

## REVIEW ARTICLE

# ASSESSING THE EFFECTIVENESS OF AGRICULTURE INSURANCE IN NEPAL

Sharwari Bhattarai

Department of Agricultural Economics and Agribusiness Management.  
\*Corresponding Author Email: [Bhattaraisarwari246@gmail.com](mailto:Bhattaraisarwari246@gmail.com)

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## ARTICLE DETAILS

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## ABSTRACT

This article is prepared through the comprehensive review of different journal articles, government policy documents, directives and recent research in the field of agriculture insurance. Nepal is at the risk of climatic hazards and being an agricultural country adopting agriculture insurance comes with lot of benefit to the farmers. The government is providing 80% subsidy in the insurance premium to link farmers with the insurance activities. Although insurance in agriculture was formally started in 2013 but the adoption of crop insurance is still low as compared to livestock insurance. Complex procedure and field monitoring for the valuation of insured amount in damaged crop is the reason for its low adoption. Nepal Insurance Authority is actively involved in increasing the number of farmers in agriculture insurance and it has allocated several nonlife insurance companies to open their branch in all the district of Nepal. This has increased the interest of farmers in agriculture insurance. Agriculture insurance contributes to the economic development of the country by increasing food security and retaining the charm of agribusiness.

## KEYWORDS

Nepal Insurance Authority, Food security, Agribusiness

## 1. INTRODUCTION

As Nepal is a natural disaster hotspot operating agricultural operations comes with the risk (Pandey et al., 2021). Agriculture contributes about 24.1% to the total GDP of Nepal and livestock sector alone contributes 24% to AGDP (MoALD, 2022). About 64% people are engaged in agricultural activities in Nepal. Climatic hazards often cause damage to the properties, disrupt the livelihood causing severe loss. Disease outbreak in livestock farming and agricultural pest has been a serious problem on crops like paddy, wheat, maize, etc. (Pandey et al., 2021). Climate has a huge impact in agriculture sector due to fourth, eleventh and thirteenth ranking in terms of vulnerability to climate change, earthquake and flood risks respectively (Sustainable Development Goals, 2021). In such condition, people try to avert the threat of climatic hazards, this is where the insurance comes into action. Insurance is the method of transfer of risk to the insurance company in exchange for a premium in certain amount (World Bank, 2011). An entity which provides insurance is known as insurer or insurance company and the entity who buys insurance is called insured.

## 2. HISTORY

History of insurance is as old as human civilization. In Rigveda, the word *Yogakshema* (meaning protecting what has come and using the same for the welfare of the concerned people) is famous and it was practiced in Vedic era. Modern history of insurance started in 1600s in Europe. First marine insurance was started by Lloyd's house fire office was established in United Kingdom in 1668 and in USA in 1752 (Ghimire, 2014). Agricultural insurance is a complex business that requires highly technical expertise in both development and operational phases (Mahul and Stulzey, 2010). Nepal has six and half decade long history of Non-life Insurance

(Pandit, 2021) but the agricultural insurance in the form of microinsurance was formally started only after the implementation of Insurance Policy 2013 especially focusing the farmers and marginalized groups (Ghimire, 2014). Before the policy intervention, some insurance companies used to provide agriculture insurance facilities and some strategies performed by Agriculture Development Bank were nearly similar as Agriculture insurance facilities.

## 3. CURRENT STATUS

Agricultural insurance is currently available in more than 100 countries either as well-developed programs or pilots. Most high-income countries have well-established agricultural insurance markets, only one-third of middle- and low-income countries currently offer such products and programs (World Bank, 2009). Realizing the loss of farmers, insurance provides tools to reduce the risk associated to farming. There are altogether 37 Insurance Companies licensed by Nepal Insurance Authority. Among them 14 Life Insurance Companies, 14 Non- Life Insurance Companies, 2 Re-Insurance Companies and 7 Micro Insurance Companies (Nepal Insurance Authority, 2024). Apart from this, farmers Cooperatives and Credit Security program of the Agricultural Development Bank have also been implementing agricultural insurance schemes in various parts of the country with different modalities (Ghimire et al., 2016). Presently, only 4% of the total holdings in Nepal have been reported to have insurance service for agriculture activities. Among them 84% of the total agriculture insurance is taken for livestock farming, 8% for cereal crop farming and 4% for poultry farming (National Agriculture Census, 2022). Nepal government is providing 80% subsidy in insurance premium for agriculture insurance. Also, it is made compulsion to allocate 5% of the insurance policies to be for agriculture, livestock and produce (Crop and Insurance Directive, 2019).

