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AGRICULTURAL POLICIES IN KARNATAKA: SOME FACETS

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Abstract

Introduction : It's critical to recognise that improvement is occurring gradually on a global scale. Because growth rates vary from region to region, there are noticeable large-scale regional disparities in the levels of development.

Materials and Methods : The agricultural policies in Karnataka were taken from internet sources and from government sites. The information for the present study was obtained from various internet sources like research articles and paper presentation documents and research book publications. According to the acquired source, the research is based on secondary data gathered from sources such as the Economic Survey of Karnataka, the Dr. D M Nanjundappa Committee Report, the Census Handbook (2001 and 2011), and others.

Result & Discussion : According to the data, most academics employ a variety of measures to assess the level of regional development, but it is essential to employ a consistent approach to identify regional discrepancies. The proportion of net sown area to total cropped area differs between taluks. The northern taluks have had more success growing commercial crops than the western taluks have. This may be due to the superior potential for crop growth on the land in the middle and northern regions.

Conclusion : The data especially shows that while most academics utilise a range of metrics to assess the level of regional development, it is essential to employ a consistent approach when identifying regional differences. The proportion of net sown area to total cropped area differs between taluks. It was found that the majority of the land in the taluks in the dry zone was used for commercial crops.

KEYWORDS : Agriculture, Karnataka, Policy, Farming.

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INTRODUCTION

Presently a study of the regional differences in the state of agriculture and related development in various regions of Karnataka has been conducted, and an effort has been made to determine the relationship between the many elements that contribute to regional disparity. In order to choose the most effective policies to resolve imbalances, a sufficient amount of important and scientific data is also needed. When it comes to collecting, combining, and releasing data on multiple sectors at disaggregated levels, Karnataka is significantly better than many other Indian states. The research is based on secondary data gathered from sources such as the Economic Survey of Karnataka, the Dr. D M Nanjundappa Committee Report, the Census Handbook (2001 and 2011), and others.[i]

The region was divided into four groups using the complete composite index: developed areas, backward areas, more backward areas, and most backward areas. Furthermore, theories have been created and tested using procedures in the appropriate settings. To evaluate the spatial variation in the levels of development of agriculture and related sectors, a composite score based on the percentage of total cropping area, percentage of area under food crops, percentage of area under horticulture crops, percentage of area under commercial crops, percentage of net area irrigated, consumption of fertiliser, mechanisation of agriculture, livestock, and per capita bank credit has been calculated for all taken taluks.

The North Karnataka Region is administratively split into two divisions: Gulbarga (also recognised as Hyderabad or Kalyan Karnataka) and Belgaum (also known as Bombay Karnataka). Each division is made comprised of 80 taluks and 13 districts, which include Bagalkot, Belagavi, Bellary, Bidar, Dharwad, Gadag, Haveri, Kalaburgi, Raichur, Uttara Kannada, and Yad According to the 2011 census, there have been 26,116,177 people living there, or 42.75 percent of all inhabitants living in the state of Karnataka. Belgaum District, which has a landmass of 13,415 square kilometres and serves as the largest district in the study area, is also the smallest, with a total area of 4,260 square kilometres.[ii]

The data specifically demonstrates that the majority of academics use a variety of indicators to gauge the degree of regional development, but it is crucial to use an uniform method for determining regional disparities. From one taluk to another, the ratio of net sown area to total cropped area varies. In comparison to the western taluks, the northern taluks have exhibited improved success in commercial crops. This might be because the land in the middle and northern regions has better crop-growing potential. The taluks in the dry zone were discovered to have the largest percentage of land planted in commercial crops.

It is crucial to note that of all the taluks in the study area's northern region, which are rainfed, are the most and more backward. These taluks have a long and storied history of being backward.

