

CHAPTER I
HISTORY OF WARANA IRRIGATION PROJECT AT CHANDOLI

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CHAPTER I
HISTORY OF WARANA IRRIGATION PROJECT AT CHANDOLI

1.1 Introduction and Brief History of the Project:

The river Warana is a tributary of river Krishna having water potential of about 3,705 mcum (130.87 TMC) at 75 per cent dependability, upto its confluence with river Krishna. Most of the water resources have remained unutilised so far. The land in the area being very fertile and well drained, the valley has a large potential for development of agricultural schemes and other agro-industries. Taking up construction of irrigation project on this river has, therefore, been contemplated since Second Five Year Plan.

As such, the original Warana Project was prepared in 1957 and envisaged the construction of a dam at Chandoli to store about 56.6 mcum (2 TMC) of water and two Kolhapur-type weirs, one at Kodoli and the other at Thanapude. The irrigation was proposed with lift canals on either banks covering an area of about 3,040 Hectares (7,500 acres) of land in both Sangli and Kolhapur Districts. The estimated cost of this scheme was approximately Rs. 1.72 crores. This proposal was submitted to Central Water and Power Commission, New Delhi in 1957. The C.W. & P.C. suggested to revise the scope of the project and accordingly storage at Chandoli was increased to 90 mcum (3.2 TMC) and six weirs (at Charan, Chincholi, Mangaon, Tandulwadi, Kodoli and Sagaon) were proposed, irrigating 8,100 Hectares (20,000 acres) of land from Sangli and Kolhapur Districts.

The cost of this was Rs. 1.63 crores. This proposal was administratively approved by the Government of Maharashtra in 1960 and is called as Warana Project 1960.

In the meantime, a master plan of Krishna Valley was prepared with a view to enable optimum utilisation of water resources of the various valleys in Krishna basin, considerable thinking was done to increase the scope of the Warana Project 1960 and accordingly Warana Irrigation Project (1964) with a large storage at Khujgaon was conceived.

Under the Warana Irrigation Project (1964), an earth dam was proposed at Khujgaon to store about 1,634 mcum (57.75 TMC) water and flow-cum-lift irrigation to use this water for irrigation. The report was submitted to the Central Water and Power Commission in 1964. The Central Water and Power Commission, however, directed to adopt a conventional pattern of flow irrigation.

As such the Warana Irrigation Project was cleared by C.W. & P.C. in 1966 and envisages construction of an earth dam near Khujgaon with a gross storage of 2,462 mcum (87.2 TMC), live storage 996 mcum (35.2 TMC) and huge dead storage of 1,472 mcum (52 TMC). The planned gross use at canal head is 1,148 mcum (40.55 TMC) and the evaporation losses from lake would be 200 mcum (7.07 TMC). The total submergence area is 8,863 Hectares (21,900 acres), out of which 6,600 hectares (16,364 acres) is culturable area. The total population affected is 36,885 souls (as

per 1971 census).

It will be observed that the Warana Irrigation Project (1966) has a huge dead storage requiring low water level at a considerably high elevation. Most of the culturable land upstream of the dam-site, therefore, would remain under water throughout the year. Thus, there is no possibility of land in submergence area being available for galpar irrigation. The land above full reservoir level of Khujgaon lake mostly consists of hilly areas and there is hardly any possibility of rehabilitating the affected population in the valley above full reservoir level.

Large submergence of good culturable land coming under assured rainfall zone and shifting a large number of agriculturists from submergence area to the area downstream of the dam has been strongly objected to by the persons affected. There has been, therefore, stiff resistance from the affected population for starting the work at Khujgaon dam.

In view of the stiff resistance from the affected population, question of finding other feasible alternative, which will reduce the problem of submergence and rehabilitation, has been engaging the minds of policy makers. Even C.W. & P.C. suggested in 1970 to explore the possibility of shifting dam site upstream of Khujgaon. The alternative of lowering the full reservoir level was also suggested to reduce the submergence. It was, however, found that the reduction

of the full reservoir level of Khujgaon dam does not obviate the problem of submergence of culturable land which, being near to the river, will still get submerged. The search for a better alternative side for the dam in upper reaches of the river was, therefore, continued.

A number of alternatives were, hence, considered and ultimately Government of Maharashtra decided to provide dam at Chandoli which reduces submergence to a considerable extent, which will irrigate the same area as planned in the earlier approved project report by flow-cum-lift method. In addition it is proposed to irrigate about 12,000 acres of land which was to go under submergence between Chandoli and Khujgaon. Because of reduced water spread of reservoir as compared to that of Khujgaon dam, there would be less evaporation losses. The benefit:cost ratio of Chandoli Project is also fairly comparable with approved Warana Project. Thus, Warana Project modified and named as Warana Irrigation Project (1975) achieves the same objectives with reduced submergence and reduced evaporation losses with comparable financial benefits.

