

Punjab Economy : Growth, Deceleration and Crisis

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Abstract

Among the Indian states Punjab was at the 27 position in terms of growth rate of GSDP during the 10th Five Year Plan and also loses its position in terms of per capita income since the 1990s. The structural composition of Punjab economy is not showing any health sign. Due to the introduction of liberalization and globalization policies the agrarian sector shows a lower compound growth rate in comparison to growth rate of agriculture at the national level. The cost of cultivation is continuously increasing which gives birth to the problem of indebtedness and suicides among the farmers in Punjab.

INTRODUCTION

There are many success stories of agriculture as an engine of growth early in the development process and of agriculture as a major force of poverty reduction. Agriculture growth was the precursor to the acceleration of industrial growth, very much in the way agricultural revolution predated the industrial revolution that spread across the temperate world from England in the mid 18th century to Japan in the late 19th century (World Development Report, 2008). Surplus in the form of labour and capital have historically been contributed by agriculture to modern and industrial sector (Lewis, 1954).

In the case of India, although the share of agriculture in gross domestic product (GDP) has declined from over half at the time of independence to less than one-fifty currently, agriculture still remains the predominant sector in employment and livelihood with more than half of India's workforce engaged in it as the principle occupation (Eleventh Five Year Plan, 2007-12). In 1999-00, 72 per cent of population, 76 per cent of workforce in India was living in rural areas (Sen, 2003). Within rural

India, agriculture still continues to be the dominant occupation. A particular disturbing aspect of our performance over the past several years is that agriculture growth has decelerated after the mid-1990s (Swaminathan, 2004).

The state of Punjab was known as 'bread basket' of India due to its agricultural performance in 1970s and 1980s. Not only it has achieved an irrigation coverage of 95 per cent of net sown area, cropping intensity of 185 and 98 per cent HYV coverage which are all the highest among the Indian states. Agriculture continues to be the principle source of the state income during the last 45 years (Singh, 2000). However, this area has been engulfed into a crisis situation in the recent years. Now the agriculture sector of Punjab has not only been moving towards stagnation of yield, but also a squeeze on income as well (Gill and Singh, 2006).

The present paper attempts to examine the overall economic situation of Punjab economy with special reference to agrarian crisis. This paper is organized into two sections. Section-I examines the growth process and deceleration of Punjab economy along with structural change. Section-II deals with the progress and deceleration of agriculture sector in Punjab along with the problem of indebtedness and suicides.

SECTION-I

GROWTH PROCESS AND DECELERATION

With the introduction of new strategy of cultivation which is famous throughout the world named as Green Revolution in late 1960s and 1970s, the rate of growth of State's gross domestic product was substantial higher than all India average, but during the 1980s Punjab's annual rate of growth was lower than that of the all India average during four out of ten years. The situation took a serious turn with the introduction of liberalization and globalization during the early 1990s when Punjab's rate of growth has consistently (except 1996-97) remained lower than that of India as a whole (Jodhka, 2006; Gill and Ghuman, 2001).

Table 1

Growth Rate of State Domestic Product in Punjab

S. No.	Plans	Growth Rate of State Domestic Product (%)	Position in Terms of Growth
1.	8th Five Year Plan	4.7	18
2.	9th Five Year Plan	4.4	14
3.	10th Five Year Plan	4.5	27

Source : Eleventh Five Year Plan 2007-12.

Table 1 shows that during the 8th Five Year Plan the average annual growth rate of state domestic product was 4.7 per cent and it has decreased to 4.4 per cent in 9th Five Year Plan. The targeted growth rate of 10th Five Year Plan was 6.4 per cent but the actual growth of Punjab economy was far below than that. At the time of 10th Five Year Plan the average annual growth rate of Indian economy was 8 per cent but Punjab economy showed a growth rate of 4.5 per cent which was about half of the national growth rate. The table also provides the information about the position of Punjab among the Indian states in terms of growth rate. During the 8th Five Year Plan out of 28 states, Punjab was at the 18th position in terms of growth rate and during the 10th Five Year Plan Punjab was at the 27th position. The only state which was behind Punjab was Madhya Pradesh.

