

Agro Based Industries and Sustainable Agriculture Development in India

Venkatesh G M

Research Scholar, Department of Economics, Bangalore University, Bangalore

ABSTRACT

The discussion directs to study the importance of the sustainable development in the field of agriculture and agro based industries by using the data which are already exists. Indian economy is mainly based on agriculture sector. Increasing the productivity, efficiency and level of employment and to protect and preserve the natural resources by the over utilization is the aim of agriculture sector for its Sustainable development. Agro industries has given high priority to their significant and potential for contributing for sustainable agricultural development. A challenge has been made in the present study to have close into the role of agro-industries for sustainable agricultural development in India. Also country producing wide variety of farm produce, generates additional employment, earns foreign exchange and ultimately leads to better socio economic condition of millions of farm families.

Keywords: - sustainable agriculture and agro based industries and agriculture.

1. INTRODUCTION

Primary sector of Economy is the agricultural sector. It is different when compared to secondary sector & the Tertiary sector. It directly uses natural resources as a raw material. This sector is usually most significant in developing countries & generally less significant in industrial countries. Until the industrial revolution, majority of human population were working in agriculture sector. For about 58 % of India's populace agriculture is the main source of living. The Gross Value Added by farming, forestry and angling is projected at Rs 17.67 trillion (US\$ 274.23 billion) in FY18. The Indian nourishment industry is composed for huge development, cumulative its influence to biosphere food skill each year owing to its very big possible for value adding, chiefly within the food dispensation industry. The Indian nourishment and grocery marketplace is the world's sixth main, with retail causal 70 % of the auctions. The Indian food dispensation manufacturing accounts for 32 % of the nation's total food marketplace, one of the main industries in India and is hierarchical fifth in terms of making, ingesting, transfer and predictable growth. It donates around 8.80 and 8.39 per cent of Gross Value Added (GVA) in Industrial and Agriculture respectively, 13 per cent of India's spreads and six per cent of total manufacturing input (Ministry of Agriculture 2017).

The farming sector plays a chief role in Indian economy, can be gotten during its role to GDP (Gross domestic Product) and employ. The sustainable cultivation progress of every nation be contingent upon the practical mix of their usual resources which is existing. The vast detached for the development of farming sector can be understood through rapid development of farming which be contingent upon increasing the area of farming, collecting intensity and efficiency.

Farming is one of the outstanding bases of the Indian economic growth. It is the foundation of income for roughly two third of the country populace staff in the state exist in in rural areas. Indian farming delivers service to 65% of the labor strength, books for about 27% of GDP, underwrites 21% of total spreads and raw physical to some businesses. The livestock segment underwrites a projected 8.4% to the nation GDP and 35.85% of the farming output. In India around 75% persons are alive in rural seats and they are motionless dependent on farming, about 43% of India's physical area is used for farming activities. The projected food grain making is about 255.36 metric tons in the country (Ministry of Agriculture 2017).

2. MEANING AND DEFINITIONS OF SUSTAINABLE DEVELOPMENT:

Sustainable agrarian development mean that expansion which authorizes efficient manufacture of harmless, high quality agrarian products, in a way that protects and advances the natural setting, the social and financial conditions of agriculturalists, their workers and local groups, and protections the fitness.

In 1987, the unconfined the, which describes sustainable growth as 'development which meets the wants of the present without cooperating the aptitude of future peers to meet their own wants. 'The United Nations Consequence Text refers to the "symbiotic and mutually strengthening pillars" of sustainable growth as economic development, communal development, and ecological defense. Ethnic populates have contended, through numerous worldwide opportunities such as the United Nations Permanent Opportunity on Native Issues and the Agreement on Biological Variety, that there are four supports of sustainable growth, the fourth being social. The Universal Declaration on Cultural Diversity (2001) further expounds the idea by uttering that "national diversity is as necessary for human kind as biodiversity is for nature", it grow into one of the back crushed of growth assumed not just in terms of , but also as a earnings to attain a more satisfactory well-informed, expressive, ethical and spiritual reality. In this vision, cultural assortment is the quarter rule area of sustainable progress. Financial Sustainability: obviously recognized info, integration, and contribution as key structure blocks to help nations attain development that distinguishes these symbiotic pillars. It emphasizes that in sustainable development everyone is a user and breadwinner of material.

