

MOBILISATION OF WORLD BANK FUNDING FOR THE UPPER KRISHNA PROJECT

GURURAJ CHAVHAN¹ & DR. S. K. KALLOLIKAR²

¹Research Scholar & ²Professor (retd.)

Department of History and Archaeology, Karnatak University, Dharwad

Abstract:

The Krishna Upper Project (UKP) has a very important role in providing irrigation systems to the drought-prone region of North Karnataka. This scheme has been modified in three stages. Started in 1964, the project was delayed due to a lack of funds. Thus, UKP Phase I and Phase II projects were implemented with the help of the World Bank. The World Bank provided loans to the UKP from 1978 to 1997. The World Bank has a very important role in this project. At present, the work on the UKP stage III project started in 2013 and is currently in progress. UKP will provide irrigation facilities for a total of 14 lakh hectares of land in North Karnataka.

Keywords: Irrigation, UKP, World Bank, Almatti, Narayanapur dam.

INTRODUCTION

Financing of canal irrigation in India suffers from two distinctive problems: (a) funding for new or ongoing canal network construction has been shrinking, causing unnecessary delays in project completion, raising costs and decreasing benefits; and (b) resources for routine operation and maintenance are under tremendous strain due to the extremely low cost recovery from canal irrigation. Due to the general financial crisis, state budgets cannot provide additional monies. Resource shortages are not just a problem in India. Worldwide, home water supply and

irrigation projects both experience severe underfunding, especially from traditional development assistance and government spending. The World Water Commission (2000) argued strongly for public-private partnerships and the use of global capital markets to finance the expansion of the water industry and the construction of a more effective management system. The Bank Group has been particularly active in supporting minor irrigation, major irrigation, and other on-farm investments through agricultural credit operations. The direction of assistance under the Bank/IDA programme has been consistent

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with India's needs and the government's priorities.

OBJECTIVE

The objective of the project is to increase agricultural production, improve farm incomes, and provide employment opportunities, primarily for small farmers and landless laborers, through a major irrigation scheme presently under construction in northeastern Karnataka, the Upper Krishna Project (UKP) on the Krishna river. Basically, the project would comprise a five-year plan of the development of UKP. The World Bank provided funds for UKP Phase I and UKP Phase II from 1978 to 1997. Even though the project's development began in 1964, the speed of the project was extremely slow because of the inadequate funding. The Indian government prepared a UKP project report with the World Bank for funding. The World Bank then assisted with project implementation. Under the project, the pace of development was significantly accelerated in comparison with the past. Improvements were made both in the design and construction standards employed and in the organisational and administrative arrangements for command area development.

UPPER KRISHNA PROJECT

The Upper Krishna Project was originally conceived by the then-state of Hyderabad along with the Lower Krishna Project (now known as the Nagarjuna Sagar Project). The main reason the

Upper Krishna Project was never completed that was the majority of the submersion originated in the Bijapur area, which at the time was a part of the Bombay Presidency. After the re-organisation of States in November 1956, the Gulbarga and Raichur districts, which were to be benefited under this project, came to be situated in the Mysore State (now Karnataka).

On May 22, 1964, Lal Bahadur Shastri, the Indian prime minister at the time, laid the project's cornerstone. The Upper Krishna Project consists of the construction of two dams across the Krishna River as well as a network of canals. The major reservoir is located at Almatti Dam, a few Kilometers downstream of the confluence of the Ghataprabha and Krishna rivers. The Narayanpur Dam located a few kilometers downstream of the confluence of the Malaprabha and Krishna rivers, will serve as a diversion dam. The Project is planned to be implemented in stages and phases. The Project plans to be implemented in stages and phases. Stage I of the project plans to utilise 119 TMC of water to irrigate 4,25,000 Hectares, while Stage II plans to utilise 54 TMC of water to irrigate 1,97,120 Hectares. The command areas of Northern Karnataka's drought-prone districts, Gulbarga, Yadagiri, Raichur, Bijapur, and Bagalkot, are to be irrigated under UKP Stages I and II, with a total water use of 173 TMC. UKP Stages I and II are nearly complete, with an irrigation potential of 6.08

Lakh hectares produced. On December 30, 2010, the Krishna Water Dispute Tribunal II (KWDT) issued an award regarding the distribution of Krishna Water. The Krishna Water Dispute Tribunal II (KWDT) allocations at 65% dependability and for surplus flows divide among the three riparian states of Maharashtra 81 TMC, Karnataka 177 TMC, and Andhra Pradesh and 190 TMC of water respectively. Upper Krishna Project Stage III receives 130.90 TMC of the 177 TMC of water allotted to Karnataka State under KWDT II.