The state of Punjab is continuously losing its position in terms of growth rate and per capita income. The main reason behind the worsening performance of Punjab economy was that after the introduction of liberalization and globalization in 1990s the growth rate of agriculture sector dwindled from 5.15 per cent during the 1980s to 2.16 per cent in 1990s and it remains almost same during the 10th Five Year Plan.

During the past few years, certain industries have been feeling the pressure of the liberalized economic regime as a result of which declining trend has been observed in the industrial growth. The industrial sector of Punjab has expanded its base during the early Green Revolution period at faster rate. During the pre-reform period (between 1980 and 1990) the manufacturing sector of Punjab grew at the rate of 9.32 per cent per annum. The introduction of economic reforms has decelerated the growth rate of manufacturing sector and it has recorded 5.74 per cent per annum between 1991 and 2000, which was substantially lower compared with the pre-reform period. The manufacturing sector of Punjab has grown at a higher rate compared to the all-India manufacturing growth rate and in the post-reform period the trend was reversed (Singh, 2006). During the 10th Five Year Plan the secondary sector of Punjab has grown only by 5.69 per cent as compared to 9.24 per cent at the all-India level. The GSDP from secondary sector covers the manufacturing, construction and power sector. It has shown a growth rate of 7.88 per cent at constant (1999-00) prices in 2004-05. Its growth rate decreased to 5.65 per cent in 2005-06 (Government of Punjab, 2006-07).

During the pre-reform period from 1980-81 to 1992-93, the tertiary sector which comprises of trade, transport, banking and insurance, public administration, etc. recorded a growth rate of 4.3 per cent. But after the introduction of economic reforms the tertiary sector emerged as largest sector in terms of its share in GSDP. In percentage terms, the share of sub-sectors transport, storage and communication

has increased from 2.45 per cent in 1993-94 to 7.79 per cent in 2006-07. During the same period the share of banking and insurance increased from 3.49 per cent to 5.13 per cent (Sawhney, 2008). During the year 2004-05 the growth rate of tertiary sector was 5.67 per cent and it increased to 6.32 per cent in 2005-06. Under this sector, transport, storage and communication, and banking and insurance have shown growth rate of 13.53 per cent and 8.43 per cent respectively during 2005-06 over the previous year (Government of Punjab, 2006-07).

STRUCTURAL CHANGE IN PUNJAB ECONOMY

One of the most firmly established empirical generalization in economies relates to the secular decline of the agricultural population and labour force and agriculture's share in GNP in course of economic development (Johnston, 1970). Kuznet analysis based on the international comparison of group of counties finds a negative correlation between income level and the agriculture sector, positive correlation between the income level and manufacturing sector, while services did not vary systematically with per capita income and employment of workforce. The other analysis by Chenery and Syrquin (1975) shows that the share of agriculture in a country's labour force and total output declines in both cross section and time series samples as income per capita increases. The declining importance of agricultural is uniform and pervasive, a tendency obviously driven by powerful forces inherent in the development process, whether in socialist or capitalist countries, Asian, Latin American or African, currently developed and still developing.

In the case of Punjab economy the agriculture sector constituted 54.27 per cent of GSDP in 1970-71 and thereafter it showed a sign of deceleration and dwindled to 31.31 per cent in 2006-07. It shows a healthy sign according to above structural theorists. In the case of employment the dominance of agriculture sector is also decreasing. The percentage of agricultural workers has decreased from 62.67 per cent in 1971 to 38.95 per cent in 2001.

The share of industrial or dynamic sector in GSDP was 8.04 per cent in 1970-71 and it increased very slowly to 14.92 per cent in 2000-01 and after that it declined to 14.49 per cent in 2006-07. During the period of thirty-six years the share of industrial sector as percentage of GSDP has increased only 6 per cent. In terms of employing the workforce, the industrial sector of the Punjab economy shows a reverse tendency, the share of industrial workers was 11.30 per cent in 1970-71 and it decreased to 8.41 per cent in 2001. The tertiary sector has emerged as an engine of growth during the structural transformation and generated 43.13 per cent of GSDP in 2006-07. The decreasing importance of agriculture and industrial sector, and increasing importance of tertiary sector are not healthy signs of the overall economy

due to sharp fall in the growth rate of the productive sector was not neutralized by the slow acceleration of the growth of tertiary sector of the Punjab economy. A substantial proportion of the workforce still dependent on agriculture for their livelihood faces a serious problem to gainfully employed elsewhere in backdrop of squeezing share of agricultural income (Gill and Singh, 2006).

