



Growth of irrigation in Karnataka

Nizamuddin¹, Dr. NK Gowda²

¹ Research Scholar, Department of Economics, Davanagere University, Shivagangothri Campus Davanagere, Karnataka, India

² Professor, Department of Economics, Davanagere University, Shivagangothri Campus Davanagere, Karnataka, India

Abstract

The cumulative irrigation potential under major, medium and minor irrigation is increased to go up to 35.12 lakh hectares in 2011-12 from 34.43 lakh hectares in 2012-13 35.12. The works in UKP are nearing completion. It has been planned to irrigate about 6.22 lakh hectares of land falling under the drought prone districts of Bijapur, Bagalkot, Gulbarga and Raichur. Upper Krishna Project (UKP) Stage-I, Phase-III, Malaprabha, Varahi, Bhima LIS, Guddadamallapura LIS and Gandhorinala have received / are receiving Central Loan Assistance (CLA) under Accelerated Irrigation Benefit Programme.

Keywords: major, medium and minor irrigation, barrage, upper krishna project, expenditure, special development programme, red gram and bengal gram, bore wells, ground water, pearl millet, sorghum, sunflower and chickpea, kharif, rabi

Introduction

Agriculture plays a dominant role even in Karnataka. The state is situated in southern part of India, with geographical area of (19-04 mha) two-third of the state receives less than 700 mm of annual rainfall. State has 60 % (114 lakh hec) of cultivated land in that 72% of cultivable land is rain fed. There is only 28% land is irrigated; therefore most part of state is always under threat of drought. The government of Karnataka has given considerable attention towards the development of irrigation. So the mounting importance of irrigation has led both the country and the state to take up irrigation projects to ensure sufficient water to the agriculture land.

Irrigation potential-major, medium and minor irrigation projects

The cumulative irrigation potential likely to be created under major, medium minor irrigation (only surface water) up to the end of 2010-11 is 35.12 lakh hectares, as against an estimated total irrigation potential of 45 lakh hectares comprising of 35 lakh hectares under major & medium irrigation and 10 lakh hectares under minor irrigation. An additional irrigation potential of 0.59 lakh hectares is anticipated during the current year (2010-11) through major & medium irrigation projects, consisting of & 0.47 lakh hectares under plan projects and 0.12 lakh hectares under projects pending approval. Through the Upper Krishna project alone, a potential of 0.17 lakh hectares is anticipated in 2010-11. Under minor irrigation (surface water), the additional potential, which will be created this year, is 0.10 lakh hectares from the three categories.

The cumulative irrigation potential under major, medium and minor irrigation (Surface water) is increased to go up to 35.12 lakh hectares (excluding ground water) in 2011-12 from 34.43 lakh hectares in 2012-13 35.12.

Expenditure on major and medium irrigation projects was

Rs.3163.41 Crore for plan and projects pending approval together in 2009-10. The corresponding expenditure in 2010-11 is Rs.3480.47 Crore. Expenditure incurred up to the end of December 2010 was Rs.1554.44 Crore for Plan projects and Rs. 304.39 Crore for projects pending approval. The expenditure on Upper Krishna Project alone, up to end of December 2010 is Rs. 426.09 Crore.

The latest revised estimated cost for Upper Krishna project, Stage I is Rs.3959.80 Crore & Upper Krishna Project Stage II is Rs.6891.59 Crore and the total Upper Krishna Project is Rs.10851.39 Crore. As per Planning Commission approval dated 22.1.2009, the cumulative expenditure up to end of March 2010 on Upper Krishna Project. Stages I & II was Rs.10267.93 Crore. The anticipated expenditure in 2010-11 for the Upper Krishna Project alone accounts for Rs.583.46 Crore. The Stage I Phase –III and Stage-II works are nearing completion.

The works in UKP are nearing completion. It has been planned to irrigate about 6.22 lakh hectares of land falling under the drought prone districts of Bijapur, Bagalkot, Gulbarga and Raichur. As on September 2010 an outlet potential of 6024473 Ha has been achieved

KBJNL has undertaken construction of five barrages across river Bhima to utilize 9TMC of water. Already construction of five barrages viz. Ghattarga barrage, Kallur‘B’ barrage, Yadgir barrage and Joladagi – Gudur barrages are completed and water is stored and utilized. In respect of Sonthi barrage to utilize 4 TMC of water, construction of modified scope of civil work of barrage, providing gates, lifting system work on turnkey basis etc., is in progress.

Jeerigehal, Manikeshwar, Halhalla and Chandapuraanicut have been taken up across Manjra River in Bidar district to utilize 4.8 TMC of water. Civil works are in progress. The Narayanapur & Almatti dams have been completed. Almatti

dam (Sri Lalbahadur Shastri Sagar) was dedicated to the nation by the President of India on during 2010-11, a potential of 17,500 hectares is anticipated to be created as against the contemplated irrigation potential of 6.22 lakh hectares under the Upper Krishna Project, Stage I and II.

