | farm labour and increase farm efficiency. In this regard, providing subsidy for farm automation could address labour shortage in poultry and livestock farming as a whole.                                                                          |                                                                                                                                                                                                     |                                   | of shed to install automated equipment should be borne by proponents.                                                                                                                                                                      |
| Processing and Marketing facilities | Post production and processing facilities |                                                                                       |                                                                                                                                                                                                                                                     |                                                                                                                                                                                                     |                                   |                                                                                                                                                                                                                                            |
|                                     | Processing and Marketing facilities       | Basic post production & processing equipment                                          | Basic processing equipment (scalding tank, SS knives, de-feathering machine, dressing table, meat transport box, vacuum packing machine etc.) are essential for the clean meat production. This will encourage the farmers to take up the business. | 70:30 subsidy of the actual cost.                                                                                                                                                                   | 60:40 subsidy of the actual cost. | 50:50 subsidy of the actual cost.                                                                                                                                                                                                          |
|                                     |                                           |                                                                                       |                                                                                                                                                                                                                                                     | One-time support by Govt. to any interested groups/cooperatives in setting up post production and processing facilities. The Department will come up with standards (types and number of equipment) |                                   |                                                                                                                                                                                                                                            |
|                                     |                                           | Clean chicken production facility and equipment (processing and value addition plant) | Clean chicken production equipment is essential for the clean and quality meat processing. This will encourage the farmers to upscale broiler farms.                                                                                                | Not viable                                                                                                                                                                                          | Not viable                        | Not viable                                                                                                                                                                                                                                 |
|                                     |                                           |                                                                                       |                                                                                                                                                                                                                                                     |                                                                                                                                                                                                     |                                   | One-time support of 70:30 to individual/groups/cooperatives having minimum flock size of >15,000 capacity).<br>OR<br>Govt. establish the processing facility and lease it out to individual/ groups/cooperative/youth group for operation. |

|  |  |                                                                                                |                                                                                                                                                                                                                                                                  |       |       |       |                                                    |
|--|--|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|----------------------------------------------------|
|  |  | Labelling and packaging of value-added chicken                                                 | The shelf life of the chicken basically depends not only on the clean meat production but also on the proper packaging. The attractive labelling and packaging using the food grade plastic materials is important to attract the market and ensure food safety. | 50:50 | 50:50 | 50:50 | One-time support to individual/groups/cooperatives |
|  |  | Producers will be linked with the existing meat vendors for marketing of value-added products. | Price gap (should not be below cost of production)                                                                                                                                                                                                               | 100:0 | 100:0 | 100:0 | Once for every producer's group/cooperatives       |
|  |  | Leasing of sales counters in urban markets                                                     |                                                                                                                                                                                                                                                                  | 70:30 | 60:40 | 50:50 | Up to six months                                   |
|  |  | Minimum support price for chicken and their products                                           |                                                                                                                                                                                                                                                                  | 100%  | 100%  | 100%  | After six months the proponent bears the full cost |
|  |  |                                                                                                |                                                                                                                                                                                                                                                                  |       |       |       | As and when there is market glut                   |

**Priority commodity 4: HONEY**

Justification: High value low volume niche product with high export potential. There is increasing demand in the domestic market.

**Table 7: Honey**

| VALUE CHAIN | TYPE OF SUBSIDY (INPUT) | JUSTIFICATION                                             | BENEFICIARIES (SUBSIDY-GOVERNMENT: BENEFICIARY %)                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                              | MODALITIES       |
|-------------|-------------------------|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
|             |                         |                                                           | Subsistence (5 hives)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Semi-commercial (6-20 hives)                                                                                                                                                                                                                                                                                                                                                                                                                            | Commercial (≥20 hives)                                                                                                                                                                                                                                                                                                                                                                                                                                       |                  |
| Value Chain | Production              | Supply of basic beekeeping equipment (set) & Bee colonies | In kind-80:20 support on the following:<br><br>Bee colonies with queen maximum upto 5<br><br>1 set starter Nu. 4000/ package with maximum 1 per individual.<br><br>Improved movable frame hive set-Nu. 3000/set for A. mellifera & Nu. 2500/set for A. cerana, with maximum 5 hives<br><br>Casting machine-Nu. 78000/set with maximum of 1 producing at least 100 kg honey/year<br><br>Honey extractor (small)-Nu. 25000/set maximum of 1 producing at least 100 kg honey/year.<br><br>In kind-50% subsidy on | In kind-40:60 support on the following:<br><br>Bee colonies with queen maximum upto 10<br><br>1 set starter Nu. 4000/ package with maximum 1/group member.<br><br>Improved movable frame hive set-Nu. 3000/set for A. mellifera & Nu. 2500/set for A. cerana, with maximum 10 hives /group member<br><br>Casting machine-Nu. 78000/set with maximum of 1 producing at least 500 kg honey/year<br><br>Honey extractor (medium)-Nu. 35000/ set maximum of | In kind-20:80 support on the following:<br><br>Bee colonies with queen maximum upto 15<br><br>1 set starter Nu. 4000/ package with maximum 1/group member.<br><br>Improved movable frame hive set-Nu. 3000/set for A. mellifera & Nu. 2500/set for A. cerana, with maximum 20 hives /group member<br><br>Casting machine-Nu. 78000/set with maximum of 1 producing at 1000 kg honey/year<br><br>Honey extractor (large)-Nu. 50000/set maximum 1 of producing | One-time support |
|             |                         |                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                  |



### Priority commodity 5: CHEVON

Justification: High value product generates high income and has potential to be pro-poor commodity contributing to meat sufficiency. Increasing demand for chevon enterprise and potential to significantly contribute to meat self-sufficiency in the country.

**Table 8: Chevon**

| VALUE CHAIN | TYPE OF SUBSIDY (INPUT) | JUSTIFICATION                                    | BENEFICIARIES (SUBSIDY – GOVERNMENT: BENEFICIARY %)                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                |                                                                                                            | MODALITIES                                                                                                |                                              |                                                                                                                       |
|-------------|-------------------------|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
|             |                         |                                                  | Subsistence (up to 10 goats)                                                                                                                                                                                                                                                                    | Semi-commercial (11-20 goats)                                                                                                                                                                                                                                                                                                                                  | Commercial (≥21 goats)                                                                                     |                                                                                                           |                                              |                                                                                                                       |
| Value Chain | Production              | 1. Supply of breeding stock and associated costs |                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                |                                                                                                            |                                                                                                           |                                              |                                                                                                                       |
|             |                         | Supply of exotic bucks and doe for breeding      | Bhutan does not have good quality goats for meat production and so the new and prolific breeds of goat has to be imported from India. The demand is high from the field for the exotic breeds with better meat production and disease resistance after crossing with the local goat population. | 80:20 subsidy for the supply of breeding exotic bucks and Doe with maximum of 10 nos. (1 buck and 9 Doe)                                                                                                                                                                                                                                                       | 80: 20 subsidy for the supply of breeding exotic bucks and Doe with maximum of 20 nos. (2 buck and 18 Doe) | 80:20 subsidy for the supply of breeding exotic bucks and Doe with maximum of 50 nos. (5 buck and 45 Doe) | As and when required to replenish the flock. |                                                                                                                       |
|             |                         |                                                  | Construction of goat farm shed (cement and CGI sheet, nails, electric cable-100 meter for line connection)                                                                                                                                                                                      | The standard goat shed/pen is required for optimum chevon productivity ensuring the animal welfare and also to reduce disease incidences. The shed also should have provisions for the disposal of the dung to maintain the hygiene and diseased transmission minimizing the minimum bio-security of the farm. There also should have fencing of the premises. | 80:20 subsidy of the actual cost                                                                           | 60:40 subsidy of the actual cost                                                                          | 60:40 subsidy of the actual cost             | One-time support. Standard shed design and cost estimate determined by NHRDC, Bumthang. Eligible up to 50 goat farms. |
|             |                         |                                                  |                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                |                                                                                                            |                                                                                                           |                                              |                                                                                                                       |

|                                                            |                                                                          |                                                                                                                                                                                                                                                               |       |       |       |                                                                                                    |
|------------------------------------------------------------|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|----------------------------------------------------------------------------------------------------|
| <b>2. Post production, processing and marketing inputs</b> |                                                                          |                                                                                                                                                                                                                                                               |       |       |       |                                                                                                    |
| Post production and marketing                              | 2.1 Basic equipment for clean Chevon production and marketing facilities | Basic processing equipment (deep freezer, processing equipment and transportation trays, cold boxes, SS knives, dressing table etc.) are essential for the clean meat production. This will ensure the quality and the cleanliness of the meat in the market. | 80:20 | 70:30 | 60:40 | One-time support. The standards on (type, quantity and cost estimate determined by NHRDC, Bumthang |
|                                                            |                                                                          |                                                                                                                                                                                                                                                               |       |       |       |                                                                                                    |
| Post production and marketing support                      | 2.3 Minimum Support price                                                | Price gap (should not be below cost of production)                                                                                                                                                                                                            | 100:0 | 100:0 | 100:0 | As and when there is market glut.                                                                  |
|                                                            |                                                                          |                                                                                                                                                                                                                                                               |       |       |       |                                                                                                    |

**Priority commodity 6: FISH**

Justification: Contributes to household nutrition. Import is very high (92%) in 2015

**Table 9: Fish**

| VALUE CHAIN | TYPE OF SUBSIDY (INPUT) | JUSTIFICATION                                                         | BENEFICIARIES (SUBSIDY-GOVERNMENT; BENEFICIARY %)                                                                                                                                                 |                                                                                                                                                                |                                                                                                                                                                   | MODALITIES                                                                                                                                                        |                                                                                                                                                                   |
|-------------|-------------------------|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|             |                         |                                                                       | Subsistence (300-4047 m <sup>2</sup> )                                                                                                                                                            | Semi-commercial (4047-20235 m <sup>2</sup> )                                                                                                                   | Commercial (20235-40470 m <sup>2</sup> )                                                                                                                          |                                                                                                                                                                   |                                                                                                                                                                   |
| Value Chain | Aquaculture             |                                                                       |                                                                                                                                                                                                   |                                                                                                                                                                |                                                                                                                                                                   |                                                                                                                                                                   |                                                                                                                                                                   |
|             | Production              | Fish farm establishment (Example, Construction of fish ponds and dyke | For household food/nutrition security, enhancement of rural livelihood, beneficial engagement of youth and disadvantaged women and enhance national output of farmed fish toward reducing import. | 100:0 subsidy of Nu. 48/m <sup>2</sup> of total pond area subject to a minimum size of 300 m <sup>2</sup> and a maximum size of 1 acre (4047 m <sup>2</sup> ). | 100:0 subsidy of Nu. 48/m <sup>2</sup> of total pond area subject to a minimum size of 4047 m <sup>2</sup> and a maximum size of 5 acres (20235 m <sup>2</sup> ). | 100:0 subsidy of Nu. 48/m <sup>2</sup> of total pond area subject to a minimum size of 20235 m <sup>2</sup> and a maximum size of 40470 m <sup>2</sup> (10 acres) | One-time support                                                                                                                                                  |
|             |                         |                                                                       | Fish farm water supply/irrigation system                                                                                                                                                          | Ensure adequate supply of water to operate fish farm                                                                                                           | 100 :0 subsidy of Nu. 30/m <sup>2</sup> of total pond area subject to a minimum size of 300 m <sup>2</sup> and a maximum size of 1 acre (4047 m <sup>2</sup> ).   | 100:0 subsidy of Nu. 30/m <sup>2</sup> of total pond area subject to a minimum size of 4047 m <sup>2</sup> and a maximum size of 5 acres (20235 m <sup>2</sup> ). | 100:0 subsidy of Nu. 30/m <sup>2</sup> of total pond area subject to a minimum size of 20235 m <sup>2</sup> and a maximum size of 40470 m <sup>2</sup> (10 acres) |
|             |                         |                                                                       |                                                                                                                                                                                                   |                                                                                                                                                                |                                                                                                                                                                   |                                                                                                                                                                   |                                                                                                                                                                   |