SECTION-II

PUNJAB'S AGRICULTURE : PROGRESS AND DECELERATION

Punjab's agriculture made rapid strides since independence. The peasant proprietor dominated agrarian structure, early completion of consolidation of holdings, extension of irrigation facilities and hard working peasants are some of the factors which contributed towards early progress. After the reorganization of the State in 1966 which incidentally also coincides with the advent of high yielding varieties (HYVs) of wheat, rice, maize, the pace of development was further accelerated. Adaptation of new agricultural technology consisting of hybrid seeds, chemical fertilizers, insecticides and pesticides, herbicides and modern agricultural practices set Punjab agriculture on to a new growth trajectory. In the initial stage of Green Revolution, Punjab has never been a rice growing area, but after a few years new varieties of rice also became popular with the farmers. Between 1960-61 and 2001-02 Punjab agriculture has grown at the rate of nearly 4.5 per cent per annum. But the production of wheat gone up by nearly nine times with a growth rate of 5.47 per cent per annum. Similarly, production of rice during this period increased more than thirty-eight times, given rate of growth of 9.31 per cent per annum (Sidhu, 2004).

With the introduction of liberalization and globalization during early 1990s the pressure on the agrarian sector increased. The new economic policy advocated withdrawal of State from economic sphere, leaving to the logic of market forces. There was stagnation in crop yield accompanied by increasing cost of overmechanization, labour and irrigation and modern inputs like fertilizers, seeds, insecticides and pesticides which increased sharply after the economic reforms. The average annual compound growth rate of gross state domestic product from agriculture was 1.90 per cent during the 9th Five Year Plan and it has increased to 2.51 per cent per annum during the 10th Five Year Plan. It was lower than the average annual compound growth of agriculture at the national level during both the periods.

As a result of liberalization, globalization and increasing cost of cultivation, the viability of the marginal and small farmers is continuously decreasing. The

evidence of declining viability of the marginal and small farmers has found that the number of operational holdings owned by marginal and small farmers were declining since 1970-71 due to a phenomenon of 'reverse tenancy' under which the marginal and small farmers started leasing out land on cash terms to the medium and large farmers who have sufficient capital and family labour to invest in machinery and irrigation structure (Singh, 2000).

Table 2
Number of Marginal and Small Farms

Year	Percentage of Marginal Farms (below 1 hectare)	Percentage of Small Farms (between 1 and 2 hectare)	Total Percentage of Marginal and Small Farms
1970-71	37.63	18.91	56.54
1980-81	19.21	19.41	38.32
1990-91	26.43	18.25	44.72
2000-01	12.31	17.35	29.66

Source : Statistical Abstract of Punjab, Various Issues.

The total number of agricultural workers were 38.95 per cent in 2001 and out of which cultivators are 22.96 per cent, the rest of being agricultural labourers. The increasing cost of cultivation and non-viability of agriculture operation forces the marginal and small farmers either to become agricultural labourers or to adopt other occupations to survive in present days.

The input costs like cultivation, preparation for seed bed, irrigation, consumption of seed, hoeing and weeding, fertilizers, insecticides and pesticides are the major costs which are affecting the income of farmers. The expenditure is also being made on harvesting, threshing and marketing of various products till the

Table 3
Prices of Important Agricultural Inputs in Punjab

S.No.	Inputs/ Items	2002	2006	Percentage Increase
1.	Human Labour (Rs./day)	79.00	100	27
2.	Urea (Rs./ton)	4600	5000	9
3.	DAP (Rs./ton)	8900	9350	5
4.	Weedicides (Rs./kg)	460	558	22
5.	Diesel (Rs./ litre)	17.5	32.33	85

Source : Department of Agriculture, Punjab (Singh, 2007).

purchase of that very product is made in the market. These huge expenditures on inputs and other overhead charges have stand still, while there was increase in input prices (Singh, 2007).

The data shows the miserable condition of the farmers where the cost of cultivation of production increased at a fast pace. The Sen Committee Report regarding the freezing of prices between 2000-01 to 2005-06 has adversely affected farmers, especially the marginal and small farmers.

