

# GUIDELINES ON COST SHARING MECHANISM FOR THE AGRIFOOD SECTOR





# MINISTRY OF AGRICULTURE AND LIVESTOCK

**JULY, 2025** 





#### Foreword

The Ministry of Agriculture and Livestock is pleased to share the revised Guidelines on the Cost Sharing Mechanism (CSM) for the Agrifood Sector 2025. Cost sharing has been a fundamental strategy since the introduction of planned development in 1961, serving as an effective tool to enhance agricultural and livestock productivity through targeted input support.

The revised CSM 2025 aims to address prevailing challenges such as climate change, human-wildlife conflict, labour shortages, and increasing production costs, while supporting the national goal of narrowing the food trade deficit and achieving greater food and nutrition security. The guideline aligns with the Ministry's 13th Five-Year Plan objectives to increase the sector's GDP contribution and enhance agricultural exports.

This guideline defines clear eligibility, cost-sharing arrangements, and support packages for various scales of farming, ensuring equitable access, consistency, and sustainability. Implementation will adhere to standard governance and monitoring frameworks, with support contingent upon fund availability and compliance with the provisions herein. The CSM shall apply uniformly across all government programmes and donor-funded initiatives under the Ministry.

The Ministry acknowledges the contributions of all Departments and Agencies involved in this revision, which was approved by the Cabinet on 30 June 2025. It is anticipated that the CSM 2025 will play a pivotal role in advancing the Agrifood sector's contribution to national development.

**Younten Phuntsho** 

3 Phutoh

(MINISTER)

#### 1. Context

Cost sharing has been a key strategy adopted by the Ministry since the beginning of planned development in 1961, serving as a critical tool to promote agricultural and livestock production. During this time, farmers received support in the form of improved seeds and seedlings, improved livestock breeds, fodder seeds, farm tools, plant protection chemicals, and fertilizers to increase productivity. Initially, plant protection chemicals and fertilizers were fully subsidized by the government, but these costs were eventually transferred to the farmers while other inputs were supported through informal cost-sharing arrangements.

The first CSM Guidelines was developed in 2019 and revised in 2021. The CSM 2021 was reviewed and revised by technical team from MoAL and MoF and approved by the Cabinet vide C-3/54(5)/2025/591 dated June 30, 2025. The CSM 2025 will be reviewed in 2029.

#### 2. Rationale

Bhutanese farmers face several challenges making agricultural farming one of the most difficult and high-cost sector. Yet, 60 % of the rural population continue to depend on agriculture for their livelihood, about 40 % of those employed are in agriculture and 14 % of our GDP is contributed by the primary sector comprising agriculture, livestock and forestry.

Furthermore, while Bhutan was food self-sufficient and secure in the past, over the years, we see widening food trade deficit. The Bhutan Trade Statistic 2024 reports food imports of about Nu. 13 billion against agricultural exports of Nu. 3 billion. Bhutan imports about 70 % of our rice requirements from India amounting to Nu. 3 billion. If this trend continues, our food and nutrition security will be compromised.

Climate change, human wildlife conflict, farm labour shortages, loss of prime agricultural land to urban development, availability of cheap imports, amongst others, have been the main reasons for the high cost of agricultural production in Bhutan.

The CSM 2025 is designed to address some of the challenges highlighted above and make agriculture affordable to the farmers through cost-sharing mechanism. The CSM 2025 is aligned to deliver the MoAL's 13th FYP target of increasing GDP contribution from Nu. 31 billion in 2023 to Nu. 50 billion by 2029 and enhancing agricultural exports from Nu. 3 billion to Nu. 6 billion by 2029. The emphasis is on continuing support to small holder farmers while encouraging commercial agricultural farming, production of high value agricultural products, enhancing exports, piloting of agritech and improving the livelihood of the farmers.

# 3. Goals and Objectives

The overarching goal of the CSM is to facilitate MoAL's 13th Plan targets in terms of i) contribution to GDP, ii) agricultural exports, iii) agricultural production targets are achieved.

To achieve this, the CSM guidelines are guided by the following key objectives:

- 1. Ensure equitable access, uniformity, and consistency in the provision of essential input support across all Bhutanese farmers.
- 2. Fast-track commercialization and agri-enterprise development to enhance agricultural production and create income and employment opportunities for youth.
- 3. Drive sustained growth in crop and livestock farming, thereby improving the overall livelihoods of farming communities across the country.
- 4. Support inclusive economic growth by fostering synergy between farmers' initiatives and government efforts aimed at reducing rural poverty.
- 5. Nurture sense of ownership and shared responsibility among beneficiaries to ensure the sustainability of the support provided, while minimizing resource wastage and promoting efficient utilization.

## 4. Scope

The scope of the guideline covers both central and local governments agricultural programs, projects and activities, irrespective of the financing source. The guidelines cover the period 1st July 2025 to 30th June 2029.

#### 5. Salient features

- Priority interventions have been reduced from 43 to 23 for Agriculture and from
   63 to 29 for livestock to ensure targeted focus.
- The marketing components, post-production, value addition etc are integrated under DAMC to avoid duplications and overlaps among different technical departments.
- Targeted commodities and locations are based on the 13th FYP priorities.
- Input support is extended only to those farmers transitioning from subsistence to large-scale farming.
- The dispensing modalities and sunset clauses are specified where appropriate.
- The cost-ratio between the government and farmers have been revised with maximum share of government support geared towards transitioning to largescale commercial farming.
- Promotes accountability and ownership by ensuring commensurate cost sharing contribution by the farmers.

- Where appropriate, output based cost sharing support proposed.
- The support is categorized into subsistence and large scale farming.

| Feature                 | CSM 2019  | CSM 2021  | CSM 2025   |
|-------------------------|---|---|--|
| Policy Basis            | 12th FYP  | Transition within the 12th FYP                              | 13th FYP & High-Income<br>Goal                       |
| Target<br>Beneficiaries | Subsistence, Semi-<br>commercial, and<br>Commercial farming | Subsistence, Semi-<br>commercial, and<br>Commercial farming | Subsistence, Large-scale farming                     |
| Activity<br>Focus       | All activities across the sector                            | Selected commodities<br>& full value chain                  | Strategic activities within prioritized commodities  |
| Cost-Sharing<br>Model   | Undifferentiated, less structured                           | Structured, with emphasis on smallholder farmers            | Tiered, with higher support for scalable enterprises |
| Strategic<br>Intent     | Food security, commercial transition                        | Food security, commercial transition                        | Food security, economic growth, commercialisation    |

# 6. Priority commodities and interventions

The commodities identified for cost sharing is based on the 13th Plan priorities.

# i. Agriculture

In agriculture, rice, maize, vegetables, potato, mushroom, fruits and nuts, high value commodities and organic fertilizers have been prioritized.

Rice has been prioritized since there has been significant decline in rice production over the year. Paddy production fell from 50,000 MT in 2019 to 41,000 MT, with area under paddy cultivation also declining from 30,000 acres to 23,000 acres. As a result, Bhutan's rice import has been increasing with almost 70 % of our rice requirements being imported from India amounting to Nu. 3 billion annually. The cost sharing support provided to farmers are in the form of supply of high yielding seeds, support to land development, farm machinery hiring/procurement and chain-link fencing. Irrigation is provided as public good.

Maize – is the main cereal crop grown by the farmers mainly in the east/south. While in the past, maize was mainly grown as food crop for their own consumption or as animal feed and for brewing alcohol, today, maize has become a cash crop for farmers, selling roasted corn along the highway or as "tengma" which has contributed significantly towards enhancing their income. However, maize has also reported declining trends – production decreased from 46,000 MT in 2019 to 26,000 MT in 2023, with cultivated area declining from 32,000 acres to 17,000 acres in the same period. The cost sharing support provided to farmers are in the form of supply of high yielding seeds, support to land development, farm machinery hiring/procurement and chain-link fencing.

Vegetables – such as chili, onion, tomato, beans, cauliflower, asparagus, broccoli and mushroom has been prioritized to reduce imports or to enhance exports by increasing production of high value vegetables. Bhutan imports about 10,000 MT of chili, onion and tomatoes annually from India worth Nu. 500 m. If production of these vegetables can be enhanced through cost-sharing mechanism, we can reduce imports. The import of beans and cauliflower is restricted due to high pesticide residual content therefore the need to boost domestic production of these vegetables by providing necessary support. Similarly, asparagus, broccoli and cauliflower have potential for exports and already small quantities are being exported to Singapore. Enhancing production through CSM will benefit exports and promotion of high value agricultural products.

Potato – is one of the major cash crops and the third highest export earning commodity, with export earning of Nu. 539 million in 2024. In 2023, there were 35,371 potato growers producing 37,749 MT of potatoes in 8,433 acres in all the 20 dzongkhags. Potato is the most commonly grown roots and tuber, therefore, the CSM on potato will benefit all farmers in Bhutan.

Fruits and nuts – promotion of fruits and nuts, particularly high value fruits and nuts, will have significant impact in terms of agricultural sector's contribution to the GDP and 10x economy growth. High value fruits and nuts, such as those being promoted through the Royal Initiative "Million Fruit Tree Program (MFTP)" – macadamia nut, pecan nut, almond, avocado, mango, persimmon, kiwi etc – will contribute towards export revenue, livelihood of the farmers and the nutrition requirement. The support will be provided through free seedling supply through MFTP and smart irrigation, water harvesting technologies and trellises for fruit management on cost sharing basis.

Support to high value organic crops such as quinoa, strawberry, black pepper, organic asparagus and organic broccoli in the form of supply of high yielding seeds/seedlings, price guarantee scheme and affordable organic fertilizers will be facilitated.

#### ii. Livestock

The livestock sector will focus on diary, piggery, poultry, fishery and apiculture.

As per the Integrated Agriculture and Livestock Census report 2023, 51,892 HHs are engaged in Livestock farming. Therefore, in the 13th FYP, the livestock sector's focus will be on strengthening interventions in the priority commodities in order to encourage and support farmers to transition from subsistence to a more large-scale livestock farming for production enhancement and contribute in building the national economy.

Dairy farming engages around 47,000 households primarily at the subsistence level, with farmers managing just 1–2 improved dairy cattle due to limited land and resources. To meet the 13th FYP target of 73,984 MT milk production by 2029, the key interventions include breed intensification, strengthening dairy value chains, promoting climate-smart practices, and improving animal nutrition services.

With 87.67% of 5,014 pig-rearing households operating at the subsistence level, the piggery sector aims to boost domestic pork production from 1,590 MT in 2023 to 1,845 MT by 2029, achieving 60% self-sufficiency. Key interventions include strengthening Government Parent Stock farms, promoting mobile AI services, improving biosecurity measures, and introducing climate-resilient piggery sheds.

With over 19,800 households engaged in poultry farming, the sector targets 100% self-sufficiency in table eggs (increasing from 86M to 174M by 2029) and 50% self-sufficiency in chicken meat. Interventions focus on strengthening the supply of Layer Day Old Chicks (DOCs), enhancing farm biosecurity, promoting Effective Microorganism (EM) technology, and piloting energy-efficient systems.

Despite challenges like limited land, water scarcity, and poor fingerling survival, the sector aims to increase table fish production from 43 MT to 250 MT by 2029, raising self-sufficiency from 1.5% to 15%. The plan prioritizes reviving defunct ponds, promoting advanced technologies (e.g., Biofloc, RAS), and developing Trout enterprises for export.

Honey production has been identified as a high-value export product set to double from 41.75 MT to 83 MT by 2029, including diverse products like blossom honey, cream honey, comb honey, and pot honey. The plan includes the provision of hive sets and equipment, support for stingless bees, and establishment of a honeybee lab for standardization, packaging, and branding.

