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The Role of Agriculture for Sustainable Economic Growth in India

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ABSTRACT

India stands second, next to China with the population of 1.27 billion. It is the seventh largest country with an area of 3.288 million sq kms.India is the world's largest producer of milk, pulses and jute, and ranks as the second largest producer of rice, wheat, sugarcane, groundnut, vegetables, fruits and cotton. It is also one of the leading producers of spices, fish, poultry, and livestock and plantation crops. Worth $2.1 trillion, India is the world's third largest economy after the US and china. India Economic growth is 6.81 per cent in the financial year 2018 on improved performance in both industry and service sector. The main objective f the study is (I)to examine the role of agriculture for sustainable economic growth. (ii)To analysis the agriculture sector contribution in the GDP of India. (iii) To suggest suitable Strategies for Sustainable Agricultural Development of the country. Simple Percentage method and Least Square method were implemented to project the GDP Growth rate of next three years. In the Year 1950-51 the contribution of agriculture sector was 51.9 and it was fallen to 14.39 in the fiscal year 2018-19.It was also projected that in the year 2021 the agriculture sector contribution will be 9.03 percent. Most of the Indians are directly or indirectly depending on the agriculture. Some are directly attached with the farming and some other people are involved in doing business with these goods. Though agriculture play a vital role in the economic development the importance to product sustains and develops it has been in the rear side. All the three sector of an economy are important, but only a developed agricultural sector will lead to comprehensive economic growth. For sustainable Economic Growth the entire three sectors should grow sustainably.

1. INTRODUCTION

India stands second, next to China with the population of 1.27 billion. It has been marked with 3.288 million sq kms of area as seventh largest country and with 7500 kms length of coastline. India is a country of diversity where more than 415 languages are vocalized with 22 major official languages. With the world highest mountain range, it has Himalayas to its North, the Thar Desert to its West, the gang etic delta to its east and the Deccan Plateau in the South, the country is home of massive agro-ecological diversity. India is the world's prime producer of milk, pulses and jute, and ranked as the second largest producer of rice, wheat, sugarcane, groundnut, vegetables, fruits and cotton. It is similarly one of the top producers of spices, fish, poultry, and livestock and plantation crops. Worth $2.1 trillion, India is the world's third largest economy after the US and china. India Economic growth is6.81 per cent in the financial year 2018 on improved performance in both industry and service sector. Agriculture has been a way of life and continues to be the Single most important occupation of the lot in India. The country is the second largest economy in Asia after
china as measures in terms of its gross domestic product (GDP). Agriculture has been acting as a driving force for our economy as it generates employment, national income, foreign exchange, food for people, feed for livestock, etc.,

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2. MAIN OBJECTIVES OF THE STUDY

- To study the Economic Sustainability, contributed by the Agriculture sector of India.
- To analysis the agriculture sector contribution in the GDP of India.
- To suggest suitable Strategies for Sustainable Agricultural Development of the country

STATISTICAL TOOLS USED

- Simple Percentage Method.
- Least Square Method.

3. AGRICULTURE CONTRIBUTION TO THE NATIONAL INCOME

Since very earlier period agriculture is paying a major share to the national income. In the year 1950-51 the agriculture sector contribution was 51.9 Percent, industry sector contributes 11.1 percent and the service sector contributes 34.6 percent.

However, the percentage of agriculture contribution gradually dropped to 15.87 percent in 2018-19 this is due to the development of further sectors but the stake still stayed very great as associated to that of the developed countries of the world. Whereas in the developed countries like UK and USA agriculture funds only 3 percent to national income

AGRICULTURE IS THE SOURCE OF LIVELIHOOD

In India over two – thirds of our working populations be present directly involved in agriculture during the post independence period, later it drop down gradually. According the World Bank Data for India from 2008 to 2018. The average value for India during that period was 54.83 per cent with minimum of 43.86 per cent in 2018.

DISTRIBUTION OF THE WORKFORCE ACROSS ECONOMIC SECTORS FROM 2008 TO 2018

YEARS	AGRICULTURE	INDUSTRY	SERVICE
2018	43.86%	24.69%	31.45%
2017	44.52%	24.47%	31.01%
2016	45.12%	24.29%	30.59%
2015	45.56%	24.34%	30.1%
2014	46.07%	24.38%	29.55%
2013	46.6%	24.36%	29.04%
2012	47%	24.36%	28.64%
2011	48.96%	23.52%	27.52%
2010	51.06%	22.38%	26.57%
2009	52.12%	21.61%	26.27%
2008	53.09%	20.97%	25.94%

Source: IMF, World Economic outlook Database 2019.

