INTRODUCTION
India being an agrarian economy and more the 60% of the population being involved in agriculture and allied activities, agriculture contributes 24% of the GDP and any change has a multiple effect on the economy as a whole. Economic growth and agricultural growth are inextricably linked to each other. The Indian business cycle is influenced by the crop pattern that mainly depends on the vagaries of nature; every flood or drought has its own impact on the Indian economy. Agri-business encompasses whole lot of activities of agriculture sector under one umbrella, like integration of production, processing and marketing. The process starts at the product level and reaches out to the final consumers through vertical integration. Agribusiness favors Indian farmers in every possible way be it policy, climate and several other advantages points that India inherently possess in production and income of the farming community. It helps in optimal allocation of resources in the production process.

Indian agriculture is heavily dependent on rainfall which largely occurs during the monsoon season of about two and half months. The abnormal behavior of monsoon may cause natural disasters such as scarcity conditions or drought, floods, cyclones, etc. Nearly two thirds of the cropped acreage is vulnerable to drought in different degrees. On an average 12 million hectares of crop area is affected annually by these calamities severely impacting the yields and total agricultural production.

Objective
- To explore the various types of insurance schemes
- To find out the problems
- To explore the benefits of NAIS and WB CIS

Risk and its management Agriculture
Uncertainty refers to an event the outcome of which is not certain i.e. the outcome may be one of the many possible outcomes. As such it cannot be measured. But certain probability may be attached to an individual outcome. Risk on the other hand refers to the impact of the uncertain outcome on the quantity or value of some economic variable. The value of the economic variable may be on either side of the mean value. Repeated events would result different outcomes having a range of values. Thus risk refers to the variations in value of an economic variable resulting from the influence of an uncertain event. Since the variations in the value are measurable risk can be measured.

Agricultural production is an outcome of biological activity which is highly sensitive to changes in weather. Important weather variables such as temperature, humidity, rainfall, wind etc. influence the biological process directly or indirectly. For instance, low soil moisture due to poor precipitation in the pre-sowing period adversely affects seed germination resulting in reduced plant population. The poor precipitation during growth period results in stunted plant growth. Heavy rainfall during early growth period causes Submersion of plants. Sim- larly hailstorms, wind and cyclones damage the standing crops by lodging and uprooting especially the perennials (trees and shrubs). High humidity may cause outbreak of pests and diseases. All these result in partial loss in yield and sometimes complete crop failure and hence reduced income to farmers. In other words, deviations in the weather variables from the normal adversely affect the crop yields and hence production and income on individual farms. As variations in weather are more a regular phenomenon crop yields are not stable.

Risk Management is “A systematic way of protecting the concern’s resources and income against losses so that the aims of the business can be achieved without interruption”. Risk Management is increasing- ingly recognized as being concerned with both positive and negative aspects of risk. Risk management is a central part of any organization’s strategic management. It is the process whereby organizations methodically address the risks attaching to their activities with the goal of achieving sustained benefit within each activity and across the portfolio of all activities. In the safety field, it is generally recognized that consequences are only negative and therefore the management of safety risk is focused on prevention and mitigation of harm. In the insurance parlance, the Risk Management is a tool identifying business opportunities Humans have always sought to achieve security and reduce uncertainty.

REVIEW OF LITERATURE
Insurance is a contract made for financial arrangement between two parties when few suffered losses are met from the funds accumulated through small contributions made by many who are exposed to similar risks. The farmer is likely to allocate resources in profit maximizing way if he is sure that he will be compensated when his income is cat- astrophically low for reasons beyond his control. A farmer may grow more profitable crops even though they are risky. Similarly, farmer may adopt improved but uncertain technology when he is assured of compensation in case of failure (Hazel 1992). This will increase value added from agriculture, and income of the farm family. Bhende (2005) found that income of the farm households from semi-arid tropics engaged predominantly in rain-fed farming was positively associat- ed with the level of risk. Hence, the availability of formal instrument for diffusion of risk like crop insurance will facilitate farmers to adopt risky but remunerative technology and farm activities, resulting in increased income.

Narayanan H. (2006), reports that agriculture insurance is destined to play an important role in managing the risk of the agriculture sector, whose contribution to the growth of economy is substantial. The role of agriculture insurance for India can never be underplayed. Parchure Rajesh (2009), shows that the aim of crop insurance schemes is not to make profits, profits can be used either to give indemnities covering principle repayments and/ or the funds of the finesurer can be direct- ed towards investments in agriculture infrastructure. Sinha Sidharth (2005), founds that Agriculture insurance can be improved by increas- ing the accuracy.
and timeliness of crop estimation methods possible through the use of new technologies. This would need to be suppl- mented by institution and operating procedures which enable the private sector to provide agriculture insurance. According to the National Agriculture Policy (2000), “Despite technological and economic advancements, the condition of farmer continues to be unstable due to natural calamities and price fluctuations”. The impact of this vari- ability is highlighted in drought years with news of farmer suicides from agriculture variability. Sinha Sidharth (2004), Says that crop in- surance is one of the instruments protecting farmers from agriculture variability. Considering the contribution of the sector to the economy, the former Governor of the Reserve Bank of India, Dr. Y. V. Reddy, had suggested a national policy on agricultural risk management.

**METODOLOGY AND ANALYSIS**

The research is mainly on the basis of secondary information, since the farmers and other beneficiary group lacks knowledge about crop insurance and is unknown about the benefits of the crop insurance, this will lead to mistakes. The secondary data available are more reliable and help to access and understand real scenario of impact of crop in-surance in India.