3. OBJECTIVES

The specific intend of the investigation which is factual in nature are as follows,

1. To analyze the Sustainable Agriculture Development.
2. To study the Importance of Sustainable Agriculture.
3. To trace interconnected of Agro based industries and Sustainable Agriculture Development.

4. SIGNIFICANCE OF STUDY

The expressive paper goals to study the extent and importance of sustainable development its impact and effect on the agricultural based industries in India, and how the production of agro resources is inter dependent with industries are shifting in agreement with changing situation of the field.

5. METHODOLOGY

Current analysis is based on sources of information which is already exist. The existing information is collected from various Government publications, official documents, relevant literature, newspapers, journals, internet etc. The reviewed research papers have explained how the agro based industry and sustained agriculture seeks to change the country's economy with interconnected. Since one complements the other, it is necessary to focus on how the outcome of the Agro sectors and agriculture can be optimally exploited for the welfare of the country. The reviewed literature has not zeroed in on the factors that shuffle the growth of agro based industry.

6. AGRICULTURAL PRODUCTION IN INDIA

Indian Farming production in supreme share of the nation is close associated to the supreme use of obtainable usual and human capitals of the nation. Also India today has become the world's largest producer of various commodities. The nation is a foremost producer of coconuts, milk, bananas, mangoes, dairy products, ginger, turmeric, pulses, cashew nut, and black pepper. It is similarly the second chief maker of rice, wheat, pulses, sugar, cotton, fruit and vegetables. The Indian farming production is carefully related to satisfactory and wise water organization performs. The most of the farming observes in India limited to a few rainy season months. During the monsoon period, India is typically gifted with substantial precipitation; unfluctuating if not irregularly, this generous rainy season turns into fright, instigating uncontrollable floods in dissimilar parts of the nation and eventually affecting agriculture production. The questions of sustainable expansion can be deliberated under three broad types of undeveloped systems viz. outdated production structure, modern cultivation system and sustainable farming system. Further, we can compare them across three sizes, ecological, economic, and community sustainability (Ministry of Agriculture).

7. SUSTAINABLE AGRICULTURE DEVELOPMENT IN INDIA

The glitches of bearable development can be deliberate under three broad parts farming scheme which consist 1. Outdated production system, 2. Contemporary agriculture structure and 3. Sustainable farming system. Additional we can associate them by three magnitudes, ecological, financial and social sustainability. For farming to be justifiable it must be frugally possible over the extended term. Associated to sustainable farming in the long term conservative farming involves new financial risk. At times administrations are motivated to opinion export-oriented creation systems as more significant than supply local demands. This is not correct. Emphasis on exports unaccompanied involves hidden prices: in conveyance, in promising local food safety, etc. (Ahluwalia, M.S., 1996) the chief basis of employment for rural persons is agriculture. Tendencies to specialism and mechanization can surge barely unrushed "efficiency", but they reduction employment on the land-living. To overwhelm these glitches, supportable farming helps with its stress on small scale, labor-intensive recital.

To make the agricultural sector sustainable it should be viable over long period. Sometime the government also aims to enhance the production of such products which are export oriented. This is not right policy as export involves many cost like transportation, packing, packaging import duty of other countries, taxes etc. included even with its earning. Production should not be export run only it should also focus on domestic supply (Kushwaha N.2003).

In rural areas agriculture is the main source of employment. It should focus on specialization of the skills. Specialization will help in enhancing the efficiency level and greater production viz. in other words productivity will increase. Cheap products from the developed countries are demanded more as they are good in quality. Sustainable development of agriculture tries to accomplish this objective through the production of quality and environment friendly product. It is an impression that by producing the specific commodity production will contribute to earn more.