The present project known as Warana Irrigation Project (1975) envisages construction of an earthen dam across river Warana near village Chandoli, about 23 km (14 miles) upstream of Khujgaon. The gross use inclusive of evaporation losses planned under this project is 1,042 mcum (36.8 TMC) against 1,348 mcum (47.62 TMC) planned under Warana Project (1966). This reduction does not,

however, necessitate any reduction in irrigation planned earlier. This is achieved by reducing the lake losses due to smaller water spread by 4.67 TMC and by reducing the canal losses by lining canals by 5.15 TMC and by reducing the requirements of Kharif season to the tune of 1 TMC in view of assured rainfall in the area in monsoon.

The water storage at Chandoli will have a gross capacity of 963.97 mcum (34.04 TMC) with an earthen dam 75.5 M high having a spillway in the saddle on right flank. There will be a single canal on left bank from Chandoli to Khujgaon. The canal will bifurcate into Right Bank Canal and Left Bank Canal at Khujgaon or at convenient place on the down stream. The Right Bank Canal will be 194 km (121 miles) long commanding a gross area of 45,278 hectares (1,11,828 acres) and irrigating 34,008 hectares (84,000 acres). The Left Bank Canal will be 154 km (96 miles) long commanding the gross area of 61,278 hectares (1,51,348 acres) and irrigation of 49,150 hectares (1,21,400 acres). The above irrigated area on both these canals includes areas of 18,097 hectares (44,700 acres) by lift from canals and irrigable area between Chandoli and Khujgaon or right bank by lift from the river. The total submergence area will be 2,914 hectares (7,200 acres) which is almost 1/3rd of the submergence area under Warana Project (1966).

The cost of the storage and canals together is Rs. 8,197.75 lakhs. The cost per acre of irrigation on a cropped area basis

is Rs. 3,132. The Cost:Benefit ratio for the project is 2.42 which is considered to be satisfactory.

1.2 Submergence and Rehabilitation:

Chandoli reservoir with Full Reservoir Level 626.5 M (2,055 ft) will cause submergence of 2,914 hectares (7,200 acres) of land in sixteen villages. The villages affected are grouped under three categories:

- (a) Villages from which both Gaothans and lands are submerged
- (b) Villages from which Gaothans are not submerged but only lands are submerged
- (c) Villages which are not submerged at all but which get isolated due to reservoir.

The details of population and houses under these villages as per 1971 census are given in Tables No. 1,2 and 3.

1.3 Classification of Land Under Submergence:

The details of total lands from all the affected villages are collected from the latest records from revenue offices. As all the Bagayat and Jirayat lands from these villages are expected to be near the river only, it is presumed on the safer side that all lands from these villages will get submerged. After accounting for all the Bagayat and Jirayat lands from these villages, the remaining land out of total submergence is considered as waste land. Out

of this land 50 per cent is considered as private waste land and the remaining 50 per cent as Government waste and forest lands. This assumption is on the safer side as lands on higher side will be mostly forest lands or Government waste lands.

In all 450 hectares (1,112 acres) of land will be required for seat of dam, colony, quarry and borrow area etc.. Of this, the Jirayat and waste land will be 300 hectares (745 acres) and 150 hectares (371 acres) respectively.

The rates for land compensation are considered on the basis of the rates communicated by Special Land Acquisition Officer, Khujgaon Dam Project, Islampur, for the Bagayat, Jirayat and waste lands as per some approved awards in his hand for Khujgaon project.

1.4 Village Submergence and Rehabilitation:

For the villages getting submergence due to Chandoli dam, the details of total number of houses and population are collected from revenue authorities as per 1971 census. Out of the total 16 villages getting submerged due to Chandoli dam, seven villages were already declared to be affected by Khujgaon dam and as such for these villages the data regarding classification of houses and plinth area are available. Hence, this data are adopted for calculating house compensation etc.. For the remaining nine villages the data on a pro-rata basis are adopted. The rates adopted for house compensation are on liberal side. Provision for rehabilitation of affected

persons from village Gaothans is made to cover establishment of Gaothans, with all the necessary amenities.

Other provisions for Revenue establishment for land acquisition, compulsory land acquisition, crop compensation etc. are made as usual.

1.5 Road Submergence:

The valley in its upper reaches is more or less underdeveloped. The only one road going under submergence is Chandoli-Petlond Road (other District Road).