The 13th FYP targets the establishment of 5,000 household-level biogas digesters, promoting climate-smart technologies like FRP digesters and the SISTIMA Bio hybrid reactor. These are designed to reduce GHG emissions in livestock farming, with biogas systems integrated with improved dairy sheds. CSM support is essential to ensure adoption, and the Department will explore the extension of biogas systems to piggery and poultry farms where feasible.

Yak farming is critical for biodiversity, cultural preservation, and border security in highland communities. However, these communities face challenges like remoteness, harsh climate, and limited access to modern amenities. The 13th FYP emphasizes productivity enhancement, infrastructure development, and rangeland management to sustain yak herding livelihoods. Government support is vital to retain highland populations and preserve their unique sociocultural practices.

## iii. Agri-marketing and value chain

Agricultural marketing has been one of the major challenges which disincentivizes farmers from engaging in large scale production. Farmers work hard to produce but with limited market connectivity, inadequate post- harvest facilities including value addition and lack of reliable markets, farmers have difficulty selling their products. The marketing challenge is further constrained by small scale of production and access to cheap agricultural imports.

Government support through CSM will play a critical role in building an inclusive, competitive, and resilient agricultural economy. With foundational infrastructure such as cold storage facilities and warehouses already established, the immediate priority under the CSM will be to optimize the use of existing infrastructure and logistics systems.

Value addition will form a core component targeting both domestic and export markets. Investment support will be provided for the procurement of processing equipment for a range of prioritized commodities across the value chain.

To strengthen domestic market linkages, efforts will focus on improving transportation services, facilitating more efficient linkages between producers and institutional buyers such as schools, hospitals, and the Gyalsung Academies. Enhanced support to farm shops, especially in remote and highland communities, will ensure consistent access to essential goods, help stabilize rural markets, and reduce regional disparities.

On the export front, the promotion of high-value agricultural products will be prioritized for brand development initiatives and promotional activities. Support will be extended for air freight, quality packaging, product certification, and quality testing to meet international standards, along with assistance for innovative product development and the rental costs of overseas retail outlets to boost global market access and visibility.

# 7. Implementation modality

The Ministry of Agriculture and Livestock (MoAL) will serve as the central coordinating body, responsible for providing strategic oversight, policy direction, and technical support for the effective rollout of the CSM. Relevant departments, dzongkhag and gewog administrations, along with development partners and civil society organizations, will play crucial roles in planning and implementing cost-shared activities on the ground.

As implementation progresses, the mechanism is expected to build the capacity and confidence of beneficiaries to take greater responsibility in financing and managing agricultural investments. By gradually shifting from a subsidy-driven model to one that emphasizes collaboration and co-investment, the CSM aims to reduce long-term dependency on public funding.

# 8. Financing of CSM

The financing of CSM will be from the overall 13th FYP budget approved for agriculture and livestock, including donor funded programs and projects.

# 9. Monitoring and Evaluation

The mid-year budget/progress reviews, annual budget/progress reviews, project reviews of donor funded projects will be the basis for monitoring and evaluation.

## 10. Period of validity

The CSM 2025 will cover the period 1st July 2025 to 30th June 2029

|                     |                    | Department of   | Agriculture  |                     |                                 |                           |
|---------------------|--------------------|---|--------------|---------------------|---------------------------------|---------------------------|
| Type of support     | Government support | Justification   | CSM 2025     | (Govt:farmers)      | Dispensing modality             | Taugatad                  |
|                     | required           |   | Subsistence  | Large-scale Farming | (categorized as subsistence for | Targeted<br>Beneficiaries |
|                     |                    |   | Farming      |                     | landholdings less than one      | Beneficiaries             |
|                     |                    | Priority commodit                                       | y One: Paddy |                     |                                 |                           |
| Input based support | Promotion of newly | Farmers are often reluctant to adopt new seed           |              | 90:10               | For 5 years after release       |                           |
|                     | released improved  | varieties due to uncertainty about their effectiveness  |              |                     | covering at least 20% of the    |                           |
|                     | paddy seeds        | or the performance in real field conditions. They may   |              |                     | cultivated area                 |                           |
|                     |                    | fear crop failure, yield instability, or unknown market |              |                     |                                 |                           |
|                     |                    | acceptance. 90% support during the promotion of         |              |                     |                                 |                           |
|                     |                    | the new varieties can reduce financial risk and         |              |                     |                                 |                           |
|                     |                    | encourage farmers for higher adoption and               |              |                     |                                 |                           |
|                     |                    | production. Further, such seeds would not be readily    |              |                     |                                 | 20 Dzongkhags             |
|                     |                    | available for promotion, right after release. It takes  |              |                     |                                 |                           |
|                     |                    | at least one season to arrange seeds. Ideally, the      |              |                     |                                 |                           |
|                     |                    | promotion would commence after one season of            |              |                     |                                 |                           |
|                     |                    | release and continue for three to five years to cover   |              |                     |                                 |                           |
|                     |                    | at least 20% of cultivated area.                        |              |                     |                                 |                           |
|                     |                    |   |              |                     |                                 |                           |
|                     |                    |   |              |                     |                                 |                           |
|                     | Paddy Seed         | Over time, farmers tend to save seeds from previous     |              | 80:20               | one time support in 5 years     |                           |
|                     | replacement        | harvests, leading to seed degeneration, disease         |              |                     |                                 |                           |
|                     |                    | accumulation, and lower yields. Regular seed            |              |                     |                                 |                           |
|                     |                    | replacement ensures high-yielding and disease-          |              |                     |                                 |                           |
|                     |                    | resistant seeds are used, improving productivity.       |              |                     |                                 |                           |
|                     |                    | From the total cost of seed replacement, the 80%        |              |                     |                                 |                           |
|                     |                    | farmer contribution ensures farmer accountability       |              |                     |                                 |                           |
|                     |                    | and ownership while keeping input costs                 |              |                     |                                 |                           |
|                     |                    | manageable for smallholder farmers. Further, a          |              |                     |                                 |                           |
|                     |                    | higher farmer share could lead to reduced adoption      |              |                     |                                 |                           |
|                     |                    | of inputs, defeating the purpose of seed replacement    |              |                     |                                 |                           |
|                     |                    | for increasing productivity or to achieve the goal of   |              |                     |                                 |                           |
|                     |                    | rice SSR from 25% to 35% (Or increase of paddy          |              |                     |                                 |                           |
|                     |                    | production from 41,049 MT in 2023 to 54040 MT in        |              |                     |                                 |                           |
|                     |                    | 2029)   |              |                     |                                 |                           |
|                     |                    |   |              |                     |                                 |                           |

| Land development                                     | Difficult terrain and steep slopes limit the land available for agriculture. For paddy production, land development is a key intervention. However, hiring heavy machinery is unaffordable for resource-poor farmers. In this regard, CSM 2025 proposes that machinery hiring cost and fuel costs of land development be borne by the government, while beneficiaries cover the expenses for labor charges. To ensure optimal land utilization after development, the DoA/LG shall obtain an undertaking from the beneficiaries. | Machinery hiring and fuel cost to be supported by Govt. and labor cost by beneficiaries | Machinery hiring to<br>be supported by<br>Govt. and fuel cost<br>and labor cost by<br>beneficiaries (1-7<br>acres); all costs to be<br>borne by beneficiary<br>beyond 7 acres | one-time support   | 20 Dzongkhags |
|--|--|---|---|--|---------------|
|  | The mean per capita income of the rural population is Nu. 80,578 per year (BLSS 2022), which translates to approximately Nu. 220 per day. This income level is barely enough to cover daily living expenses, leaving little room for capital investment in farm machinery especially during the paddy production. Therefore 50% of the government support is proposed.   | 50:50   | NA  | Every year   |               |
|  | To promote farm mechanization and reduce drudgery, farm machines such as power tiller, minitillers, transplanter, harvestor, threshers, and millers should be supported. This will be supported for only one time (50% of the costs), based on fund availability through area development projects.  | 50:50   | 60:40   | one-time support per thram<br>holders<br>(this proposal will be<br>superceded by govt scheme of<br>providing these machineries at<br>zero interest loan) |               |
| Procurement and establishment of Chainlink/e-fencing | Human-wildlife conflict (HWC) is one of the major challenges for Bhutanese farmers in food production. As a result, fencing technology has been prioritized in the 13th Five-Year Plan (13FYP). Given the high upfront investment required, the government will cover materials costs, while beneficiaries will bear the total cost for labor.   | Material cost by g<br>by beneficiaries  | l<br>ovt. and labour cost   | -Priortized by LG following the<br>guideline developed by MoAL<br>-Chainlink- after 20 years; e-<br>fencing- after 10 years                              | 20 Dzongkhags |

| Output based support | Promote commercial paddy production  | To enhance national rice self-sufficiency and contribute to the 13th Five-Year Plan (FYP) targets, it is essential to promote commercial paddy production in feasible locations. Output subsidies can play a crucial role in incentivizing farmers to scale up production, ensuring competitiveness, and stabilizing market prices. The subsidy will help | Based on PGS modality | Implemented under the ESP                             | 20 Dzongkhags |
|----------------------|--------------------------------------|---|-----------------------|---|---------------|
|                      |                                      | achieve economies of scale and enhance farm profitability.  |                       |   |               |
|                      |                                      |   | ty Two Maizo          |   |               |
| Innut based sung and | Dramation of newly                   | Priority commodit   |                       | For F years often volones                             |               |
| Input based support  | Promotion of newly released improved | Climate change affects rainfall, temperature, and soil conditions, out breaks of pest and diseases making   | 90:10                 | For 5 years after release covering atleast 20% of the |               |
|                      | seeds                                | older varieties less suited to new environments.  |                       | cultivated area                                       |               |
|                      |                                      | However, farmers are often reluctant to adopt new   |                       |   |               |
|                      |                                      | technologies or seed varieties due to uncertainty   |                       |   |               |
|                      |                                      | about the performance in real field conditions. 90%   |                       |   |               |
|                      |                                      | support during the promotion of the new varieties   |                       |   |               |
|                      |                                      | can reduce risk and encourage farmers for higher  |                       |   |               |
|                      |                                      | adoption and production. Such seeds would not be  |                       |   |               |
|                      |                                      | readily available for promotion, right after release. It  |                       |   | 20 Dzongkhags |
|                      |                                      | takes at least one season to arrange seeds. Ideally,  |                       |   |               |
|                      |                                      | the promotion would commence after one season of  |                       |   |               |
|                      |                                      | release and continue for three -five years to cover at least 20% of cultivated area.  |                       |   |               |
|                      |                                      | The increase in the adoption will help to Increase  |                       |   |               |
|                      |                                      | production from 25118 MT to 31966 MT as targeted in   |                       |   |               |
|                      |                                      | the 13FYP.  |                       |   |               |
|                      |                                      |   |                       |   |               |
|                      |                                      |   |                       |   |               |
|                      |                                      |   |                       |   |               |