|             |            |                                                                                                                                                                                          |                                                                                        |                                                                                        |                                                                                                |                                                                                                |                  |
|-------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------|
| Value Chain | Production | Fingerlings (ordinary & stunted)                                                                                                                                                         | Encourage farmers to take up fish farming and enhance production                       | 100:0                                                                                  | 50:50 of total cost of fingerlings                                                             | 25:75 of total cost of fingerlings                                                             | One-time support |
|             |            | Equipment (Drag net, cast net, deep freezer, weighing scales, transportation box, fish packaging materials, ice making machines and other such production and post-production equipment) | Enable efficient production of fish, marketing and value addition/ product development | Free supply of 1 drag net (30 m length and 3 m breadth) and 1 cast net (7 kg capacity) | 50:50 of actual cost of equipment (one drag net, 30m length, 15 numbers transportation crate). | 70:30 of actual cost of equipment (two drag net, 30m length, 30 numbers transportation crate). | One-time support |
|             |            | Transportation charge of machineries (JCB & excavator) within the Dzongkhag for pond excavation                                                                                          | Ensure timely execution of the fish farm establishment works.                          | 50:50 of the actual cost                                                               | 50:50 of the actual cost                                                                       | 50:50 of the actual cost                                                                       | One-time support |

| Trout Aquaculture |                 |                                                                                |                                                                                                                  |                                                                                        |                                                                                |                                                                      |                                                                                                                 |
|-------------------|-----------------|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Value Chain       | Production      | Construction of raceways                                                       | Encourage fish farming among the youths/ Ensure year-round water supply for maximizing trout fish production 0 n | 3 raceway; (20m* 2m * 1.5m) 100% free up to three raceways                             | 4-5 raceways; (20m * 2m * 1.5m) 100% free up to 5 raceways                     | 6-8 raceways; (20m * 2m * 1.5m) 100% free up to 8 raceways           | One-time support. In the event of varying pond sizes, the support provided will be based on engineer estimates. |
|                   |                 | Water supply system (Includes water supply from Source to siltation tank)      | Encourage fish farming among the youths/ Ensure year-round water supply for maximizing trout production.         | 100:00                                                                                 | 100:00                                                                         | 100:00                                                               | One time support based on an engineer's estimate.                                                               |
|                   |                 | Supply of fingerlings                                                          | Encourage farmers to take up fish farming and enhance production.                                                | 100:00 100:00 (Maximum of 4000 fingerlings as per carrying capacity of three raceways) | 100:00 (Maximum of 6000 fingerlings as per carrying capacity of five raceways) | 100:00 (9000 fingerlings as per carrying capacity of eight raceways) | One-time support. Support also includes transportation charges.                                                 |
|                   |                 | Supply of trout feed                                                           | Encourage farmers to take up trout fish farming and enhance trout production                                     | 100:00 (up to 2 MT)                                                                    | 100:00 (up to 3 MT)                                                            | 100:00 (up to 5 MT)                                                  | One-time support                                                                                                |
|                   | Post production | Post-harvest equipment. (Drag net, cast net, Scoop net, deep freezer, weighing | Produce quality fish products and clean marketing service.                                                       | 50:50                                                                                  | 80:20 of actual cost                                                           | 100:00 of actual cost                                                | One-time support and the Department will come up with standards (types and number of post-harvest equipment )   |

|                                                        |                                                                                                                                                                                                                                       |                                                                                                                    |        |
|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------|
|                                                        |                                                                                                                                                                                                                                       | balance, cool box, Crate, Vacuum packing materials, ice making machines, Smoking chamber and other post-production |        |
| <b>Riverine and Lake Fisheries (Capture Fisheries)</b> |                                                                                                                                                                                                                                       |                                                                                                                    |        |
| Post production                                        | Post-harvest facilities and fisheries equipment for Community- Based Fishery Resource Management Program. (Cast net, deep freezer, weighing balance, cool box, crate, Vacuum packing materials, ice making machines, Smoking chamber) | To supplement fish production and clean marketing service                                                          | 100:0  |
|                                                        |                                                                                                                                                                                                                                       |                                                                                                                    | 100:0  |
| Marketing                                              | Buy back price                                                                                                                                                                                                                        | To meet the price gap (it should not be below cost of production)                                                  | 100:00 |
|                                                        | 4.2 Promotional Program (Shrimp, Turkey, rabbit, Mastiff, Pheasant, quail, Guinea fowl and emerging breeds of livestock)                                                                                                              |                                                                                                                    | 100:0  |

### Priority commodity 7: BIOGAS

Justification: Source of green energy and environmentally friendly technology to mitigate greenhouse gas emission. It can reduce import of LPG and use of firewood.

**Table 10: Biogas**

| VALUE CHAIN    | TYPE OF SUBSIDY (INPUT)                           | JUSTIFICATION                                                                                                                                                                                              | BENEFICIARIES (SUBSIDY-GOVERNMENT: BENEFICIARY %)                                                                                        |                                                                                                         |                                                                                                            | MODALITIES                                               |
|----------------|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
|                |                                                   |                                                                                                                                                                                                            | Subsistence                                                                                                                              | Semi-commercial                                                                                         | Commercial                                                                                                 |                                                          |
| Biogas support | Construction of biogas plant                      | The cost of bio-digester and the accessories are costly which farmers cannot afford. The subsidy would encourage farmers to take up the program which ultimately contributes to the reduction of green gas | 50:50 subsidy on the cost of construction of bio-digester and its accessories (for 4 cubic meter, 6 cubic meter and 8 cubic meter plant) | 40:60 subsidy on the cost of construction of bio-digester and its accessories (10-50 cubic meter plant) | 30:70 subsidy on the cost of construction of bio-digester and its accessories (above 50 cubic meter plant) | One-time support                                         |
|                |                                                   |                                                                                                                                                                                                            | 0                                                                                                                                        | 30:70 subsidy on the cost of construction of bio-digester and its accessories for all sizes of biogas   | 30:70 subsidy on the cost of construction of bio-digester and its accessories for all sizes of biogas      | One-time support                                         |
|                |                                                   |                                                                                                                                                                                                            |                                                                                                                                          |                                                                                                         |                                                                                                            | Support will be provided only for the bottling equipment |
|                | Biogas and its bi-product packaging and marketing | In order to substitute the alternate means of energy to LPG gas, there will be demand for biogas product. It needs to be promoted and marketed.                                                            |                                                                                                                                          |                                                                                                         |                                                                                                            |                                                          |

## Priority commodity 8: HIGHLAND LIVESTOCK PRODUCTION

Justification: The livestock herders residing in the northern frontiers of the country reside in these areas under harsh environmental conditions. They depend on livestock like yak, sheep, horses, mastiff for their food, nutrition and livelihood. While they reside in these northern frontiers, they also help to safeguard the territorial boundary of the country. Therefore, it is very important that they are adequately incentivised through subsidy programs.

**Table 11: Highland livestock production**

| VALUE CHAIN | TYPE OF SUBSIDY (INPUT)                                                               | JUSTIFICATION                                                          | BENEFICIARIES<br>(SUBSIDY-GOVERNMENT:<br>BENEFICIARY %) |                                                     | MODALITIES                                                                            |
|-------------|---------------------------------------------------------------------------------------|------------------------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------|---------------------------------------------------------------------------------------|
|             |                                                                                       |                                                                        | Individual herders                                      | Groups                                              |                                                                                       |
| Value Chain | Highland livestock production (Yak, Sheep, Horses, Mastiff)                           |                                                                        |                                                         |                                                     |                                                                                       |
|             | Animal procurement                                                                    | To overcome the shortage of quality animals                            | 100:0                                                   | 100:0                                               | One-time support and the cost to be determined by LRED, DoL                           |
|             | 1.2 Transport cost                                                                    | Lack of capacity of farmers                                            | 100:0                                                   | 100:0                                               | One-time support                                                                      |
|             | 1.3 Insurance                                                                         | Not covered under PSL                                                  | 20:80 of actual cost per animal                         | 20:80 of actual cost per animal                     | One-time insurance for individual herder/groups/cooperati ves                         |
|             | 1.4 Quarantine- feed and management cost                                              | Proper risk management of animals                                      | Nu. 3000/Large, Nu.1500/small animal                    | Nu. 3000/Large, Nu.1500/small animal                | One-time support                                                                      |
|             | Highland Livestock breeding and production inputs                                     |                                                                        |                                                         |                                                     |                                                                                       |
|             | 2.1 Livestock breeding inputs /AI (yak/ram/stallion/mastiff/don key) from input farms | To encourage farmers to maintain high quality animals                  | 100:0                                                   | 100:0                                               | As and when required                                                                  |
|             | 2.2 Support livestock shed for calf/sheep/mastiff                                     | To encourage clean milk/meat/wool production and ensure animal welfare | 100:0 of estimated cost as per standard design from DoL | 100:0 of estimated cost as per standard design from | One-time support. The standard design and cost estimate to be determined by LRED, DoL |