8. AGRO BASED INDUSTRIES AND SUSTAINABLE AGRICULTURE DEVELOPMENT

The concept of agro industries is based upon the integral relationship between agriculture and industry which helps in the development, also helps both primary and secondary sectors generate income and employment in rural and urban areas, ensures regional dispersal of industries and contributes to the foreign exchange earnings. (Vyas V. S. 2003), In India, agro-industries has a major role and responsibility to foster an integrated and interlinked development of agriculture and industry. Being labor- intensive and capital saving and in many cases power saving, these industries are located in villages and are owned and established by the villagers.

For each other's benefit and welfare, the agro-industries provide interdependence between agriculture and industry, rural and urban economies. It helps the village economy to open up its scope for larger scale of growth and development. The relation is strong and ongoing. The fractional of these industries capable very well into the factor income of population require countries like India. The industries thus move faster and further to play the role that is correct for it. (John M. Kerr, 2009)

As the economic history of developed countries has shown, more than is added to national income by some amount of capital if invested in agricultural equipment's or other agriculture raw material instead of a large industrial enterprise. While, there exists a conflict between industrial and agricultural development. However, the development of two sectors is interdependent. On the other hand, agricultural development cannot go very long unless there is industrial development to take up the released work force and to provide solid base for equipment and services essential for modernization (UNDP. 1992)

Agro-based industries develop based on inter- relations between agriculture and industries. As agriculture provides inputs to the industry and output of the industry will use in agriculture to increase production agriculture and industry are integral components of the development process due to their mutual relationship. There are many industries based on agricultural output. For raw material and other basic inputs Agro-based industries are dependent upon agriculture.

Table No-1: Category wise some examples of Agro based Industries in India

Sl. No.	Category (Based on Raw Material)	Finished Products
1	Cereals Based Industry	a) Wheat Flour b) Biscuit Manufacturing c) Confectionary and Bakery Items d) Rice (puffed and flaked) e) Rice Bran and Rice Bran Oil f) Corn flakes g) Canned Baby Corn h) Starch Material
2	Pulses Based Industry	a) Gram Flour b) Papad c) Whole or Split Dal
3	Oilseed Based Industry	a) Edible Oil b) Animal Feed c) Processed Seed (Sesame)
4	Fruits & Vegetables Based Industry	a) Frozen fruits & Vegetables b) Chips & Wafers (Ready to Eat snacks) c) French Fries (Ready to Eat snacks) d) Dehydrated Vegetables e) Ketchups, Purees & Concentrates f) Juices g) Pickles
5	Spices Based Industry	a) Pastes & Powders b) Oleoresins c) Aromatic Extractions
6	Dairy Based Industry	a) Skimmed Milk Powder, Ghee ,etc.
7	Floriculture Based Industry	a) Fresh & Dried Flowers
8	Fisheries Industry	a) Fish Processing b) Fish meal c) Fish / Prawn Pickle
9	Livestock & Poultry	a) Processed Poultry Products b) Meat Gravy Concentrates c) Mutton & Lamb Processing
10	Medicinal Herbs Based Industry	a) Medicinal Products
11	Cotton & Jute Based Industry	b) Fibres processing
12	Sugarcane Based Industry	a) Jahangir b) Confectionary & Bakery Products
13	Plantation Crops based Industry	a) Tea Powder b) Coffee Powder
14	Others	a) Honey b) Mushrooms

Source: Ministry of statistics and programme implementation, GOI (2011)

Table No-2: District wise Agro based Industries in Karnataka

SL NO	Districts	Number of Units	Investment (in Lakhs)	Employment
1	Belgaum	3437	8215	30156
2	Tumkur	2734	12700	8190
3	Davanagere	2523	18296	13458
4	Shimoga	2505	6730	8950
5	Bijapur	2140	NA	10342

