

Horticultural Crops Insurance in Nepal: Status, Issues, Challenges and Way Forward

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Abstract

Farm enterprises in Nepal are becoming riskier due to variable returns originating from production, price, and markets fluctuations. These fluctuations make farming vulnerable that originate from climatic hazards like drought, flood, erosion, heavy rainfall, insect pests and diseases. Agriculture insurance safeguards farmers against income shocks caused due to different perils in agriculture. Despite an encouraging trend in agriculture sector, insurance in crop component including in horticulture is very limited and steady. The share of crops and livestock insurance is 4.87 and 95.13 percent, respectively. Within crops, horticultural commodity ranks the highest by number in category. Three types of insurance schemes, namely cost-based, output-based and weather index-based are in practice. While insurance policy for perennial crop is easier, policy implementation is complex in seasonal crops such as vegetables. The dynamics of insurance companies, availability of agricultural technicians, timely disbursement of claims to the insured, access to insurance service, and the domain for agents largely influence the adoption of insurance in horticultural commodities. We recommend expanded access for insurance service at local level assuring service in remote areas, capacity enhancement of local government, awareness for farmers, crop domain expansion including revision in the existing policy for promotion of insurance in horticultural crops in Nepal.

Keywords: Horticulture, Insurance, Loss, Claim, Cost, Output, Weather index

Introduction

General background

Nepal is an agrarian country with around 65 % of its people depending directly or indirectly upon agriculture (CBS, 2011). Nepalese farming is mostly conventional and survival in nature along with crops is mostly integrated with livestock (FAO, 2021). There are two groups of agricultural crops divided as food and cash

crops grown in Nepal. Statistics show that cereal crops including paddy, maize, wheat, millet, and barley are the main food crops (FAO, 1995). Agriculture and its contribution to national GDP is 31.23% whereas the horticulture sub-sector has the most significant role in AGDP which shares 21.42 percent, (MOAD, 2015).

Agriculture in Nepal is affected by various factors which influenced both the production and productivity of different crops. Undoubtedly,

the Nepalese agriculture sector faces several challenges consisting of a decline in productivity, fluctuation instability, inadequate infrastructure and investment, and shocks of climate change. Moreover, among these challenges shocks of climate change have been seen as uncertain in nature causing huge losses to the Nepalese agriculture sector. Indeed, the consequences of weather-based risk are high in Nepal because of agriculture system is heavily dependent on weather (GoN, 2014). The majority of developing countries are exposed to climate change effects since these countries have been applying socially, financially, and technologically fewer resources.

Droughts, floods, storms, high humidity, high temperature, and inundation are major threats to agriculture. From 1972 to 2013, the country observed 16 drought years due to late onset of monsoon or poor distribution of rainfall or low rainfall or their combination in cropping time, causing a loss of 797000 MT of food crops in 2012 alone (Joshi 2018; UNDP 2013).

Furthermore, farming seems to be vulnerable to various climatic hazards like drought, flood, erosion, heavy rainfall along with insect pest and different diseases. That's why Nepalese farmers cultivate diversified crops in their farms in order to be safe own investment against the loss caused by different biotic and abiotic risks and uncertainty. Unfortunately, it has been seen that Nepalese agriculture is negatively influenced by extreme weather events every year seriously damaging to the crop sector. Definitely, there are different control measures to address agriculture loss caused by biotic and abiotic factors. Out of the various control measures, agriculture insurance stands as a vital role to recover the financial loss from insurance companies.

History of Agricultural Insurance in Nepal

Before the formal implementation of agriculture insurance, cooperatives, small farmer development project of the agricultural development bank (ADB/N), as well as karja

Suraksha Nigam, was involved in ensuring the crop and livestock by naming the scheme as agricultural insurance. This scheme is still under operation in a few districts of Nepal. The government of Nepal (GoN) formally decided to implement Agriculture and livestock insurance with premium grants to provide compensation for the loss of crops and livestock on 14th January 2013. Later on, the Ministry of Agriculture development introduced a subsidy policy on the premium paid for crops and livestock insurance in June 2013 (MoAD, 2013). All the agricultural crops, livestock, poultry, fish farming as well as medicinal herbal plants are insurable commodities. The premium grant of the government on agriculture insurance varies from time to time. GoN has decided 50 percent premium grant in the initial year whereas it increased by 75 percent in 2018. GoN further decreased the premium grant to 50 percent in June 2021 Which was later increased to 80 percent in September.

Seventeen non-life insurance companies registered in the Insurance board (BeemaSamitee) were involved in issuing insurance products in their allocated districts of Nepal. The Insurance Board of Nepal has allocated 3-4 districts per insurance company for their working districts. There is no restriction for non-life insurance companies to work out of their allocated districts. Currently, twenty nonlife insurance companies are implementing agriculture insurance business in 753 local governments throughout country.