| Value Chain                                | Production | DoL                                                                                                                                                                      |                                                                                 |                                                         |                                                         | DoL | One-time support. The standard design and estimate to be determined by LRED, DoL                                                                        |
|--------------------------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                            |            | 2.3 Support construction of Yak/Sheep herder camps OR supply of yak hair tents                                                                                           | To encourage clean milk/meat/wool production and ensure herder welfare          | 80:20 of estimated cost as per standard design from DoL | 80:20 of estimated cost as per standard design from DoL |     |                                                                                                                                                         |
|                                            |            | 2.4 Support construction of riding tracks and horse stables at strategic locations for horse riding, supply of riding equipment (saddles etc)                            | To encourage value added use of horses and income generation through ecotourism | 100:0                                                   | 100:0                                                   |     | One-time support. The standards on shed design, type and quantity of riding equipment to be determined by the Department and link with Tourism Industry |
| <b>Highland Livestock nutrition inputs</b> |            |                                                                                                                                                                          |                                                                                 |                                                         |                                                         |     |                                                                                                                                                         |
|                                            |            | 3.1. Seed/Seedling/Planting material/cuttings/polybags                                                                                                                   | Improve quality of fodder and nutrition for animals                             | 100:0                                                   | 100:0                                                   |     | As and when required                                                                                                                                    |
|                                            |            | 3.2 Fencing materials: U nails/poles/barb wire, electric/solar fencing                                                                                                   | Improve quality of fodder and nutrition for animals                             | 60:40                                                   | 60:40                                                   |     | One-time support. Department may consider electric fencing proposed by DoA as an alternate option based on cost effectiveness and sustainability        |
|                                            |            | 3.3 Supply urea molasses mineral blocks                                                                                                                                  | To improve nutrition of animals                                                 | 80:20                                                   | 80:20                                                   |     | As and when required                                                                                                                                    |
|                                            |            | 3.4 Labour Saving Device (Chaff cutter, brush cutter, scythe, serrated sickles, sharpening stones, mower machine, feed blocking, UMMB and TMR machine, electric fencing) | Improve quality of fodder and nutrition for animals                             | 80:20 Maximum one per farm                              | 80:20 Maximum one per farm                              |     | One-time support                                                                                                                                        |
|                                            |            | 3.5 supply CGI sheets, plastic sheets and cement                                                                                                                         | For fodder conservation and use during lean months                              | 80:20                                                   | 80:20                                                   |     | One-time support                                                                                                                                        |

|                                                            |                                                                                                                                                               |                                                                          |       |       |                                                                                                                        |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|-------|-------|------------------------------------------------------------------------------------------------------------------------|
|                                                            | 3.6 Animal health/veterinary medicines/Vaccines/ mineral mixtures                                                                                             | To control livestock diseases and improve animal health                  | 100:0 | 100:0 |                                                                                                                        |
| <b>Promote climate smart technologies in the highlands</b> |                                                                                                                                                               |                                                                          |       |       |                                                                                                                        |
|                                                            | 4.1 Promote alpine bio gas (on pilot basis)                                                                                                                   | To provide easy access to cooking fuel                                   | 100:0 | 100:0 | Few sets will be established as promotional program and looking into its success it can be upscaled. One-time support. |
|                                                            | 4.2 Promote bio briquette                                                                                                                                     | To provide easy access to cooking fuel                                   | 100:0 | 100:0 | Few sets will be established as promotional program. One-time support.                                                 |
|                                                            | 4.3 Supply of solar lamps                                                                                                                                     | To provide light where electricity is not available and charging options | 100:0 | 100:0 | One-time support                                                                                                       |
| <b>Highland livestock product processing</b>               |                                                                                                                                                               |                                                                          |       |       |                                                                                                                        |
| Processing                                                 | Post production structures (MCC, MPU, Chilling Unit, Deep fridge, Cooling tank                                                                                | Value addition and product diversification                               | 0:100 | 100:0 | Only for group and cooperatives                                                                                        |
|                                                            | 5.2 Post production equipment (Milking can, milking buckets, butter churners, Cream separator, Potable Milking machine (small/medium), vacuum packing machine | Improve product hygiene and labour saving and avoid drudgery             | 90:10 | 90:10 | One-time support                                                                                                       |
|                                                            | 5.3 supply of equipment (wool shears, wool carding/spinner, scissors, yak hair shears/comb, felting needles                                                   | Product diversification and value addition                               | 90:10 | 90:10 | One-time support                                                                                                       |
|                                                            | 5.4 supply of cheese making equipment (cheese vat, cheese press, steam boiler,                                                                                | Product diversification and value addition                               | 90:10 | 90:10 | One-time support                                                                                                       |

| Highland livestock product marketing |                                                                                                                   |                                                         |                                            |                                           |                  |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--------------------------------------------|-------------------------------------------|------------------|
| Marketing                            | 6.1 Marketing structures (sales counter), storage facility                                                        | To facilitate marketing and product storage             | NA                                         | 100:0<br>Only for group and cooperatives  | One-time support |
|                                      | 6.2 Marketing equipment (chiller/deep Freezer, display refrigerator, cool box, packaging materials)               | For product hygiene and better presentation of products | 100:00<br>(cool box and packing materials) | 100:00<br>Only for group and cooperatives | One-time support |
|                                      | 6.3 Establishment of small manufacturing units for traditional products/costumes/yak hair tents /woollen products | To provide employment and income generation             | 90:10                                      | 100:0<br>Only for group and cooperatives  | One-time support |

### Priority Commodity 9: CONSERVATION and SUSTAINABLE UTILIZATION OF INDEGENOUS LIVESTOCK BREEDS

**Table 12: Conservation and sustainable utilization of indigenous livestock breeds**

| Indigenous livestock and promotional program (new technologies)                           |                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Indigenous livestock species (cattle, sheep, pig, poultry, yak, horse, goat, mastiff etc) | 100% support from Govt. to pro-poor farmers/vulnerable communities for breeding, conservation and sustainable utilization of native livestock genetic resources to sustain their livelihood |

The Department shall promote the indigenous livestock breeds on case-by-case basis for research purposes, genetic conservation, to meet emergency needs and upon directives.

### 4.3. Department of Forests and Park Services

The policy of the Royal Government to provide subsidized forest goods and services to the Bhutanese citizens dates back to the time when planned development in the Kingdom started and the policy was further enhanced in the first forest act enacted in 1969 and subsequent national forest policy formulated in 1974.

The implementation of subsidy policy in forest resource allocation have benefited our people immensely especially the rural communities through the period when our people were still contended with individual house hold level economy and the purchasing power of the farmers were at the lowest.

A well-intentioned policy of the government, it has served the purpose for which it was put in place. All the Bhutanese citizens have been the beneficiaries of this Kidu till date. Time has changed a great deal now. The socio-economic condition of our people improved manifolds and their purchasing power as well. The all-round development of the country is racing with leap and bounds. The simple economy of self-sufficiency experienced by the kingdom is transiting to a vibrant market economy leaving impacts in all areas.

It is a natural sequel that the area of resource conservation and management to experience the maximum impact of these development processes because of the fact that livelihood of majority of Bhutanese population are strongly linked to the forest resources of the country. Rapid development is therefore putting huge pressure on the resources with demands always showing upward trend and degrading the accessible forest areas by the day. The complacency among the resource users and the trend to liberalise the use of natural resources with a mind-set that these are easy and unlimited, can lead to a situation when Kingdom of Bhutan is no more reflected as one of the leading nations pursuing conservation friendly development.

Hence there is a strong and urgent need to revisit this subsidy policy of forest produce in light of new development in resource management paradigm, socio economic strength of the communities and the nation, changing national conservation priorities and local needs and not the least to face the new system of governance with a policy and strategy that is dynamic, transparent and strong.

**Table 13: Rationale for selection of commodities for priority investment**

| Sl. No. | Commodity  | Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | NWFPs      | There are 55 important NWFPs listed below. NWFPs are very important for our rural people living in the vicinity of the forests. NWFPs generate income for the farmers. Collection of NWFPs are allowed only after forming group and seeking approval from the Department of Forests and Park Services with Management Plan.                                                                                                                                                                  |
| 2       | Ecotourism | Tourism is one of the major sources of hard currency for Bhutan and plays a major part in our country's economic growth. In the protected areas where people were hampered due to stringent conservation policies and rules adversely impact these local communities. To achieve both community development and conservation goals, ecotourism is one of the priority commodities identified in the "Integrated Conservation and Development Programs" under the protected area managements. |

Table 14: List of Important NWFPs

| Sl. No. | NWFPs                                                       | Local Name/common name                  |
|---------|-------------------------------------------------------------|-----------------------------------------|
| 1       | <i>Asparagus recemosus</i>                                  | Nyakhachu (Dz)                          |
| 2       | <i>Bambusa spp.</i>                                         | Baa (Dz)                                |
| 3       | <i>Cane spp.</i>                                            | Patsha (Dz)                             |
| 4       | <i>Mushroom spp.</i>                                        | Shamu (Dz)                              |
| 5       | <i>Aconitum spp.</i>                                        | Bongkar (Dz)                            |
| 6       | <i>Aconogonon tortuosum</i>                                 | Ngalacho (Dz)                           |
| 7       | <i>Acorus calamus</i>                                       | Chudala (Dz)                            |
| 8       | <i>Artemisia spp.</i>                                       | Khempa (Dz)                             |
| 9       | <i>Asphalumpunjabinum</i>                                   | Drakzhu (Dz), Shilijit (Lh)             |
| 10      | <i>Casia fistula</i>                                        | Rajbrikshay (Lh), Donkoshing (Sh)       |
| 11      | <i>Choerospondia axillaris</i>                              | Lapsi (Lh)                              |
| 12      | <i>Ophiocordyceps sinensis</i>                              | Yar-tshaguenbub (Dz)                    |
| 13      | <i>Cymbopogon spp.</i>                                      | Lemon grass (Eng), Sorbhang (Sh)        |
| 14      | <i>Daphne spp.</i>                                          | Desho (Dz)                              |
| 15      | <i>Edgeworthia gardneri</i>                                 | Dheykap (Dz), Argaylee (Lh)             |
| 16      | <i>Diplazium esculentum</i>                                 | Nakey (Dz), Dhawai (Sh)                 |
| 17      | <i>Diploknema butyracea</i>                                 | Yegashi (Dz), Butter tree (Eng)         |
| 18      | <i>Elastostemum lineolatum</i>                              | Dham-boor (Dz), Drimom (Sh)             |
| 19      | <i>Entada eheedii</i>                                       | Pangri (Lh), Kolokpa (Sh)               |
| 20      | <i>Fritillaria delavayi</i>                                 | Tseka (Dz)                              |
| 21      | <i>Gaultheria fragrantissima</i>                            | Chamze Kam (Dz), Machino (Lh)           |
| 22      | <i>Illicium griffithii</i>                                  | Domleeshing (Dz), Khailachinang (Sh)    |
| 23      | <i>Juglans regia</i>                                        | Tago (Dz), Khesey (Sh), Ohkar (Lh)      |
| 24      | <i>Litsea cubeba</i>                                        | Siltimbur (Lh), Nenshing (Sh)           |
| 25      | <i>Meconopsis paniculate, Myricaria rosea</i>               | Upelserpo (Dz)                          |
| 26      | <i>Nardostachys jatamansi</i>                               | Wombu (Dz)                              |
| 27      | <i>Neopicrorhiza scrophulariiflora</i>                      | Pangpoi (Dz), Jatamansi (Lh)            |
| 28      | <i>Neopicrorhiza aacrophulariiflora / Picrorhiza kurroo</i> | Putishing (Dz), Kutki (Lh)              |
| 29      | <i>Paris polyphylla</i>                                     | Satuwa (Lh)                             |
| 30      | <i>Pedicularis longiflora</i>                               | lugruserpo (Dz)                         |
| 31      | <i>Pedicularis megalantha</i>                               | Lugrumarpo (Dz)                         |
| 32      | <i>Persia spp.</i>                                          | Gooli (Dz, Sh)                          |
| 33      | <i>Persia gamblei</i>                                       | Kawla or Kathe Kaulo (Lh)               |
| 34      | <i>Phyllanthus emblica</i>                                  | Churoo (Dz), Amala (Lh), Chorgnsay (Sh) |
| 35      | <i>Piper betleoides</i>                                     | Pani or Paney (Dz) Pan (Lh)             |