The quality of groundwater has been declining as borewells have been dug deeper and to greater depths. Farmers now have to spend more on operating and maintenance costs for repairs to their IP-sets as a result of the low quality of the power supply. The area irrigated by tanks has experienced a sharp decline and negative growth. The patterns show an over reliance on borewell irrigation in agriculture. The proportion of groundwater, which is frequently used for minor irrigation, has surpassed that of large irrigation (canal). As time goes on, more and more land is being watered by bore wells, while less and less land is being irrigated by open wells.[iii]

Since 2009, there has been a dramatic increase in government spending on large and medium irrigation projects with the

goal of expanding potential. But during this time, the net irrigated area essentially stays static. As a result, the increase in spending is not proportional to the growth in irrigation area. Major, medium, and minor (surface water) potential is approximately 31 lakh ha, whereas used area is approximately 16.4 lakh ha (WRD, GOK, 2017). As a result, there is a big gap between potential that is created and that which is used. The gap is still present because Command Area Development Authority (CADA) is not doing well due to inadequate budget and other factors.

Uncontrolled water consumption in irrigated commands has resulted in environmental issues such salt, alkalinity, and water logging that are more expensive to address (Chinnappa & Nagaraj 2007). It has been discovered that better irrigation technologies including micro irrigation (MI), aerobic rice, and SRI approaches increase productivity in addition to saving a significant amount of water. All tanks in the state have heavy silting as an issue (Chandrakanth & Romm 1990). The farmers have stopped the practise of de-silting irrigation tanks, despite the fact that it was a conventional institutional system that involved all the homes in the community.[iv]

This is caused by, among other things: 1) a significant decrease in the number of cattle in the villages, which significantly restricted the movement of sand; 2) a high opportunity cost of sand transportation; and 3) a severe labour shortage. 4) Farmers cannot recover the increased costs associated with silt application from the meagre profits they receive from dry land cultivation.

The state's groundwater use is conceptually flawed, with semiarid districts in the north and south interior of Karnataka receiving more intensive use. Despite the fact that the number of borewells and the area that they are used to irrigate are both on the rise, the area irrigated per borewell is drastically declining. The quality of groundwater has been declining as borewells have been dug deeper and to greater depths.[v]

Farmers now have to spend more on operating and maintenance costs for repairs to their IP-sets as a result of the low quality of the power supply. There is a huge opportunity to enhance the quality of water management by using cutting-edge strategies through CADA and WUAs. Volumetric measurements of water should be implemented in addition to updating canal networks to create accountability for water consumption at the Nigam level. Show the practical advantages of employing effective irrigation management techniques, including the use of precise technologies like sensor networks, tension metres, and weather information. To speed up project delivery, reduce cost inflation, and ensure that the irrigation potential developed is used effectively, changes must be made to the WRD and special irrigation institutions. Introduce incentive structures that boost cross-sector water governance and increase water use efficiency.

Although the government's intention to fill Kolar and Chikkaballapur tanks with treated sewage water from the KC Valley in order to promote groundwater recharge is admirable, its long-term environmental impacts must be considered.To increase the net return per unit of water, it is necessary to promote the diversification of high-value, less water-intensive horticulture crops coupled with the finest technology package. To build a value chain based on clusters, both public and private investment is required. The PMKSY, a comprehensive flagship programme to support precision farming, was introduced with an emphasis toward the value of water and its wise use in agriculture. The PMKSY aspires to combine all current irrigation plans in order to offer "end-to-end" solutions for the irrigation sector. [vi]

The Accelerated Irrigation Assist Programme (AIBP), PMKSY (har khet ko pani), PMKSY (per drop more crop), and PMKSY (watershed development) are the

four components of this that need to be scaled up in order to benefit a lot more farmers. With the onset of climate change, the state's demand and supply mismatch for irrigation water would widen further, necessitating demand and supply measures. Modern irrigation practises and procedures should take the place of the current way of flow irrigation, primarily to increase water usage efficiency and reduce water losses. The problem of water scarcity can be avoided by enhancing water users' capacity to switch to more water-efficient production techniques.

The water delivery system will be improved by bettering water governance through PIM and water users' associations monitoring and enforcing water management measures. Rarely did researchers make an effort to volumetrically measure irrigation water using both canal and bore-well water. In order to improve cooperation, cross-sectoral water governance must be strengthened.

