

SWOT ANALYSIS OF PUNJAB AGRICULTURE

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Abstract

Punjab's agriculture is currently facing several challenges and is at a crossroads. While we have made history as the state leading in agricultural production and being dubbed the "food bowl of India," this has been accompanied by issues such as declining land holding sizes, depleting water tables, and other related issues. This paper examines the opportunities, threats, and strengths and weaknesses facing Punjab's agriculture. The province's hardworking peasantry and largest cultivable land are its main assets, while our weaknesses include low yields, minimal value addition and food processing, and a significant amount of post-harvest losses. Additionally, the study looks at potential prospects and how to further develop them in order to increase agricultural community revenue and production while regaining some of its former grandeur.

Introduction: -

Punjab's agricultural sector was crucial to the Green Revolution's success in the 1960s; while making up just 1.54% of the nation's total land area, Punjab's remarkable successes in agricultural growth won it the title of the nation's food basket. Traditional Punjabi agriculture saw substantial modifications as a result of the Green Revolution. The green revolution's favored agricultural method required a lot of resources. Agriculture saw rapid expansion up to the early 1990s. It soon slowed down as a result of using all of the resources that were available. This study examines the SWOT analysis of Punjab Agriculture. The declining trend was brought about by the monoculture of wheat and paddy, excessive automation, and intense input utilization, which raised costs.

Meaning of SWOT: -

A strategic planning technique called SWOT analysis is used to assess an endeavor's opportunities, threats, weaknesses, and strengths.

Strengths: -

These are the characteristics that set any company apart from the rest. These highlight an

organization's advantages over its rivals and help it become a clear winner.

Weaknesses: -

These are the characteristics that make any business less competitive than the others. These are the low points that obstruct an organization's ability to operate freely.

Opportunities: -

These are the bright spots, or outside variables that can be taken advantage of to give the businesses the greatest possible advantage. An business can succeed if it is able to handle every tiny chance and turn it to their advantage.

Threats: -

These are the environmental outside variables that could pose a risk to the business.

Strengths of Punjab Agriculture: -

- i) The state of Punjab is primarily an agricultural one. The primary sector's share of state domestic product, measured at constant prices (2004–05), increased from Rs. 34107 crores in 2007–08 to Rs. 35740 crores in 2010–11. According to AERC 30, this industry grew by 2.05 and 3.01 percent in 2008–09 and 2010–11, respectively. It makes a significant contribution to the national pool of rice and wheat. The numerous elements listed below have a significant impact on Punjab agriculture.
- ii) **Favorable Natural factors: -**
In the history of agriculture worldwide, Punjab State's agricultural achievements are unmatched. It evolved from a food-deficient status during independence to become the nation's food source. Punjab's rich mineral deposits make for excellent soils with potential for agricultural output. The infrastructure for ground and surface water irrigation in the state is first-rate. Irrigation covers almost 98% of the net sown area. The state has ideal climate conditions for industry. The Thar Desert of Rajasthan in the south and southwest and the Himalayas in the north both have a significant impact on Punjab's climate. Punjab benefits from mild weather, which is good for plants.
- iii) **Hard Working People: -**
In Punjab, agriculture indirectly supports two thirds of the population. One of Punjab's main sources of agricultural strength is its hardworking peasantry. Punjab's farmers, who are always receptive to new ideas, have adopted and implemented a variety of tactics, which has contributed to the province's strong growth in the agriculture industry. A favorable atmosphere is created by political authority based primarily on rural areas and with an agricultural background.
- iv) **Technological Advances: -**
Punjab has advanced agriculture technology in a number of ways. A farmer adopting new technology must understand its advantages as well as its costs, price incentives, farm sizes, and other factors. The Punjabi farmers have sufficiently met all of these requirements.
- v) **Results of Green Revolution: -**
Punjab is benefiting from the green revolution. The Punjabi economy is

benefiting greatly from the 1960s policy. With HYV seeds, chemical fertilizers, irrigation, and other institutional and technological elements, Punjab Agriculture was previously established as a model state for the green revolution and has demonstrated exceptional accomplishments in agriculture. A few of Punjab Agriculture's strong points are the expansion of its irrigation network, the construction of rural linkages and electricity, the successful distribution of finance and other agricultural inputs, and the efficient administration of its agricultural price strategy.