| Seed replacement | Maize cultivation in Bhutan has been on a declining      | 3                | 30:20                   | one-time support in 5 years |               |
|------------------|--|------------------|-------------------------|-----------------------------|---------------|
|                  | trend over the past five years in terms of both          |                  |                         |                             |               |
|                  | cultivated area and production. One key factor           |                  |                         |                             |               |
|                  | contributing to this decline is the use of farm-saved    |                  |                         |                             |               |
|                  | seeds, which suffer from seed degeneration and out-      |                  |                         |                             |               |
|                  | crossing, leading to reduced yield potential,            |                  |                         |                             |               |
|                  | increased susceptibility to pests and diseases, and      |                  |                         |                             |               |
|                  | poor genetic purity. These challenges hinder optimal     |                  |                         |                             |               |
|                  | productivity, yet maize has significant potential for    |                  |                         |                             |               |
|                  | yield improvement through seed replacement.              |                  |                         |                             |               |
|                  | However, smallholder farmers often refrain from          |                  |                         |                             | 20 Dzongkhags |
|                  | adopting improved seeds due to high costs,               |                  |                         |                             |               |
|                  | necessitating government support to ensure               |                  |                         |                             |               |
|                  | accessibility and affordability. Given maize's strategic |                  |                         |                             |               |
|                  | importance as a staple crop, enhancing productivity      |                  |                         |                             |               |
|                  | through seed replacement can strengthen national         |                  |                         |                             |               |
|                  | food security, reduce reliance on imports, and           |                  |                         |                             |               |
|                  | improve rural livelihoods. For this the government       |                  |                         |                             |               |
|                  | support of 80% is proposed.                              |                  |                         |                             |               |
| Land development | Difficult terrain and steep slopes limit the land        | Machinery hiring | Machinery hiring to     | one-time support            |               |
| · ·              | available for agriculture. For maize production, land    | and fuel cost to | be supported by         |                             |               |
|                  | development is a key intervention. However, hiring       | be supported by  | Govt. and fuel cost     |                             |               |
|                  | heavy machinery is unaffordable for resource-poor        | Govt. and labor  | and labor cost by       |                             |               |
|                  | farmers. In this regard, CSM 2025 proposes that          | cost by          | beneficiaries (1-7      |                             |               |
|                  | machinery hiring cost and fuel costs of land             | beneficiaries    | acres); all costs to be |                             | D             |
|                  | development be borne by the government, while            |                  | borne by beneficiary    |                             | 20 Dzongkhags |
|                  | beneficiaries cover the expenses for labor charges.      |                  | beyond 7 acres          |                             |               |
|                  | To ensure optimal land utilization after development,    |                  |                         |                             |               |
|                  | the DoA/LG shall obtain an undertaking from the          |                  |                         |                             |               |
|                  | •  | 1                | l                       | 1                           | 1             |
|                  | beneficiaries.   |                  |                         |                             |               |
|                  | beneficiaries.   |                  |                         |                             |               |

| Sustainable Land<br>Management  | Besides physical land development, other Sustainable Land Management technologies, such as the construction of stone bunds, plantation of Napier hedgerows, and check dams, are equally critical in preventing and reducing land degradation, which affects land productivity and crop yield. However, these technologies are labor-intensive and challenging to adopt in the field. Therefore, to | Government will su<br>materials, while far<br>labor costs |                      | Once every 5 years   | 20 Dzongkhags |
|---|--|---|----------------------|--|---------------|
|   | encourage the adoption of these labor-intensive interventions, a cost-sharing mechanism is essential. According to the Sustainable Land Management: Guidelines and Best Practices 2021, farmers will be supported with 50% of the cost.  |   |                      |  | 2-20.0.000    |
| Hiring of farm<br>machineries (power<br>tiller/mini-<br>tillers/sheller)                  | The mean per capita income of the rural population is Nu. 80,578 per year (BLSS 2022), which translates to approximately Nu. 220 per day. This income level is barely enough to cover daily living expenses, leaving little room for capital investment in farm machinery. Therefore 50% of the government support is proposed.  | 50:50   | NA                   | Every year   | 20 Dzongkhags |
| Procurement and<br>Supply of Farm<br>Machinery (power<br>tiller/mini-<br>tillers/sheller) | To promote farm mechanization and reduce drudgery, farm machines such as the power tiller/mini-tillers/sheller should be supported (50%). This will be supported for only one time, based on fund availability through area development projects.  | 50:50   | 50:50                | one-time support per thram<br>holders<br>(this proposal will be<br>superceded by govt scheme of<br>providing these machineries at<br>zero interest loan) | 20 Dzongkhags |
| Procurement and establishment of Chainlink/e-fencing                                      | Human-wildlife conflict (HWC) is one of the major challenges for Bhutanese farmers in food production. As a result, fencing technology has been prioritized in the 13th Five-Year Plan (13FYP). Given the high upfront investment required, the government will cover total cost for materials, while beneficiaries will bear total labor costs.   | Material cost by go<br>by beneficiaries                   | ovt. and labour cost | -Priortized by LG following the<br>guideline developed by MoAL<br>-Chainlink- after 20 years; e-<br>fencing- after 10 years                              | 20 Dzongkhags |

| Output based support | Promote commercial<br>Maize production                               | The economies of scale are influenced not only by farm size but also by market size. While roadside sheds markets have been established to address market access issues, inefficiencies in the logistics system prevent farmers from obtaining economically viable prices. To tackle this challenge, a price guarantee mechanism has been introduced, incorporating both a price floor and a price ceiling. This initiative aims to ensure fair pricing, benefiting both growers and consumers.   | Based on PGS<br>modality               | Based on PGS<br>modality | Implemented under the ESP   | 20 Dzongkhags |
|----------------------|--|---|--|--------------------------|---|---------------|
|                      |  | Priority Commodity Three: Vegetable (chilli, onion,   | tomato. beans. cau                     | uliflower. asparagus. b  | roccoli)  |               |
| Input based support  | Supply of newly released improved seeds                              | To encourage the farmers to grow high yielding/<br>disease resistant/ pest resistence/ cold/hot tolerant<br>varieties   |  | 90:10                    | For 5 years after release<br>covering at least 20% of the<br>cultivated area  | 20 Dzongkhags |
|                      | Procurement and establishment of Chainlink/e-fencing                 | The cost for materials to be borne by RGoB and labour cost to be borne by beneficiaries.  | Material cost by g<br>by beneficiaries | ovt. and labour cost     | -Priortized by LG following the<br>guideline developed by MoAL<br>-Chainlink- after 20 years; e-<br>fencing- after 10 years | 20 Dzongkhags |
|                      | Procurement and supply of drip/sprinkler irrigation set              | The micro-irrigation systems (drip and sprinkler) are promoted to enhance water-use-efficiency in all regions. Currenlty drip irrigation adoption is very low due to high upfront investment. Therefore, subsidy of 70% from the Govt. is proposed.   | NA                                     | 70:30                    | one-time support in 5 years   | 20 Dzongkhags |
|                      | Procurement and<br>supply of barbed<br>wire and green-net<br>fencing | Compared to traditional fencing methods such as wood and stone walls, green net fencing is easier to install, requires minimal maintenance. It provides effective protection against both wild and domestic animals without harming wildlife, making it an environmentally friendly solution.  Green net fencing has proven particularly effective for vegetable cultivation, reducing crop losses and increasing yields. To boost vegetable production, we propose that cost for materials to be borne by RGoB and labour cost to be borne by beneficiaries. | 50:50 (material<br>cost)               | 70:30 (material cost)    | one-time support  | 20 Dzongkhags |
|                      | Procurement and<br>supply of<br>prefabricated<br>Greenhouses         | Unaffordability issues: As per the BLSS (2022) report, the mean per capita income of the rural population is Nu. 80,578 per year, which translates to approximately Nu. 220 per day. This low income level leaves little room for investment in greenhouses. Therefore, a 60% subsidy support for subsistence and 70% for commercial farmers is proposed from the government.   |  | 70:30                    | One-time support<br><100 sq. m for subs. and >100<br>sq. m for comm.  | 20 Dzongkhags |

|                     | Procurement and supply of Smart farming technology | Smart farming technologies, such as precision irrigation, sensor-based fertilization, automatic vegetable transplanter, and automated machinery, optimize resource use and increase vegetable yields per acre. By utilizing IoT sensors and AI-driven analytics, farmers can reduce input waste, minimize labor, and improve efficiency. Given the high upfront investment required, the government will support 70% of the cost, while the proponent will bear 30%   | 70:30          | 70:30 | One-time support<br>( >100 sq. m for comm.)                           | 20 Dzongkhags  |
|---------------------|--|---|----------------|-------|---|--|
|                     |  | for the commercial purpose only.  |                |       |   |  |
|                     |  | Priority Commodit   | y Four: Potato |       |   |  |
| Input based support | Supply of newly released improved seeds            | 90% support by the government to encourage the farmers to grow high yielding/ disease resistant potato crop varieties   |                | 90:10 | For 5 years after release covering atleast 20% of the cultivated area | Area under<br>dzongkhags where<br>potato is feasible |
|                     | Seed replacement                                   | Potato seed tuber degeneration is a major challenge contributing to low productivity among potato farmers in Bhutan. Virus accumulation in saved tubers reduces yield. To address this issue, seed tuber replacement has been prioritized in the 13th Five-Year Plan (13FYP) and replacing seed potatoes with virus-free stocks improves productivity increasing the production 37749 MT in 2023 to 43774 MT in 2029. Among the various production costs, seed tubers account for approximately 57% (CoP, 2023), making them a significant financial burden for farmers. To alleviate this, the government will cover 80% of the seed tuber cost, while farmers will bear the remaining 20% for subsistence and commercial level. |                | 80:20 | one-time support in 5 years   |  |

| Sustainable Land       | Besides physical land development, other              | Government will support the cost of    | One time support                |                  |
|------------------------|---|--|---------------------------------|------------------|
| Management             | Sustainable Land Management technologies, such as     | materials, while farmers will bear the |                                 |                  |
|                        | the construction of stone bunds, plantation of        | labor costs                            |                                 |                  |
|                        | Napier hedgerows, and check dams, are equally         |  |                                 |                  |
|                        | critical in preventing and reducing land degradation, |  |                                 |                  |
|                        | which affects land productivity and crop yield.       |  |                                 |                  |
|                        | However, these technologies are labor-intensive and   |  |                                 |                  |
|                        | challenging to adopt in the field. Therefore, to      |  |                                 | an Dear Alaba ea |
|                        | encourage the adoption of these labor-intensive       |  |                                 | 20 Dzongkhags    |
|                        | interventions, a cost-sharing mechanism is essential. |  |                                 |                  |
|                        | According to the Sustainable Land Management:         |  |                                 |                  |
|                        | Guidelines and Best Practices 2021, farmers will be   |  |                                 |                  |
|                        | supported with material costs, while the farmers will |  |                                 |                  |
|                        | bear the labor costs.                                 |  |                                 |                  |
|                        |   |  |                                 |                  |
|                        |   |  |                                 |                  |
| Procurement and        | Human-wildlife conflict (HWC) is one of the major     | Material cost by govt. and labour cost | -Priortized by LG following the |                  |
| establishment of       | challenges for Bhutanese farmers in food              | by beneficiaries                       | guideline developed by MoAL     |                  |
| Chainlink/e-fencing    | production. As a result, fencing technology has been  |  | -Chainlink- after 20 years; e-  |                  |
|                        | prioritized in the 13th Five-Year Plan (13FYP). Given |  | fencing- after 10 years         |                  |
|                        | the high upfront investment required, the             |  |                                 |                  |
|                        | government will cover the total cost for materials,   |  |                                 |                  |
|                        | while beneficiaries will bear total cost for labor.   |  |                                 |                  |
| Procurement and        | To promote farm mechanization and reduce              | 50:50                                  | one-time support per thram      |                  |
| supply of farm         | drudgery, farm machines such as the mini-tillers      |  | holders                         |                  |
| machinery (Power       | should be supported. This will be supported for only  |  | (this proposal will be          |                  |
| tiller/mini-           | one time, based on fund availability through area     |  | superceded by govt scheme of    |                  |
| tillers/potato planter | development projects.                                 |  | providing these machineries at  |                  |
| & harvestors)          |   |  | zero interest loan)             |                  |
|                        |   |  |                                 |                  |
|                        |   |  |                                 |                  |
|                        | Pulsaite Community                                    | Fire Muchania                          |                                 |                  |
|                        | Priority Commodity                                    | Five: Mushroom                         |                                 |                  |