| Sl. No. | NWFPs                          | Local Name/common name                       |
|---------|--------------------------------|----------------------------------------------|
| 36      | <i>Piper hamiltonii</i>        | Jungali pan (Lh)                             |
| 37      | <i>Piper longum</i>            | Pipla/peeplaLh)                              |
| 38      | <i>Piper pedicellatum</i>      | Pipla                                        |
| 39      | <i>Podophyllum, Hexandrum</i>  | Bamarpoo (Dz)                                |
| 40      | <i>Resin</i>                   | Thangchu (Dz)                                |
| 41      | <i>Rheum australe</i>          | Chutsa (Dz)                                  |
| 42      | <i>Rheum nobile</i>            | Chhukkhametog (Dz)                           |
| 43      | <i>Rhododendron anthopogon</i> | Balu (Dz), Dali Metog                        |
| 44      | <i>Rhododendron setosum</i>    | Soonpati or sunpatey (Lh) Sulu (Dz)          |
| 45      | <i>Rubia cordifolia</i>        | Tsoy (Dz), Majito (Lh), Lanyi-roo (Sh)       |
| 46      | <i>Sapindusmukorossi</i>       | Soap nut (En), Ritha (Lh), Nakapani (Dz)     |
| 47      | <i>Swertia chirayita</i>       | Chirata (Eng), Chiraito (Lh)                 |
| 48      | <i>Symplocaspaniculata</i>     | Pangtse (Dz), Zim-shing (Sh), Gunilo (Lh)    |
| 49      | <i>Taracumeriopodum</i>        | Khurmong (Dz)                                |
| 50      | <i>Terminalia bellirica</i>    | Baru, Baroo (Dz, Sh)                         |
| 51      | <i>Terminalia chebula</i>      | Aru, aroo (Dz, Sh), Har-ra or Ha ro (Lh)     |
| 52      | <i>Thysanolaena latifolia</i>  | Tsakusha (Dz, Sh), Kusho or amlisa (Lh)      |
| 53      | <i>Zanthoxylum armatum</i>     | Thinngey (Dz), Timbur or Timur (Lh), Gi (Sh) |
| 54      | <i>Zizyphusmauritiana</i>      | Bayer (Lh), Tshoshing (Dz)                   |
| 55      | <i>Viscum nepalensis</i>       | Nyashingjormo (Sh)                           |



### Categorization and Definition

1. **Subsistence:** In this policy document, the sustenance is meant for a farmer or a group of farmers with no source of income for his/her household or for the group's account.
2. **Semi-commercial:** Investment up to Nu. 1 million
3. **Commercial:** Investment up to 5 million

**Table 15: Commodity based proposed cost-sharing packages**

| VALUE CHAIN                 | TYPE OF SUBSIDY (INPUT) | JUSTIFICATION                                          | BENEFICIARIES (SUBSIDY-GOVERNMENT: BENEFICIARY %)                                        |                 |            | MODALITIES                                                             |
|-----------------------------|-------------------------|--------------------------------------------------------|------------------------------------------------------------------------------------------|-----------------|------------|------------------------------------------------------------------------|
|                             |                         |                                                        | Subsistence                                                                              | Semi-commercial | Commercial |                                                                        |
|                             |                         |                                                        |                                                                                          |                 |            |                                                                        |
| Priority commodity 1: NWFPs |                         |                                                        |                                                                                          |                 |            |                                                                        |
| Value Chain                 | Production              | Seed/rhizome                                           | To reduce over exploitation wild resources and conserve resource at its natural habitat. | 100:0           |            | Every year<br>Investment less than Nu. 0.1 M                           |
|                             |                         | Seedling production                                    |                                                                                          |                 |            | Only once<br>Investment up to Nu. 5 M                                  |
| Value chain                 | Marketing               | Construction of processing house, drying shade         | To produce quality NWFPs products                                                        | 60:40           | 60:40      | One-time per group<br>Investment up to Nu. 5 M                         |
|                             |                         | Processing tools and equipment and packaging materials | Value addition. For better accessibility, increasing shelf life                          | 80:20           | 80:20      | Only one-time<br>Investment up to Nu. 5 M                              |
|                             |                         | Facilitate marketing of NWFPs products                 |                                                                                          | 100:0           | 100:0      | One-ime<br>The quantity produce should make a bolero load.<br>One-time |
|                             |                         | Branding and institutional support                     | To enhance marketability of Bhutanese NWFP products, contribute to income generation     | 100:0           | 100:0      | Need based                                                             |

| VALUE CHAIN                       | TYPE OF SUBSIDY                                                                                                        | JUSTIFICATION                                                                                                 | BENEFICIARIES<br>(SUBSIDY-GOVERNMENT: BENEFICIARY %)              |                 |            | MODALITIES |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-----------------|------------|------------|
|                                   |                                                                                                                        |                                                                                                               | Subsistence                                                       | Semi-commercial | Commercial |            |
| Priority commodity 2: Eco-tourism |                                                                                                                        |                                                                                                               |                                                                   |                 |            |            |
| Value chain                       | Homestay for individuals                                                                                               | Youth employment, promotion of ecotourism in rural areas, income generation, promote nature based enterprise  | 10:90                                                             | 10:90           | 10:90      | One-time   |
|                                   | Eco-lodge, roadside amenities, eco-trails, recreational sites and equipment are for group of households in the village |                                                                                                               | 70:30                                                             | 70:30           | 70:30      | One-time   |
|                                   | Marketing                                                                                                              | Marketing support (advertisement, website, applications, link to tour operators and tourists, visitors, etc.) | To make conomically viable, employment, attract tourists/visitors |                 | 100:0      | 100:0      |

#### **4.4. National Biodiversity Centre**

Bhutan is part of the Eastern Himalayas and endowed with rich biological resources which have been protected due to the wise and far-sighted leadership, sound policies and inherent respect for nature by the Bhutanese people. As a result, Bhutan is bestowed with a diverse array of flora and fauna. Conservation has always played a pivotal role in Bhutan's development history and concern for the natural environment and biological diversity is deeply embedded in Bhutanese traditional beliefs, socio-cultural outlook and the overarching development philosophy of Gross National Happiness (GNH). However, conservation may become challenging with the rapid socio-economic development of the country and there is a need to explore innovative measures to incentivize and ensure the continuity of biodiversity conservation through research and commercial utilization and securing of fair and equitable sharing of benefits. As a country that has maintained largely intact biodiversity, Bhutan has a strong relative advantage over most countries in the region and stands to benefit greatly through the sustainable utilization of its biological resources. In addition to the diversity of medicinal plants and genetic resources, Bhutan also has vast Traditional Knowledge (TK) associated with biological resources which could provide a unique opportunity for Bhutan.

The National Biodiversity Centre under the Ministry of Agriculture and Forests has been coordinating and implementing biodiversity conservation and sustainable use programs in the country with the main focus on the traditional crops and livestock breeds, native plant species, and biodiscovery research guided by the traditional knowledge. The centre has been providing technical as well as financial inputs to the local community mainly to conserve and sustainably use traditional crops and livestock breeds. This is done to encourage and promote conservation and sustainable use of traditional crops and livestock breeds as there are a limited capacity and awareness on the importance of traditional crops and livestock breeds.

The centre is also supporting community-based natural resource management and natural product development guided by the traditional knowledge under the Access and Benefit Sharing (ABS) framework. The objective of this initiative is to secure and maximize the benefits from the research and commercial utilization of Bhutanese genetic resources and associated traditional knowledge by identifying and prioritizing genetic resource and traditional knowledge. The centre provides technical and financial support to the local community because this sector requires huge investment and it is difficult for the local community to invest.

The benefits accrued is directed towards the conservation and sustainable use of biodiversity in the country and the biodiversity conservation at the community level will be enhanced through community initiatives and participation, promoting community leadership in conservation.

## Categorization and Definition

### • Commodity 1: ABS products

**Subsistence:** Farmer's group/youth group with no source of income for his/her household or the group's account.

**Semi-commercial:** Investment up to Nu. 1.0 million.

**Commercial:** Investment up to Nu. 5.0 million.

### • Commodity 2: Product development and diversification from agrobiodiversity (traditional crops and livestock breeds)

**Subsistence:** Farmers with cultivable land holding <1 acre and proposed investment value not exceeding Nu. 0.2 million.

**Semi-commercial:** Farmers with cultivable landholding/long term leased land ranging from 1 to 3 acres or with proposed investment size not exceeding Nu. 1.0 million.

**Commercial:** Farmer/individual/groups with cultivable landholding/leased land >3 acres and investment value exceeding Nu. 1.0 million.



Table 16: Commodity based proposed cost-sharing packages

| VALUE CHAIN                        | TYPE OF SUPPORT                 | JUSTIFICATION                                                                                                          | BENEFICIARIES<br>(SUBSIDY-GOVERNMENT: BENEFICIARY %)                                                                                                                                                  |                 |            | MODALITIES |                        |
|------------------------------------|---------------------------------|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------|------------|------------------------|
|                                    |                                 |                                                                                                                        | Subsistence                                                                                                                                                                                           | Semi-commercial | Commercial |            |                        |
|                                    |                                 |                                                                                                                        |                                                                                                                                                                                                       |                 |            |            |                        |
| Priority Commodity 1: ABS Products |                                 |                                                                                                                        |                                                                                                                                                                                                       |                 |            |            |                        |
| Value chain                        | Production                      | Seed & seedlings and other inputs.                                                                                     | Promote culture of cultivation and discourage wild harvesting.                                                                                                                                        | 100:0           | 0:100      | 0:100      | One-time (if required) |
|                                    |                                 | Technical backstopping for product development.                                                                        | Limited capacities on research and natural product development.                                                                                                                                       | 100:0           | 20:80      | 0:100      | Upon request           |
|                                    |                                 | Development of sustainable harvesting manuals.                                                                         | Prevent overharvesting of natural resources.                                                                                                                                                          | 100:0           | 80:20      | 50:50      | One-time               |
|                                    | Capacity Building and Marketing | Capacity building of Community Based Natural Resources Management (CBNRM) group on ABS and facilitate ABS negotiation. | Limited capacities on ABS and ABS negotiation.                                                                                                                                                        | 100:0           | 100:0      | 100:0      | Case by case           |
|                                    |                                 | Facilitate in marketing of the nature-based products.                                                                  | Support the marketing of nature based products to promote ABS framework. This will contribute to youth employment, income generation and enhancement of livelihood, and conservation of biodiversity. | 0:100           | 0:100      | 0:100      | Upon request           |

| Priority Commodity 2: Product development and diversification from agrobiodiversity (traditional crops and livestock breeds) |                                               |                                                        |                                                                                                                                                                                                               |       |       |       |                                                                      |
|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|----------------------------------------------------------------------|
| Value Chain                                                                                                                  | Product diversification and capacity building | Capacity building on product diversification.          | Limited capacity and awareness on the importance of traditional crops and livestock breeds.<br>Decline in the cultivation of traditional crops and rearing livestock breeds.                                  | 100:0 | 100:0 | 100:0 | Need based assessment                                                |
|                                                                                                                              |                                               | Product diversification facilities and input supplies. | Encourage and promote conservation and sustainable use of traditional crops and livestock breeds.<br>Empower farmers and community seedbank members on product diversification and enhancement of livelihood. | 100:0 | 50:50 | 40:60 | Need based assessment                                                |
|                                                                                                                              |                                               | Seed & seedlings.                                      | Promote cultivation of traditional crops for conservation.<br>Importance for the traditional crops is low due to low yield.                                                                                   | 100:0 | 50:50 | 40:60 | Need based assessment                                                |
|                                                                                                                              |                                               | Foundation stock.                                      | Encourage and promote conservation and sustainable use of livestock breeds.                                                                                                                                   | 100:0 | 40:60 | 20:80 | Need based assessment                                                |
|                                                                                                                              |                                               | Facilitate marketing of the products.                  | Support the marketing of value added products This will contribute to youth employment, income generation and enhancement of livelihood, and conservation of traditional crops and livestock breeds.          | 20:80 | 0:100 | 0:100 | Upon request<br>Especially for transportation to the nearest market. |