Materials and method

This paper is prepared mainly based on the review of secondary sources of data from various organizations, published articles, and reports. Key informants' views of various stakeholders were also taken. The article is synthesized after having a discussion with officials involved in the implementation of agriculture insurance in Nepal.

Results and Discussion

The insurance policy

Recently, GoN has given priority to agricultural insurance in Nepal. GoN has formulated and executed various policies to promote agriculture insurance in Nepal. Some of the policy provisions formulated and implemented to boost insurance in agriculture are:

- Agriculture Perspective plan 1995
- National Agricultural Policy 2004
- Agribusiness promotion policy 2006
- *Immediate action plan for improving governance and economy 2013 =*
- Budget speech of fiscal year 2012/13 to 2016/17
- Agriculture Development strategy 2015
- Insurance act, B.S 2049 (1992/12/17)
- Insurance rule, 2049 B.S (1993/03/30)

- Crop and livestock insurance directives, B.S 2069(2013/01/14). This directives has been amended in 2077 and named as Crop and livestock insurance directives-2077.
- Guideline: Premium Subsidy availability for crop and livestock insurance, B.S 2070 (2013/05/23)

Status of Agricultural and livestock insurance in Nepal

The overall progress of agricultural insurance is increasing at an increasing rate over the years. The total sum insured in agriculture insurance has been increased by 164.13 percent in comparison to the year 2020/21 (Beema Samitee, 2022). According to the data of last year of Bema Samitee, the share of crops and livestock to the total sum insured are 4.87 and 95.13 percent, respectively. Despite the higher contribution of crops to national GDP, livestock sector coverage is higher in agricultural insurance in Nepal.

Table 1: Status of agriculture and Livestock Insurance

Rs : 000

FY	Sum Insured	Premium	Subsidy in Premium	Claim	Increased subsidy Premium
070/71	625404	34049.1	17024.55	12989.43	17.02
071/72	3173837	160219.09	119986.16	61650.18	102.96
072/73	6038412.22	278745.08	209058.81	159582.9	89.07
073/74	9209236.22	423759.45	318716.35	238212.7	109.65
074/75	13222589.02	574098.83	430574.12	316284.3	111.85
075/76	22094876.11	1004763.3	753569.76	567767.4	322.99
076/77	26380219.59	1181699.8	886274.84	500419.3	132.70
077/78	43300000	1930000	1447500	649300	1358.82

Source : Beema Samitee, Nepal, 2022

Status of horticultural insurance in Nepal

Insurance policies issued for horticultural commodities among crops are the highest in number in Nepal. The status of insurance policies issued for horticultural crops is presented in the table below:

Table 2: Status of issued insurance policy for crops during FY2019/2020

S.N.	Province	Paddy	Wheat	Maize	Vegetable	Fruit	Total
1	Province-1	15	1	-	17	30	63
2	Madhesh	-	-	-	88	66	154
3	Bagmati	-	-	4	75	344	423
4	Gandaki	-	-	-	27	75	102
5	Lumbini	62	-	-	35	65	162
6	Karnali				83	1548	1631
7	Sudur Pachhim				2	41	43
Total		81	1	4	327	2169	2578

Source: DoA, Nepal, 2020.

The table above shows that Karnali province has the highest number of insurance policies on crops issued among seven provinces. The highest number of insurance policies issued in Karnali province is mainly due to the adoption of the weather-based insurance scheme in apple (1548 in number). Similarly, 83 vegetable policies on both cost and output basis were found to be issued during 2019/20. Sudur Pachhim province has the lowest insured policies among seven provinces comprising only 1.66 percent.

Institutions involved in horticultural crop insurance in Nepal

There are several institutions involved in the implementation of horticultural insurance in Nepal. Categorically these institutions could be divided into three major levels:

1. Policymaking institution (Ministry of Agriculture and Livestock Development, Beema Samitee, DoA,)
2. Implementing institution (Twenty nonlife insurance companies and their branches, Agriculture development-related offices in the local level)
3. Non-governmental Organizations (for advocacy, awareness, etc)

Types of horticultural insurance and products

All the horticultural crops are included in insurance schemes. Basically, three types of

horticultural insurance occurred in the insurance market, they are:

- (1) **Insurance based on the cost of production:** Under this provision, horticultural crops are insured based on the cost incurred for cultivation. Data regarding the cost of cultivation are taken from formal publications made by the ministry of agriculture and livestock development.
- (2) **Production-based insurance:** Recently, the Insurance Board of Nepal has issued insurance products that insure crops considering the value of the produce. In this provision, the sum insured is determined by multiplying the price of products with the productivity of the crop. Currently, an output-based insurance scheme is implemented for vegetables, seed production, ginger, garlic, and spring rice.
- (3) **Weather index insurance:** Most of the horticultural crops insurance policies are under production-based insurance having a 5-7 % premium rate whereas few are based on the cost of production whose premium rate is 5%. Likewise, Weather index insurance products are only applied for apple insurance cover only two perils i.e rainfall and hailstones with an 8% premium rate.