6	Hassan	2013	6985	11172
7	DakshinaKannada	1990	9842	12950
8	Udupi	1990	9842	12950
9	Chamarajanagar	1574	2212	5707
10	Chikmagalur	1224	5615	6285
11	Uttara Kannada	1102	4106	6520
12	Raichur	1050	NA	4873
13	Gadag	998	1574	4392
14	Bagalkot	954	2638	4324
15	Chikkaballapura	892	5369	3652.4
16	Bangalore Rural	773	2180	3968
17	Kolar	724	4065	4478
18	Kodagu	300	1200	1500
19	Chitradurga	250	500	1250
20	Bellary	199	150	963
21	Ramanagara	182	4354	1402
22	Bangalore Urban	84	1191	764
23	Koppal	46	997	184
24	Mandya	45	230	224
25	Dharwad	40	80	209
26	Mysore	38	1980	435
27	Gulbarga	31	NA	108
28	Bidar	26	NA	254
29	Yadgir	6	91	47
30	Haveri	1	8	3

Source: -2012 and 2016 MSME report in Karnataka

Table No-3: India's Export of Agricultural Commodities Quantity in MT and Value in US\$

Product	2015-16		2016-17	
	Quantity	Value	Quantity	Value
Buffalo Meat	1314161.00	4068.66	1330013.00	3924.63
Basmati Rice	4044833.00	3477.35	3999722.00	3222.35
Non-Basmati Rice	6374364.00	2307.81	6813622.00	2553.87
Fresh Vegetables	1872021.00	727.80	3631973.00	852.22
Groundnut	536929.00	614.94	725266.00	811.11
Fresh Fruits	573204.00	594.27	798755.00	741.97
Cereal Preparations	313430.00	506.10	341770.00	532.60
Guar gum meals	365097.00	553.09	423283.00	467.10
Other Cereals	908611.00	243.98	738178.00	212.06
Oil meals	2014679.00	535.58	3647307.00	799.44
Pulses	255602.00	252.02	137177.00	191.63
Cocoa Products	32210.11	192.21	25634.91	162.66
ton Incl. Waste	1000088.00	1627.14	170274.00	298.54
Sheep/Goat Meat	21952.00	128.38	22715.00	130.59
Spices	820658.97	2502.52	1007877.54	2890.58
Milled Products	415015.65	164.89	251886.54	119.92

Fruits / Vegetable Seeds	10684.30	74.	11679.63	78.91
Wheat	614096.00	150.59	262462.00	66.32
Animal Casings	206.36	2.61	173.24	2.06
Processed Meat	282.00	0.96	141.00	0.69
Total	21488124	18725.08	24339910	18059.25

Source: DGC&S

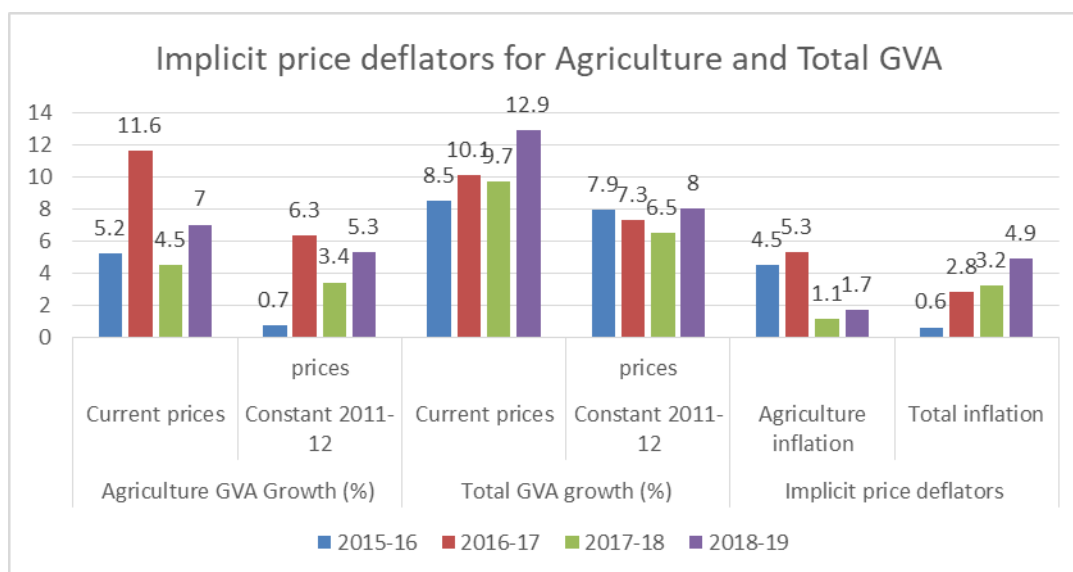
9. DECLINE IN GROWTH OF AGRICULTURAL PRICES