TABLE NO 1

AGRICULTURE PRODUCTION

With a record in rice production of 115.6 million tons , the total food grain production of the country is probably 281.37 million tons in 2018-2019.Rice production is at an all-time high. We

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had set a target of 114 million tones. But the expected output to reach 115.6 million tones .There will be no shortage of food grains in the country. We will able to export more if international markets are competitive. Few of the agriculture product s of our country listed in the below table with their ranking.

WORLDS RANKING IN AGRICULTURAL PRODUCTION

PRODUCTION	RANK 1	RANK 2	RANK 3	RANK 4	RANK 5	RANK 6	RANK 7
Apple	China	USA	Turkey	Poland	India	Italy	Brazil
Bananas	India	china	Uganda	Philippines	Ecuador	Brazil	Indonesia
Jute	India	Bangladesh	China	Uzbekistan	Nepal	Myanmar	Thailand
Mango	India	china	Thailand	Pakistan	Mexico	Indonesia	Brazil
Milk	USA	India	China	Brazil	Germany	Russian	France
Cardamom	India	Guatemala	Indonesia	Nepal	Laos	Bhutan	Grenada
Rice	china	India	Indonesia	Bangladesh	Vietnam	Thailand	Burma
Tomato	china	India	USA	Turkey	Egypt	Iran	Italy
Soybean	USA	brazil	Argentina	China	India	Paraguay	Canada
Coffee	brazil	Vietnam	Colombia	Indonesia	Ethiopia	India	Honduras
Pineapple	Costarica	Brazil	Philippines	Thailand	Indonesia	India	Nigeria
Potato	china	India	Russia	Ukraine	USA	Germany	Bangladesh
Cashew apple	Nigeria	India	Vietnam	Coted'ivoire	Benin	Philippines	Guinea-Bissau

Source: Wikipedia (2019)

TABLE NO 2

MARKET SIZE OF INDIA

Over the past five - six years, India has established expect keenness in certain particular crops, making it the world's 14th biggest agronomic, fishery and forestry product exporter in 2018 India accumulated 14.6 billion occupation surplus of agricultural, fishery and forestry goods. Chief exports consisted of basmati rice, carabeef/ meat of bovine animals frozen shrimp and prawns, cotton and refined sugar.

MARKET SIZE OF INDIAN AGRICULTURAL PRODUCTS

Import/Export	2015	2016	2017	2018
Total Exports	35.2	33.7	39.5	39.4
Total imports	25.4	26.9	30.2	24.6
Import from the US	1.3	1.4	1.9	1.9

Source: Directorate General of Foreign Trade, ministry of Agriculture & Farmer Welfare, Global Trade Atlas.

TABLE NO 3

SUPPLY OF FEED AND FODDER

Livestock Sector provides defensive food in the farm of milk, meat, wool, hides and skin as well as they also offers draught supremacy for farm set-ups. Besides it similarly encounters the food necessities of the people. India has a broad range of native breeds of cattle, buffalo, goats, sheep's, swine, equine, camel and poultry. One of the largest livestock sector of the world is

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India's with 535.78 million livestock population in a country screening a growth of 4.6 above live stock census 2012.

In 2019 the entire bovine population (cattle, buffalo, and yak) is 302.79 million, which indications an rise of about 6% over the previous time census. The over-all quantity of livestock in the country is 192.49 million and the female livestock populace is 145.12 million. Total buffaloes in the country are 109.85 million. There are 125.34 million Milch animals(in milk and dry) in cows and buffalos. Totally there are 74.26 million sheep's in the country. There is a148.88 million numbers population of goats. Pigs total is around 9.6 million in the current census. The additional livestock mithun, yak, horses, ponies, mule, donkeys, camel together donate around 0.23 percentage of the total livestock and their total count is 1.24 million. The total Poultry in the country is 851.81 million and the total birds in the backyard poultry in the country is 317.07 million. There are 534.74 million commercial poultry in the country.

SHARE OF AGRICULTURE SECTOR IN GDP

Agriculture is the utmost significant sector in Indian Economy. India agricultural science division books for 18% of India's Gross Domestic Product (GDP). In the Year 1950-51 the contribution of agriculture sector was 51.9 and it was fallen to 14.39 in the fiscal year 2018-19. It shows that Nearly 73 per cent drop in the agriculture sector. This is because of sharp growth of other two sectors namely, industry and service sector. It was also projected that in the year 2021 the agriculture sector contribution will be 9.03 percent. The Sector wise contribution from 1950-51 to 2021 is listed below in the following table.