Irrigation Benefit Programme (IBP)

In Upper Krishna Project For early completion of some of the ongoing irrigation projects, which were lingering due to shortage of funds for many years, the Government of India launched the Accelerated Irrigation Benefit Programme, during 1996-97. Since then, 11 Projects in the state, namely, Upper Krishna Project (UKP) Stage-I, Phase-III, Malaprabha, Varahi, Bhima LIS, Guddadamallapura LIS and Gandhorinala have received / are receiving Central Loan Assistance (CLA) under Accelerated Irrigation Benefit Programme.

- During 1996-97, at the end of 8th Five Year Plan, Government of India launched the Accelerated Irrigation Benefit Programme with the intention of completing those projects lingering due to shortage of funds. From 1996-97 to 2002-03, the sharing between the centre and the state was in the ratio of 50:50. Since 2002-03, the sharing is in the ratio of 2/3:1/3
- During 2009-10, UKP Stage I, Phase III, UKP Stage II, Malaprabha, Ghataparbha, Karanja, Gandorinala, Varahi, Bhima LIS and Guddadamallapura LIS are the 9 projects that have received / are receiving C.L.A. under A.I.B.P.
- The cumulative C.L.A. (including grants) released up to end of March 2010 is Rs. 4,116.05 Crore. The cumulative expenditure incurred on these projects up to the end of March 2010 is Rs. 5569.78 Crore.
- During 2004-05, loans along with grants were released to the projects in the ratio of 70: 30.
- The Central Assistance released, during 2009-10 for 9 projects namely UKP Stage I Phase III, UKP Stage II, Malaprabha, Ghataparbha-III, Gandorinala, Karanja, Bhima LIS (new), Guddadamallapura LIS (new) and Varahi is Rs.549.75 Crore.
- The expenditure incurred on these 8 projects during 2010-11 up to end of March 2010 is Rs. 399.68 Crore.
- 8 Major & Medium Irrigation Projects under AIBP and 3 projects under Prime Minister's Special Package have been proposed for Central Assistance. Expenditure incurred till December 2010 is Rs. 456.65.

Special Development Programme (SDP)

For the completion of projects State Government is committed to eradicate regional imbalance by implementing the recommendation of Dr. Nanjundappa Committee Report. For completion of on-going major and medium irrigation projects in backward, more backward and most backward areas, budget allocation of Rs.302.80 Crore was made during 2008-09. Financial Progress of Rs.289.41 Crore (96 percent) has been achieved. During 2009-10 financial progress of Rs.314.19 Crore was achieved against budget provision of Rs. 310.00 Crore (as per the revised guidelines). Budget allocation

for the year 2010-11 is Rs. 328.83 Crore, expenditure incurred till December 2010 is Rs. 256.05 Crore and 3325 hectares of irrigation potential is achieved.

Cropping Pattern

In the state there has been steady increase in area of paddy, maize, pulses, sugarcane and tobacco. Paddy area increased from 10.28 lakh hectares in 1960-61 to 15.14 lakh hectares. 2011-12. Maize area increased from just 11,000 hectares to 12.87 lakh hectares during the same time period. Red gram and Bengal gram have reached 8.83 and 9.85 lakh hectares from 2.96 and 1.58 lakh hectares, respectively in 1960-61. Area of pulses has doubled from 13.06 lakh hectares to 28.31 lakh hectares. Oilseed area also witnessed a steady increase up to 1993-94 when it reached to 31.27 lakh hectares. Oilseed area declined in successive years and touched 17.37 lakh hectares in 2011-12. However, it again increased up to 2005-06 with the introduction of special programmes. There has been steady decline in area under oilseeds from 2006-07 onwards. During current year area coverage under maize, pulses (mainly under Redgram & Bengalgram) and cotton was higher than the normal and targeted area on account of better market prices and favorable climatic conditions.

Irrigation Development in Bijapur District

In Bijapur District the Gross irrigated area is 127674 hectares or about 27 % total cropped area. The major sources of irrigation are canals, bore wells and open wells. In terms of groundwater availability and use, 23% of the area is considered safe, 36% critical or semi-critical and 41 % over exploited. B.Bagewadi and Sindagi are the most over-exploited taluks. Groundwater levels are increased in some canal command areas.

Cropping Pattern and Intensity in Bijapur District

Cropping intensity is depending on soil depth, cropping in Bijapur district can be either kharif (rainy season), Rabi (post-rainy season on residual moisture) or both (extended kharif). The net sown area in bijapur is 872,000 ha and the area sown more than once 193,000 ha giving a cropping intensity of 122 %. The major field crops cultivated red gram, sunflower and pearl millet in the kharif and sorghum, sunflower and chickpea in the Rabi. Yields of rain fed crops are low. The area under maize is increasing under irrigation and this associated with very high yield relative to their staple cereals in terms of production, maize and pearl millet is the dominant crops.

Conclusion

An Indian economy where more than fifty six percent of the population is depended on agriculture and about twenty six percent of the national assumes greater importance. The ever-increasing population on the one hand and the progressively shrinking per capita agricultural land availability of cropping system this possible mainly through the expansion of irrigation on facilities

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