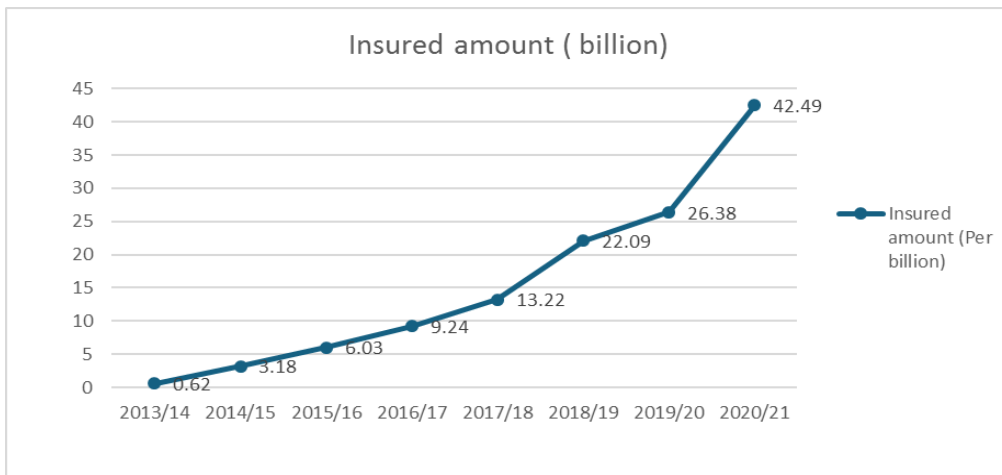
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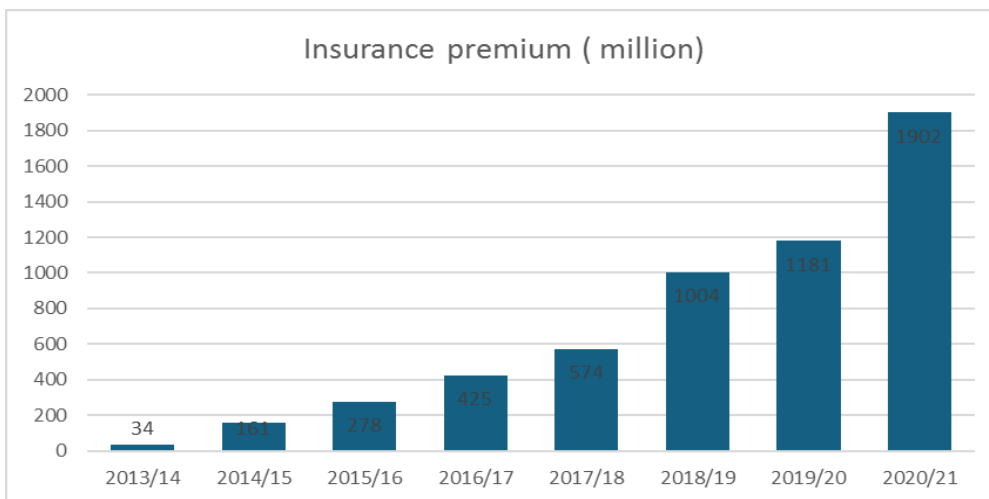


Source: Nepal Insurance Authority

**Figure 1:** Line diagram showing agriculture insurance amount provided to farmers

The above data shows that people are showing a positive response towards agricultural insurance so that there is an increasing trend of the insured amount. A total of NRs. 43.30 billion was insured under

agriculture and livestock insurance till mid-July of the FY 2020/21. It means that the assets worth 43 billion have been restored to farmers possessing an important role in the economy.

