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Sustainable Agriculture Development In India

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Abstract: ***The current study tries to develop a strong structured valid by companions to capture agricultural stability in a rich agricultural area of the country. It will provide a single scalable durable index to learn the state of stability at one time. It will also be applied in geographical areas with other minor modifications, other areas of the country, even with other parts of the districts there will also be a league table of districts or areas. The advantage of developing a strong overall agricultural stability index is that this policy provides a simple, easy-to-understandable, numerical tool about the employees, community members, farming communities, agricultural entrepreneurs and status of stability along with Clinical equipment as indicating or individual parameters performance. By creating time series data on CASIs, the policy maker and other stakeholders will be able to assess the effectiveness of policies and programs. A tool of such a tool can help them reinforce policy devices and programs so that they can be more effective in achieving high level stability. The benefits for researchers and academics will be important because it will provide a solid framework to assess agriculture stability in the country like India, in which specific characteristics of the country-specific or field-agricultural system will be included as well as universally agreeing will be universal applications. Conceptual structure and universal benchmark or thresholds applied for the creation of CASIs. Apart from this, it intends to provide a practically better measurement framework. Keeping in mind the research intervals, and in order to provide more research and the important designs, the proposal to research on the assessment of agricultural stability in the geographic area of India to provide an effective tool to policy planners in the country. Therefore, the statement of the problem is as follows: "sustainable agricultural development in India.***

Key Words: Agriculture, Sustainable, Policies, Reinforce, Effectiveness, Communities, Agriculture.

A large number of important issues are involved in measurement of agriculture stability. To identify data intervals and other methods related issues, the existing framework can be validated in new geographic and data sources of those geographic areas. There is hardly any comprehensive study covering all aspects of agricultural stability. To catch the overall nature of agriculture, the need for all relevant indicators related to all dimensions (agriculture, ecological, environment, socio-economic), so that the meaningful reference to the stability in the agriculture can be submitted. Response variables and policy indicators are important to measure the preparations of society to address the main issues of stability. This is in this context; the current study attempts to include a comprehensive list of relevant indicators for the construction of overall agricultural stability indicators. A difficult study has been done in India which shows the holistic nature of agricultural sustainability. So far, the study is limited to the narrow domain of different separate segments of stability without keeping in synergy and business-off between various dimensional indicators. It is going to meet a research requirement for academics, scientists and other stakeholders. Previous studies are limited in the silo neatly academic subjects related to the effects of climate change, agricultural science, water science and water management, agricultural-biodiversity, the impact of climate change.

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Environmental effects, social and economic issues of agriculture system. The current study covers the difference of an interdisciplinary approach to study stability.

OBJECTIVE OF STUDY- The purpose of the present study is as follows:

1. To create CASI, who will provide parametric planners and community to policy planners and communities to know the status of agricultural stability in India?
2. Validation of issues involved in the creation and assessment of CASI as the overall approach to agricultural stability.
3. Contracts with specific policy recommendations to improve the molds index.
4. Providing scope for further research on agricultural stability in India and other countries of the world.

REVIEW OF LITERATURE- M. Ghosh (2008) in his paper Agricultural growth, agricultural structure and rural poverty has examined the effect of some other variables on agricultural growth, agricultural structure and rural poverty using OLS method. He found that the incident of rural poverty is proportional to agricultural development in terms of agricultural production per union population, which reflects the existence of the truth-down process in rural India. It has probably been seen that this process is very limited and is being weak with time it indicates that it will take a very long time in dependence on the increase in agricultural production to achieve the desired lack of rural poverty events.

Mathur, Das and Sircar (2006) in their article 'The Status of Agriculture in India: Trends and Prospects' have analyzed the trend of growth in agricultural production across the country and region-wise. They also analyzed various factors of agriculture in the agriculture. They have used the flexible form of production of Cobb-Douglas production to identify various factors affecting agricultural production. They noticed that during the 1990s, the development of the agricultural sector has declined. This is in keeping with recent declines in yield per hectare for many food crops.