Weaknesses of Punjab Agriculture: -

The decades of 1970's and 1980's showed the phenomenal increase in agriculture productivity which led to the slow growth despite of increased doses of inputs.

i) **Low yields: -**

In Punjab, the agricultural sector had rapid expansion until the early 1990s. After that, it slowed down as a result of technology and resource potential being used more and more closely to their potential limitations. This resulted in rising costs, a depleting resource base, falling productivity, profitability, and revenue.

ii) **Low value addition and food processing: -**

Value addition and food processing are two emerging industries that could create a large number of jobs in rural areas. Regrettably, Punjab's potential has not been fully realized. Punjab is a heavily agricultural state in the nation, but despite this, the food processing sector is not very developed and is confined to the processing of grains through the operation of rice mills, flour mills, oil mills, and cotton ginning.

iii) **Post Harvest losses: -**

The state's poor processing levels contribute to a significant amount of agricultural and horticultural output waste. The producers suffer significant post-harvest losses as a result of inadequate infrastructure for handling high-value commodities after harvest, such as line grading and packing houses, cold storage, etc. At every stage of the post-harvest system, from harvesting to handling, storage, processing, transportation, and marketing, among other things, losses of

very varying magnitude, both quantitative and qualitative, occur.

iv) Limited access to Modern technology:

- Adoption of the green revolution plan undoubtedly contributed to Punjab's technological advancements, including the usage of tractors, machineries, tube wells, and chemical fertilizers. Modern irrigation techniques and HYV seeds have transformed Punjab's agricultural landscape. A sizable portion of the rural population is still without access to contemporary technology. They continue to use conventional agricultural techniques. The high prices associated with these technologies prevent small and marginal farmers from utilizing them, despite all of their potential benefits.

Opportunities for Punjab Agriculture: -

i) Diversification: -

The moment has come for Punjabi farmers to be subtly assisted in switching from wheat paddy rotation to other crops, as the growth in market demand for rice and wheat has significantly slowed down. Other agricultural endeavors and more sustainable crops must take the place of the over reliance on the wheat paddy rotation. Without a doubt, these two crops are the least dangerous when compared to other crops, based on resource endowments and weather conditions. To break out from the cycle of wheat and paddy, farmers should be offered alternatives that are safer and more lucrative economically. A number of analysts have recommended diversifying away from the current wheat/rice monoculture and toward alternate crops in the face of the worsening problem. The State government may expand its price policy to include additional crops in order to achieve this. It is undoubtedly possible to encourage farmers to produce alternative crops besides wheat and rice by offering competitive prices and simple procurement procedures. To create workable substitutes, research efforts must be directed at fruits, flowers, and vegetables. To help farmers mentally prepare for other options, a system of rewards and disincentives should be implemented. To accomplish the goal of

diversification, the government may implement a unique package of subsidies.

ii) Value-addition in farm products: -

All industries have experienced dynamism as a result of globalization, and the agricultural industry is no exception. As a result of expanded trade opportunities, cost competitiveness, and income growth, demand for processed and semi-processed foods has increased. The expansion of high-value commodities is shown by this increase, which means there is plenty of room for the agro processing business to expand and create new opportunities. By increasing demand for agricultural output as a raw material, this agro industry would not only expand the economy's industrial sector but also accelerate the growth of the agriculture sector. In order to overcome the growing agrarian crises, a number of economists have proposed connecting agriculture production with agri-business activities.

iii) Encouragement to Organic farming: -

Fertilizer overuse presents a significant risk to soil health. Wholehearted efforts are required to increase soil health and nutrient use efficiency in order to address this issue. Promoting organic farming through the use of compost, green manuring, and farmyard manures as a supplement to inorganic fertilizers is one extremely beneficial technique. With the advent of organic farming, soil fertility—which has decreased due to a lack of essential micro and macronutrients—can be restored. It is important to inform farmers about the benefits of adding legume green manuring crops to their cropping sequence. This will help the soil retain its ability to produce high yields while preserving nitrogen and addressing micronutrient deficits.

Threats to Punjab Agriculture: -

i) Uncertain Weather conditions:

Although the amount of area covered by irrigation increased from roughly 76% of the net sown area in 1972–1973 to approximately 97% in 2006–2007, the widespread use of canal irrigation and the careless use of ground water through tube wells have resulted in water logging in some areas and a lowering of the ground water table in other

areas. Rainfall has always been erratic, which exacerbates farmer problems and puts more strain on groundwater supplies. Weather has a profound impact on agriculture, influencing agricultural plants from germination to maturity. Due to many environmental shifts, Punjab is experiencing circumstances akin to a drought. Punjab has received 31% less rain in 2015 than usual.

ii) Crop Losses due to Pest Attacks: -

The introduction of high-yielding crop types, the heavy use of inputs, and the creation of novel cropping patterns have made the pest situation worse. Vegetables, oilseeds, cotton, sugarcane, and paddy crops have demonstrated a higher dependency on pesticides. Pest resistance, pest resurgence, and breakouts are only a few of the new issues brought on by the overuse and carelessness of pesticides, weedicides.

