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H, Dr. Gopi and K B, Dr. Rangappa

Department of Economics, Poornaprajna College, Udupi, Department of Economics, Davangere University

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# An Operational Mechanism of Ganga Kalyana Scheme in Karnataka: An Analysis with Demand and Supply Phenomena

Dr. Gopi H<sup>1</sup>, Research Scholar, Dr. K B Rangappa<sup>2</sup>, Professor Department of Economics, PPC, Udupi<sup>1</sup>, Davangere University, Davangere<sup>2</sup>, Karnataka E-mail: gopi.h@ppc.ac.in Contact Number: 85538 58123

#### Abstract

Karnataka is a well-located geographical state which has been contributing in a good number by having a fourth place (2019-20) in GSDP to the country. The primary sector has been contributing less to others, not only in India but also in Karnataka. Many of the problems faced by the farmers in Karnataka and gradually, due to many causes, the small and marginal farmers have also increased. To uplift the weaker section of the society (SC/STs), Karnataka State Government launched a scheme that facilitates the bore well by providing supporting materials. Gradually the plan spread over to the communities, namely OBC, Minorities, and Vishwakarma. But the most benefit is required to the Schedule Caste small and marginal farmers (SMFs) with the rest of other communities. Hence, this article aims to describe the Ganga Kalyana Yojana operational mechanism with demand and supply side phenomenon to Schedule Caste Small and Marginal Farmers in Karnataka. As of documentation of the study, the supply is yet to be increased in few regions where the SC small and marginal farmers (SMFs) are very high to the total agricultural land holders.

Keywords: GSDP, Primary Sector, SMFs, Weaker section, Demand, Supply

#### Introduction

Water is an essential for human well-being and environmental sustainability. The state's water resource continues to play a crucial role in the sustainable development of the state in the years to come. Water, as an ecosystem, serves as input for producing goods and services in the economy. As the economy is fast advancing under the new economic policy of liberalization, the competing demand for water is also growing at a higher rate for irrigation, industry, domestic, and environmental needs. Water availability and demand are swiftly changing with the mounting total population from 61 million as per the 2011 Census to the projected population of 75 million by 2021 with the demographic transition of rapid urbanization. The freshwater balance is fast

dwindling with the continuing impact of climate change as the state has been facing severe droughts for the past several years. Regardless of water scarcity, water is continued to be treated as a free good even though it is essential for sustaining all life forms. Continuous depletion of surface and groundwater resources, both in quality and quantity, would seriously affect society's economy, environment, and well-being. The state is already stressed by a decline in the per capita availability of water. Consequently, water conflicts have already emerged with inter and intra-sectoral allocation, which shows the hallmark of inefficiency in water resource management. Therefore, the stark diagnosis of the causes and consequences resulting in the state of water resources vis-a-vis to economic development will serve as a benchmark for the policy of the state towards efficient management of water resources from a more extensive ecosystem perspective.

Sl. No.	Particulars	Year Wise Changes (in percentage)		
		1955-56	1980-81	
1	Farmers	30.80	19.60	
2	Land holding of Farmers	75.10	58.70	
3	Small and Marginal Farmers	25.46	59.00	
4	Expanded Land of SMFs	10.30	19.40	

Table 1.1: Year-wise Farmers and Landholding Size in India

As per the above table, the slanted circulation of land possessions in India for the year 1955-56 and the year 1980-81 is very notable, that 30.8 percent of farmers involved 75.1 percent of the land and 19.6 percent of farmers applied 58.7 percent of the ground respectively. Fundamentally, small and marginal landholders were expanded from 11.64 lakh to 25.46 lakh (more than twofold) and from 47.3 percent to 59.1 percent in a similar period (1955-56 to 1980-81). Likewise, the zone has expanded twofold from 11.19 lakh hectares (10.3%) to 22.76 lakh hectares (19.4%). Subsequently, enhancements in agronomic practices ought to be coordinated toward Small and marginal farmers.

Since 1973, the Karnataka state government has been giving numerous facilities to improve the economy of the agriculture division. Among them, the 'Ganga Kalyana Yojana' is one of the most significant scheme acquainted with the destruction of the issues of the irrigation system arrangement of the rural region of Karnataka by 1996. The state administration of Karnataka has

propelled the Ganga Kalyana Scheme conspire concentrated on SCs and STs just who has a place with small and marginal landholdings at first; in any case, inevitably, it has the social duty of the legislature of Karnataka to invigorate the small and marginal farmers having a place with other in other backward classes (OBC) and minority communities.

Sl. No.	Category	Size-Class
1	Marginal	Below 1.00 hector
2	Small	1.00-2.00 hector
3	Semi-Medium	2.00-4.00 hector
4	Medium	4.00-10.00 hector
5	Large	10.00 hector and above

Source: As per the 2015-16 Agricultural Census

# **Qualification Criteria**

This Ganga Kalyana Yojana conspires by the Karnataka state government would apply to the state's farmers who fulfill the underlying measures.