| Supply of new                         | Mushroom spawn supply was previously provided  | 8   | 80:20   | Based on the demand  |   |
|---------------------------------------|--|---|---|--|---|
| mushroom spawn                        | entirely free of charge to growers to enhance  |   |   |  |   |
| (Nameko, Grifola,                     | production and reduce imports. With the private  |   |   |  |   |
| Lion's mane, Needle                   | sector now actively producing oyster mushroom  |   |   |  |   |
| mushroom,                             | spawn, the department has withdrawn full support   |   |   |  |   |
| Ganoderma, King                       | for its supply. However, new spawn production  |   |   |  |   |
| Oyster, etc.)                         | requires significant investment, and technical skills.   |   |   |  | 20 Deonalihaas  |
|                                       | Private producers and small farmers often lack the   |   |   |  | 20 Dzongkhags   |
|                                       | necessary financial resources. To address this   |   |   |  |   |
|                                       | challenge, the support mechanism will follow 80:20   |   |   |  |   |
|                                       | cost-sharing model, ensuring continued accessibility   |   |   |  |   |
|                                       | encouraging private sector participation.  |   |   |  |   |
|                                       |  |   |   |  |   |
|                                       |  |   |   |  |   |
| 1 ' '                                 |  | NA  | 40:60   | 1  |   |
|                                       |  |   |   |  |   |
|                                       | The state of the s |   |   |  |   |
|                                       |  |   |   |  |   |
|                                       |  |   |   |  |   |
|                                       |  |   |   | 1  |   |
| -                                     |  |   |   |  | 20 Dzongkhags   |
| · · · · · · · · · · · · · · · · · · · | · · · · · · · · · · · · · · · · · · ·  |   |   | nu. 0.5 million  |   |
|                                       | subsitutions.  |   |   |  |   |
| 1                                     |  |   |   |  |   |
| grinding machine, etc                 |  |   |   |  |   |
|                                       |  |   |   |  |   |
|                                       | Support for Mushroom and Spawn production equipment such as spawn injector gun, air compressor, drilling machine, laminar airflow, autoclave, sawdust mixer, sawdust   | mushroom spawn (Nameko, Grifola, Lion's mane, Needle mushroom, Ganoderma, King Oyster, etc.)  Support for Mushroom and Spawn production equipment such as spawn injector gun, air compressor, drilling machine, laminar airflow, autoclave, sawdust  entirely free of charge to growers to enhance production and reduce imports. With the private sector now actively producing oyster mushroom spawn, the department has withdrawn full support for its supply. However, new spawn production requires significant investment, and technical skills. Private producers and small farmers often lack the necessary financial resources. To address this challenge, the support mechanism will follow 80:20 cost-sharing model, ensuring continued accessibility encouraging private sector participation.  Mushroom farming has gained significant popularity across the country, especially among youth, due to its high value and low space requirements. To support initial investment and promote the commercialization of mushroom production, the government will provide 30% support for essential equipment, reducing financial barriers for aspiring growers and enhance the production for import substitutions. | entirely free of charge to growers to enhance production and reduce imports. With the private sector now actively producing oyster mushroom spawn, the department has withdrawn full support for its supply. However, new spawn production requires significant investment, and technical skills. Private producers and small farmers often lack the necessary financial resources. To address this challenge, the support mechanism will follow 80:20 cost-sharing model, ensuring continued accessibility encouraging private sector participation.  Support for Mushroom farming has gained significant popularity across the country, especially among youth, due to its high value and low space requirements. To support initial investment and promote the commercialization of mushroom production, the government will provide 30% support for essential equipment, reducing financial barriers for aspiring growers and enhance the production for import subsitutions. | mushroom spawn (Nameko, Grifola, Lion's mane, Needle mushroom, Ganoderma, King Oyster, etc.)  Support for Mushroom and Spawn production Support intial investment and promote the Spawn production Spawn production Spawn production Spawn production Spa | mushroom spawn (Nameko, Grifola, Lion's mane, Needle mushroom, Ganoderma, King Oyster, etc.)  Support for Mushroom and Sapawn production Support for Mushroom and Spawn production Support for Mushroom and Spawn production Spawn |

| Input based support | Support for sawdust   | For both mushoom production and spawn                    | NA                  | 40:60  | One time support for the        |               |
|---------------------|-----------------------|--|---------------------|--------|---------------------------------|---------------|
|                     | media based           | production, the initial establishment cost are very      |                     | 1      | commercial (1,000 sawdust       |               |
|                     |                       | high, since good infrastructures are required in order   |                     |        | blocks and above) through       |               |
|                     | in climate controlled | to maintain sanitation and temperature and humidity      |                     |        | expression of interest from the |               |
|                     | grow room (grow       | control which are some of the critical requirements      |                     |        | private individual/entity.      |               |
|                     | tent and climate      | for the survival of mushroom cultures. This fact is      |                     |        | private marriada, erraty.       |               |
|                     | control accessories)  | discouraging many interested mushroom growers            |                     |        |                                 |               |
|                     | control accessories)  | from venturing into mushroom production. To              |                     |        |                                 |               |
|                     |                       | encourage and support initial investment and             |                     |        |                                 |               |
|                     |                       | promote the commercialization of mushroom                |                     |        |                                 |               |
|                     |                       | production, the government should provide support        |                     |        |                                 | 20 Dzongkhags |
|                     |                       | for essential equipment, reducing financial barriers     |                     |        |                                 |               |
|                     |                       | for aspiring growers and enhance the production for      |                     |        |                                 |               |
|                     |                       | import substitutions. The infrastructure developed by    |                     |        |                                 |               |
|                     |                       | the beneficiary is to be considered as counterpart       |                     |        |                                 |               |
|                     |                       | contribution. However, for commercial farms, the         |                     |        |                                 |               |
|                     |                       |  |                     |        |                                 |               |
|                     |                       | cost of equipment can be very high and a ceiling of      |                     |        |                                 |               |
|                     |                       | Nu. 1 million is kept to reduce the risk on the          |                     |        |                                 |               |
|                     |                       | government.  |                     |        |                                 |               |
|                     |                       | Priority Commodity Si                                    | iv: Eruite and Nute |        |                                 |               |
| Input based support | Supply of prioritized | The prioritized high value fruits and nuts identified by |                     | 00:00  | Applicable only for MFTP        |               |
| присвазей зирроге   | 1 ''' '               | DoA will be supplied to the farmers for food nutrition   |                     | 00.00  | Applicable offly for Mi fi      |               |
|                     | t of seedlings        | and income generation under the Million Fruit Tree       |                     |        |                                 | b. all .      |
|                     | t or seedings         | Plantation Program. This is include new fruit            |                     |        |                                 | 20 Dzongkhags |
|                     |                       | plantation and replacement of seedling.                  |                     |        |                                 |               |
|                     |                       | ' '  |                     |        |                                 |               |
|                     | Supply of smart       | Farmers face significant challenges in managing fruit    |                     | 70:30  | One time support                |               |
|                     | irrigation, water     | orchards due to unpredictable weather conditions,        |                     |        |                                 |               |
|                     | harvesting            | water scarcity, and the high cost of essential           |                     |        |                                 |               |
|                     | technologies, and     | infrastructure. Two critical interventions smart         |                     |        |                                 |               |
|                     | trellises for fruit   | irrigation systems/water harvesting technologies,        |                     |        |                                 |               |
|                     | management            | and trellising can significantly enhance fruit           |                     |        |                                 | 20 Dzongkhags |
|                     |                       | productivity, quality, and resilience. Given their high  |                     |        |                                 |               |
|                     |                       | initial investment costs, government support is          |                     |        |                                 |               |
|                     |                       | essential to ensure widespread adoption among            |                     |        |                                 |               |
|                     |                       | farmers.   |                     |        |                                 |               |
|                     | 1                     |  | ĺ                   |        |                                 |               |
|                     |                       | Priority Commodity Seven: High va                        | l                   | ! f!!! |                                 |               |

| Input based support  | Supply of<br>seeds/seedlings of<br>high value crops such<br>as quinoa,<br>strawberry, black<br>pepper, organic<br>asparagus and<br>organic broccoli | The DoA primarily focuses on increasing the production of high-value commodities such as black pepper, strawberries, and quinoa in the 13th FYP. To achieve this objective, improved seeds, including high-yielding varieties (HYVs), will be adopted. To promote quinoa for nutritional purposes, 70% of the cost will be borne by govt at subsistence level. For the commercial growers, 60% of the cost will be borne by govt. to enhance production.   | 70:30 (quinoa);<br>rest: NA | 60:40                | one time support           | Potential area |
|----------------------|---|--|-----------------------------|----------------------|----------------------------|----------------|
| Output based support | Promote commercial<br>Quinoa production   |  | Based on PGS mod            | dality               | Implemented under the ESP  | 20 Dzongkhags  |
| Input based support  | Production Organic<br>fertilizers and bio<br>pesticides   | As Bhutan promotes organic food production and aims to supply organic produce to the future Gelephu Mindfulness City (GMC), replacing synthetic fertilizers and chemical pesticides with organic alternatives becomes important. However, the production of organic fertilizers and biopesticides often involves higher initial costs. Providing subsidy support will make these organic alternatives more affordable, encourage widespread adoption, and reduce dependency on costly imported chemicals. Given the large-scale requirements for organic production, such investments and support will be prioritized at the commercial level to ensure sustainability and long-term benefits. |                             | ovt. and labour cost | one time support           | 20 Dzongkhags  |
|                      | Supply Organic<br>fertilizers and bio<br>pesticides   | Organic fertilizers and biopesticides often have higher initial costs compared to synthetic alternatives. Providing subsidies will make them more affordable for smallholder/commercial farmers, encouraging widespread adoption and reducing dependency on expensive imported chemicals (1 synthetic fertilizer:14 organic fertilizer)  |                             | 50:50                | one time support in 5 year | 20 Dzongkhags  |
| Output based support | Promote commercial<br>soybeans, peanuts,<br>and wheat<br>production   |  | Based on PGS mod            | dality               | Implemented under the ESP  | 20 Dzongkhags  |

| Risk hedging incentive | Promote commercial   | The proposed commodities under the insurance           | 50:50 | 50:50 | A phased-out strategy is       |                 |
|------------------------|----------------------|--|-------|-------|--------------------------------|-----------------|
| under National         | Paddy, Maize, Potato | scheme play a vital role in sustaining the livelihoods |       |       | proposed over five years,      |                 |
| Agriculture and        | and Mandarin         | of the majority of Bhutan's population. However,       |       |       | starting with a 50% premium    |                 |
| Livestock Insurance    | production           | production trends have been declining, and these       |       |       | subsidy, followed by 40%, 30%, |                 |
| Scheme (NALIS)         |                      | commodities are increasingly vulnerable to the         |       |       | 20%, and eventually 0%         |                 |
|                        |                      | impacts of climate change, natural calamities, and     |       |       |                                |                 |
|                        |                      | emerging pests and diseases. Given these               |       |       |                                | 30% of the crop |
|                        |                      | challenges, it is both timely and crucial to introduce |       |       |                                | production area |
|                        |                      | an insurance scheme to mitigate risks and safeguard    |       |       |                                |                 |
|                        |                      | farmers' incomes. As a pilot initiative, a phased-out  |       |       |                                |                 |
|                        |                      | strategy is proposed, with a 50% premium subsidy to    |       |       |                                |                 |
|                        |                      | support farmers during the transition.                 |       |       |                                |                 |
|                        |                      |  |       |       |                                |                 |
|                        |                      |  |       |       |                                |                 |

#### Department of Livestock

Definition of subsistence farming

Subsistence farm is the type of farming wherein a farmer operate on a small scale primarily aimed at meeting their

immediate family needs and to secure household food and nutrition requirements.