iii) Deteriorating Soil Health: -

One factor contributing to the various crops' stagnating yield and consequent decline in farmer income is deteriorating soil health conditions. Because of the soils' substantial mineral reserves, agricultural production on them has a lot of promise. The main issues facing Punjab's soils today are surface crust, subsurface compaction, soil erosion, water logging, the development of fine-textured sodic soils, salinity, pollution from agrochemicals, wastewater, and industrial effluents, depletion of organic matter, and Mult nutrient deficiencies. The Punjab soils were depleted of essential nutrients due to the high nutritional demands of wheat and paddy. A low fertility status indicates that the soil's ability to supply the developing crop with a significant amount of plant nutrients is significantly less than what is required to achieve a high yield.

iv) Indebtedness: -

Investing in commercial agriculture requires larger sums of money, and borrowing is required for agricultural setup. Due to the seasonal nature of agriculture, farming requires a steady outflow of income to purchase various agricultural supplies, but the inflow is not continuous. Borrowed money from institutional or non-institutional sources closes the resulting gap (Sukhpal Singh et al., 2014). The primary causes of farmers' debt are rising production costs, low produce prices, and therefore slim profit

margins brought on by either crop failure or stagnating crop output.

v) Low Interest in Agriculture: -

In Punjab, where unemployment is starting to become an issue, young people find farming to be an unappealing career (Sidhu, 2002). Punjab is typified, like many farming communities, by an aging farmer population with fewer newcomers. This phenomenon can restrict the range of innovations and new sustainable agriculture technologies' implementation. Despite their experience, elderly farmers frequently have lower levels of education and are averse to change. Large zamindars typically give their tenants control over farming. The tiny peasantry, agricultural laborers, and members of the service class saw an opportunity when the dominant caste of peasants left farming. They attempted to fill this void by purchasing land, tenancy, and sharecropping.

vi) Problem of Drug Abuse:-

It appears like Punjab's economic success story is coming to an end. Once the leader of the green revolution and renowned for its hardworking populace, Punjab is currently in the news due to a drug epidemic that has spread throughout the state and coincided with a slowdown in economic progress. One indication of how state-specific the issue is the fact that Punjab accounts for over 60% of all illegal drugs captured in India (Yardley, 2012). Drug misuse has been rising at a startling rate. Due to easy access to expensive drugs, young people from wealthy families—especially those who are wealthy farmers—tend to neglect their crops and instead entrust it to their tenants.

vii) High Cost of Production: -

In the history of agriculture worldwide, Punjab State's agricultural achievements are unmatched. The state, which had a food shortage upon independence, has advanced its agriculture sector quickly. The utilization of inputs like fertilizers, better seeds, irrigation, chemicals for plant protection, machinery, and technological backing is credited with the extraordinary advancement of Punjabi agriculture. Thus, the farming sector has become more integrated into the market network and has assumed a more capital-intensive role in the post-green revolution and post-liberalization

period. The cost of production has gone up due to the widespread use of these contemporary inputs.

Conclusion: -

Punjab's agriculture is currently restricted by a number of problems. Punjab made history by significantly contributing to the central grain pool and earning the moniker "India's Food Bowl." This essay attempts to analyze Punjabi agriculture's advantages, disadvantages, prospects, and threats. The record-breaking output of food grains on cultivable land is a strength; yet, static yield and post-harvest wastes are disadvantages. It is necessary to make an effort to take advantage of the chances and confront the hazards. Punjab has had more prosperous times with rapid agricultural growth. Even though Punjabi agriculture is currently at a crossroads, work must be done to restore its former splendor.

References:-

1. Kumar Parveen and Nain M.S (2013)- Agriculture in India: A Swot Analysis, Indian Journal of Applied Research
3. NSSO, 2005
4. Sidhu HS (2002) Crisis in agrarian economy in Punjab. Economic and Political Weekly, July 27, 2002.
5. Singh Jasdev, Grover D.K., Dhaliwal Tejinder K.-State Agricultural Profile-Punjab (AERC Study No.30)
6. Singh Sandeep, Dr. Kiran Ravi (2012)- Productivity and Competitiveness in Agri-Biotech Sector of Punjab:Swot Analysis. International Conference on Arts, Economics and Literature, Singapore.
7. Singh Sukhpal, Bhogal Shruti and Singh Randeep (2014) Magnitude and determinants of Indebtedness among farmers in Punjab. Indian Journal of Agricultural Economics Vol. 69, No.2.
8. Yardley, J, 2012 Indian State finds itself in tight grip of addiction. The New York Times.