## **4.5. Department of Agricultural Marketing and Cooperatives**

In order to support marketing of RNR products, the Department of Agricultural Marketing and Cooperatives (DAMC) promotes efficient and effective marketing systems, facilitates market linkages and strengthens farmers groups and cooperatives. Keeping in line with the ministry's goal of self-sufficiency during the 12<sup>th</sup> FYP, the DAMC shall focus mainly on development of domestic markets; while also promoting exports, where feasible. The department shall establish adequate market infrastructures, initiate market linkages (North-South and East-West trade and Institutional linkages), encourage value addition, promote group marketing and provide market information to guide the production.

The marketing subsidy and support were focused on infrastructure development, market linkages, value addition, transportation (during market promotion stage and market failure) and capacity building. In the 12<sup>th</sup> FYP and beyond, the department shall continue to provide these supports and also promote agri-based enterprises. Furthermore, the department shall strive to provide price gap support to the farmers in the event of market failure to cover their cost of production and marketing.

All marketing related supports are integrated into agriculture, livestock and forestry sectors, where relevant.

### **4.5.1. Enterprise Development**

As per the RNR Enterprise guideline, the RNR enterprises are categorised into:

- i. Cottage scale or enterprise: investment size <Nu. 1.00 M
- ii. Small scale or enterprise: investment size Nu.1-10 M
- iii. Medium scale: investment size Nu.10-100 M
- iv. Large scale: investment size >Nu.100 M



Table 17: CSM modality for RNR Enterprise Development

| VALUE CHAIN      | TYPE OF SUBSIDY (INPUT)                                                              | JUSTIFICATION                                                                                                                                           | BENEFICIARIES (SUBSIDY-GOVERNMENT: BENEFICIARY %) |       |        |       | MODALITIES                                                                                                                                                              |
|------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-------|--------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                  |                                                                                      |                                                                                                                                                         | Cottage                                           | Small | Medium | Large |                                                                                                                                                                         |
| Input processing | Establishment of organic fertilizer plant<br><i>(only for tools/equipment)</i>       | To promote organic farming<br>Reduce imports of organic fertilizer.<br>Environmentally friendly and climate smart practices.                            | 60:40                                             | 40:60 | 00:00  | 00:00 | Support will be based on Request For Proposal (RFP) and will be on competitive basis.<br><br>One-time support, only if funds are available with NOFP or other sources   |
|                  | Establishment of bio-pesticide production plant<br><i>(only for tools/equipment)</i> | Generate employment and income opportunities.                                                                                                           | 60:40                                             | 40:60 | 00:00  | 00:00 | Support will be based on Request For Proposal (RFP) and will be competitive.<br><br>One-time support, only if funds are available with NOFP or other sources            |
| Storage          | Cold Stores<br><i>(only for tools/equipment)</i>                                     | To make food available during off-season and reduce import.<br><br>Increase returns to private sectors/farmers through higher off-season market prices. | NA                                                | 20:80 | 00:00  | 00:00 | Support will be based on Request For Proposal (RFP) and will be competitive.<br><br>One time support only.<br><br>Design and type has to be endorsed by the government. |
| Marketing        | Pack houses/Aggregation facility<br><i>(only for tools/equipment/)</i>               | To enhance aggregation, proper sorting and packaging for better returns.                                                                                | 40:60                                             | 30:70 | 00:00  | 00:00 | One time support.<br><br>Inclusive of both infrastructure and pack house equipment.                                                                                     |

|                          |                                                                             |                                                                                                                                                          |       |       |       |       |  |  |                                                                                                                                                                                |
|--------------------------|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|-------|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          | materials)                                                                  |                                                                                                                                                          |       |       |       |       |  |  | Must be a permanent structure                                                                                                                                                  |
| Processing               | Food Processing plant (only for tools/equipment)                            | To encourage product development and value addition to generate income, create employment, substitute imports.                                           | 70:30 | 20:80 | 00:00 | 00:00 |  |  | One time support.<br>Support will be based on Request For Proposal (RFP) and will be competitive.<br>Support is inclusive of both infrastructure and food processing equipment |
| Transportation           | Reefer vans/ trucks                                                         | To improve the quality of transportation of food<br><br>To ensure food safety and reduce transportation loss                                             | NA    | 20:80 | 10:90 | 00:00 |  |  | One time support<br>Support will be based on Request For Proposal (RFP) and will be competitive.                                                                               |
| Production and marketing | Floriculture (only for tools/ equipment )                                   | To promote floriculture as an enterprise                                                                                                                 | 70:30 | 20:80 | 00:00 | 00:00 |  |  | One time support.<br>Support will be based on Request For Proposal (RFP) and will be competitive<br>Support will not be for acquisition of land                                |
| Production and marketing | Agriculture nursery including spawn production (only for tools/ equipment ) | To encourage nursery business to create employment and income opportunities while meeting the increasing demand for seeds/seedlings and mushroom spawns. | 60:40 | 30:70 | 00:00 | 00:00 |  |  | One time support.<br>Support will be based on Request For Proposal (RFP) and will be competitive<br>Support will not be for acquisition of land                                |

## 5. General Governance and Implementation Modality

### 5.1. Implementation modality for farming incentives

The following implementation modalities will be adopted for providing farming incentives to enhance production for self-sufficiency and to motivate RNR-based enterprise development for employment creation and income opportunities.

#### Beneficiaries

- i. This CSM shall be provided to individual farmer, farmers' group/cooperative, youth and youth group and to private sector who take up prioritized RNR commodities enterprise development. For the production, priority will be given to the rural communities/farmers.

#### Governance

- i. Incentive packages will be entirely resource dependent, which implies that support will be provided only if fund is assured either through public funding or project-based and/donor-based funding.
- ii. Farmers contribution as per CSM for households below the poverty line (pro poor and vulnerable communities) identified by the Government could be waived off by the implementing agencies provided the value of incentive is low.
- iii. Cost sharing for Commercial scale crop and livestock production and post-production activities shall be based on project proposal. All kinds of enterprise development will also be based on detail proposal irrespective of the categories.
- iv. The proposal should be verified for technical and market feasibility in accordance with the priority of the planned and prioritized commodity and programme.
- v. The proposal may include RNR sector inputs as specified in the list.
- vi. The registered farmers' groups and cooperatives will get preference over individual.
- vii. Registered youth/youth group will receive preference over registered farmer groups to encourage them in RNR farming business.
- viii. Registered Women groups/female-headed households will receive preference for support in the wake of feminization of farms.
- ix. The priority shall be given to registered farmers/groups/cooperatives applying for the support for the first time.
- x. The prioritized commodity and the commodity of high focus from the Govt. will get preference over other commodities.
- xi. FDI proposals will have to follow FDI policy/guideline and will not qualify for government farming incentives and CSM shall not be applied.

- xii. All programmes, all donor projects and priority initiatives of the Govt. and the Ministry shall be governed by this guideline and has to respect the type of support, levels, modalities unless there are specific government directives to supersede this guideline.
- xiii. The CSM is one time support from the Government:
  - a. The maximum ceiling is set at Nu. 2 million per household under RNR Sector to pursue production/ post production /marketing of any RNR produces/products.
  - b. The maximum ceiling is set at Nu. 3 million per entrepreneurial to take up enterprise level development interventions under RNR sector. This will also apply to youth/youth group who are interested in pursuing the RNR enterprise development activities.
  - c. The proponents opting for RNR farming business shall be encouraged to avail subsidized loans from financial institutes under Priority Sector Lending (PSL) and REDCL. Such ventures would also benefit from provisions of tax exemption provided under Economic Development Policies, 2016 and Fiscal Incentives Act of Bhutan.
  - d. The proponent shall be eligible for only one of the above CSM scheme (xiii a or xiii b) under RNR sector.
- xiv. The guideline shall be reviewed annually to incorporate changes to meet the emerging challenges and needs.
- xv. The procurement and supply of equipment through private suppliers should meet the standard set by the relevant authority.
- xvi. The procurement of materials shall follow existing government procurement rules/ regulations and guidelines in place.
- xvii. Any kind of incentives for dispensing under the RNR sector (crop, livestock, forest) must be routed through field extension office/centre and should be endorsed by the local government authority (includes Gewog and Dzongkhag).

### **Implementation Approach**

- The existence of CSM guideline shall be made aware to policy makers and implementing agencies including departments, central programs, local government and other relevant agencies.
- Any new and upcoming projects in RNR sector shall be informed to incorporate existing CSM guideline for uniformity and consistency all across the country while supporting farming communities including youth/youth group with RNR inputs, production, post-production and marketing facilities.
- Cost share recovered from beneficiaries under various projects being currently implemented without CSM incorporated in the project document shall be used to scale-up similar activities within the project areas.
- Any NGOs, International Organisations, Cooperatives, Financial Institutions providing free inputs and other supports to farming community including youth/youth group is directed to apply for CSM to ensure harmonious and uniform adoption and implementation of

established system in place. This is also to ensure equity in terms of support given to the farming communities, unless there is any specific instruction.

- This CSM is mainly to streamline the process while supporting farmers with inputs through the fund availability. The agencies shall not be under any obligation to fulfil the fund requirement proposal of the proponent if the government has not allocated fund to support any input schemes.
- Fund allocated to support inputs through CSM shall be implemented on a priority basis, based on urgency and relevance. Frequency of support shall be applied as indicated under Table 2.
- The gewog extension in consultation with Local Government shall categorise beneficiaries as indicated under categorisation (subsistence, semi-commercial, commercial) and update the record on a regular basis. Database need to be maintained for regular tracking process by the field offices under RNR sector and submitted to the line Department for reporting to the Govt. and the project donors.
- The gewog extension shall maintain the record of input supports provided to the beneficiaries. Any input supports to be provided to farmers must route through Gewog Extensions to ensure fair, equity and transparent system of distributions and record keeping for future reference and further submission to concerned Department.
- A database system shall be built and utilised to keep track of the all kinds of inputs supports provided to the beneficiaries by the Extension staff and the information be submitted to concerned Department under MoAF.
- An agreement/ MoU shall be drawn between government represented by extension/project/ agency in presence of local government authority to utilise the inputs and any other support provided under RNR sector for the agreed purposes and also to ensure sustainability of the support provided.
- All kinds of input provided shall be strictly monitored by gewog extensions. Local Govt. and other relevant organisations (projects/donors) to ensure that the inputs are strictly used for the intended purpose.
- Any materials/inputs/other supports under RNR sector found either misused/misappropriated or underutilised shall be recovered and distributed to next beneficiary in line and such beneficiary shall be made ineligible for future supports.
- The materials support provided to the farming communities, youth and youth group through CSM to pursue farming activities under RNR sector shall be one time support only and the cost for maintenance and/purchase of new/additional materials shall be borne by the beneficiaries.