1 Dairy Up to 5 improved cows/HH
2 Piggery Less than 10 pigs/HH
3 Poultry Less than 500 birds/HH

4 Fishery Up to acre land with fish ponds/HH

5 Apiculture 5 hives/HH

| Type of Subsidy Government support      |   | JUSTIFICATION  |  | RNMENT: BENEFICIARY (%)  | DISPENSING MODALITIES   | Targetted Beneficiaries  |
|---|---|--|--|--|---|--|
| ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | required  |  | Subsistence<br>Farming (SF)  | Large Scale farming (LSF)  |   |  |
|   |   | Priority commodity 1: DAIRY  |  |  |   |  |
| Input based support                     | 1.1 Supply of improved<br>dairy cattle (Breedable<br>Jersey heifer) | The supply of improved dairy cattle preferably breedable Jersey crossbred heifer is proposed to contribute in enhancing milk production from 43,829 MT (2023) to achieve 13th FVP targets of 73,984MT. Currently, more than 85 % of the HHs are engaged in subsistence level of farming and they contribute 90 % of total milk produced in the country. Therefore, in order to improve their livelihoods, income and contribute to food and nutrition security of the Govt. the subsidy support from the Govt. through procurement of Jersey heifer is very crucial to encourage these farmers to transition/upgrade from subsistence level to more commercial in nature. Thus, the current level of subsidy support is proposed looking at the affordability of the subsistence farmers and the low economy scale of operation of the farm. In the similar manner, a tapering subsidy support to commercial level farming has been proposed looking at the income status for upscaling their existing farm to a more economic scale of operation. In the subsequent plan period, this subsidy will be phased out and the farmers will bear the actual cost.   | 60:40 on actual<br>market price of<br>breedable heifer<br>for maximum<br>upto 20 animals | 20 to the maximum up to  | It is going to be one time support during the plan period in alignment with National Dairy Development Strategy and action plan 2024. The price of the heifer will be determined by the technical committe from National Dairy Development Centre (NDDC), Yusipang.     | 13 Potential Dairy clusters,<br>pockets spreading across 2<br>Dzongkhags |
|   | (Bovine semen and<br>LN2)   | The supply of Al input such as semen and LN2 is essential to promote advanced reproductive technologies and encourage farmers, maintain high quality dairy cattle, foster faster genetic gain in the herd to enhance productivity. This is one of the core mandates of the Department to popularize and promote the advanced technology for dairy breed genetic improvement in the country. Currently, the reach out of this technology is only in 130 Al outreach centres and during 13th FYP, the Department has projected to make this technology available to 155 Al outreach centres.  Till date, the Al inputs are provided free of cost to all dairy farmers because of the fact that the Dairy farming is still dominated by subsistence farmers (85 %) and they cannot afford the technology. Moreover, there is still a challenge on the uptake of this technology by the farmers as the success rate is just 37 %. If we do not provide the semen free then the farmers may opt for non-certified bulls (scrub/stray) of unknown pedigree that may further deteriorate cattle genetic quality. Nonetheless, to instill the ownership to the farmers on the support provided by the Govt., a nominal cost on sexed semen is proposed as this technology more promiosing which is expected to produce around 90 % high quality female progenies when compared to 50 % only from conventional and pedigree semen. In light of this, the Department proposes to provide conventional and pedigree semen and LN2 (as semen preservation medium) free of cost during 13th FYP until the full uptake of the technology to wider communities across 20 Dzongkhags reaching out to all 155 projected Al outreach centres. This initiative is aligned with 13th FYP and Dairy Cattle Breeding Strategy 2022 and National Dairy Development Strategy and Action Plan 2024. In the subsequent plan period, the subsidy on Al and LN2 will be lifted in a phase manner and eventually farmers will bear the full cost. | conventional a<br>LN2, it will be pr   | or sexed semen) while for<br>and pedigree semen and<br>ovided free of cost during<br>13th FYP. | The dispensing modalities will be as and when required during the plan period and is aligned with Dairy Cattle Breeding Strategy 2022.  | 20 Dzongkhags  |
|   |   | The support on critical components such as proper cooling and/ventilation system and a floor rubber is proposed to promote climate resilient dairy housing which is intended to reduce stress owing to climate adversities, address Animal Health concerns and increase farm productivity. The climate change impact on livestock farming is inevitable and the adversities of climatic conditions such as extreme heat and cold stress are going to impact the farm production and productivity thereby requiring Govt intervention to provide support for ensuring climate smart/resilient dairy housing. Thus, the level of support is proposed looking at the income and the affordabiliy of farmers. While the Govt. provides these critical support, the efforts shall also be made to mainstream HH biogas digester with the improved shed so that the slurry from the shed can be effectively used to tap Methane for reduction of GHG emission and manure for Agriculture farming. The subsidy will be lifted in the subsequent plan period and the farmers will bear the full cost.  | 70:30 for<br>maximum up to<br>20 animals   |  | It is going to be one time support for climate resilient dairy housing during the plan period. The dairy farmer should have improved shed constructed to be eligible for this support. The unit cost will be determined by the technical committee from NDDC, Yusipang. | 13 Potential Dairy<br>clusters/pockets spreading<br>across 20 Dzongkhags |

|                     | 1.4 Provide barbed wire<br>fencing materials for<br>improved fodder<br>plantation  | The support in fencing material for improved fodder development is very crucial to improve quality and productivity of fodder from unit area and enhance nutrition for dairy animals. Proper fencing will protect the improved fodder plantation area from the stray animals, increase the biomass through proper management practices and more green fodder will be available for feeding and also for winter conservation. However, at the moment the farmers do not have adequate financial resources to bear the full cost of barbed wire fencing materials and thus the cost sharing is proposed accrodingly. The subsidy will be lifted in the subsequent plan period and the farmers will bear the full cost.   | NA<br>NA   | 10 acre land  | One-time support during the plan period and is targetted to commercial dairy farmers based on the project proposal and technical feasibility study. The barbed wire fencing materials will be provided once the improved fodder has been successfully established in the field by the farmer which will be jointly verified by National Development Centre for Animal Nutrition, Bumthang (NDCAN) and Dzongkhag Livestock Sector (DLS). The unit cost will be determined by the technical committee from NDCAN, Bumthang.                                 | 13 Potential Dairy<br>clusters/pockets spreading<br>across 20 Dzongkhags  |
|---------------------|--|--|--|---|---|---|
|                     | 1.5 Procurement of<br>Total Mixed Ration<br>(TMR) machine and<br>shed including<br>installation and<br>demonstration costs | TMR is a new fodder technology to provide balanced feed at an affordable cost, reduce dependency on commercial feeds, reduce cost of production of fresh milk and improve farm production effeciency and returns to dairy farmers. Besides,this technology will also help dairy farmers to address the scarcity of dry matter, particularly during winter. TMR unit will be established in five strategic locations in the country targeting the commercial level farms based on the feasibility study and align with Animal Nutrition strategy and action plan 2024. The subsidy will be lifted in the subsequent plan period and the interested proponent or any dairy entrepreneur will bear the full cost.   | have minimum   | of 10 acres of improved oped for this support.                                    | One time support during the plan period to the interested proponent and/dairy enterpreneur having developed minimum of 10 acres of improved fodder. The cost for setting up TMR processing unit will be determined by the technical committee from NDCAN.   | Five strategic locations in<br>dairy potential<br>pockets/clusters based on<br>the technical feasibility study  |
|                     |  | Priority Commodity 2: PIGGERY  |  |   |   |   |
| Input based support | 2.1 Supply Al inputs (<br>Semen and LN2)   | The Department as a core mandate has planned to pilot and promote Pig Al as an advanced reproductive technology for efficient pig breeding and to ensure faster genetic gain in the animal in the potential pig rearing Dzongkhags. This approach will also reduce the cost of production as farmers need not have rear the breeding boar. As this is a new technology and is currently at the piloting phase only, there is high risk on the uptake of the technology. Moreover, currently farmers cannot afford the bear the full cost on Al inputs. Thus, to pilot and promote this technology, the Department proposes to provide semen and LN2 to the farmers free of cost during the 13th FYP. In the subsequent plan period, the subsidy on Al and LN2 will be lifted in a phase manner and eventually farmers will bear the full cost. |  |   | Piggery Development Strategy and  | Targetted to six piggery<br>rearing Dzongkhags like<br>Sarpang, Tsirang, Chukha,<br>Dagana, Samtse and<br>Samdrupjongkhar   |
|                     | purpose (Weaner  | production of commercial piglets that goes for fattening. To meet the requirement of commercial piglets for pork production, the Department is encouraging community participation in the breeding program through supply of Parent Stock (PS) as breeder stock from Govt. input farms under subsidized rate. Currently, most of the PPB are operating at low capacity ( average five sows/farm) which needs to be upscaled to at least 10 sow level capacity for the production of adequate commercial piglets. Moreover, these farms need to be  | capacity farm (10<br>boar) to the exis-<br>new establishme<br>farm, the propor | ents. Above this capacity<br>nent shall bear the actual<br>ding inputs from Govt. | One time support during the plan period to existing PPB farms wherein the input suppprt will be provided based on the online farm registration system and where required even a joint field verification by Govt. input farms and DLS. Likewise, one time support will also be provided for the establishment of new PPB farms based on the technical feasibility study and business plan. The unit cost for the inputs will be determined jointly by technical committee from National Piggery Development Centre (NPiDC), Gelephu and its sister farms. | Eight potential pig rearing Dzongkhags such as Sarpang, Tsirang, Dagana, Chukha, Samtse, S/Jongkhar, Paro and Wangdue. However, based on the viability and technical feasibility studies (appropriate screening process), this CSM suppport can be applied to the interested individuals from other dzongkhags who are engaged in rearing pigs. |