No doubt, the occupation of agriculture is losing its viability sharply, the profitability of crop cultivation has not only decreased but it became negative on the marginal and small farms. The study of cost and return from crop cultivation on the marginal and small farms in Ropar district of Punjab state shows that the return from crop cultivation is not sufficient to meet the cost of cultivation even when the prices of major agricultural products increased about 30 per cent. To check the viability of per acre return from crop cultivation on the marginal and small farms a number of cost concepts are used taken from 'The Millennium Study on the State of Indian Farmer' by Sen and Bhatia (2004). The following cost concepts are used in the present study:

Cost A1 = All actual expenses in cash and kind incurred in production by owner operator.

Cost A2 = Cost A1 + rent paid for leased-in land

Cost B1 = Cost A1 + interest on value of owned fixed capital assets (excluding land)

Cost B2 = Cost B1 + rental value of owned land and rent paid for leased-in land

Cost C1 = Cost B1 + imputed value of family labour

Cost C2 = Cost B2 + imputed value of family labour.

Table 4
Average Total Return and Average Cost (Per Acre, Rs.)

S.No.	Total Return Minus Costs	Marginal Farms	Small Farms
1.	Total return-Cost A1	18665.19	21064.05
2.	Total return-Cost A2	17387.87	19811.79
3.	Total return-Cost B1	17867.85	17761.03
4.	Total return-Cost B2	3633.37	4356.02
5.	Total return-Cost C1	9086.86	13117.70
6.	Total return-Cost C2	-4985.27	-934.55

Source : Field Survey 2008

Table 4 shows that as we deduct the average per acre cost of crop cultivation on the marginal and small farms from the average per acre return from crop cultivation it becomes negative amounting to Rs. 4985.27 on the marginal farms and Rs. 934.55 on the small farms as we reached at the cost C2. The analysis shows the miserable condition of the marginal and small farmers in Punjab. The condition becomes worse if we deduct the household consumption of crops from the total return and compare it with the cost of cultivation (Singh, 2008). Low return and high cost of cultivation with non-viability of holdings is resulting in high level of indebtedness among the farmers in Punjab.

INDEBTEDNESS AND SUICIDES IN RURAL PUNJAB

The problem of indebtedness of Punjab peasantry was highlighted as early as in 1920s. While studying the indebtedness problem of the peasants of the Punjab state, Darling (1928) wrote, "the bulk of the cultivators of Punjab are born in debt, live in debt and die in debt". Though it was written in more than eight decades back, the problem of indebtedness not only remains true today but it has aggravated further in recent years.

A vast majority of the farmers carry out farms operations with short-term credit which are easily available from the commission agents (Singh, 2007). Majority of the commission agents are not registered under the Punjab Money Lending Act, 1938 that is why they charge exorbitant rate of interest. The loan has been provided on the sale agreement of property. The marginal and small farmers could not return or adjust the loan with them on the latest sale proceeds, hence, number of defaulters increased between 2001 and 2005. The income level of the marginal and small farmers, i.e., income from cultivation and non-cultivation is not even sufficient to meet their domestic expenditure. Unproductive expenditure is also very high among the marginal and small farmers. The total debt on the farmers was recorded as Rs. 5700 crore in 1998 which increased to 26000 crore in 2007 (Singh, 2007). A recent nation-wide survey (NSSO, 2005) also brings out the grave situation in terms of farmers' indebtedness. The number of indebted farming households in Punjab were 65.4 per cent of the total farming households. The average amount of debt on per farming household in Punjab was Rs. 41576 which was more than three times higher than all-India average. Another study of Punjab state carried out by Kaur (2008) shows that more than three-fourths of the farming households in Punjab are under debt. The amount of loan per farming household and per sampled household increases as the farm size goes up.

The problem of indebtedness gives birth to a new problem as happened in some other parts of India, Punjab too experienced an increase in cases of suicides