Chattopadhyay (2005) in his article 'Distributive Impact of Agricultural Development in Rural West Bengal' has attempted to trace the distributional impact of agricultural development on rural West Bengal during the last two decades of the last century. He classified his analysis with the help of Lorenz Curve and retrieved co-efficient of Gini through time. He noticed that before the 1980s, the estimated rate of agricultural production in West Bengal was very bad. It was less than the proportion of the rural and total population growth of the state. S. Singh (2004) in his article 'Crisis and Diversification in Punjab Agriculture: Role of State and Agribusiness' has analyzed the barriers of farmers to gain profitable participation in contact farming. He noticed that the multinational corporation is not required, but requires different types of enterprises, which can ensure the participation of farmers in agricultural-industrial development as equal and active participants. Apart from this, the current system of cooperative societies in the state does not work efficiently to meet the business needs of the farmers, so the new generation co-operative societies (NGCs) should also be started.

J. Singh and R.S. Sidhu (2004) in his article 'Factors in Declining Crop Diversification - Case Study of Punjab' has analyzed the contribution of crop rotation and crop diversification to the growth of agricultural production and growth of agricultural sector in Punjab. He showed the scale of diversification by calculating the diversification index for different areas of Punjab in different time periods. With the current crop pattern and technology, the development of future in agriculture will be largely expanding due to the lack of water which is limited to the water. Otherwise, the crop pattern will have to change the high-value crop like fruits and vegetables.

AGRICULTURE IN INDIA- In the early 1990s, after the improvement of the multilateral business system, the agriculture of the agriculture globalization and diversification has been entered

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after the improvement of the macro-economic reforms and GATT negotiations and the establishment of WTOs in the Indian economy. It is expected that with the combination of domestic policies and reforms of international business reforms, there will be huge integration with the rest of the Indian economy, and the same farmers will have sufficient benefit from such landscapes. However, the reforms undertaken so far have failed to bring expected benefits to the Indian farmers. The process of reforms is still continuing and it is expected that once the conversation ends on improvements and the enthusiasm reforms are applied to the altar, then the face of the lands will be positive, the benefit of Indian agriculture will be positive and sufficient. In addition to improving infrastructure, Indian agriculture will need to become more competitive, in order to reap the expected benefits from trade liberalization. The recent decline in growth in Indian agriculture, both in production as well as in crop productivity, however, has been a cause for concern. Unless this trend is reversed, India cannot be able to take on the opportunities that may be made available to it in the wake of globalization. While reversing this trend will require action on several fronts, the most important are reversing the trend of declining public investment in agriculture and expanding the coverage of irrigation to a much larger cultivated area. The New India economic policy is in order to integrate the economy with the global one in various sectors of the economy. especially in the agriculture sector its intensive study is required. The process of economic reforms and the Indian agriculture is generally likely to change the terms of business in favor of agriculture, thus the development of better encouragement and environment will be made for agriculture. The process of economic reforms and the gradual opening up of Indian agriculture to world markets is likely to change the terms of trade in favor of agriculture, creating a better incentive and environment for agriculture.

CONCEPT OF SUSTAINABLE AGRICULTURE DEVELOPMENT- The concept of sustainable agricultural development is taken from the comprehensive overall or general stability concept. Many authors and organizations worldwide have tried their hand in submitting the appropriate definition of permanent agriculture. Some writers like Francis et al (1987) view sustainable agriculture as a set of management strategies aimed at tackling issues such as food quality, environmental protection, etc. Ikerd et al (1993) focused on permanent crop productivity, while Gafsi et al (2006) emphasized the adaptive capacity of agriculture related to future changes. The FAO (1988) has defined the sustainable agricultural development of the management and protection of natural resources base and orientation of technical and institutional changes so that the achievement of human needs for current and future generations can ensure the achievement and continuous satisfaction. This kind of development conserves land, water, plants and animal protects genetic resources, environmentally is non-abusive, technically suitable, economically viable and socially acceptable.

"In other words, sustainable agriculture guarantees that cultivation and affiliated agricultural systems should be (1) nurture healthy ecosystem; (i) Supporting continuous management of land, water and natural resources; And (iii) ensuring world food safety. The mold should be seen as a process not to achieve a specific defined endpoint. This approach is in line with the increase in fast change and technological cause uncertainty. Innovation for the purpose of finding solutions to stability issues, for such attitude, the development of technical, policy, rule and funding structure requires which support agricultural producers and resource managers engaged in the dynamic process of innovation. The United States National Research Council (NRC 2010) defines sustainable agriculture as an integrated system of plants and animal production practices, which increases long-term environmental quality and natural resource base on which the agricultural economy depends and it (i) Fulfills the needs of human food and fiber; (ii) The most efficient uses on

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renewable and non-renewable off form and agricultural resources: (iii) maintains the economic viability of agricultural works; and (iv) enhances the quality of life for farmers and the society.