|                      | 2.3 Support vital components such as chain link fencing, signboard, foot dip and disposal pits for both breeding and fattening farms to ensure proper farm biosecurity measures | The support for critical components are very important to maintain healthy pig population and increase both piglet and pork production efficiency. However, the piggery sector at the moment is hugely challenged with incursion of transboundary animal diseases and the recurrent incidences of swine disease outbreak such as African Swine Fever (ASF) in the farms thereby impacting production and livelihood of farmers. Besides, the Govt. has to invest substantial fund for compensating the affected farmers and on disease containment measures as and when there is disease outbreak in the farms. One of the main challenges faced by the piggery farmers is that they cannot afford to put in place proper farm bio-security measures in their farm to prevent the incidences of such outbreaks. Some of the vital components include farm perimeter fencing using chain linked fencing, signboard, foot dip and a disposal pits. In order to reduce incidence of ASF outbreaks and also address piggery farm biosecurity measures, the Govt. support on the vital components as mentioned above for both pig breeding and fattening farms is proposed during 13th FYP. The subsidy will be lifted in the subsequent plan period and the farmers will bear the full cost. | 50:50 for those pig breeding farmers rearing > 10 sow level farm to the maximum up to 250 sow level and farmer having atleast semi-permenent shed. Same level of support to pig fattening farmers managing > 10 fatteners to the maximum up to 200 fattener capacity farms and farmers having atleast semi-permenent shed. |   | It is a one time support during the plan period. The pre-requisite criteria is that the farmer has to first register their farm with on line registration system to be eligible for the support. The unit cost of the vital bio-security components will be determined jointly by the technical committee from NPiDC, Gelephu and its sister farms.   | Eight major pig rearing Dzongkhags such as Sarpang, Tsirang, Dagana, Chukha, Samtse, S/Jongkhar, Paro and Wangdue. For farmers rearing 10 and below breeding and fattening pigs, a targeted interventions will be put in place to reduce or prevent the incidences of recurrent ASF outbreaks. |
|----------------------|---|--|--|---|---|--|
| Input based support  | 2.4: Support<br>subsistence pig farmers<br>with Improved shed,<br>biosecurity measures<br>and minimum of 10<br>piglets as targetted<br>intervention                             | The subsistence pig farmers operate small scale farm with less than 10 pigs, primarily aimed at meeting their immediate family needs and to secure household food and nutrition requirements. There are approximately 400 households (10% of the subsistence pig farmers) in the country who primarily depend on pig farming for their livelihood through pig farming and do not have other alternatives. These households are considereed as vulnerable communities where the government has to give due impetus and provide targeted interventions to sustain their livelihood. In line to this, the Department proposed to provide targeted interventions such as improved shed construction with proper bioseciruty measures and one-time support for minimum of 10 piglets from Government Input Farms. This support has to be provided free of cost as these communities are financially challenged and cannot afford to construct the improved shed with proper biosecurity measures and procure piglets to operate their farm. Thus, in order to provide one time targetted intervention support to 440 HHs, the approximate cost worked out stands at Nu. 75.98 M. This targetted support is in alignment with the recent Cabinet note submitted to the Govt.                   | 100:00   | NA NA   | One time full support from the government to these targeted households during the plan period. The Dzongkhag Livestock Sector will map these category of pig farmers and submit the list of farmers with their details to the Department for further scrutiny and intervention. The NPIDC and its sister farms will provide piglets, technical support and oversee its implementation in the tatgetted locations.                                   | 440 households   |
| Output based support | 2.1 Promote large scale<br>pig fattening farms  | During 13th FYP, the Department has planned to enhance domestic pork production from 1590 MT in 2023 to 1845 MT by 2029 and achieve 60 % self-sufficiency. Large scale fattening farms of more than 200 fatteners each are targetted to be established in the potential pig rearing Dzongkhags to compliment the pork production target. As the supply of fattening piglets is already phased out from the Govt. farms and the pig fattening farmers has to buy the piglets at an actual cost from the PPB, the outbased support has to be provided by the Govt. during the entire plan period to encourage these farmers for unscaling and sustaining their farming activities.   | NA   | The existing PGS rolled out for pork to the pig fattening farmers needs to be pursued and sustain by the Govt. during 13th FYP. Besides, the insurance scheme and easy access to credit facilities at low interest rate from FIs is proposed. | PGS scheme to be implemented as per the directives of the Govt. across all pig rearing Dzongkhags.  | Eight major pig rearing<br>Dzongkhags such as<br>Sarpang, Tsirang, Dagana,<br>Chukha, Samtse, S/Jongkhar,<br>Paro and Wangdue  |
|                      |   | Priority Commodity 3: POULTRY  |  |   |   |  |
| Input based support  | Supply of poultry DOC   |  |  |   |   |  |
|                      | 3.1 Supply of Layer   | Large number of subsistence poultry farms still exist in rural pockets of the country. With increasing recurrent cost particularly rising feed cost has been the contributing factor for high Cost of Production (CoP) of table egg and its price in the market. Thus, to provide an equal level playing field for this farm type, the   | 40:60 on actual<br>CoP for up to<br>maximum of<br>1000 birds.  | 30:70 on actual CoP for those farms rearing > 1000 birds for maximum up to 10,000 birds. Above this capacity farm, the farmer should bear the actual cost of DOCs from Govt. input farms.   | The dispensing modalities will be once every after completion of a production cycle. The unit CoP will to be determined jointly by the technical committee from National Poultry Development Centre (NPDC), Sarpang and its sister farms. The type/category of layer farm will also be determined by NPDC, Sarpang and its sister farms thorough on line farm registration system and real time data from the Dzongkhags for dispensing the inputs. | 20 Dzongkhags  |

|                     | 3.2 Support vital components such as chain link fencing and wire mesh, signboard, foot dip and disposal pit for both Layer and Broiler farm to ensure proper farm biosecurity measures | The support for critical components such as farm perimeter fencing, bio-security signboard, foot dip and disposal pits are very important to maintain healthy flock and increase farm production efficiency. The poultry sector is currently challenged with incursion of transboundary animal diseases and the incidences of poultry disease outbreak such as Avian Flu in the farms impacting production and livelihood of farmers. Besides, the Govt. has to invest substantial fund for compensating the affected farmers and on disease containment measures as and when there is disease outbreak in the farm. One of the key bottlenecks currently faced by the poultry farmers is that they cannot afford to put in place proper farm bio-security measures in their farm to prevent the incidences of such outbreak. Some of the vital components include farm perimeter fencing using chain linked fencing and wire mesh, signboard, foot dip and disposal pits. Thus, in order to reduce incidence of poultry disease outbreaks and address poultry farm biosecurity measures, it is crucial for the Govt. to provide above subsidy support for both broiler and layer farms during 13th FYP. The subsidy will be lifted in the subsequent plan period and the farmers will bear the full cost. | 50:50 for those farmers managing >1000 birds to a maximum up to 10,000 birds' capacity farm and the farmers having atleast semi-permanent shed.   | It is one time support during the plan period. The pre-requisite criteria are that the farmer has to first register their farm with on line registration system to be eligible for the support. cost of the vital biosecurity components will be determined jointly by the technical committee of NPDC, Sarpang and its sister farms. | 20 Dzongkhags. For farmers rearing < 1000 birds ( Layer or Broiler farms) a targeted interventions will be put in place by the Govt. to reduce or prevent the incidences of Avian flu outbreaks. |
|---------------------|--|--|---|---|--|
|                     | 3.3 Support basic farm<br>equipment such as<br>feeder, drinker,<br>brooders and de-<br>beakers   | The productivity of bird and the performance efficiency of the farm is directly equated to the types of equipment installed. Having a well-designed and standard equipment can minimize feed and water wastage, decrease wet litter, less manned labour hour and enhance product quality. Therefore, providing subsidy for basic poultry equipment to ensure good farm management practices and standards from animal welfare perspective, product quality and reduced management related diseases. The subsidy will be lifted in the subsequent plan period and the farmers will bear the full cost.  | 40:60 for both Layer and Broiler farms raising > 1000 birds to a maximum up to 10,000 birds.  | The dispensing modalities will be one time support in a plan period for new farm establishment only. The cost for basic farm equipment will be determined jointly by the technical committee of NPDC, Sarpang and its sister farms.   |  |
|                     | 3.4 Support farm semi-<br>automation as labor<br>saving device (nipple<br>drinker and pan<br>feeder)   | With increasing rural urban migration, getting a required number of farm labour for carrying out daily farm activities is becoming a challenge. Thus, to address such issues, the support for the supply of farm semi-automation such as nipple drinker and pan feeder is an alternative to minimize dependency on farm labour and increase farm efficiency. Providing subsidy for farm automation is aimed to address labour shortage especially to those farmers who are managing commercial and large-scale poultry farms. The subsidy will be lifted in the subsequent plan period and the farmers will bear the full cost.  | NA 30:70 for both Layer and Broiler farms >3000 to a maximum up to 10,000 birds.  | One-time support to new farm<br>establishment during the plan<br>period and the unit cost will be<br>determined jointly by the technical<br>committee of NPDC, Sarpang and its<br>sister farms.   | As per the project proposal<br>and technical feasibility study<br>targetted to commercial and<br>large scale farms only  |
|                     | 3.5 Promote large scale<br>broiler farms   | In the plan period, the domestic chicken production is projected to increase from 1165 MT in 2023 to 2000 MT by 2029 and achieve at least 50 % self-sufficiency. In oeder to enhance domestic chicken production, it is very important to promote large broiler farms in the potential poultry rearing Dzongkhags to meet the set targets. Since the supply of broiler DOCs as input is already privatized, the output based support on chicken which is currently implemented by the Govt. needs to be pursued through out the plan period to encouge these farmers to take up broiler farming on higher scale of operation and sustain their farming business.   | NA The existing PGS rolled out for chicken needs to be pursued and sustain by the Govt. during 13th FYP. Besides, insurance scheme and easy access to credit facilities at low interest rate from FIs is also proposed.   | PGS scheme to be implemented as per the directives of the Govt.   | As per the project proposal<br>and technical feasibility study<br>targetted to commercial and<br>large scale farm  |
|                     |  | Priority Commodity 4: APICULTURE (PRODUCTION OF ALL I  | IONEY TYPES)  |   |  |
| Inputs based suppor |  | and basic beekeeping equipment (set)   |   |   |  |
|                     | 4.1 Supply of Bee<br>colonies with queen   | The supply of bee colonies with queen and other essential components to the bee keepers is crucial to promote and upscale high value honey types for export market. During 13th FYP, honey has been identified as one of the high value commodity for export market and the Department has set the target to produce minimum of 83 MT of honey through promotion of bee colonies and other production supports. Being the high value products, the farmers fetches a premium price and higher returns. Since it has high potential for commercialization, the Department will be promoting both improved and native bee colonies in the potential Dzongkhags with the interested farmers for enhancing the production. The subsidy will be lifted in the subsequent plan period and the farmers will bear the full cost.   | 50:50 up to maximum 50 colonies/HH  | One time support during initial Apiary set up and the replacement of new bee colony based on the joint technical verification by National Livestock Research Centre (NLRC), Bumthang and DLS. The unit cost to be determined by the technical committee from NLRC, Bumthang.  | 13 Potential Dzongkhags<br>such as Bumthang, Tsirang,<br>Dagana, Samtse, S/Jongkhar,<br>Chukha, Zhemgang,<br>Pemagatshel, Tashigang,<br>Wangduephodrang,<br>Punakha, Haa and Paro                |
|                     | 4.2 Supply of starter set 4.3 Supply of improved movable frame hive set 4.4 Supply of casting machine 4.5 Supply of beekeeping safety gear set   |  | 1 set and and the level of support is 80:20 up to maximum 50 colonies 2 sets and the level of support is 80:20 up to maximum 50 colonies  1 set and the level of support is 80:20 up to maximum 50 colonies 1 set and the level of support is 50:50 for managing the colonies of any size | One time support to all types of beekeeping farmers including groups and associations. However, for casting machine set, only the association will be eligible for the support. The unit cost will be determined by the technical committee from NLRC, Bumthang   |  |