Over the years, the Karnataka government has made interventions in agricultural production through programmes to improve farm productivity, sustainability, and food security to raise the socioeconomic standards of farmers. The Bhoochetana scheme, which provides farmers with micronutrients to improve soil fertility and assure farmland productivity, is one of these initiatives. Therefore, the goal of this study was to investigate the degree and circumstances that contributed to farmers in Karnataka's Kalaburagi district, one of the state's major rainfed districts, adopting the Bhoochetana programme.[vii]

Using a well-structured schedule, data was randomly collected from a sample of 120 farmers, including 60 Bhoochetana beneficiaries and an equal number of non-beneficiaries. Descriptive statistics and the Probit model were used to evaluate the data. According to the econometric model's findings, the probability of using Bhoochetana inputs rises noticeably with higher levels of education, access to credit, and extension services, but falls with farmers' ages.[viii]

The findings suggest that the government should publicise the Bhoochetana scheme to promote adoption. To ensure that all farmers have access to enough and pertinent information on new agricultural technologies and improved production practises, it is also essential to improve extension services in order to raise the productivity of rainfed agriculture in the state.[ix] Farmers still have limited access to solar irrigation pumps, particularly in India's rural and agricultural areas[x] The Surya Raitha Scheme (2014–2021) of Karnataka aims to give farmers in the state subsidies for using solar energy for irrigation. 90% of the total capital cost for the installation of standalone off-grid Solar Irrigation Pumps (SIPs) at farmer's site sites around the State is covered by the project's subsidies. The initiative has installed more than 221 million volts of solar electricity across the State, according to reports from (Karanataka Renewable Energy Development Ltd, 2019)[xi]

In order to get information on SIPs, farmers often faced significant obstacles, some of which were tied to issues of poverty. After the solar pumps are installed, getting in touch with development personnel becomes challenging since they get preoccupied with their regular tasks. The use of SIPs allowed farmers to continue using their existing irrigation systems. A further issue raised by the adopted farmers was the lack of training and support provided by the development workers after the pumps were installed. This innovation required technical knowledge and skills connected to its management and operation in order to be used and maintained optimally. Farmers must have access to development personnel or private vendors. [xii]

Even if the "Surya Raitha" concept talks about buying back additional power produced on a net metering basis. Almost all farmers who intervened were hesitant to share this knowledge. A successful

application of new, cutting-edge farming technologies depends on how people view farmers, claim Mukadasi and Lusiba (2006). They added that it is vital to understand the dynamics of framer perception if any new innovations or policies in the agricultural industry are to be successful. The perception of farmers and how it influences the adoption of novel, creative techniques has been the subject of countless research, but little attention has been paid to it. Despite these restrictions, farmers' perceptions and the uptake of new innovations still have a clear correlation. Including Negatu (1999).[xiii]

Solar Irrigation Pumps can increase rural households' access to water, but without a solid strategy to regulate moderate water consumption, the area faces the issue of overexploiting its groundwater resources. So research was done in order to grasp the potential perspective that farmers may have while utilising such innovation.[xiv] The timeliness of water through SIPs was slower than that of diesel pumps, according to a comparison of the two, as it was largely influenced by the weather at the time. Solar pumps did increase water use efficiency, but they did not conserve water. While the amount of water pumped did not change when SIPs were used, the amount of irrigated area overall may grow, increasing agricultural output.[xv]

The subsidy benefits, which amounts to 90% of the entire cost of installation for the pumps, are a bit excessive and may have more negative effects than positive ones. SIPs, as was previously indicated, have lower operating costs once built, hence new funding strategies must be used to promote the innovation rather than just offering larger subsidy rates. It is necessary to conduct in-depth research and development in the area of impact evaluation that includes the effect of solar irrigation pumps on agricultural yields, income, and productivity both before and after their adoption. India's rural farmers mostly rely on information particular to the location.