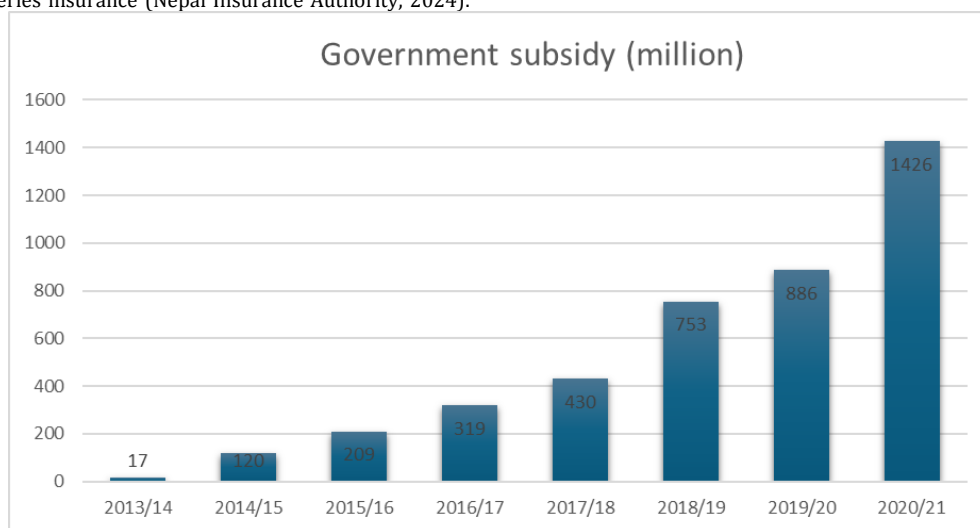


Source: Nepal Insurance Authority

**Figure 2:** Graph showing agriculture insurance premium received by insurance companies

Insurance premium received by Insurance companies in agriculture sector raise to NRs. 1.9 billion in 2020/21 from NRs. 34 million in 2013/14. including NRs. 115.38 million for crop insurance and for Rs. 1.33 billion for livestock and fisheries insurance (Nepal Insurance Authority, 2024).

Although there has been no expected progress in crop insurance under crop and livestock insurance, significant progress has been achieved in livestock insurance.



Source: Nepal Insurance Authority

**Figure 3:** Graph showing subsidy amount provided by the government in agriculture insurance

As per the government initiatives, above graph shows the subsidy amount provided by the government in an agriculture insurance scheme showing increasing trend. The government has spent NRs1.4 billion as subsidy for agriculture insurance.

#### 4. AGRICULTURE INSURANCE OPERATION FRAMEWORK

Nepal Government has issued Crop and Livestock Insurance Directive, 2019 and Crop and Livestock Subsidy Premium Insurance Directive, 2013 as a policy document to enforce agriculture insurance. The main organization responsible for insurance is Nepal insurance authority which has allocated insurance companies to all the districts of Nepal for the agriculture insurance business (Pandey et al., 2021). They are directed to open their branch office near the Agriculture Knowledge Center and Veterinary Knowledge center. Similarly, insurance companies have increased their access to all the local levels by collaborating with microfinance institutions. All the insurance companies work on the framework of providing indemnities based on the evaluation of damaged crops and deceased livestock. Farmers must inform the insurance company within 2 to 3 days after the incident (Crop and Insurance Directive, 2019). The new directive also has a provision for a technical expert to be present while covering agriculture insurance. The technician is entitled to receive 5% commission from the insurance amount. This is a relatively complex procedure. As a result, Weather Index Insurance (WII) in rainfall has been started in Apple by Shikhar Insurance Company (SIC) since 2015/16 from Karnali Province in Nepal as a pilot (Ghimire, 2020). It is one of the important alternatives being adopted by many countries where the indemnity is not based on the damage of crops but on the level of weather index that correlated to crop yield. Weather based indexes can include parameters such as rainfall, temperature, soil moisture, relative humidity, sunlight, day length, frost etc. Currently, Rainfall is the most used weather parameter for such index insurance (Ghimire et al., 2016).