|                     | 4.6. Support of flow    |   | NA                 | rouro for large scale       | T                                      | T 1                        |
|---------------------|-------------------------|---|--------------------|-----------------------------|--|----------------------------|
|                     |                         |   | NA                 | 50:50 for large scale       |  |                            |
|                     | hive sets ( procurement |   |                    | farms only                  |  |                            |
|                     | of flow hive sets and   |   |                    |                             |  |                            |
|                     | logistics until the     |   |                    |                             |  |                            |
|                     | distribution centre)    |   |                    |                             |  |                            |
|                     |                         |   |                    |                             |  |                            |
|                     |                         | Priority Commodity 5: FISHERY   |                    |                             |  |                            |
| Input based support | Priority Commodity 5.1: | (Fishery)- Carp Aquaculture   |                    |                             |  |                            |
|                     | 5.1.1 Supply of Carp    | The supply of good quality fingerlings from the Govt. input farms will be pursued in 13th FYP in order to       | 80: 20 irrespec    | ctive of farm sizes for the | The dispensing modalities will be      | Seven potential Carp       |
|                     | fingerlings including   | encourage farmers to take up fish farming for their livelihood and also to enhance production for marketing.    | supply of Stun     | ted Fingerlings whereas     | every after one cycle of production,   | Aquaculture farming        |
|                     | transport cost from the | In order to ensure better survivability of fingerlings in the farmers field and boost production from the unit  | actual Cost of     | Production (CoP) will be    | the ponds to be restocked with the     | Dzongkhags such as         |
|                     | centre to nearest road  | area, the focus will be given to produce and supply stunted fingerlings. By the end of 13th FYP, the supply of  | charged for o      | rdinary fingerlings. This   | fingerlings and the support aligns     | Sarpang, Tsirang, Dagana,  |
|                     | head in Chiwog          | ordinary fingerlings will be completely phased out and only stunted fingerling will be supplied to the          | support will be    | given up to maximum of 10   | with Fisheies and Aquaculture          | Chukha, Samtse, S/Jongkhar |
|                     | _                       | farmers. For higher survivability, growth and better output in terms of tabe fish, the Department will supply   | acres or siz       | e of 40470 m2 ponds         | strategy and action plan 2024. The     | and Wangdue                |
|                     |                         | and promote stunted fingerlings to the farmers. The subsidy will be lifted in the subsequent plan period and    |                    |                             | unit cost and number of fingerlings    |                            |
|                     |                         | the farmers will bear the full cost.  |                    |                             | to be supplied will be determined by   |                            |
|                     |                         |   |                    |                             | the technical committee from           |                            |
|                     |                         |   |                    |                             | National Development Centre for        |                            |
|                     |                         |   |                    |                             | Aquaculture (NDCA), Gelephu and its    |                            |
|                     |                         |   |                    |                             | sister farm based the carrying         |                            |
|                     |                         |   |                    |                             | capacity of ponds. The support also    |                            |
|                     |                         |   |                    |                             | includes transportation charges to     |                            |
|                     |                         |   |                    |                             | ensure that the healthy fingerlings    |                            |
|                     |                         |   |                    |                             | reach to the farmers for higher        |                            |
|                     |                         |   |                    |                             | survivability, growth and better       |                            |
|                     |                         |   |                    |                             | output as table fish.                  |                            |
|                     |                         |   |                    |                             |  |                            |
|                     |                         |   |                    |                             |  |                            |
|                     | 5.1.2 Support water     | The support water supply to new, upscaling and revival of existing fish ponds is very crucial because one of    | 70:30 for all type | es of farm and the support  | The dispensing modalities will be      | Seven potential Carp       |
|                     | supply to fish ponds    | the reasons for the existing fish ponds to remain defunct owing to shortage and unreliable water supply in      |                    |                             | one time support for all sizes of fish | Aquaculture farming        |
|                     | (for new, upscaling     | the pond. This is going to impact on the table fish production and in meeting our 13th FYP targets. Since       | size of            | 40470 m2 ponds              | pond during the plan period. The       | Dzongkhags such as         |
|                     | and revival of existing | most of the fishery farmers operate at subsistence level, it is quite resource intensive for them to invest in  |                    |                             | labour contribution will be from the   | Sarpang, Tsirang, Dagana,  |
|                     | fish ponds)             | water supply system. Thus, to ensure year fish production and maintain adequate water quality parameters,       |                    |                             | beneficiary. The cost will be          | Chukha, Samtse, S/Jongkhar |
|                     | ' ′                     | support for supply of water from the Govt. is crucial. The subsidy will be lifted in the subsequent plan period |                    |                             | determined jointly by the technical    | and Wangdue                |
|                     |                         | and the farmers will bear the full cost.  |                    |                             | committee from NDCA, Gelephu and       |                            |
|                     |                         |   |                    |                             | its sister farm.                       |                            |
|                     |                         |   |                    |                             |  |                            |
|                     | 5.1.3 Promote large     | Fishery is the slowest growing sector and the current production is very limited (43 MMT/year, NSB 2023).       | NA                 | 40:60                       | The dispensing modalities will be      | Seven potential Carp       |
|                     | scale Carp fish farm    | During 13th FYP, it is planned to produce 250 MT of table fish achieving 15 % self-sufficiency from 1.5 %       |                    |                             | one time support from the Govt.        | Aquaculture farming        |
|                     |                         | through domestic production. For this, the Department has identified 7 acres of acres of private land at        |                    |                             | and the unit cost will be determined   | Dzongkhags such as         |
|                     |                         | Mindrupling, Phuntshothang Gewog, S/Jongkhar Dzongkhag and around 15 acres of land under Dagana                 |                    |                             | jointly by the technical committee     | Sarpang, Tsirang, Dagana,  |
|                     |                         | Dzongkhag to promote large scale fish farms which is projected to produce 40 MT of fish annually and the        |                    |                             | from NDCA, Gelephu and its sister      | Chukha, Samtse, S/Jongkhar |
|                     |                         | production from these farms will compliment the 13th FYP target. The the technical feasibility study and        |                    |                             | farm.                                  | and Wangdue                |
|                     |                         | DPR is ready for Mindrupling and accrodingly the Department has proposed Nu: 11.10 million during the FY        |                    |                             |  |                            |
|                     |                         | 2025-26 to set up the farm in Mindrupling . The key components like land development activities, pond           |                    |                             |  |                            |
|                     |                         | construction and water supply to the ponds will be covered through the proposed CSM modalities. This farm       |                    |                             |  |                            |
|                     |                         | will also serve as a model demonstration farm to the interested and aspiring entrepreneurs to acquire skill     |                    |                             |  |                            |
|                     |                         | and knowledge in modern aquaculture practices so that they can take up Carp farming in a enterprise mode.       |                    |                             |  |                            |
|                     |                         | The subsidy will be lifted in the subsequent plan period and the farmers will bear the full cost.               |                    |                             |  |                            |
|                     |                         |   |                    |                             |  |                            |
|                     |                         |   |                    |                             |  |                            |
|                     |                         | Priority Commodity 5.2: (Fishery) -Trout Aquacul  | ture)              | <u> </u>                    |  |                            |
|                     | •                       |   |                    |                             |  |                            |

|                     | 5-2.1 Supply of Trout<br>fingerlings with<br>tranport cost from the<br>centre to the nearest<br>road head in Chiwog | The supply of good quality Trout fingerlings is necessary to promote and upscale high value trout farming for export market in alignment with 13 FYP priorities and targets. Therefore, during 13th FYP, the Department has identified six potential Dzongkhags to upscale and promote Trout farming at an enterprise level and produce 30 MT of Trout annually and meet the export volume. Thus, the potential farmers (both existing and new proponents) needs to be encouraged and supported with the supply of fingerlings from Govt. inputs farms at a subsidized rate during the plan period. The subsidy will be lifted in the subsequent plan period and the farmers will bear the full cost.  | 80:20 irrespective of number of raceways<br>and the support will be provided maximum<br>up to 12 raceways | with the fingerlings and the support aligns with Fisheries and Aquacuture  |  |
|---------------------|---|--|---|--|--|
|                     | 5.2.2 Support water<br>supply system (for<br>new, upscaling and<br>revival of existing<br>raceways)                 | The support water supply to new, upscaling and revival of existing raceways is very crucial because reliable water supply key to the successful operation of farm and efficient Trout production. With reliable water supply system, it is going to impact on Trout production and in meeting our 13th FYP targets. Since the water supply system to raceways is quite resource intensive the affordability by the farmer is still a big challenge. Thus, to ensure year fish production and maintain adequate water quality parameters, support for supply of water from the Govt. is crucial. The subsidy will be lifted in the subsequent plan period and the farmers will bear the full cost.  | 70:30 irrespective of the number of raceways and the support will be provided maximum up to 12 raceways   | It is a one time support irrespective of the number of raceways. The labour contribution will be from the beneficiarly. The cost will be determined jointly by the technical committee from NDCA, Gelephu and NRDCR&LF, Haa. | Nine potential Trout<br>Aquaculture farming<br>Dzongkhags such Dagana,<br>Punakha, Wangdue,<br>Sarpang, Samtse, Chukha,<br>Paro, Haa and Thimphu |
| Input-based support | Support HH level bio-   | Commodity 7: BIOGAS  During 13th FYP, it is planned to establish 5000 new HH level biogas digester in the country. Unlike in 12th  | 50:50 NA  | One-time support during the plan   | 13 potential Dairy   |
|                     | gas digester  | FYP, the Department will be promoting and upscaling a new biogas digesters as per the preference of the farmers such as Fiber Reinforced Plastic (FRP) digester and SISTEMA Bio hybrid reactors which are new climate smart, user-friendly and cost-effective technologies to reduce GHG emission in livestock farming when compared to conventional fixed dome biogas digester. The setting of biodigester where possible will be aligned with improved dairy shed to address climate smart farming practices. During the plan period, the Department will also explore the possibilities to promote this technology where feasible under piggery and poultry sectors. The subsidy will be lifted in the subsequent plan period and the farmers will bear the full cost.                        |   | period for new biogas digester only<br>and the unit cost will be determined<br>by the technical committee from<br>NDDC, Yusipang.  | pockets/clusters in alignment<br>with climate resilient dairy<br>shed where feasible and is<br>spread across 20<br>Dzongkhags                    |
|                     |   | Support to Highland production (Yak)   | <b>I</b>  |  |  |
|                     | (Semen and LN2)   | The supply of essential AI input such as semen and LN2 as a core mandate of the Department is essential to pilot and promote advanced reproductive technologies and encourage Yak herders to capitalize on this technology and maintain high quality yak, achieve faster genetic gain in the herd to enhance productivity. Being a new technology, there are lots of risk involved and the Department is not confident on the success and its uptake by Yak herding communities. Therefore, the Department propose to pilot and promote these initiatives through the supply of AI and LN2 at free cost to all the feasible Yak rearing Dzongkhags. In the subsequent plan period, the subsidy on AI and LN2 will be lifted in a phase manner and eventually the herder will bear the full cost. | 100:0   | Once every year during the Yak<br>breeding season in line with the<br>National Yak Breeding Strategic plan<br>2020.  |  |
|                     | 2. Supply of tent to Yak<br>herders   | To address herder's welfare and promote clean yak and sheep products. In the subsequent plan period, this subsidy will be lifted in a phase manner and eventually the herder will bear the full cost.  | 80:20   | One-time support and the unit cost to be determined by the technical committee from NHDC, Wangdue.   |  |
|                     | 3. Supply of commercial<br>feed Yak herders   | To address feed emergencies during harsh winter months and unforeseen calamities such as heavy snow falls that had occured in the past years resulting to mortality of quite a number of Yak owing to acute shortage of feeding resources. This support is purely determined by unforseen calamities and is inevitable, one time full support is critical as and when the adverse situation arises.  | 100:0   | Only during the critical period.   |  |
|                     | 4. Support restoration of rangeland resources (fodder seeds and seedlings)  | To restore and enhance productivity of rangeland resources to improve Yak nutrition and health of the animal. In the subsequent plan period, this subsidy will be lifted in a phase manner and eventually the herder will bear the full cost.  | 70:30   | One-time support and the unit cost to be determined by the technical committee from NHDC, Wangdue. 30 % cost as labour contribution by the Yak herding communities.  |  |

| Department of Agricultural Marketing and Cooperatives  |   |                             |   |  |  |  |  |
|--|---|-----------------------------|---|--|--|--|--|
|  |   | Proposed Subsidy-           |   |  |  |  |  |
| Type of Subsidy  | Justification   | Government: Beneficiary (%) | Dispensing Modalities   | Remarks  |  |  |  |
|  |   | Cottage/Small/Medium        |   |  |  |  |  |
|  | Domestic Market   |                             | I   | T  |  |  |  |
| Procurement of Reefer Trucks/chilled tanker  | A critical component of the agricultural value chain, reefer trucks/chilled tankers ensure the safe and efficient transport of perishable goods, minimizing post-harvest losses and preserving product quality for better market access.  Reefer trucks/chilled tankers are essential but expensive. The government's 40% support can help businesses afford cold chain solutions to reduce post-harvest losses and improve market access.  | 40:60                       | -Eligibility - Registered FGs and Coops with DAMC/ Valid Trade Licensed agro entreprenuers One time support - Support will be based on Request For Proposal (RFP) and will be competitive.  | 70:30 subsidy if the support is requested from a Federation. |  |  |  |
| Warehouse and cold storage services  | Providing warehouse and cold storage services on a cost-<br>sharing basis, with 50% government support, will help<br>reduce post-harvest losses, enhance market stability, and<br>increase off-season availability of key commodities while<br>ensuring optimal utilization of existing cold storage<br>facilities across the country. By subsidizing rental charges,<br>the initiative will improve affordability for aggregators and<br>wholesalers. This support will help reduce spoilage and<br>food waste, stabilize prices by preventing market gluts,<br>and enhance supply chain efficiency, ultimately benefiting<br>producers, agro-processors, wholesalers and aggregators. | 50:50                       | -Eligibility - Registered FGs and Coops<br>with DAMC/ Valid Trade Licensed agro<br>entreprenuers -<br>Cost Sharing support for the first 2<br>years of operation.<br>- EOI will floated to seek potential and<br>interested eligible proponents   | 80:20 subsidy if the support is requested from a Federation. |  |  |  |
| Transportation Support for Efficient Institutional Supply Chains (Gyalsung Academies, Schools, Hospitals, and Monastic Institutions) | Providing a 30% cost sharing on transportation will enhance the agricultural value chain by ensuring the affordable and efficient movement of goods from farms to key markets, including Gyalsung Academies, schools, hospitals, and monastic institutions. This support will make transportation more accessible for farmers, aggregators, and wholesalers, enabling them to supply fresh and nutritious produce at competitive prices. Additionally, timely delivery of perishable goods will help reduce spoilage and post-harvest losses, ensuring a more stable and reliable supply for consumers while strengthening market linkages for producers.                               |                             | -Eligibility - Registered FGs and Coops with DAMC/ Valid Trade Licensed agro entreprenuers and active individual and aggregators directly involved in supply chain/distribution of agricultural commodities to Institutions - One time Cost Sharing support for the transportation of first consignment with a minimum quantity requirement of 2 MT (capacity of single cabin Bolero) and above Support to be provided on case by case basis. | 70:30 subsidy if the support is requested from a Federation. |  |  |  |