SECTOR WISE CONTRIBUTION IN GDP FROM 1950-51 TO 2020-2021

SL. NO	YEARS	AGRICULTURE (%)	INDUSTRY (%)	SERVICE (%)
1	1950-51	51.9	11.1	34.6
2	1960-61	47.6	13.7	36.6
3	1970-71	41.7	16.0	40.9
4	1980-81	35.7	18.0	45.3
5	1990-91	29.5	20.6	49.6
6	2000-2001	22.3	20.7	57.0
	2010-2011	13.7	18.9	67.6
7	2020-2021*	9.03	19.25	75.62

Source: India; IMF Statista 2019. Note: * Projected

TABLE NO 4

Methods of trend line:
$Y=a+bx$
The Ordinary equations are
$\sum y= Na+b\sum x$ -------- (2)
$\sum xy=a\sum x+b\sum x^2$---------- (3)

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INDIA: GROSS DOMESTIC PRODUCT (GDP) IN CURRENT PRICES FROM 2000 TO 2024

SL.NO	YEARS	GDP IN BILLION US DOLLARS
1.	2000	476.64
2.	2001	493.93
3.	2002	523.77
4.	2003	618.37
5.	2004	721.59
6.	2005	834.22
7.	2006	949.12
8.	2007	1238.7
9.	2008	1224.1
10.	2009	1365.37
11.	2010	1708.46
12.	2011	1823.05
13.	2012	1827.64
14.	2013	1856.72
15.	2014	2039.13
16.	2015	2103.59
17.	2016	2289.75
18.	2017	2652.25
19.	2018	2718.73
20.	2019*	2935.57
21.	2020*	3202.18
22.	2021*	3509.65
23.	2022*	3847.97
24.	2023*	4223.84
25.	2024*	4631.76

Source: India; IMF Statista 2019. Note: * Projected

TABLE NO 4

INDIA: REAL GROSS DOMESTIC PRODUCT (GDP) GROWTH RATE FROM 2014 TO 2024

SL.NO	YEARS	GDP GROWTH RATE COMPARED TO PREVIOUS YEAR
1.	2014	7.41%
2.	2015	8%
3.	2016	8.17%
4.	2017	7.17%
5.	2018	6.81%
6.	2019*	6.12%
7.	2020*	7.03%
8.	2021*	7.44%
9.	2022*	7.44%
10.	2023*	7.47%
11.	2024*	7.33%

Source: India; IMF Statista 2019. Note: * Projected.

TABLE NO 5

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STRATEGIES FOR SUSTAINABLE AGRICULTURAL DEVELOPMENT

The enlargement that encounters the wants of the current deprived of co operating the capability of forth coming generation to bump into their own necessities. Taking into deliberation that agriculture is the basis of the Indian economy, rapid sustainable development and comprehensive growth. For expansive- based and comprehensive growth of the agriculture segment, here are three strategy possibilities:(i) wide farming carrying more region under agriculture (ii) rigorous cultivation – cumulative usage of contributions such as land, labor, manures, irrigation, etc., and (iii)technical changes. Though, the initial two tactics are agro-economically and environmentally un maintainable in the long run. The solitary supportable tactic for development in agriculture is un interrupted technical transformation, which moves the production function up. In order to device this approach, three kinds of tactic institutional are needed.

SPECIAL FOCUS ON AGRICULTURE RESEARCH

Agriculture research which was initiated in mid- 1960s occupied a significant title role in the change of Indian agriculture but later large numbers of problems have emerged in the area of productivity and profitability. Agriculturally developed economies have been facing economic and environmental problems. For addressing these problems, there must be size able growth in public venture, agriculture research and development of rural infrastructure. Hard works are also required to make strong research- postponement- farm links. For this resolution, there must be sponsorship of both small and marginal farmers and organizational groups. Thus, a complementary state-owned cooperative approach may play a significant role to develop agricultural production and yield. Restructuring of the existing research and development institutions to the essentials of user like farmer and manufacturing, and dynamic contribution of minor farmers, mainly in post-harvest actions as well as storing, food handling, and marketing might address the difficulties of post- yield losses.

4. CONCLUSION

We Indians are mostly depends upon the agriculture, whether it may be directly or indirectly.Some of us are very much fascinated in farming their yields and some of others are got involved in dealing with those goods alone. Generally, agriculture can make vast difference in the Indian Economy through producing food grain for the whole nation. In account to that with the support of the government policies on lending lands, bank loans and some more machineries to the miniature farmers along with some landlords, with this agriculture sector can massive development in Indian Economy.Agriculture is going to play an essential role on guarantying a Sustainable Growth through the achievement of providing some basic needs like Employment, food and shelter.For that there are some special need of making generous upsurge in agriculture research and development in rural infrastructure.

However agriculture play a dynamic role in the commercial development the importance to product sustains and develops it has stood in the rear on the side. Altogether the three sector of an economy are the keys, on the other hand only anadvanced agricultural segment will lead to inclusive economic evolution. For sustainable Economic Growth all the three sector should grow sustainably.

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