Perils covered by horticultural insurance

Crops insurance is based on multi perils basis. Being multi-peril basis products, the following hazards are covered by horticultural insurance policies:

- *Fire and lightning*
- *Earthquake*
- *Flood, submergence, and drought*
- *Erosion and landslides*
- *Hurricane, hailstone, freezing, frost*
- *Uncertain and accidental events (eg Wild animals)*
- *Crop loss by disease and pest*
- *Other perils mentioned in an insurance policy*

Sum Insured, premium rate, and government grant on premium for horticultural crops

There are three provisions to ensure the horticultural crops that are the cost of production, the value of production, as well as weather index insurance policies.

The premium rates for agriculture and livestock insurance vary. In the case of horticultural crops, it is 5 percent for cost-based insurance, 7 percent for production-based insurance, and 8 percent for weather-based insurance.

There is no stability in the GoN decisions to provide a subsidy on the insurance premium of agriculture and livestock insurance. In the year 2013, when insurance started, the subsidy on insurance premiums was 50 percent. Likewise, GoN decided to provide a 75 percent subsidy on premiums for agriculture and livestock insurance. Again in July 2021, GoN decreased the insurance subsidy on premiums down to 50 percent and later expanded to 80 percent in September 2021.

Driving forces/ factors to accelerate horticultural insurance in Nepal

Despite several efforts from the government of Nepal, the adoption of agricultural insurance has

not been achieved as expected. As agricultural insurance is still newer practice in Nepal, there are several issues and challenges associated. There are many driving forces responsible for the promotion of horticultural crop insurance in Nepal. Some of them are:

- *The active role of insurance companies: In many cases, insurance companies are reluctant to issue the insurance policies on horticultural crops.*
- *Farmers friendly insurance products: Majority of insurance products in horticultural commodities are on cost of production basis. But, farmers are always arguing for output based insurance policies which has not materialized as expected.*
- *Appropriate insurance directives: Insurance directives have been found changing frequently. Some of the issues in horticultural crop insurance have not been addressed.*
- *Availability of agriculture technicians and insurance agents in rural areas: Due to unavailability of agricultural technicians and insurance agents at the grassroot level, insurance program on horticultural crops has not geared up.*
- *Rural farmers must have access to an insurance company*
- *Timely disbursement of claim to insured*
- *Timely allocated premium grant to insurance companies*

Major challenges of horticultural crop insurance in Nepal

The major issues and challenges of horticultural crop insurance in Nepal can be summarized as:

- *Geographical remoteness*
- *Inadequate agents*
- *Inadequate procedural knowledge of local level technicians*

- *Inadequate insurance need-based policies*
- *Level of activeness of insurance companies*
- *Pilot program for crop insurance*
- *Inadequate data on production and production cost for the perennial crop of seven provinces*
- *Moral hazard*
- *Inadequate monitoring and evaluation*

Way forward

As discussed in the above section, agricultural insurance is a tool to transfer the risk of farmers during the cultivation of crops. In fact, the government of Nepal has been continuously focusing on implementing various promotion and support (subsidy) activities to promote agricultural insurance in Nepal. Realizing the importance of agricultural insurance including insurance in the horticultural crop to cover the losses due to various climatic hazards in crops, the following are the way forward to promote agricultural insurance in Nepal:

- *The presence of technicians and companies in rural areas to easy access to farmers*
- *Different types of insurance products should be applied according to geographical areas and needs (Like multi-peril based, weather index-based, pictured based, etc)*
- *Training to agricultural technicians and employees of insurance companies*
- *Awareness programs of agri-insurance*
- *Strengthening of local bodies in terms of agri- insurance (Institutional and human resources)*
- *Involvement of provincial government in the implementation of agri-insurance*
- *Monitoring and evaluation of insurance program*

Conclusion

GoN has initiated Agriculture and Livestock insurance to protect the farmers and agricultural entrepreneurs in order to compensate for the loss of crops by different perils/hazards. Undoubtedly, the livestock sector accounted for more than 95% of the total sum insured as compared to crop insurance. Horticultural crop plants stand in the topmost rank in terms of agriculture crops insurance policies issues. There are several factors that influence the slow rate of adoption of insurance policies in horticultural commodities in Nepal. This is high time to amend the existing crop and livestock insurance directive to accelerate the adoption of insurance in horticultural commodities. Moreover, the active role of insurance companies, availability of having agricultural insurance training in rural municipalities, farmers' access to insurance companies, and timely disbursement of claims to farmers as well as providing the premium grant to insurance companies are the major issues responsible for hindering the pace of horticultural crops' insurance in Nepal.

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