by the farmers and landless labourers during the 1990s. The available literature tends to point a clear link between the increasing economic hardship of the rural people, particularly the smaller farmers and the landless labourers, and the growing number of suicides (Jodhka, 2006). According to an internal report prepared by the department of agriculture of State government in 2004, though the phenomenon of the farmers' suicides started sometime during 1980s, it witnessed a certain increase during the 1990s. The situation became alarming when in a single year, i.e., 1997 as many as 418 cases of suicides were reported from the rural Punjab. The government officials not only identified a total 2116 cases of reported suicides since the mid-1980s, but also recognized that these figures were only of reported acts and many more must have gone unrecorded (Jodhka, 2006). On the other hand, farmers' organizations like Bhartiya Kisan Union (BKU) claimed that 13000 farmers of Punjab had committed suicides during the last five years (Sumbly, 2005). The organization revealed that people generally hesitate to disclose the incidence of suicides due to legal harassment, police action and social stigma. It is a fact that the crisis has penetrated in different facets of the rural life which is affecting more than 57 per cent of the rural population in Punjab. It cannot only be considered as agricultural crisis, but also overall stagnation of economy. The lacking of commercialization of agricultural has effected on inner dynamism which has reflected economic development (Singh and Toor, 2005). The marginal and small farmers are the worst sufferers from the agricultural crisis in Punjab. They neither have land/other assets, education or any other marketing skill to make a reasonable life (Patil, 2008).

CONCLUSION

The Punjab economy which grew at a very fast pace during the 1970s and 1980s due to Green Revolution in agriculture sector lost its pace in 1990s. In terms of growth rate of GSDP the state of Punjab was at the 27th position among the Indian states during the 10th Five Year Plan. Punjab is also losing its position in terms of per capita income since the 1990s. The structural composition of Punjab economy is not showing any healthy signs, because the industrial sector is not able to pick up its pace of development and its share in GSDP is increasing very slowly; and in the case of employment the share of this particular sector has decreased. This transformation has led to grave crisis in overall economy of the State.

The agrarian sector of Punjab which made rapid strides after the Green Revolution also seems to have lost its pace due to introduction of liberalization and globalization. The average annual compound growth rate of the GSDP from agriculture is lower than average annual compound growth rate of agriculture at the national level. The marginal and small farmers are facing a different kind of situation. The

number of marginal and small farmers in a state are continuously decreasing due to the process of 'reverse tenancy'. There has been steep increase in the cost of cultivation which is substantially due to reforms. The mounting input cost in Punjab squeezed the profitability of this occupation and the return crop cultivation is not able to cover the cost of cultivation which shows the miserable condition of farmers in Punjab particularly the marginal and small farmers.

Another related problem being faced by the farmers in Punjab since 1920s is their deep indebtedness. The indebted farming households in Punjab are more than three-fourth of the total farming households. This problem has assumed a new dimension resulting in more and more suicidal deaths of the farmers and landless labourers in the state as it happened in other parts of India also. The marginal and small farmers are the worst sufferers from the agricultural crisis in Punjab. They neither have the land, other assets and education nor the marketing skill to make a reasonable life.

SUGGESTIONS

The above analysis shows that the Punjab economy is facing a crisis today. The situation demands that in order to overcome the problems faced by it, effective measures need to be taken by the government. Some of these measures are suggested below :

The industrial sector of Punjab has completely failed to raise its share in GSDP and employment generation. Punjab needs an alternative strategy to grow at the pace. For the development of the industrial sector in Punjab there is need to develop agro based industries and small scale industries in the rural areas on priority basis.

No doubt, the land of this region is highly productive. The urgent need is to take certain strict actions in the rural areas. For the development of agriculture, there is need to invest in human capital through education and health, creation of rural organizational structure like Japan, Taiwan and China that provides services to the marginal and small farmers. It will certainly help to raise the agricultural output and rural income simultaneously.

To make small holders' farming more productive and sustainable, there is need to improve price incentives and increase the quality and quantity of public investment. To reduce the problem of 'reverse tenancy' among the marginal and small farmers, there is need to rethink about the land reforms in the State in a comprehensive way. The farmers' income should be diversified in its sources. Public and collective provision of costly inputs like tractors and combines should be made so that marginal and small farmers could hire these machines.

To solve the problem of increasing cost of cultivation, there is an urgent need to develop service ancillary to agriculture and rural development need to be taken by the government through suitable policy measures. These include the fixation of the price for agricultural produce by government agencies, subsidizing the agricultural inputs like seeds, fertilizers, insecticides and pesticides.

To overcome the problem of indebtedness and suicides, the government must exercise strong check on the activities of non-institutional agencies. The government should open up rural branches at appropriate distance and open up facilities for loan to needy farmers from the institutional credit agencies at low rate of interest with easy repayment facilities as recommended by the National Commission on Farmers.

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