This is a motorable road in fair weather only. Other roads going under submergence are all village roads or cart-tracks. It is proposed to divert the Chandoli-Petlond road above the reservoir level.

1.6 Tanks, Minerals and Archaeological Features:

There are no tanks existing in submergence. No mineral deposits and archaeological monuments are going under submergence.

1.7 The Problems of Resettlement:

The Warana Irrigation Council's document says that in all 26 villages involving 1,262 families have been affected on account of Chandoli dam. Out of these, 18 villages (including Wadis) are from Sangli district and 8 villages are from Kolhapur district. In

the programme of resettlement, the families are provided with alternative sites. The resettlement is done under the Maharashtra Resettlement of Project Displaced Persons Act, 1976. The Act provides for the resettlement of certain persons displaced from lands which are acquired for projects of public utility and for matters connected therewith.

Since under the resettlement programme, alternative sites are provided to the affected people, some kind of forced migration takes place. The pertinent aspect of examination would be, how far this forced migration helps them to settle down on a permanent basis. Secondly, when such resettlement takes place, what change takes place in the profile of migrated population.

the families from Sonarli village have been settled near Peth-Vadgaon in Hatkanangale taluka of Kolhapur district. The village Sonarli, wherefrom these families have migrated, also comes in Kolhapur district. Though this is a case of inter-district migration, still the gravity of the problem will not be much reduced. The official physical resettlement takes place, but the real resettlement from socio-economic point of view is more important. The present study attempts to understand the socio-economic background of the affected families from Sonarli, settled near Peth-Vadgaon.

Objectives of the Study:

The present study has got the following objectives:

- (1) To throw light on the socio-economic profile of migrated labour at Vadgaon.
- (2) To examine the occupational pattern of these migrated families from Sonarli.
- (3) To offer suggestions in formulating settlement policy for the displaced persons.

Methodology:

In all there are 120 affected families now settled at Sonarli Vasahat near Peth-Vadgaon. Out of these, 60 families have been covered in the sample survey which constituted exactly 50 per cent of the population. The sample survey was conducted with the help of a schedule comprising a number of questions on socio-economic aspects. Further this information was tabulated and analysed.

1.8 Table-1

Statement showing the list of villages of which both gothans and lands are submerged under Chandoli dam.

Sr. No.	Name of village	Taluka	District	Population as per 1971 census	No. of houses in the village
1	Chandoli (Bk)	Shirala	Sangli	553	116
2	Khudalapur	..	..	275	59
3	Nandoli (Cavatewadi)	..	..	604	136
4	Devare	..	..	186	40
5	Konoli (Jainwadi)	..	..	197	39
6	Aloli	..	..	134	25
7	Ambole (Wanyachiwadi)	..	..	146	35
8	Sidheshwar	..	..	212	52
9	Bhogiv	..	..	113	33
10	Pethlond	..	..	561	129
11	Bhatachiwadi (Zolarbi)	..	..	40	8
12	Sonarli	Shahuwadi	Kolhapur	502	106
13	Wadi Hudumb	..	..	159	40
14	Tambave	..	..	291	70
15	Amboli	..	..	383	95
16	Karde	..	..	501	93

Source: Warana Irrigation Project Report (1975) p. 187

Table-2: Statement showing the list of villages of which gaothans are not submerged but only lands are submerged under Chandoli dam at FRL 626.5 m (2,055 ft.)

Sr No.	Name of village	Taluka	District	Population as per 1971 census	No. of Houses in the village
1	Jawali	Shirala	Sangli	125	30
2	Rundiv	"	"	97	23
3	Gawe	"	"	77	18
4	Chondoli (Kh.)	"	"	83	21
5	Zolambi (Bhatachiwadi)	"	"	338	80
6	Takale	"	"	225	61
7	Lotiv	"	"	119	30
8	Purgawadi	Shahuwadi	Kolhapur	459	99
9	Tanali	"	"	248	60

Source: Warana Irrigation Project Report (1975) p. 189.

Table-3: Statement showing the villages which are not submerged at all but are isolated due to reservoir.

Sr. No.	Name of village	Taluka	District	Population per 1972 census	No.of houses in the village
1	Veti	Shirala	Sangli	140	34
2	Nivle	"	"	133	34
3	Vivle	Shahuwadi	Kolhapur	363	95
4	Dhakale	"	"	347	92
5	Chandel	"	"	275	74
6	Patharpunj	Patan	Satara	173	41
7	Kolne	"	"	150	32
8	Mala	"	"	248	56

Source: Warana Irrigation Project Report (1975), p. 191.