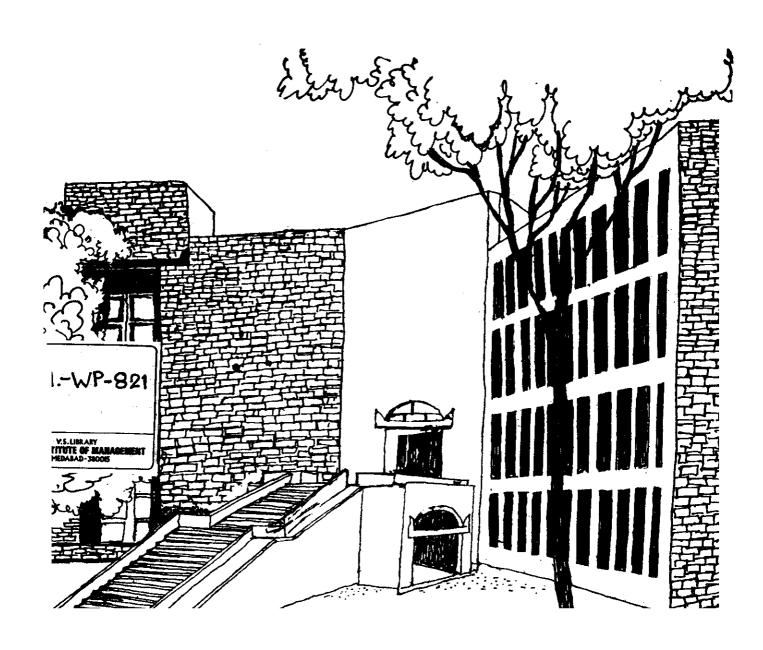


# Working Paper



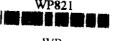
## NARMADA VALLEY PROJECT: A DISASTER OR AN IMPARATIVE FOR GUJARAT

Ву

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&

U. K. Srivastava



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## NARMADA VALLEY PROJECT : A DISASTER OR AN IMPARATIVE FOR GUJARAT S. S. MEHTA

#### U. K. SRIVASTAVA \*

We consider it a privelege to join issues with Baba Amte on Narmada Project. He has argued (Indian Express July 9, 1989) that Narmada Project requires a complete reconsideration because its costs in terms of human suffering, ecological damage and financial burden are just too high for Gujarat.

According to him the benefit cost ratio of the project is less than the planning commission's stipulation of 1.5: 1 and therefore, it is not worth pursuing. He feels that there has not been enough open and well improved debate on the issues. Planning Commission and Govt. of Gujarat are hiding facts and according to one of the signatories to the memorandum submitted to the Frime Minister, data is being manipulated (Times of India, Dec.15 1988). Baba Amte has also said that rehabilitation policy formulated for Sardar Sarovar Project is impossible to implement in view of a large member of ousters to be rehabilitated as per the norms of the rehabilitation policy.

In this paper, we take a look at available information once again to examine the validity of issues raised by Baba Amte on this very vital project.

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#### THE DEBATE SINCE 1946

Narmada Waters in 1946. Since then we have been debating it. The discussion on the project has been going on for last 40 years. The project has been surveyed, studied and discussed by several authorities. Khosla Committee carried out an elaborate and exhaustive study in 1965. Narmada Water Dispute Tribunal (NWDT) examined the project for 10 years to give its final award in 1979 after meticulously going into various details. The Tribunal considered various aspects including submergence of forests, agricultural land, habitations, places of cultural importance, rehabilitation of affected people environment seismocity etc.

In 1979, the project was posed to World Bank for funding. The World Bank also subjected the project in to a thorough scrutiny lasting almost 5 years. The World Bank examined every aspect of the project in great detail. The Bank engaged the best experts to examine the critical questions relating to environment, seismocity, fisheries, drainage, water-logging, socio-economic surveys at Taluka level. rehabilitation etc. The Government of Gujarat set up Narmada Flanning Group (NFG) to carry out large number of studies for the purpose of estimating the benefit cost ratio and planning for the project. The Narmada Flanning Group was headed by an outstanding academics. It has also several academics as its members. NFG commissioned a number of studies which were carried out by several well known institutions, universities, consultancy organisations, and individuals. At that stage, there was no controversy and therefore no bias could have

crept in. All the organisation and individuals involved in NPG work are highly respected and reputed and known for their academic integrity.

The stand of Baba Amte and other signatories to the memorandum submitted to the Frime Minister is not true that the protect has not been properly debated, studied, examined and planned since this process has been going on for last more than 40 years. More debate means more time and cost over-runs. The debate is becoming costlier and costlier.