## 5.2. Responsibility and Approving authority

The responsibility and authority to approve the incentives for different category of beneficiaries will be as mentioned in the table below:

**Table 18: Responsibility and authority to approve farming incentives**

| Value of incentives                            | Requirement of proposal              | Approving authority                                       |            |            |          |
|------------------------------------------------|--------------------------------------|-----------------------------------------------------------|------------|------------|----------|
|                                                |                                      | Central Programme (RDCs, RLDCs, RMC, RAMCO, TFDs and PAs) | Dzongkhags | Department | Ministry |
| Up to Nu. 0.200 million                        | Proposal not required (farmers)      |                                                           | ✓          |            |          |
|                                                | Proposal required for private sector |                                                           | ✓          |            |          |
| More than Nu. 0.2 million to Nu. 1.0 million   | Proposal required                    | ✓                                                         |            |            |          |
| More than Nu. 1.00 million to Nu. 2.00 million | Proposal required                    |                                                           |            | ✓          |          |
| More than Nu. 2.00 million to Nu. 3.00 million | Proposal required                    |                                                           |            |            | ✓        |

### 5.3. Subsidy dispensing modality

1. The subsidy to incentivize crop production shall be channeled through extensions and gewog administration to support subsistence farmers upto a value to Nu. 0.2 M by the Dzongkhag Agriculture Sector. Such schemes to be supported by other agencies must be endorsed further by dzongkhag administration.
2. The subsidy to incentivize large scale production (semi commercial and commercial, and enterprise development) shall be channelled through line departments (DoA, DoL, DoFPS and DAMC) after being endorsed by the dzongkhag administration. The concerned department before being approved by MoF should endorse all the budgetary provision for subsidy proposed by implementing agencies.
3. The subsidy on all marketing related supports for RNR Sector shall be channelized through DAMC. This mechanism is proposed to avoid duplication in dispensing subsidy and bring in clarity on accountability and responsibility amongst the implementing agencies, line department and DAMC.

### 5.4. M&E mechanism

Monitoring of the subsidy programme should focus both on the achievement of the target as well as the achievement of intended purpose of providing it. Regular monitoring of the physical target and the financial expenditure should be carried out. Reporting of the achievement will be done coinciding with APA reporting, which is twice in a year. Similarly, evaluation of the impact of the subsidy should be carried out twice in a plan period.

The concerned implementing agency in the Dzongkhags, Research and Development Centres, Central programmes, Commodity programmes and projects should report the achievement (report shall capture details of support including beneficiaries) to the respective line department. The line departments should identify appropriate Division/section with focal person to compile, analyse and report to PPD, MoAF and other concerned agencies in and outside the Ministry.

## 6. Annexures

### 6.1. Annex 1: Mapping of existing farming subsidy

Table 1: Agriculture Sector

| Commodity/ components                               | Proportion                                                                           | Approving authority | Issues/gaps/concerns                                                                                                                | Interventions and changes required                            |
|-----------------------------------------------------|--------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| Seeds & seedlings (NSC) production                  | 10% of Exp (24.962m)                                                                 | DoA, NSC,           | Government support is less than the actual expenditure and revenue gap. The gap is addressed through earning from other activities. | Revenue and expenditure gap to be supported by the government |
| Seeds & seedlings & fertilizer (NSC)-Transportation | Actual Nu. 14 million                                                                | DoA, NSC            | Insufficient budget release                                                                                                         | Release adequate budget                                       |
| Seedling and seedlings (promotion)                  | Free/cost sharing                                                                    | Dzongkhag, LG       | No clarity on cost sharing                                                                                                          | Follow cost sharing modality                                  |
| Butachlor (NPPC) Transport =                        | Actual cost 1.4 million                                                              | DoA, NPPC           | Fund constraint                                                                                                                     | Release adequate budget                                       |
| Farm machinery hiring and transport                 | 20 million annually<br>Average proportion of incentive = 56.1% starting from 2016-17 | DoA, FMCL/ AMC      | Limited engagement of private hiring system.<br><br>Limited access to incentives for small and marginal farmers.                    | Refer to farm machinery hiring guideline                      |
| Electric fencing                                    | 60%                                                                                  | NPPC, Dzongkhag     | Maintenance and management                                                                                                          | Enforce by-laws, electric fencing guideline.<br>M & E         |
| Pre-fabricated green house, low poly house,         | 80% (groups) and 60% (individual) for pre-fabricated and 100% for low cost           | DoA, Dzongkhag      | Not practical for groups, no uniform implementation                                                                                 | Refer cost sharing modality                                   |

|                                                           |                                                                                                                                                                                                                                                                                                                                               |                |                                                  |                                                                                                                                                                                                 |
|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Post-harvest structures and equipment</i>              | 50% (NPHC) , 100% (DAMC)                                                                                                                                                                                                                                                                                                                      | NPHC           | No uniform standard                              | Refer cost sharing modality                                                                                                                                                                     |
| <i>Drip and sprinkler irrigation, storage, reservoirs</i> | 100% on purchase price and free transport until road point                                                                                                                                                                                                                                                                                    | DoA, Dzongkhag | No full support as a package,                    | Need to support full package                                                                                                                                                                    |
| <i>Compost structures</i>                                 | Structure= Nu. 15,000 or 60%                                                                                                                                                                                                                                                                                                                  |                | No full support as a package                     | Need to support full package like equipment                                                                                                                                                     |
| <i>Machineries and equipment</i>                          | Free transport and installation                                                                                                                                                                                                                                                                                                               | FMCL           | FMCL charges additional 15% on the cost          | Provide additional 15% incentive                                                                                                                                                                |
| <i>Marketing</i>                                          | <ul style="list-style-type: none"> <li>-Transport support on need basis and when budget is provided</li> <li>- Price gap support during market failure</li> <li>-Market Infrastructures including B-coop shops, Farm shops</li> <li>- Value addition equipment including packaging materials to registered groups and cooperatives</li> </ul> | DAMC           | As and when budget provided and is deem required | Budget provision for transportation, price gap between market price and cost of production, processing equipment, packaging materials, and market promotion as in the following proposed table. |
| <i>Land development</i>                                   | CMU machines- fuel basis 100% -from projects                                                                                                                                                                                                                                                                                                  | Dzongkhag      | Priority for farm road construction              | Follow land development guideline                                                                                                                                                               |
| <i>Mushroom</i>                                           | Free spawn for small scale, equipment on returnable basis                                                                                                                                                                                                                                                                                     | NMC            | No uniform support                               | Follow cost sharing modality                                                                                                                                                                    |

Table 2: Livestock Sector

| Commodity | Subsidy level                                                                            |                                                                                                                                                      | Modalities (Governance-approving authority, proportion)                     | Issues/gaps/concerns                                                                                                                                                    | Interventions and changes required                                                                                                                                              |
|-----------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           | List of inputs                                                                           | Type of support                                                                                                                                      |                                                                             |                                                                                                                                                                         |                                                                                                                                                                                 |
| Dairy     | Supply of cattle<br>-Dairy cattle/<br>buffalo                                            | In cash- 30% of total cost (Nu: 40,000) per animal with maximum subsidy of Nu. 12,000 per animal                                                     | Administrative approval from Dzongkhag based on ministry's interim approval | Restriction on ceiling of subsidy and number of animals.<br>Individual farmer not entitled to subsidy<br>Difference in subsidy package in project and non-project areas | Revise number of animals and maximum price ceiling based on market force<br>Expand support to all categories of dairy farmers<br>Apply uniform subsidy package across the board |
|           | Insurance of animal for one year                                                         | In cash- 20% of Nu. 40000/ animal, onetime support                                                                                                   | -do-                                                                        | Nil                                                                                                                                                                     | Insurance subsidy 20% based on the market value of animal<br>Synchronize insurance scheme with PSL                                                                              |
|           | Expenditure during quarantine                                                            | Nu. 2000/animal to meet feeding, labour, fodder transportation and treatment costs for 15 days of quarantine period                                  | -do-                                                                        | Nu. 2000 insufficient to meet quarantine expenses for 15 days quarantine due to increasing price                                                                        | Revise quarantine expenses to Nu. 3000/ animal                                                                                                                                  |
|           | Construction of farm shed (construction materials, e.g. cement, CGI sheet) with silo pit | In kind-maximum Nu. 7500/ animal (30%) of 25000/ animal, and maximum for 5 cows per household. Timber, stones and labour contribution by beneficiary | -do-                                                                        | Current subsidy is insufficient to purchase the major construction materials<br>Blanket application of subsidy irrespective of locations and type of shed design        | Revise the cost of construction of shed throughout, using the standard specifications for different AEZs<br>Provide uniform construction materials in kind                      |

|         |                                                                                                                                           |                                                                                                                                                                                                      |                                                                                           |                                                            |                                                                                                   |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Dairy   | Transport of dairy animals                                                                                                                | In kind- from point of purchase to point of delivery (100% subsidy)                                                                                                                                  | -do- and as per existing government rules                                                 | Nil                                                        | Continue as usual                                                                                 |
|         | Supply of breeding stock                                                                                                                  | In kind-100% free for pure Jersey, Jersey cross, Nublang, Brown Swiss, yak bull, all AI inputs including semen and LN2<br>Mithun bull-farmers pay Nu. 16000 (50% of cost of production of Nu. 32000) | As per ministry approval based on the availability of budget at gewog and dzongkhag level | Poor management of breeding bulls and weak progeny records | Reinstitute progeny born and bull keeper allowances to ensure proper management of breeding stock |
|         | Support for construction of post-production facilities such MCC, MPU, DSC, DPU (one time support only to farmers groups and cooperatives) | In kind- turnkey basis by the govt. as per standard design                                                                                                                                           | -do-                                                                                      |                                                            |                                                                                                   |
|         | Supply of post-production equipment to equip MCC, MPU, DSC, DPU                                                                           | In kind-100% subsidy but one time support only to farmers groups and cooperatives                                                                                                                    | -do-                                                                                      |                                                            |                                                                                                   |
| Piggery | Procurement of Piglets from contracted farmers and supply to farmers (for fattening) at govt. approved rates                              | In cash-Subsidy of Nu. 1500/ piglet/farmer to contract pig breeder (total cost of piglet: Nu. 3500                                                                                                   | -do-                                                                                      | Nil                                                        | Continue as usual                                                                                 |
|         | Supply of piglets for fattening and breeding from govt. farm                                                                              | In kind-43% subsidy on cost of production of Nu. 3500/ piglet (farmer pays Nu. 2000/ piglet)                                                                                                         | -do-                                                                                      | Nil                                                        | Continue as usual                                                                                 |