Prices play an important role in raising incomes of farmers. In the last one and half years, price rise for agriculture has declined significantly and affected the incomes of the farmers adversely. Table 4 provides implicit price deflators for agriculture GVA and total GVA. In 2015-16 and 2016-17, inflation for agricultural GVA was higher than that of total GVA.

Table-4: Implicit price deflators for Agriculture and Total GVA

Year	Agriculture GVA Growth %		Total GVA growth (%)		Implicit price deflators	
	Current prices	Constant 2011-12 prices	Current prices	Constant 2011-12 prices	Agriculture inflation	Total inflation
2015-16	5.2	0.7	8.5	7.9	4.5	0.6
2016-17	11.6	6.3	10.1	7.3	5.3	2.8
2017-18	4.5	3.4	9.7	6.5	1.1	3.2
2018-19	7.0	5.3	12.9	8.0	1.7	4.9

Source: National Accounts



However, in 2017-18 and Q1 of 2018-19, price rise for farm sector was much lower than the rise in general price level. In 2017-18, the price rise for agriculture was only 1.1% as compared to 3.2% for general prices. Consumer price index (CPI) also shows that inflation for food was lower than that of general price index in the same year (Table 5). In other words, terms of trade were moving against agriculture since 2017-18.

9. Agro based Industries in India- Performance and Prospects.

This section provides a brief description of the food processing sector in terms of its contribution to country’s Gross Domestic Product (GDP), export and also in the scenario of employment generation.

Table No-5: Contribution of agro based Industries to Gross Domestic Product at 2004-05 Prices (Rs.Crore)

S.No	Description	2011-2012	2012-2013	2013-2014	2014-2015
	GDP at Factor Cost of which	41,58,676	45,16,071	49,18,533	52,47,530
1	GDP-Agriculture*	5,88,757	5,92,110	6,47,305	6,82,016
2	GDP-Manufacturing	6,56,302	7,30,435	7,95,152	8,54,098
3	GDP-FPI	60,378	58,752	67,508	82,063
(Growth rate % of agro based industries in India)					
1	GDP at Facto Cost	6.7	8.6	8.9	6.7
2	GDP-Agriculture*	-0.1	0.6	9.3	5.4
3	GDP-Manufacturing	4.3	11.3	8.9	7.4
4	GDP-FPI	5.3	-2.7	14.9	21.6
Share of FPI in GDP (%)					
1	GDP FPI as a share of GDP in Agriculture	10.3	9.9	10.4	12.0
2	GDP FPI as a share of GDP in Manufacturing	9.2	8.0	8.5	9.6
Source: National Accounts Statistics:2016 Excludes Forestry and Logging					

CONCLUSION

It has been perceived that for a growing country like India the implementation of sustainable agriculture is of quite importance as it increases the productivity, efficiency, employment, and gives guidance to reduce the practices which affect the quality of soil, water resources and degradation of other natural resources. It basically targets at adopting specialization and using environment friendly tools to protect and preserve the environment as well as to increase the level of production without harming to the environment. As we see the performance of agricultural sector of India we will be easily recognize that performance have been increased in a significant manner over the years. Despite of many challenges like urbanization, Growth of secondary sector etc. it has achieved a significant growth.

Thus, Agricultural sector is the foundation of Indian economy. Therefore, agro industries have been given high priority in India due to their remarkable potential for contributing to sustainable agricultural development. An attempt has been made in the present study to have a close into the role of agro-industries for sustainable agricultural development in India.

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