#### 5. CROPS AND LIVESTOCK SECTORS

A total of 30 types of insurance facilities are included as per Crop and Insurance Directive, 2019; of which 7 types of insurance are for livestock and poultry that includes Fish, Honeybee, Cattle and Buffalo, Poultry, Goat and Pheasant insurance. 7 types of crops insurance are provided as per cost of production (Paddy, Potato, Fruits, Vegetables, Mushroom, Cardamom and Banana). The remaining 16 crops are provided insurance based on Production Value that includes Sugarcane, Cereal crops seed, Spring rice, Vegetables, Fodder, Ginger, Turmeric, Tea, Coffee, Kiwi, Dragon fruit, Timur, Mentha, Mandarin, Sweet Orange and Lime.

#### 6. ADOPTION AND EFFECTIVENESS

Government of Nepal has made insurance of crops mandatory to provide grant in government support projects and programs and youth self-employment program (Ghimire et al., 2016). Agriculture and livestock insurance have gained higher importance in recent years in Nepal due to evident abrupt changes in climatic conditions resulting in large scale damage to the production system. Agricultural insurance programs being a fresh intervention of the government is gradually reaching to the farmers in Nepal. It is being successfully implemented in Livestock sector in some market accessible commercial pockets of few districts. By mid-March 2022, total of insured amount in crop insurance is 5.2 million and in case of livestock and fish, it is 898 million (Economic Survey, 2021/22). As there is an increase in insurance premiums and insured amount, government subsidy has also increased. Since 2020/21, farmers may pay insurance premium even after harvest that has improved the insurance adoption. Study shows that the impact of insurance in developing countries is more effective than developed countries (Han et al., 2010; Karki et al., 2021). Insurance helps to lower the amount of capital to cover the losses through the method of risk pooling having significant positive impact of losses on the firm and household (Feyen and Lester, 2013). Incorporating vulnerable group to participate in the agricultural insurance schemes in a long run may turn to an effective tool of poverty reduction and financial inclusion (Ghimire, 2018). From a macro-economic perspective, the insurance market could help to mobilize savings and narrow the investment gap of developing economies. In emerging markets, domestic savings have not been fully mobilized despite huge funding needs arising from infrastructure projects. Insurance works as a bridge for the reduction gap between saving and investment, ultimately helps to the economic growth and development of the country (Pandit, 2021). Almost all study agreed on positive role of insurance on economic development disregarding the life or non-life, developed and developing countries, industry based or agriculture base (Ghimire, 2014). Studies suggested that crop insurance can reduce the vulnerability of farmers to income shocks, increase their income stability, and enhance their ability to

invest in their farms and households ultimately leading towards improvement in the status of farmers (Jabbar et al., 2020).

#### 7. CHALLENGES

Implementation of agriculture insurance in least developed, agrarian country where majority of farmers are illiterate and their income level is less than \$1 per day, obviously face several kinds of difficulties (Ghimire and Kumar, 2014). The government has introduced several programs to promote crops and livestock insurance and has been working to increase the coverage of insurance for farmers. Despite these efforts, the uptake of insurance among farmers remains relatively low. Agriculture insurance is yet to flourish because less than 10% of total livestock population is insured in the animal sector and even less in the crops sector, even though crop GDP contribution is nearly 80% and livestock GDP contribution is around 20% including fish (Agri-Insurance; the big Pillar of Nepalese Economy, 2023). Next big challenge is that insured farmers are not fully aware of the insurance policy and the risk that are covered. They do not have a clear idea about the claim process that leads to dispute among insured and insurer. Efficient co-ordination between insurance companies, banks and government is required for providing insurance policies to farmers (Aggarwal et al., 2016). Sufficient revenue must be generated to pay the insurance amount to the farmers. Accurate data collection, historical data on the crop yields and weather conditions, limited risk assessments are certainly the major challenges for effective implementation of agriculture insurance program.

#### 8. CONCLUSION

Agriculture insurance can be a vital pillar for Nepal's economy, promoting food security, stability, and sustainability. As climatic hazards are unavoidable in real terms, agriculture insurance becomes the savior for the farmers. Reducing the risk associated with adverse weather patterns, agriculture insurance also serves to flourish the agribusiness activities in long term. Effective measures are to be considered such as research about time series climatic data, cultivation practices of farmers and increased awareness of the farmers towards insurance scheme. Undergoing this insurance scheme along with the support of the government may go a long way.

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