MEASURING AGRICULTURAL SUSTAINABILITY- Many efforts have been made by many scholar's construction of continuous agricultural index. In the last decades, many agricultural stability evaluation methods have been developed (binder et al. 2010). Assessment methods are being developed for the purpose of research and policy advice, agricultural monitoring, agricultural expansion, certification, self-evaluation, landscape plans, and consumer information (Schader et al.2014). Talukdar et al. (2017) has summarized eight such systems which attempt to catch the overall nature of agriculture stability. In the agricultural stability evaluation, the environment, economic and social aspects are required to consider, and therefore the overall approach which address is different dimensions and objectives of stability, are important (Gafsi et al. 2006; Van de Fliert and Braun 2002). Talukdar et al (2017) has considered eight rated values which are relatively overall in nature. These are:

(i) Rise: The Response Industries Sustainability Evolution Model (Rise) (Hani et al 2003);

(ii) Safe: Sustainability Assessment of Forming and Environment (Safe) (Van Cauwen Bergh et al.2007)

(iii) IDEA: Idea Method (Idea) (Zahm et al.2008);

(iv) Motifs: Monitoring tool for Integrated Form Sustainability (MOTIFS) (Meul et al 2008);

(v) Seamless: Integrated evaluation of agricultural systems: A component-based framework (Seamless) (Van Ittersum et al. 2008) for the European Union;

(vi) MCDA: Multi- Criteria Decisions Analysis (MCDA) (Dantsis et al) 2010

(vii) MESMIS: MESMIS Program, Sustainability Spanish Acronym for Indicator Based Sustainability Assessment Framework (Lichtfouse, 2017); and

(viii) SAFA: Assessment of stability of food and agricultural systems (SAFA) (FAO, 2012)

The above methods are considered to be the overall approach because they include all three dimensions of stability in their assessment. These methods are diverse in terms of their applications and development. To appreciate the benefits and shortcomings of agricultural stability evaluation, the following section compares in detail of these methods: There are some efforts to estimate agricultural stability entirely for a large area. Jose A Gomez Limon and Gabriela Sanchez Fernandez (2010) used an empirical evaluation of farm of agricultural stability by using overall indicators. These authors have adopted 16 permanent indicators spread over economic, social and environmental three dimensions, which have been collected in nine types of stability indexes. These writers attempted to display the advantages and disadvantages of different methods used for the construction of overall stability indicators, while performing the utility of analyzing many indicators in combination to achieve more strong results.

CONCLUSION- Agriculture is an important sector of Indian economy. This is the spine of development in the country. An average Indian still spends about half of his total expenditure on food, while about half workforce of India is still engaged in agriculture for its livelihood. Agriculture is a source of livelihood and food security for a large vast majority of low poor and weak classes of society. There is an urgent need to develop agricultural infrastructure to meet the growing demand of food grains and other agricultural products in India. Establishment of storage and processing facilities for our agricultural products is a big issue, which requires policy makers to deal with the country. The construction of rural roads, rural telecommunications and rural electrification requires faster and coordinated. Agricultural subsidy amount is almost Rs. 1 lakh crore. If it is spent as an investment in the direction of the development of infrastructure for the agricultural sector, the situation of this area can

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be better. It is also necessary to strengthen agricultural research and technology development and institutional aid system. The ranking of the market has increased the physical and economic contacts of the market, the role of food processing industries, and the event of the farmers, the urgent requirements of the farmers, the rule of employment security and inclusion is urgent. In agriculture, the agency should be improved to encourage private sector investment. There is an urgent need to establish a trained and dedicated cadre of agricultural expansion workers. To deal with the problem of shortage of manpower, the State Governments should fill up the vacancies of extension personnel in agriculture, horticulture and allied departments within a reasonable time frame.

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