WORLD BANK ASSISTANCE

The government chose to propose the Upper Krishna Project for World Bank support in stages due to the scope of the project and the resources needed for its completion. Even though the project's development was begun in 1963, the speed of the project was extremely slow because of the inadequate funding. Progress was minimal until after 1973–74, when the interstate disputes over the sharing of Krishna River water were resolved and Karnataka's water rights established. As a result, it was proposed in 1975–1976 to request World Bank support for the Karnataka Irrigation Project (as it was then known). A project report was created in this regard and forwarded to the Government of India. A request to finance the Upper Krishna Scheme was made in March 1977(UKS). The FAO/World Bank Cooperative Programme helped GOK prepare and submit a proposal to IDA in

accordance with its irrigation development policy and to hasten basin utilisation.

The Executive Directors was received a separate copy of a staff appraisal report titled "Karnataka Irrigation Project," Report No. 1835-IN, dated March 15, 1978. In March 1978, discussions for this project were held in Washington. A delegation led by Mr. J. K. Sibal represented the borrower, the Karnataka government, and the Agricultural Refinance and Development Corporation. The ongoing Upper Krishna, Ghataprabha, Malaprabha, and Tungabhadra schemes were all included in the project, as well as land development. After considerable discussions, it was ultimately agreed to only include the field canals and on-farm development work in the Ghataprabha and Malaprabha projects in the proposal to be submitted for World Bank assistance. Originally having the name Karnataka Irrigation Project, this project was more often known as Upper Krishna Project Phase-I. The World Bank provided funding for this project, which was carried out between 1978 and 1986. Upper Krishna Project Phase-II Identification Report for UKP Phase-II was given to the Government of India for requesting for World Bank support during the process of implementing UKP Phase-I. This project report for UKP Phase-II was developed in 1985–86 for acquiring World Bank assistance. Subsequently, with World Bank support, this project was carried out from 1989 to 1997.

SUCCESSFUL MOBILISATION OF FUNDS

Upper Krishna Project Phase-I of the Stage-I (Karnataka Irrigation Project - Credit No.788-IN):

The World Bank considered the project in September 1977, and the staff appraisal report was prepared in March 1978. In the meantime, negotiations were held in Washington during February and March 1978 between the representatives of the Government of India, the Government of Karnataka, and the Agricultural Refinance and Development Corporation (ARDC) on the one hand, and the International Development Association (IDA). On May 12, 1978, the project agreement, the development loan agreement, and the ARDC agreement were then signed.

The total cost of the projects that must be completed during the project years 1978–1979 and 1981–1982 is US\$284.4 million. A foreign exchange cost of around US\$53.5 million, or about 19%, is included in this estimate. The precise cost estimates for dams, major canals, and tunnels were created in 1976 however they have been updated to account for increased contract costs at the time of appraisal and inflation up to April 1978. Cost estimates are detailed in summarized below table-1:

Table 1: Details of total cost of the UKP project of estimate plan (Phase-I)

Details	Local RS million	Foreign US \$ million	Total US\$ million
Almatti & Narayanpur Dams	44.7	8.1	52.8

Irrigation and Drainage Systems	71.2	19.7	90.9
Village Roads	7.7	1.4	9.1
Land Development	19.0	3.5	22.5
Engineering, Supervision & Administration	24.0	5.5	29.5
Equipment, Services & Project Monitoring Agricultural	3.1	1.4	4.5
Supporting Services	3.5	0.4	3.9
Base Cost	173.2	40.0	213.2
Physical Contingencies	17.4	4.1	21.5
Price Escalation	40.3	9.4	49.7
Total Cost of Project	230.9	53.5	284.4

Source: Document of the World Bank

Upper Krishna Project Phase-II of the Stage-I (Loan No.3050-IN & Credit No.2010-IN)

A project study for the repeater project, Upper Krishna Project Phase-II, was written between 1985–86 for getting World Bank assistance, even before Upper Krishna Project Phase-I was finished with World Bank assistance in March 1986. The World Bank sent several missions to the country to assist GOK in the creation of the identification report. Many corrective actions were taken by GOK to improve efficiency and quality, not only in the preparation of the project report (identification report), but also in the implementation of UKP Phase-II, after lessons were learned from the shortcomings pointed out by the World Bank supervision missions of UKP Phase-

I (as pointed out in the PCR) and also at the instance of the World Bank preparation missions. It was only after GOK took actions, initiated suitable measures, and gave assurances in the above direction that the World Bank agreed to an appraisal and subsequent negotiations of the project.

According to estimates, the project will cost \$542 million equivalent overall (including \$9.2 million in taxes, or approximately 1.6%), of which about \$77 million (or 14%) will be spent on foreign exchange rates. Almatti Dam with Mudbal and Indi Branch Canals Estimated Construction Costs are Based on Final Design and Cost Estimates of Consultants in Previous Contracts. Distributaries, field channels, land development and drainage construction expenses have been estimated based on updated Phase I costs per hectare. Costs for the project have been adjusted for appropriate physical contingencies. On the basis of a local inflation rate of 9% in 1988–1989, 8% in 1989–1990, 7% in 1990–1991 through 1992–1993 and 6.5% thereafter, as well as a foreign currency inflation rate of 5.3% in 1988–1989 and 1989–1990, 5% in 1990–1991 and 4.1% subsequently, price contingencies have been approximated.