**Crop Insurance**

Insurance is a technique where losses suffered by few are met from funds accumulated through small contributions made by many who are exposed to similar risk. Crop insurance is a means to protecting the cul- tivators against financial loss on account of anticipated crop loss resulting out of practically all natural factors beyond their control such as natural fire, weather, floods, pests, diseases etc. The sum insured could be the total expenditure or a multiple of it or a proportion of expected income from crop(s) for which premium is paid. The indemnity (claims paya- ble against the paid out of pocket expenses) is payable on the basis of shortfall in average yield from the guaranteed yield (threshold yield). The claims are paid after the loss in yield is ascertained. Weather based crop insurance is another avenue for transferring production risk to the insurer. It aims to mitigate the hardship of the insured farmer against the likelihood of financial loss on account of anticipated crop loss re- sulting from incidence of adverse conditions of weather parameters like rainfall, temperature, frost, humidity etc. While crop insurance specifi- cally indemnifies the cultivator against shortfall in crop yield, weather insurance is based on the fact that weather conditions affect crop yield even when a cultivator has taken all the care to ensure good harvest. Studies of historical correlation of crop yield with weather parameters help us in developing weather.

In order to provide a boost to the agriculture in India, a number of experimental crop insurance schemes have been introduced in the country. The first ones of the experimental crop insurance schemes has been a Pilot Crop Insurance scheme. This was introduced by GIC from the year1979. Some of the important features of the scheme were that the scheme was based on “Area Approach”. This scheme covered crops such as Cereals, Millets, Oilseeds, Cotton, Potato and Gram. The scheme was confined to loanee farmers only and on vol- untary basis. The risk was shared between General Insurance Corpora- tion of India and State Governments in the ratio of 2:1. The maximum sum that could be insured under the scheme was 100% of the crop loan, which was later increased to 80% of the crop loan. In this scheme, 50% of the subsidy was provided by the Government of India, 25% by the State Government and the remaining 25% by the farmer. Some of the states where the scheme was piloted over the years are Andhra Pradesh, Bihar, Chattisgarh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra- tra, Punjab, Rajasthan, Uttar Pradesh etc.

**CONCLUSION**

Traditional farmers are expanding their operation to include new and different options in doing so they are met with new liability; issues and new risk management needs. Agriculture Insurance is a risk management tool and as a risk transfer device that farmers can de- pend on as an instrument of indemnity in the event of crop failure. Risks like the price for the agriculture produce and Monsoon are two major factors on which the agriculturalist has absolutely no control. In a country like India, where crop production has been subjected to vagaries of weather and large scale damage due to attack of pests and diseases. Agriculture insurance assumes a vital role in the stable growth of the agriculture sector. Agriculture Insurance requires the full support of the IRDA. The present Agriculture insurance policies are weak on the various fronts.

Crop insurance has been found to absorb the production risk effecti- vely, encouraging the farmers to concentrate on a fewer number of profitable crops instead of spreading their resources and energy across many crops. In this way, it has acted as an incentive for special- ization in agriculture. The crop insurance scheme has led to the use of high-value inputs like seed, fertilizer and plant protection chemicals. The insured farmers have realized more returns than their non-in- sured counterparts. It has been revealed that the factors like access to loan, education, off-farm

---

**National Agricultural Insurance Scheme**

Keeping in view the demands of States for improving scope and con- tent of CCS, a breakthrough National Agricultural Insurance Scheme (NAIS) has been introduced in the country from Rabi 1999-2000 with the following objectives.

a. To provide insurance coverage and financial support to the farmers in the event of failure of any of the notified crop as a result of natural calamities, pests and diseases.

b. To encourage the farmers to adopt progressive farming practices, high value inputs and higher technology in Agriculture.

c. To help stabilize farm incomes, particularly in disaster years.

Some of the improvements incorporated in the new scheme are visible from the following.

**Benefits Expected from the Scheme The scheme is expected to:**

A. A critical instrument of development in the field of crop production, providing financial support to the farmers in the event of crop failure.

B. Encourage farmers to adopt progressive farming practices and higher technology in Agriculture.

C. Help in maintaining flow of agricultural credit.

**Weather Based Crop Insurance Scheme**

Weather Based Crop Insurance Scheme (WBICS) is a unique weather based insurance product designed to provide insurance protection against losses in crop yield resulting from adverse weather incidences. In provides payout against adverse rainfall incidence (both deficit and excess) during Kharif and adverse incidence in weather parameters like frost, heat, relative humidity, un-seasonal rains etc. during rabi season. As such it is not yield guarantee insurance. WBICS has been piloted in the country since Kharif 2003 season. Some of the states where the scheme is piloted over the years are Andhra Pradesh, Bihar, Chattisgarh, Gujarath, Haryana, Karnataka, Madhya Pradesh, Maharashtra- tra, Punjab, Rajasthan, Uttar Pradesh etc.

Weather Based Crop Insurance Scheme

A critical instrument of development in the field of crop production, providing financial support to the farmers in the event of crop failure.

B. Encourage farmers to adopt progressive farming practices and higher technology in Agriculture.

C. Help in maintaining flow of agricultural credit.

---

**REFERENCES**


income, and region (based on nature of irrigation) in which a farmer is located have significantly influenced the adoption of crop insurance. Moreover, landholding-size, whether insured or non-insured, has depicted a positive influence on the income of farmers. Farmers face constraints like tedious and time-consuming procedure, non-availability of crop loan, lack of motivation and information from officials, etc. On the other hand, the agencies implementing crop insurance expressed that lack of staff, lack of coordination among them and hindrance to their routine functions were the major constraints.