Moreover, Observed groundwater levels exhibit exceptionally high spatial variability in the locations with substantially overexploited fractured rock aquifers, and the measured water levels often rise with borehole depth. All the borewells in the area function as point recharge sources thanks to cascading flows that originate from relatively shallow depths in the borewells and reach the water level at higher depths. Because the level of the groundwater never reaches to the joint where the cascading flows start, a perched aquifer-like condition develops. According to this study, cascading flows in general, a thick rock formation below the recharge zone that has been dewatered, and deeper wells that record deeper water levels are likely good indications of severely overexploited circumstances in a region.[xvi]

MATERIALS AND METHODS

The groundwater resource estimation methodology from 1997 had been used to estimate India's dynamic groundwater resources. The methodology estimates recharging using the empiric norms and the water-level fluctuation technique. The amount of groundwater used is also estimated. The groundwater development stage is determined, and assessment units are grouped based on the long-term water level and groundwater development stage.[xvii]

RESULTS AND DISCUSSION

The documented inverse link between farm size and per-hectare agricultural productivity in India sparked a heated controversy in the 1960s and 1970s. However, nearly 50 years later, data from the National Sample Survey from the first decade of the twenty-first century reveal that smallholdings in Indian agriculture continue to produce more than large holdings. However, the per capita production in these smallholdings is lower, and poverty is a common occurrence. Strategies for Indian agriculture and smallholding households should emphasise promoting off-farm labour in the rural areas

themselves as well as addressing land distribution inequity. The plan to encourage migration from rural India in order to increase the crop land-man ratio has not succeeded and will not work. Only by leveraging smallholding families' better per-acre agricultural productivity and by encouraging off-farm rural jobs will their quality of life be improved.[xviii]

Agriculture policy karnataka

Karnataka's agricultural sector has been marked by sporadic periods of stagnation and expansion.[xix] Since this industry directly affects the state economy's overall growth performance, it is a serious concern. To get beyond the limitations and promote growth-promoting factors, efforts are being made at both the policy and implementation levels. The limitations largely include the effective use of natural resources, already-built infrastructure, backward and forward connections, and related supporting operations.[xx]

In addition to these, the current liberalisation process has helped allied industries like horticulture, floriculture, fisheries, agro-processing, etc. gain significance. For sustained development, these sectors need stronger supportive infrastructure, and only then can they significantly contribute to the expansion of Karnataka's economy.

In order to meet the needs of the state, faster growth rates in agricultural production should be the goal of agricultural production policies, according to the agricultural policy resolution of the Karnataka State. The policy documents' main goal was to lay forth a clear plan of action for the strategy to build a successful rural community in Karnataka. By utilising the chances provided by trade at the national and international levels in a setting of general economic liberalisation, it sought to promote growth in the agricultural sector and related industries. According to the policy statement, the expansion of the agricultural industry would spur expansion in other industries due to its backward and forward connections. More employment and a reduction in rural poverty were anticipated as a result of the type of growth that was envisioned. In addition to safeguarding the environment, it was intended to encourage resource utilisation efficiency.[xxi]

In order to address the aforementioned difficulties, the government also believed that the state's policy on agriculture and related activities needed a fresh focus and direction. The government established the Karnataka Agriculture Commission in April 2000. The commission's first duty was to come up with initiatives to close the gap between potential yields and actual yields in the state's several agro-climatic zones. The government hosted an Agro Summit in Dharwad at the beginning of 2000 to establish the course for the agriculture sector's growth.

One of the research contended that numerous State administrations appear to have handled the problem better during the national lockdown than the Central Government, which was frequently behind States in agricultural concerns. Prior to the nationwide lockdown, numerous States had already published rules for agriculture and had announced lockdowns and restrictions. As a result, the Government of India's response came after events had already begun, varied depending on the State, and was regrettably largely autonomous of State actions.[xxii]

CONCLUSION

The government of India had responded to the current situation by releasing directives aimed at easing the struggles faced by various groups in the larger agri-food system. However, it is perplexing that none of these problems, which were all preventable, were addressed as part of a thorough lockdown strategy. The guidelines for agriculture didn't start to seem complete and clear, as they should have from the start, until the lockdown was prolonged until May 3.

The Ministry of Agriculture had started looking into options to streamline the shipping of agri-food commodities while the Ministry of Home Affairs was addressing the loopholes in the regulations.[xxiii] The lockdown orders and advising warnings for farmers were put together by the Indian Council of Agricultural Research. The state of Andhra Pradesh announced on April 18 that tea, coffee, rubber, and cashews might be processed, packaged, sold, and marketed with a maximum of 50% labour (G.O.Rt.No.88).[xxiv]

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