#### BENEFITS TO SAURASHTRA AND KUTCH

The second issue raised by Baba Amte relates to the benefits to Saurashtra and Kutch, which he thinks are not adequate enough to justify the project.

The project is likely to irrigate 18 lakh hectares in 3344 villages in 62 out of 184 Talukas spread over 12 out of 19 districts. It is likely to provide drinking water to 4720 villages and 131 urban areas of the state. Thus 1/3rd Talukas and more than 1/5th villages of the state get the benefit of irrigation. About 25% of villages and more than 50% of the urban areas of the state get the benefit of drinking water.

In Gujarat. 129 out of 184 Talukas suffer partially or wholly from fundamental resource backwardness like deserts, drought prone. Tribal. Coastal and chronically flood affected. 50 out of the 62 Talukas in the Narmade Command are backward in one way or the other (Table 1). There are 70 Talukas in Gujarat which are

Trible ↑ Fundamentally Backward Areas in the Narmada Command - Gujarat

Zone Districts	Talukas	Drought Prone DP(I)	or Tribal	T Coastal salinity C	Bhal Nal Kantha BH	Ghed Area GH	Desert D	Economi- cally Backward Areas EBA . (g)	ally	Geographica- 11y Backward Area GBA	
		/ (a)	Pockets (T) (b)	(c)	(d)	(e)				(i)	
1. Ahmedabad	1) Dehgam		_	-	-	-	<u>-</u>	-	-		
11 144404000	<ol> <li>Ahmedabad</li> <li>Daskroi</li> </ol>	_	-	_		-	_		_	GBA (Nal)	
	4) Sanand	DP(I)	-	-	<b>BH</b> B <b>H</b>	_	<b>-</b>	্ <b>ন</b> এক্ডর্ক ক্র		GBA (Nal)	
	5) Viramgam 6) Dholka	DP(I)	-	- C	BH BH	-	~ 34		• .	'.GBA(Bhal Na] -GBA(Bhal)	
	7) Dhandhuka	(I) qCo	-	C	ЮП	_	* n.	· ·;	**IBA		
2. Banaskantha	8) Kadhanpur	DP(I) DP	-	-	-	-	* D. * D	ĒВА	**IBA		
	9) Vav 10) Tharad	DP(I) DP(I)	<u>.</u> =	-	-	-	* D * D	EBA EBA	**IBA **IBA		
	11) Santalpur 12) Deodar	DP(I).	k§2 — ■	-	<del>-</del>	_	* D	EBA	**IBA		
	13) Kankrej	DP(I)	-	-	-	-	* D	EBA	**IBA		
3. Bharuch	14) Nandod		T	-					. IBA . IBA		
J. Diaroc.	15) Amod 16) Vagra	DP(I)		Ċ					• IBA		
	17) Bharuch			č					. IBA . IBA		
	18) Jambusar	DP(I)		•		ŒН			**IBA	GBA	
4. Bhavnagar	19) Bhavnagar	DP(I) r DP(I)		C -	BH	-			**IBA	GBA (Bhal)	
	20) Vallabhipu: 21) Botad	DP(I)		-	<b>_</b> ,	_	•		**IBA **IBA		
	22) Gadhada . 23) Umralla	oDP —	-	-	вн	-			**IBA		
- 0 W. I	24) Gandhinaga	r -	_	_	-	-	-	-	-	-	
<ol><li>Gandhinagar</li></ol>	24) Galiditilaga	•									