- Applicant must have a place with the SC/ST, OBC, and Minority people groups.
- The candidate must be a permanent resident of Karnataka.
- They should be a Small and Marginal Farmer (SMFs).
- The family's yearly income of the candidate must not surpass Rs.22000 per annum from all sources.

Numerous farmers have, as of now, utilized the Ganga Kalyana Scheme, there has not been a dynamic report and improvement. Since it has sometimes been possessed by the more extravagant of the general public and deluded by the regulates. This examination will check the devices and types of gear given by the Government Corporations from 2015-16 to 2017-18 under the plan alongside the demand and supply of only Schedule Caste beneficiaries in Karnataka.

# Ganga Kalyana Yojana incorporates five organizations;

- 1. Dr. B R Ambedkar Development Corporations (SC)
- 2. Karnataka State Tribal Development Corporations (ST)

- 3. D Devaraj Urs Backward Class Development Corporations (BCM)
- 4. Karnataka Minority Development Corporations (KMDC)
- 5. Karnataka Vishwakarma Community Development Corporations (KVCDC)

All the recipients will assess under the study. According to the referenced examinations in the literature survey, we can see the issues that affected the agricultural water system and the public activity of specific networks. To lessen such issue administration of Karnataka state has propelled the GKS to conspire. From now on, the examination study is entitled economic effect of Ganga Kalyana Yojana's beneficiaries in Karnataka.

The GKS irrigation scheme started w.e.f. 1996-1997 as a State Government initiative to support Small and Marginal Farmers (SMFs) from certain classes of society, specifically those classified as Scheduled Caste (SC), Scheduled Tribe (ST), Other Backward Classes (OBC), and Minority Communities. The scheme originated as a loan scheme that provided farmers with a subsidized borehole and pump-set to irrigate their land and improve their agricultural productivity. After successfully implementing the plan, the participant must re-pay the provided loan. Now, the irrigation scheme offers full financial support for drilling a borehole and installing a pump-set for SC, ST, OBC, and Minority farmers across the State of Karnataka.

Five implementing Government Corporations (GCs) of the irrigation scheme each focus on a specific group of marginalized farmers. All GCs are funded by the State of Karnataka Government and manage the allocation of funds, facilitate the selection process, and coordinate the implementation of the irrigation scheme. Funds are allocated to each GC based on the number of irrigation scheme participants they serve. However, all GCs operate with a standard Drilling Agency, Pump-set/Accessories Agency, and Electrification Agency throughout the State.

# **Criteria for Selection**

Farmers selected to participate in the irrigation scheme fall into two broad categories: Individual scheme or Community scheme users. Each category requires the farmer to meet specific criteria to be considered for selection. The table below displays the participant criteria for each category and the expected facility in each case.

Type of Scheme	Required Land Size	Income per year of SMF (In Rs.)	No. of Beneficiary	Allotted Bore wells
Individual Bore well Scheme	Minimum 2 hectors in a geographical area	Applicant must have below Rs. 22, 000	1	1
Community Bore well Scheme	Minimum 8 to 15 acres in a geographical area	Applicant must have below Rs. 22, 000	3	2
	Minimum 15 to 20 acres in a geographical area	Applicant must have below Rs. 22, 000	5	3

**Table 1.3: Irrigation Scheme Selection Criteria and Potential Support** 

The selection process for the irrigation scheme contains two prior approvals: one with the GC at the district level and the other by a Member of the Legislative Assembly (MLA) at the taluk level. Each farmer must submit the appropriate documentation that proves Category status, current annual income, and land holding size.

Applications are accepted from May – July each year. After verification of records at the GC's district office, the applications are sent to the Taluk selection committee, which consists of 149 members chaired by the MLA. The committees examine the submitted applications and select individual participants from SCs, STs, OBCs, and Minorities. Once a farmer is selected for an individual or group scheme, a geologist or engineer chooses the borehole site. Finally, the borehole, pump set, and electrification are provided by approved private agencies.

### Methodology and Objective of the Study

Karnataka has more SMFs out of total agricultural landholders; among SC, small and marginal farmers are very high. Therefore, the study aims to analyze the demand and supply of benefits to the Schedule Caste small and marginal farming landholders in Karnataka for three years from 2015-16 to 2017-18. To analyze the scenario, the researcher directly requested and received the three years beneficiaries date from Dr. B R Ambedkar Development Corporation Limited, Bangalore. Then, I looked at the 2015-16 Census of Agriculture to observe the total size of SC small and marginal farmers in Karnataka. Hence, the study altogether considered the secondary source of data and analyzed it by tabulation followed by descriptive statistics for the inference.