The project would be financed by an IBRD loan of US\$165 million and an IDA credit of SDR-119 million (US\$160 million equivalent). The loan and credit would finance about 61% of total project costs net of taxes, with the remainder to be financed as shown in Table -2.

Table 2: Details of proposed financing plan of UKP (Phase-II)

Civil Works	GOI/ GO K	Farmer s/ Credit Institut ion	Bank /IDA	Total (US\$ millio n)
Irrigation	68.2	-	285.1	353.3
R&R	4.9	-	27.5	32.4
On farm development	-	12.0	-	12.0
Equipment and vehicles	4.6	-	7.9	12.5
Institutional support	-	-	4.5	4.5
Engineering administration	39.3	-	-	39.3
Land purchase (R&R)	52.3	-	-	52.3
IGS (R&R)	7.7	-	-	7.7
Transitional costs (R&R)	8.1	-	-	8.1
Recurrent costs	20.1	-	-	20.1
Total	205.2	12.0	325.0	542.2

Source: Document of the World Bank

Implementation Completion Report of Upper Krishna (Phase II) Irrigation Project (Loan No.3050-IN & Credit No.2010-IN)

According to the DCA the project had to be finished by June 30, 1996, and the credit had to be closed by December 31, 1996. However, the project was actually finished by June 1997, and the World Bank also granted the necessary extension. Although there was significant improvement in the irrigation sector, there was a setback in the R&R sector for various of reasons. In general, the project was successfully carried out during the eight-year period between 1989 and 1997.

The South Asia Rural Development Unit assessed the World Bank Mission's Implementation Completion Report (ICR), which was created during their visit to India in September 1997. Before

finalizing the ICR, the mission also took into consideration the findings of the 24 World Bank supervision missions that visited the project during 1989 to 1997, as well as the independent report issued by GOK. The World Bank completed the Implementation Completion Report in January 1998.

The initial project costs were estimated at US\$ 542.2 million, inclusive of physical and price contingencies. Of this amount, 60% was to be financed by a bank loan and an IDA credit, 38% by GOK and GOI, and 2% by farmers and the nationalized banking system. Up till June 30, 1997, the project has really spent Rs 20,581 million. By the year 2000, it is anticipated that Rs 3,589 million will have been spent on the planned investments. 24,171 million rupees (\$671.4 million at the current currency rate and \$755.9 million at the weighted average exchange rate for the project duration) make up the total. The equivalent of US\$ 160 million in credit was fully disbursed. \$158.2 million of the loan was cancelled, and \$6.7 million was disbursed. Cost estimates are detailed in summarized below table-3:

Table 3: Details of Appraisal Estimate and Actual Estimate of UKP project

Item	Appraisal Estimate		Actual Estimate	
	Rs million	US\$ million	Rs million	US\$ million
Irrigation				
Almatti Dam	642.2	44.0	1198.2	37.4
Canal & Drainage Works	4531.2	3104	103618	324.0
Roads	659.5	45.2	888.5	27.8

Buildings	-	-	589.2	18.4
Machinery & Equipment	-	-	223.3	7.0
R & R	1472.3	31008	5312.5	166.1
Other & Support				
WALMI	-	-	-	-
Mapping	65.3	4.5	39.0	1.2
Studies	20.2	1.4	5.3	0.2
Anti-Malaria	64.9	4.4	11.0	0.3
Oter CADA(taining, OFD)	-	-	152.2	4.8
Establishment	285.0	19.5	5107.9	159.7
O&M	-	-	245.2	7.7
TOTAL	7919.5	542.2	24170.6	755.9

Source: Document of the World Bank

This is including actual cost up to 30th June 1997 which was assessed as Rs.20,581 million and the balance amount required for completion of Phase-II works by 1999-2000 which was estimated as Rs.3589.5 million (Rs.210.6 million for Almatti dam, Rs.441.9 million for canal works and Rs.2937 million for R&R)

Figures in rupees have been converted into US dollars at a rate of 14.6 rupees to one dollar (the appraisal rate), and 32 rupees to one dollar (the actual rate). This number is the average of average annual exchange rates that have been weighted by the total amount spent each year. It results in a 39% cost overrun. If all real rupee estimates are converted to US dollars at the rate of 36:1, which was in effect at the time of loan closing, the project's US dollar cost comes to US\$671.4 million, with a 24% cost overrun.

Conclusion

Implementation concentrated on major civil works, including advancing

construction of the project. The project has brought major agricultural benefits to an area that is agriculturally marginal. Agricultural production in the fully irrigated areas surpassed appraisal expectations. The most recent method of financing canal irrigation in India has elements of colonial efforts to raise funds to build canals and other forms of infrastructure there. The state will eventually be responsible for repaying the debts, and like many other organisations, whether they are responsible for electricity generation and supplies or state transportation, they are also likely to experience financial difficulties.

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