| Support for piloting commodities in    | Institutional Linkage Support for piloting commodities of    | 80:20 | -One time support to all the potential  | NA  |
|--|--|-------|---|-----|
| •                                      | 9  | 80:20 | * *                                     | INA |
| institutional Markets (Gyalsung        | interest in Gyalsung Academies, Schools, Hospitals and       |       | Institutions across the country.        |     |
| Academies, Shools, Hopitals and        | monastic institutions with a 80% government subsidy, aims    |       |   |     |
| Monastic institutions)                 | to test the market demand and consumer acceptance of         |       |   |     |
|  | locally produced goods. This initiative will connect local   |       |   |     |
|  | producers directly with institutional buyers, providing      |       |   |     |
|  | valuable insights into consumer preferences and market       |       |   |     |
|  | feasibility. By introducing nutritious, locally sourced      |       |   |     |
|  | commodities into institutional supply chains, the program    |       |   |     |
|  | will enhance market visibility, strengthen value chains, and |       |   |     |
|  | provide stable income opportunities for farmers.             |       |   |     |
|  | Additionally, it will support food security, promote         |       |   |     |
|  | sustainable agricultural practices, and reduce dependency    |       |   |     |
|  | on imports, while laying the foundation for scaling up       |       |   |     |
|  | production and long-term market access for local             |       |   |     |
|  | commodities.   |       |   |     |
|  |  |       |   |     |
| Support to Farm Shops (prioritized by  | 80% subsidy for transportation of basic essentials to the    | 80:20 | - Eligibility - Individuals or Groups   | NA  |
| the Department) - Transportation       | farm shops priortized by the Department. This support is     |       | identified by the Geog/Dzongkhag        |     |
| support (mules, horses and other beast | critical to regulate the prices of basic essentials at those |       | Administration for operation of the     |     |
| of burdens and also chopper            | farm shops (especially the Highland ones) with direct and    |       | farm shops.                             |     |
| trasportation services)                | difficult accessibilities                                    |       | - Quarterly support (one time every 3   |     |
|  |  |       | months) upto a maximum ceiling of Nu.   |     |
|  |  |       | o.5 Million.                            |     |
|  |  |       |   |     |
|  | Export Market Promotion                                      |       |   |     |
| Brand Promotion Support (brand         | A 70% subsidy for brand promotion is proposed to             |       | -Eligibility - All producers/processors | NA  |
| development through logo design,       | encourage processors to focus on effective branding,         |       | with high market potential products.    |     |
| packaging, labelling) to create unique | which is often overlooked. This will help create a distinct  | 70:30 | -The Department will issue an           |     |
| brand identity for high value          | product identity, boosting market visibility and enabling    |       | Expression of Interest (EOI) for all    |     |
|  | better pricing for locally processed goods. Strong           |       | interested producers/processors and     |     |
| broccoloi, avocado, spices (black      | branding differentiates the products, builds consumer        |       | thorough screening will be conducted    |     |
| pepper), mushroom, trout, and honey.   | trust, and attracts premium buyers, especially in            |       | before granting support for potential   |     |
|  | international markets.                                       |       | products from the listed commodities    |     |
|  | Many agro-processors struggle to afford branding, but        |       |   |     |
|  | governemnt's support can help them penetrate export          |       |   |     |
|  | market and establish strong market visibility.               |       |   |     |
|  |  |       |   |     |
|  |  |       |   |     |

| Export Promotion Support (logistics/freight charges by air cargo only) for exporting high value commodities (Asparagus, Organic broccoli, Organic asparagus, Avocado, Spices (Black Pepper) and Mushroom (Ganoderma), Trout and Honey.        | Government support covering 20% of air cargo logistics costs is crucial for agri-businesses, as high logistics expenses often make exporting difficult. By sharing these costs, the government helps reduce the financial burden on businesses, enabling them to access export markets, increase competitiveness, and reduce post-harvest losses. This support ensures timely delivery of high-quality products, improving access to export markets.   | 20:80 | -Eligibility - All proponents directly involved in exporting the commodities of interest -CSM Ceiling – 3 consignments irrespective of the volume/ up-to maximum of 5 MT) -Initial Export Market Research Trial initiatied by the Department shall not be included under the CSM. It shall be carried out as per approved plan and budget. | 50:50 subsidy if the support is requested from a Federation. |
|---|--|-------|--|--|
| Testing and certification of high-value commodities (Asparagus, Organic broccoli, Organic asparagus, Avocado, Spices (Black Pepper) and Mushroom (Ganoderma), Trout and Honey) for export to Singapore, Thailand, Australia, and Middle East. | Testing and certification of high-value commodities like asparagus, broccoli, black pepper, trout, honey, and mushrooms for export to markets such as Singapore, Thailand, Australia and the Middle East is essential for ensuring compliance with international quality and safety standards. With a 80% cost-sharing support from government, this initiative helps address affordability issues faced by producers who lack the financial resources to cover certification expenses. Additionally, it tackles the challenge of limited local expertise and the absence of accredited labs for testing, which can hinder export potential. By facilitating access to certification, the government enables local producers to enhance product credibility, access premium international markets, and boost their competitive edge, ultimately promoting sustainable growth in Bhutan's export sector and improving the economic viability of high-value agricultural products. | 80:20 | -Eligibility - All proponents directly involved in exporting the commodities of interest to the countries of interest - One time Cost Sharing support for 3 commodities/products per eligible proponent - Support will be provided on case by case basis by the Department as and when approached by the proponents.                       | NA   |
| Innovative Product Development  | This 50% subsidy support for innovative product development is to encourage individuals, groups, and cooperatives to explore new, value-added products beyond traditional offerings. By reducing the financial risk associated with research, prototyping, packaging, and quality compliance, the support aims to foster entrepreneurship, diversify rural incomes, and enhance the competitiveness of Bhutanese agri-products.  | 50:50 | -Eligibility - Registered FGs and Coops with DAMC/ Valid Trade Licensed agro entreprenuers and any individual interested for innovative product development.  - One time Cost Sharing support up-to Nu. 0.2 Million  - Support to be provided on case by case basis.   |  |

| Rental charge for the Overseas sales    | Providing a 30% cost sharing by the government on rental    | 30: 70               | Eligibility - Registered FGs and Coops  | 50:50 subsidy if the |
|---|---|----------------------|---|----------------------|
| outlet                                  | charges for an overseas sales outlet for the initial six    |                      | with DAMC/ Valid Trade Licensed agro    | support is requested |
|   | months is crucial for facilitating market entry, promoting  |                      | entreprenuers and other individual and  | from a Federation.   |
|   | exports, and enhancing brand visibility for Bhutanese       |                      | aggregators interested to establish     |                      |
|   | products. Establishing a presence in international markets  |                      | outlets outisde the country.            |                      |
|   | requires significant upfront investment, and many agro-     |                      | - 30% support on rental/lease charges   |                      |
|   | entrepreneurs face financial constraints in securing prime  |                      | for the first six months of operation.  |                      |
|   | retail or distribution spaces. This support will help       |                      | ·                                       |                      |
|   | businesses test market response, build a customer base,     |                      |   |                      |
|   | and establish trade linkages with importers and             |                      |   |                      |
|   | distributors. By easing initial financial burdens, the cost |                      |   |                      |
|   | sharing will enable businesses to focus on marketing        |                      |   |                      |
|   | strategies, product positioning, and supply chain           |                      |   |                      |
|   | optimization, ensuring a smoother transition into export    |                      |   |                      |
|   | markets and long-term sustainability of Bhutanese agri-     |                      |   |                      |
|   | exports.  |                      |   |                      |
|   |   |                      |   |                      |
|   | Value Addition Support to enhance both domest               | ic and export market |   |                      |
| Support procurement of processing       | Support for establishing or upgrading food (agriculture     | 40:60                | Eligibility - Registered FGs and Coops  | 70:30 subsidy if the |
| equipment for prioritized commodities-  | and livestock) processing facilities is essential to        |                      | with DAMC/ Valid Trade Licensed agro    | support is requested |
| Cereals (Rice, Maize and Quinoa);       | encourage product development and value addition,           |                      | entreprenuers -                         | from a Federation.   |
| Vegetables (Chilli, Onion, Tomato,      | which generate income, create employment, substitute        |                      | One time support.                       |                      |
| Potato); Fruits/ MFTP (Strawberry,      | imports, and promote exports. Many proponents find it       |                      | - Support will be based on Request For  |                      |
| Mandarin, Avocado, Mango, Bears         | difficult to afford high-cost processing equipment          |                      | Proposal (RFP) and will be competitive. |                      |
| Lime, Agarwood, Macadamia Nut,          | independently. Government support (40%) can encourage       |                      | -Procurement to be directly handled by  |                      |
| Apple, Kiwi, Pecan Nut, Almond and      | processing and value addition, enhancing market             |                      | the proponent as the proponent is       |                      |
| Walnut); Spices (Black Pepper);         | competitiveness and promoting domestic as well as           |                      | injecting the higher portion.           |                      |
| Mushroom; Cardamom, Coffee, Areca       | exports markets.  |                      |   |                      |
| nut and Herbal Tea.                     |   |                      |   |                      |
|   |   |                      |   |                      |
| Dairy (Milk and Milk Products); Piggery |   |                      |   |                      |
| (Pork);                                 |   |                      |   |                      |
|   |   |                      |   |                      |
| Poultry (Chicken and Eggs); Fish (Carp  |   |                      |   |                      |
| and Trout); Honey                       |   |                      |   |                      |

| Packaging Materials Support | High-quality packaging that preserves freshness and         |       | Support to be provided to the           | 80:20 subsidy if the |
|-----------------------------|---|-------|---|----------------------|
|                             | quality during transportation, ensures compliance with      |       | proponents to whom the brand            | support is requested |
|                             | international food safety and labeling standards,           | 70:30 | support has been provided. First lot of | from a Federation.   |
|                             | enhances product appeal, and provides durability is         |       | packaging material (1000 units) with    |                      |
|                             | expensive. A 70% cost-sharing support from the              |       | maximum ceiling of 0.5 million)         |                      |
|                             | government would enable enterprises to test market          |       |   |                      |
|                             | demand before scaling up independently.                     |       |   |                      |
|                             | Support will be provided for procuring the initial batch of |       |   |                      |
|                             | designed packaging materials, easing the processor's        |       |   |                      |
|                             | efforts and allowing for an immediate product launch.       |       |   |                      |
|                             | Subsequent procurement of packaging materials can then      |       |   |                      |
|                             | be managed by the processor independently.                  |       |   |                      |
|                             |   |       |   |                      |



#### TASK TEAM

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