# Table 1.4: Schedule Caste Ganga Kalyana Scheme Beneficiaries and Schedule Caste Small<br/>& Marginal Land Holders (SMFs) from 2015-16 to 2017-18 across Karnataka

Sl. No.	District	Total Small & Marginal Land Holders (2015-16)	Total GKS Beneficiaries (2015-16 to 2017-18)	Percentage of GKS Beneficiaries to Total SMFs
1	Chitradurga	37882	2694	7.11
2	Kalaburgi	57139	2560	4.48
3	Belagavi	34044	1906	5.60
4	Mysore	67352	1727	2.56
5	Ballari	40440	1517	3.75
6	Vijayapura	32116	1472	4.58
7	Hassan	58670	1316	2.24
8	Raichur	34408	1235	3.59
9	Davanagere	25444	1042	4.10
10	Yadagiri	34136	1038	3.04
11	Kolara	49502	1027	2.07
12	Tumkuru	47473	964	2.03
13	BagalKote	18286	909	4.97
14	Shivamogga	19061	816	4.28
15	Chikkaballapura	40077	814	2.03
16	Bidar	24602	796	3.24
17	Koppala	17083	755	4.42
18	Chamarajanagara	41564	753	1.81
19	Haveri	14902	733	4.92
20	Chikkamagaluru	21798	662	3.04
21	Gadag	11462	643	5.61
22	Mandya	37520	619	1.65
23	bangalore Rural	18230	559	3.07
24	Bangalore Urban	5957	521	8.75
25	Dharawada	4261	465	10.91
26	Ramanagara	18699	453	2.42
27	Dakshina Kannada	9457	379	4.01
28	Uttarakannada	6111	286	4.68
29	Udupi	4900	176	3.59
30	Kodagu s per 2015-16 Agricultural C	3152	36	1.14

Source: As per 2015-16 Agricultural Census of Karnataka,

Dr. B R Ambedkar Development Corporation Limited, Bangalore.

Agriculture has been occupied by different categorized farmers, among which Small and Marginal Farmers (SMFs) play a vital role in contributing to a nation's GDP. To uplift the output of farming activities, Karnataka has issued a bore well scheme in the name of the Ganga Kalyana Scheme. It is evident by table 1.4 that the distribution of GKS beneficiaries over Karnataka from 2015-16 to 2017-18 and the total small and marginal landholders of the 2015-16 agricultural census of Karnataka. As of the 2015-16 Census of Agriculture, the total SMFs of SC out of total agricultural landholders of SC are very high, with remaining classifications such as semimedium, medium, and large landholders in Karnataka, hence the need for improvement of SMFs is very crucial. The most benefited five districts are namely Chitradurga (7.11%), Kalaburgi (4.48%), Belagavi (5.60%), Mysore (2.56%), and Ballari (3.75%), because these districts have more Schedule Caste SMFs to their total agricultural landholders. But the percentage of GKS beneficiaries shows that the sanctioned bore wells between three years were significantly less, that is, on an average, within 10 percent of the total size of SMFs land holders. Particularly, Kalaburgi, Mysore, and Ballari have more SMFs than Chitradurga and Belagavi though they got lesser allocation. Therefore, where the demand for the scheme is high, progress still has to be improved in such regions by the Government Corporation to reach all the demanded farmers.

The GKS benefit has been issued significantly lesser in Kodagu (1.14%), Udupi (3.59%), Uttarakannada (4.68%), Dakshina Kannada (4.01%), Ramanagara (2.42%), and so on which have fewer SMFs on an average (below 10000) except Ramanagara out of total agricultural landholders of Karnataka. The demand may be deficient here for a few reasons in the most benefited districts. Hence, these regions have a low supply of government corporations.

The expected reasons for the low sanction of bore wells in the mentioned districts are as follows,

- 1. Most districts are in the coastal area, so there is little demand for agricultural activities.
- Most irrigation may depend on the open water source in Uttara Kannada and Dakshina Kannada districts.
- 3. Kodagu is a hilly zone, and most plantation crops have been cultivated, so there are fewer bore wells demands.
- 4. The comparison shows that the lower-benefited districts have less number of SC farmers than the high-benefited districts.

#### Conclusion

The Ganga Kalyana Scheme, as mentioned certain features to select the small and marginal farmers who come under the below two hector land holding belonging to SC/ST/OBCs in Karnataka. Few studies analyzed the performance of GKS, revealed that the growth rate of bore wells and changing patterns in agronomic practices. There are positive changes in the bore well sizes decade-wise but not much greater than the SMFs population to categories. But the most benefited SC farmers have not studied much; here, the SC small and marginal farmers' demand for the benefit is higher than the other communities. Because there are more number of SMFs under SC landholders than the different communities. Government Corporations also have been performing well, but still, there is a need to supply the benefit to the highly needed districts. There are hurdles to reaching every district. Nonetheless, as per the data performance, it is not adequate coverage of the supply side of the SC small and marginal farming landholders in Karnataka.

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