

Crop diversification to Sustainable Development- a strategy to improve agricultural production

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Abstract

Crop segregation is one of the most cost-effective ways to reduce uncertainty about a farmer's income, especially for poor farmers. Poverty, however, is a complex concept, encompassing more than just income. This review examines the contribution of crop diversity to Sustainable Development Goal 1 (SDG1) "No poverty" in terms of other aspects of poverty, namely gender equality, food security and nutrition, and vulnerability to climate change. It shows that the contribution of crop diversity to food security and nutrition, gender equality, and reducing the vulnerability of poor farmers to climate change has not been properly studied. There are a number of factors in the review studies that have contributed to the use of crop segregation, but this has not been linked to poverty reduction. New research impacts of research and policies that follow the approach to poverty alleviation need to be developed to assess the contribution of crop diversity to SDG1.

Introduction

Farming continues to be a major source of food, nutrition, income and employment for most of India's rural population. Land farming is characterized by the availability of a large number of small and medium-sized farmers who own small farms. However, the country is blessed with a diverse agricultural environment that enables farmers to produce large quantities of agricultural inputs. The challenge of producing enough food for a growing population with reduced seizures is a herculean task. With the development of commercial agricultural strategies in the post-independence period the agricultural sector has been able to cater to local and international markets. In light of the focus on commercial agriculture the

rich cultural diversity of Indian agricultural crops retains its glory. Few plants take up much of the production area and are grown several times a year. This has led to the emergence of several levels of field with biotic and abiotic factors and a complete reduction of the benefits derived from farming.

Crop differentiation gives farmers the opportunity to make a wider choice in producing a variety of crops in a dedicated area to increase production-related activities on different crops and reduce the potential risk. Plant divergence in India is viewed as a transition from low-yielded crops to cash-generating crops. Crop segregation is also due to government policies, other crop concentrations, market transformation, infrastructure development, government subsidies, other price-related support mechanisms, high profitability and stability in production also cause crop diversity. Crop differentiation and growth of large numbers of plants are done in arid areas to reduce the risk of crop failure due to frequent droughts. Crop rotation and crop rotation also occur in areas suffering from certain soil-related problems.

Factors responsible to crop diversification:-

With the introduction of scientific and modern agricultural technology there is a continuous emergence of various agricultural practices. Changes in crop patterns, however, are a result of the interaction of many factors such as (a) Resources-related factors especially irrigation, rainfall and soil health (b) Technical aspects especially seeds, fertilizers, water use, marketing, storage and post-harvest processing (c) family-related factors (d) Factors including pricing including import and export, trade and other economic policies affecting these prices (e) Factors related to institutions and infrastructure including farm size and employment issues, research, extension and government control policies things are closely related in the middle. The policies of economic liberation and globalization also put a lot of pressure on the decision to allocate land to farmers, especially in terms of their impact on inputs and outputs. While factors such as food and fodder satisfaction, farm size, and investment constraints are important in shaping the allocation pattern between small farms, large-scale farmers who are able to avoid resource constraints go far beyond economic considerations in terms of crop prices and other non-economic factors.

Similarly, economic factors play an extremely strong role in influencing crop patterns in areas with better irrigation capacity and infrastructure. In such areas, trade and market networks combine to make farmers more powerful and more responsive to economic interests.

Consequences of changes in cropping pattern:-

The various initiatives that have led to the transformation of the planting pattern as described above have also brought many social and economic and environmental consequences. The introduction of higher realities, interest and more crop production technologies has encouraged, among other things, a growing trend towards agricultural technology and agribusiness. Although these changes have positive effects on land production / employment and farm income, they have also been associated with some adverse effects such as reduced farm employment and crop inequality and loss of crop diversity at the farm level. While the expansion of commercial agriculture has expanded new sets of non-farm work and strengthened rural and urban connections, it has also weakened traditional cross-sectoral communication between the crop and livestock sectors. In addition, changes in crop patterns also lead to adverse environmental effects such as dehydration, loss of fertility and deforestation - all of which can reduce productivity and agricultural growth in the long run.

Crop diversification as a strategy for food and nutritional security and poverty alleviation:-

Plant segregation can be used as a strategy to address food and healthy food safety. The diversification of agricultural crops especially fruits and vegetables is very important in ensuring food security. This has also played a very important role in reducing poverty. Not only the increase in grain production but also the production of commercial crops such as cotton, oilseeds, sugarcane, fruits and vegetables and livestock production including fisheries have had a significant impact on poverty reduction.

Opportunities in crop diversification due to globalization:-

With the arrival of the WTO and India's membership and signing of the GATT, the situation in the agricultural sector cannot be the same as in the past. With the liberalization of trade and providing market access to agricultural products between different countries, the country will

need to promote more diverse agriculture. In large-scale production and production, especially food grains, the import market should be constrained by increasing production which gives us a comparative advantage and a fair playing field so that more imports are available and farmers' interests are protected. Traditionally exported crops such as basmati rice and spices and condiments also need to be supported by local expansion and quality improvement to look at more export opportunities. The segregation of crops in certain tropical fruit areas and a few vegetables also need to be supported in production management and post-harvest management in terms of their export potential.

The rapid growth of fruit and vegetable products is also necessary in improving the nutrition of the people of the country. In the future, with improved living standards and increased purchasing power, more and more people will be looking for nutritious and quality food that will cost more and more plant diversity. There are certain production areas such as food crops, vegetable crops, poultry, milk, sugar, cotton and oilseeds where India has made its mark. There are areas where emerging energy is already evident - for example, marine and marine fish. There are others now that attract less attention, but when the competitive advantages India has they can put it at the top of the world. No country grows as many varieties of fruits, vegetables and flowers as India but there is no record of exports to agriculture. A rich diversity in processing and marketing can help India to take care of the health needs of its people without being a major exporter.

Opportunities due to emerging technologies:

It is becoming increasingly known that agriculture is no longer a subsistence activity for poor farmers, but a business and biomass builder using land, water, genetics and the latest technology. The 21st century agriculture is becoming increasingly sophisticated as a business venture for farmers to improve the profitability of his country and his investment. Biotechnology and genetic engineering in plants with a focus on basic production and high quality requirements will go a long way in improving the yield and quality of many important crop plants. With the introduction of such emerging technologies and the subsequent effects of increasing economic recovery, the diversification that harvests such crops will be focused on the future. Many other technologies related to their adoption will also add extra dimension to plant diversity. Decision-making systems, government policies, spatial information system,

use of information technology leading to market information etc., will also lead to crop diversification especially in economic thinking.

Research and developmental support for crop diversification:-

In order to support plant diversity, sound research and development programs are essential. Future agriculture has far more scientific knowledge and skills than traditional subsistence farming. After globalization and the opening up of more opportunities in the global market, there will be more opportunities for business development in agriculture. This also requires paradigm shifts in research and technology development as well as technology transfer of successful crop classification. The research program not only has to deal with the problems associated with continuing to indulge and knowledge in the emerging field of technology but also creates a host of scientists with continuous skills development and human resource development. Researchers also need to make technology more efficient, to transfer knowledge and skills to extension workers in order to transfer technology to farmers. This knowledge-based farming will require a lot of communication between researchers, extension workers and farmers. The fruits of the new technology must reach farmers early and spread even faster. The use of ICT in agriculture can be a one-stop solution for technology transfer. The revolution introduced by telecommunications can be used to the advantage of transferring technology to farmers.