|         |                                                                                                                                |                                                                                                                                  |      |                                                                                                                                                                                            |                                                                                                 |
|---------|--------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Piggery | Supply of breeding boar and gilt for breeding                                                                                  | In kind- 54% subsidy i.e. Nu. 6000/gilt or boar to the contract pig breeders (total cost of production is Nu. 11200/gilt or boar | -do- | Nil                                                                                                                                                                                        | Continue as usual                                                                               |
|         | Construction of animal farm shed (construction materials, e.g.; cement, CGI sheet) (Breeding farms)                            | In kind-maximum Nu. 30,968/sow (70% of the calculated cost of Nu. 221,000) for minimum of 5 sows per breeder                     | -do- | Nil                                                                                                                                                                                        | Continue as usual following the approved standard shed design                                   |
|         | Construction of fattening shed (construction materials, e.g.; cement, CGI sheet)                                               | In kind- Nu. 5400/fattener (30% subsidy of Nu. 18000/fattener) for farmer with minimum of 30 fatteners                           | -do- | Nil                                                                                                                                                                                        | Continue as usual following the approved standard shed design                                   |
|         | Farm automation/ feeder/drinker/ farrowing crate (Breeding farms)                                                              | Maximum Nu. 10500/5 sow level (30% of the equivalent in kinds)                                                                   |      | Not needed as facilities are inbuilt in the shed design                                                                                                                                    | Discontinue as not implemented after approval so far                                            |
| Poultry | Construction of layer and broiler farm shed (construction materials, e.g. cement, CGI sheet, nets, nails, electrical fittings) | In kind-Maximum Nu. 7000/100 birds (20% of the cost of maximum Nu. 35,000/farmer)                                                | -do- | Subsidy package for construction inadequate<br>Quality of subsidy in-kind materials are either inferior or supplier (winning bidder) supplies low quality material due to poor monitoring. | Revise subsidy package from 20 to 30% for different farm categories<br>Quality subsidy material |
|         | Farm equipment feeder/drinker/ nest/brooders/de-beakers                                                                        | In kind-Nu. 5000/100 birds (20% of the cost of maximum Nu. 25,000/farmer)                                                        | -do- | Quality of subsidy in-kind materials are either inferior or supplier (winning bidder) supplies low quality material due to poor monitoring.                                                | Revise subsidy package from 20 to 30% for different farm categories<br>Quality subsidy material |

|                    |                                                                                                                                   |                                                                                                                                                                                                                                                                           |      |                                                                                           |                                                                           |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| Poultry            | Farm semi automation (labour saving device) - nipple drinker/pan feeder.                                                          | Nu. 10800/100 birds (20% of the cost of maximum Nu. 54,000/farmer)                                                                                                                                                                                                        | -do- | Automation is very expensive and very few dealers                                         | Continue as usual                                                         |
|                    | Basic equipment for clean chicken production.                                                                                     | In kind-maximum Nu. 15600/500 birds (20% of the cost of maximum Nu. 78,000/farmer)                                                                                                                                                                                        | -do- | Basic equipment not enough and no provision for commercial/semi-commercial                | Expand subsidy for clean chicken production at commercial/semi-commercial |
|                    | Supply of layer DOC                                                                                                               | In kind-Nu. 30/DoC (Subsidy 52% of total cost of production of Nu. 58                                                                                                                                                                                                     | -do- | High mortality due to poor management at farmers' level but blamed as poor quality of DoC | Built-in subsidy for enhanced extension supervision                       |
|                    | Supply of broiler DOC**                                                                                                           | In kind-Nu. 25/DoC (Subsidy 52% of total cost of production of Nu. 48                                                                                                                                                                                                     | -do- | Nil                                                                                       | Built-in subsidy for enhanced extension supervision                       |
| Fish (aquaculture) | Construction of fish ponds and dyke with minimum of 300 m <sup>2</sup> and maximum of 10 acres (40470 m <sup>2</sup> ) per farmer | Maximum Nu. 48/sq m (1 acre=4047 sq m), (100% of the total cost of 1,942,560/10 acres, which is Nu. 194,256/acre)                                                                                                                                                         | -do- | Aquaculture below 300 m <sup>2</sup> not supported                                        | Provide subsidy to all categories of aquaculture farms                    |
|                    | Water supply connection and inlet-outlet water ways establishment                                                                 | In kind-Maximum Nu. 30/m <sup>2</sup> (100% of the calculated cost of Nu. 1,214,100/acre, which is Nu. 121,410/acre)                                                                                                                                                      | -do- | Nil                                                                                       | Continue as usual                                                         |
|                    | Supply of fingerlings (ordinary and stunted carp) with free transportation                                                        | 100% subsidy for subsistence level and 50:50 cost sharing for semi-commercial and commercial level fingerling supply (Nu. 0.5/ ordinary fingerling and Nu. 1/stunted fingerling with total cost of production of Nu. 5 & 6/ordinary and stunted fingerling respectively). | -do- | Nil                                                                                       | Continue as usual                                                         |

|                          |                                                                               |                                                                                                                                                                                                                                                                                                                                                                                               |                                          |                                                    |                                                                                |
|--------------------------|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------------------------------------------------|--------------------------------------------------------------------------------|
|                          | Transportation charge of machineries (JCB and excavator) within the Dzongkhag | 50:50% cost sharing of the actual cost by the Government and the beneficiary.                                                                                                                                                                                                                                                                                                                 | -do-                                     | Fund constraint                                    | 50% of the revenue and expenditure gap to be supported by the Government       |
| Fish (riverine and lake) | Trout farm establishment                                                      | In kind-construction of pond, including supply of fingerlings free of cost                                                                                                                                                                                                                                                                                                                    | Interim approval from MoAF/DoL/dzongkhag | New initiatives and less takers                    | Develop subsidy package for trout farming                                      |
|                          | Community managed capture fisheries                                           | In kind-100% for basic equipment for harvesting, processing and marketing                                                                                                                                                                                                                                                                                                                     | Interim approval from MoAF               | New initiatives with limited resources             | Develop complete subsidy package for riverine and lake fisheries               |
| Goat farming             | Supply of exotic bucks and doe for breeding                                   | In kind-100% subsidy for individual farmers                                                                                                                                                                                                                                                                                                                                                   | Approval from MoAF                       | Nil                                                | Develop complete subsidy package for goat farming                              |
|                          | Construction of animal farm shed (cement and CGI sheet)                       | In kind-maximum of Nu.1950/goat (30% of total cost of Nu. 6500) for maximum of 50 goats per farmer                                                                                                                                                                                                                                                                                            | Approval from MoAF                       | Construction of shed with present design is costly | Design low cost goat shed                                                      |
| Apiculture               | Supply of basic beekeeping equipment (set) as one-time support                | In kind-80% subsidy on the following:<br>1 set starter Nu. 4000/<br>package with maximum 1/<br>group member.<br>Improved movable frame hive set-Nu. 3000/set for <i>Apis mellifera</i> & Nu. 2500/set for <i>A. cerana</i> , with maximum 5 hives /group member<br>Casting machine-Nu. 78000/<br>set with maximum 1/group of minimum 50 members/group or producing atleast 1500 kg honey/year | Approval from MoAF                       | Subsidy only to group                              | Continue as usual with inclusion of support to individual farmers/institutions |

|  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
|--|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  |  |  | <p>Honey extractor (medium)-<br/>Nu. 35000/set maximum<br/>1/group of minimum 50<br/>members/group or producing<br/>at least 1500 kg honey/year.</p> <p>In kind-50% subsidy on<br/>beekeeping suit with veil,<br/>dangri type with maximum/<br/>group member</p> <p>Automatic honey filler-<br/>Nu. 350,000 with maximum<br/>1/group of minimum 50<br/>members/group or producing<br/>at least 1500 kg honey/year</p> <p>Full subsidy for packaging<br/>bottles with caps and<br/>labels-500 nos. one-time<br/>support based on production<br/>output of more than 1000 kg/<br/>group. The cost is Nu. 25/<br/>bottle with cap and label</p> <p>100% subsidy for<br/>construction of honey<br/>extraction unit with sales<br/>counter and processing<br/>room-1 unit/group with<br/>minimum of 50 members<br/>producing at least 1500 kg/<br/>year</p> |  |
|--|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

|                             |                                                                    |                                                                                                          |                        |                                                                                  |                                                                                                                                        |
|-----------------------------|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
|                             | Fencing materials pasture development                              | In kind- 60% of total cost of fencing materials such as barbed wire, u nails and wooden posts.           | Approval by MoAF       | Nil                                                                              | Continue as usual based on packages developed for different categories of dairy farms                                                  |
|                             | Fodder conservation materials                                      | In kind-100% subsidy on CGI sheet, plastic bags, vacuum packer, and cement for construction of silo pit. | Approval from MoAF     | Nil                                                                              | Continue as usual based on packages developed for different categories of dairy farms                                                  |
|                             | Inputs such as seeds, seedling and planting materials              | In kind- 100% subsidy                                                                                    | Approval from MoAF     | Nil                                                                              | Continue as usual based on packages developed for different categories of dairy farms                                                  |
|                             | Fodder chopping machine                                            | In kind- 60% subsidy                                                                                     | Approval from MoAF     | Nil                                                                              | Continue as usual based on packages developed for different categories of dairy farms                                                  |
|                             | Land development for pasture establishment                         | In kind-tractor free for pastureland development on fueling basis                                        | Approval from MoAF     | Not practical and sustainable                                                    | Discontinue and look for alternative                                                                                                   |
| Indigenous livestock inputs | Local cattle, pig, poultry, sheep, yak                             | In kind-100% subsidy for conservation and development                                                    | Approval from ministry | No subsidy package for local livestock                                           | Mainstream subsidy package for local livestock                                                                                         |
| Animal health inputs        | Medicines and vaccines                                             | In kind-100% subsidy for medicines and vaccines except in NVH                                            | Approval from MoAF     | Nil                                                                              | Continue as usual                                                                                                                      |
| Marketing                   | - Value addition equipment<br>- B-Coop shop<br>- Market facilities | In kind-100% subsidy to farmer groups and cooperatives                                                   | DAMC                   | No support in improving transportation of perishable livestock and dairy produce | -Regular budget provision to increase subsidy coverage<br>- Subsidy to procure refrigerated Vans for promising groups and cooperatives |

|                                                 |                                                                       |                                                     |                    |                                                                                                                        |                                                                                                   |
|-------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Biogas                                          | Construction of biogas plant                                          | In cash-Nu. 11,700/plant irrespective of plant size | Approval from MoAF | Outdated costing and does not represent all dzongkhags<br>Subsidy is flat irrespective of plant size<br>Subsidy is low | Develop different subsidy packages for different sizes of plants, with increase in subsidy amount |
| Transportation of livestock supplies and inputs | Animals, medicines, vaccines, fodder seeds, machineries and equipment | In kind-100% subsidy                                | Approval from MoAF | Nil                                                                                                                    | Continue as usual                                                                                 |

Table 3: Forestry Sector

| Commodity | List of subsidy                                                                                                                                                                                            | Types of subsidy                                                            | Modalities (Governance-approving authority, proportion)                                                                                                                                                                                                                                                                                                                                                                                                       | Issues/gaps/concerns                                                                             | Interventions and changes required                                                                           |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| NWFPs     | Basic Equipment                                                                                                                                                                                            | Kind (100%)                                                                 | Eligible only for Groups<br>Approved by the Department<br>Basic equipment and infrastructure are one time.                                                                                                                                                                                                                                                                                                                                                    | Project based and site specific<br>Sustainability issue<br>Full subsidy dependent                | Cost sharing basis, need based and institutionalized for replicating to other areas/groups.                  |
|           | Chemicals for treatment                                                                                                                                                                                    | Cost and Transportation (100%)                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                  |                                                                                                              |
|           | Packaging and labelling (Bottles, Plastics, labels, Record keeping books Infrastructure (Cold storage, water tank, drying house, marketing sheds, bamboo house etc.) Free Royalty for domestic consumption | Kind (100%)<br>Kind (100%)<br>Material support<br>Kind (Royalty waived off) |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                  |                                                                                                              |
| Timber    | Rural subsidized timber for house construction                                                                                                                                                             | Subsidized royalty rate                                                     | Eligible only for rural areas for construction of houses*approval by field offices of Department. For Lhakhangs and Dzongs confirmation required from Department of Culture and Approved by Department. Disaster/bridge based on assessment from Dzongkhag administration<br>*Exception allotment in municipal areas: If the land is inherited and construction is for personal residence, subsidized timber can be availed. For procedure, refer FNCRR 2017. | Weak monitoring on the use of rural timber<br>Ambiguities with respect to rural timber allotment | Amendment in forestry rules on rural timber (based on case study)<br>Enhance monitoring (increase frequency) |
|           | Rural subsidized timber for other purpose<br>Renovation subsidized timber<br>Dzong/Lhakhang construction<br>Chadri<br>Timber for bridge construction in rural areas                                        |                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                  |                                                                                                              |

|                                                    |                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                         |                                                                                               |                                                                                          |                                                                                          |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Firewood                                           | Rural allotment free of royalty for dry and lops and tops (carried on man & animal)<br>Royalty and permit fee for firewood transported by mechanical<br>Truckload<br>Cremation                                                                                                                                  | Subsidized royalty (two truckloads in area without electricity and one truckload in area with electricity)<br>4 m <sup>3</sup> (3 hardwood and 1 Juniper)                                                                                                               | Approval by Field Offices of Department on endorsement of Gup. Procedure refer to FNCRR 2017. | No issue                                                                                 | Continue same                                                                            |
| Sands and Boulder (Surface collection)             | Sand and Boulders for construction in rural areas<br>Free of royalty if not transported mechanically                                                                                                                                                                                                            | Subsidized royalty (not more than five truckloads in a year)                                                                                                                                                                                                            | Approval from Division after endorsement of Gup.                                              | No issue                                                                                 |                                                                                          |
| Integrated Conservation Development Program (ICDP) | Electric cookers<br>CGI sheets<br>Iron fencing posts<br>Electric fencing<br>Breeding bulls<br>Poultry<br>Piggery<br>Apiculture<br>Irrigation channel<br>Biogas<br>Solar lighting<br>Seed and seedlings<br>LPG with stove<br>Support to Nature Clubs<br>Raingears<br>Search lights<br>Entry Fees to Recreational | Kind (100%)<br>Kind (100%)<br>Kind (100%)<br>Material support<br>Kind (100%)<br>Cost sharing<br>Cost sharing<br>Kind (100%)<br>Material support<br>Kind (100%)<br>Kind (100%)<br>Kind (100%)<br>Kind (100%)<br>Cash<br>Kind (100%)<br>Kind (100%)<br>Concessional rates | Approval by Department as per the project activities.                                         | Project based<br>Sustainability issue<br>Over dependency<br>Duplication with DoA and DoL | Need based, cost sharing basis and institutionalized (in collaboration with DoL and DoA) |

|                                            |                                                                                                                                               |                                      |                                                      |                                                                                                                                         |                                                                         |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Ecotourism                                 | Infrastructures                                                                                                                               | Kind (100%)                          | Approval by Department as per the project activities | Project based Sustainability issue Lack of guidelines                                                                                   | Cost sharing, Guidelines, Institutionalized                             |
|                                            | Technical support<br>Toilet facilities for homestays and ecotrails<br>Nature Parks and Recreational areas<br>Equipment (Heater, Geysers etc.) | Cost sharing<br>Kind (100%)<br>50:50 |                                                      |                                                                                                                                         |                                                                         |
| Gewog Environmental Conservation Committee | Crop insurance<br>Livestock insurance                                                                                                         | Cash (100% Seed money)               | Approval by Department upon endorsement of Gup       | Reluctant to join the group. Less compensation and reluctant to pay premium<br>Lengthy procedure for claim. Change in committee members | Implement Compensation through the endowment fund. Mobilization of fund |

## 6.2. Annex 2: Hiring rate for agricultural machineries

| Description                      | Power tiller | Tractor above 34hp | Tractor 34hp | Tractor 18hp | Paddy reaper | Combine harvester | Paddy transplanter | Water pump | Mini tiller |
|----------------------------------|--------------|--------------------|--------------|--------------|--------------|-------------------|--------------------|------------|-------------|
| Revised actual operation per day | 3376         | 12,044             | 9018         | 7000         | 4427         | 13,179            | 4900               | 3301       | 3862        |
| Proposed hiring rates per day    | 1,545.18     | 3,577.86           | 2,668.16     | 2,061.70     | 1,847.70     | 4,189.42          | 1,234.62           | 2,347.16   | 1,303.84    |
| Final rate (round off)           | 1500         | 3800               | 2900         | 2300         | 2200         | 4400              | 1300               | 2500       | 1300        |

### 6.3. Annex 3: Details of cost sharing modalities for Agriculture Land Development as per Agriculture Land Development Guideline 2017

| Sl. No. | Particular                                                                                                                   | Cost to be borne by: |            |
|---------|------------------------------------------------------------------------------------------------------------------------------|----------------------|------------|
|         |                                                                                                                              | Beneficiary          | Government |
| 1       | <i>Terracing using machine (bench, orchard &amp; terrace consolidation) - For individuals &amp; community/ Group</i>         |                      |            |
|         | a. Machinery (plus transportation & maintenance)                                                                             |                      | ✓          |
|         | b. Machine Operator (TA/DA)                                                                                                  |                      | ✓          |
|         | c. Fuel, oil and lubricant                                                                                                   |                      | ✓          |
|         | d. Labour & farm tools                                                                                                       | ✓                    |            |
| 2       | <i>Terracing using machine (bench, orchard &amp; terrace consolidation) - for institutions/private sectors (enterprises)</i> |                      |            |
|         | a. Machinery (plus transportation & maintenance)                                                                             |                      | ✓          |
|         | b. Machine Operator (TA/DA)                                                                                                  | ✓                    |            |
|         | c. Fuel, oil and lubricant                                                                                                   | ✓                    |            |
|         | d. Labour & farm tools                                                                                                       | ✓                    |            |
| 3       | <i>Collection of excess surface stones - for individuals &amp; community/group</i>                                           |                      |            |
|         | a. Machinery (plus transportation & maintenance)                                                                             |                      | ✓          |
|         | b. Machine Operator (TA/DA)                                                                                                  |                      | ✓          |
|         | c. Fuel, oil and lubricant                                                                                                   |                      | ✓          |
|         | d. Labour & farm tools                                                                                                       | ✓                    |            |
| 4       | <i>Collection of excess surface stones - for institutions/private sectors</i>                                                |                      |            |
|         | a. Machinery (plus transportation & maintenance)                                                                             |                      | ✓          |
|         | b. Machine Operator (TA/DA)                                                                                                  | ✓                    |            |
|         | c. Fuel, oil and lubricant                                                                                                   | ✓                    |            |
|         | d. Labour & farm tools                                                                                                       | ✓                    |            |
| 5       | <i>Manual terracing (fully levelled bench and orchard terraces) - for individuals &amp; community/group</i>                  |                      |            |
|         | a. Cash incentives (Nu. 15,000/ac)                                                                                           |                      | ✓          |
|         | b. Labour & farm tools                                                                                                       | ✓                    |            |
| 6       | <i>Manual terracing (partially levelled bench terrace) - for individuals &amp; community/group</i>                           |                      |            |
|         | a. Cash incentives (Nu. 7500/ac)                                                                                             |                      | ✓          |
|         | b. Labour & farm tools                                                                                                       | ✓                    |            |
| 7       | <i>Alley cropping (Hedgerows) - for all proponents</i>                                                                       |                      |            |
|         | a. Cash incentives (Nu. 2500/ac)                                                                                             |                      | ✓          |
|         | b. Plantation materials (fodder grass slips)                                                                                 |                      | ✓          |
|         | c. Transportation of planting materials                                                                                      |                      |            |
|         | i. Up to road head                                                                                                           |                      | ✓          |
|         | ii. Road head to site                                                                                                        | ✓                    |            |
|         | d. Labour & farm tools                                                                                                       | ✓                    |            |

|    |                                                                                      |   |   |
|----|--------------------------------------------------------------------------------------|---|---|
| 8  | <i>Contour stone bunds (with or without fodder grass strip) - for all proponents</i> |   |   |
|    | a. Cash incentives (Nu. 5000/ac)                                                     |   | ✓ |
|    | b. Plantation materials (if required)                                                |   | ✓ |
|    | c. Transportation of planting materials                                              |   |   |
|    | i. Up to road head                                                                   |   | ✓ |
|    | ii. Road head to site                                                                | ✓ |   |
|    | d. Labour & farm tools                                                               | ✓ |   |
| 9  | <i>Orchard basin (soil or stone) - for all proponents</i>                            |   |   |
|    | a. Cash incentives (Nu. 6000/ac)                                                     |   | ✓ |
|    | b. Materials (stones)                                                                | ✓ |   |
|    | c. Labour & farm tools                                                               | ✓ |   |
| 10 | <i>Check dam (Log or stone check dam) - for all proponents</i>                       |   |   |
|    | a. Cash incentives (Nu. 1500/check dam)                                              |   | ✓ |
|    | b. Materials (logs and stones)                                                       | ✓ |   |
|    | c. Labour & farm tools                                                               | ✓ |   |

### **Focal points of CSM for RNR-sector from respective Departments:**

- 1. Dr. Min Prasad Timsina, Specialist, DoL.**
- 2. Kinley Tshering, Chief Forestry Officer, DoFPS.**
- 3. Jigme Tenzin, Principal Agriculture Officer, DoA.**
- 4. Mani Prasad Nirola, Deputy Chief Biodiversity Officer, NBC.**
- 5. Tshering Penjor, Marketing Officer, DAMC.**
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