Zone Districts	Talukas	(a)	(b)	(c)	(a)	(e)	(f)	(g)	(h)	<b>(i)</b>
6. Kheda	25) Nadiad	<b>-</b> , .		*****		_				<u> </u>
	26) Matar	DP(I)	-	-	BH	-	-	-	-	GBA(Bhal)
	27) Kapadvanj 28) Thasra	_	-	_	_	_	-	<u>-</u>	-	
	29) Mehmedabad	UP(I)	_	-	_	_	-	=	-	
7. Kutch	30) Anjar	oDP(I)		С	_	-	_	-	**IBA	
	31 Bhachau	oDP(I)		C	-	-	-	EBA	**IBA	
•	32) Mapar 33) Mundra	oDP(I) DP(I)		c	-		-	EBA	**IBA	
	33) mailala	DF(I)		C	-	-	-		**IBA	
8. Mehsana	34) Kadi	DP(I)	-	-	_	<b>-</b> .	- No 22 & 15		**IBA	GBA
	35) Kalol	DP(I)	-	•	_		500 G		**IBA	GBA
	36) Chansma	Db (I)	-	-	-	<u>-</u> 30€	ent :		**IBA	
	37) Mehsana 38) Sami	DP(I)	_	-	-	-	A D	-CDA	**IBA	
	39) Harij	υp (I)	_	-	-	=	Ø D Ø D	EBA	**IBA **IBA	
9. Panchmahals	40) Halol		-	-	_	_			. IBA	
	41) Jambughoda		<b>.=</b> .	-	-	-			• IBA	
	42) Godhara 43) Kalol(Karo <b>li</b> )	o DP oc.	(T)	-	-	-			• IBA	
	43) Kalol(Karoli)	00	(1)	-	-	-			• IBA	
10. Hajkot	44) Malia	oDP(I) DP(I)	_	С	-	-	_	_	_	_
	45) Morbi	DP(I)	-	-	-	-	-	-	-	-
11. Surendranagar	46) Limdi	(I) qu <sub>o</sub>	-	-	вн	_	_	_	. IBA	(Nal) GBA(Bhal)
	47) Lakhtar	oup(I)	_	-	BH	_	-	_	IBA	GBA(Na1)
	48) Wadhwan	oDP(I)	-	-	-	-	_	-	. IBA	
	49) Dhrangadhra	oDP(I) oDP(I)	-	-	-	-	-	•	. IBA	•
	50) Halvad 51) Dasada	oDP(I)	_	-	_	-	-	_	. IBA	GBA (Panchal

Zone District	\$	T	alukas	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
12. Vadodara		52) 53) 54) 55) 56) 57) 58) 60) 61)	Naswadi Sankheda Tilakwada Jambugam Waghodia Savli Dabboi: Karjan Sinor Padra Vadodara		00 T 00 T 00 T 00 T		-	-	= -	EBA EBA	IBA IBA IBA	GBA (Pandu Mewas
Total 12 Under Narmada	Command	10	63.16% 62 33.51%	24 (84	40V \ 5/44 00	2017 - 124	4.53/4					
	Ommand	12	02 33,51%	30(31.4	<b>43%) 7(14.8</b> 9	9%) B(21	.62%) 9 (56.25	%) <sup>1</sup>	8 (72.73≾)	10 (17.86%)	40 (39.60%)	13 (33.6%)
State Total	19	- 1 -	185	70	32+15	37	16 (BH+GH)		11	56	101	40

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Note: Dp: Drought prone Talukas not identified by Irrigation Commission

(a) DP(I): Drought prone Talukas identified by Irrigation Commission

oDP: Drought prone Talukas according to source 2, p. 62

(b) T: Tribal, (T): Tribal Pockets

oo T: Tribal or Tribal Pockets according to source 2, p. 65

(c) C: Coastal salknity.

(d) BH: Bhal Nal Kantha Area

(e) GH: Ghed Area

(f) D: Desert, © D: Desert Area according to source 2, p. 64.

(g) EBA: Economically Backward Areasin Gujarat according to source 2, p. 67.

(h) IBA: Industrially Backwards. Areas.

IBA: IBA identified by Central Government (Zone I)

**IBA: IBA identified by State Government (Zone II)

..IBA: IBA identified by Hathi Committee (not covered in Zone I & Zone II)

(i) GBA: Geographically Backward Areas in Gujarat as on 1-10-1988 according to source 2, p.69.
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# Sources :-

1. Revised paper on Perspective Plan with reference to Seventh Plan (Gujarat) (Planning Division)

2. Towards the Eighth Plan 1990-95 - An Approach Paper (Planning Division)

3. Economic Appraisal of Sardar Sarovar Project.

4. Report of the Committee for the Development of Backward Areas Vol.I (General Adm. Department)

drought prone. of which 36(51.4%) are in the Narmade Command Area. There are 11 Talukas having characteristic of desert, out of which 8 are in the Narmada Command. Similarly, out of Talukas and 15 pockets in the State, 5 Tribal Tribal 37 coastal are in the Narmada Command Area. 8 out σŕ pockets Talukas in Gujarat are in Narmada Command Area. Similarly, have table below the list of Talukas in the Narmada Command Area suffering partially or wholly either from 'fundamental backwardness as per National Commission on Backward Areas. Government of India or I. G. Patel Committee, Govt. of Gujarat. Only 2 Talukas of Ahmedabad, one of Gandhinagar, 3 of Kheda and 6 Districts do not suffer from any kind Vadodara σf backwardness.

The major constraint faced by all these backward areas of Gujarat is of water. Sardar Sarovar Project removes this constraint of water in these Talukas and thus creates the development potential.

Thus the arguments built against this project that it benefits only rich areas is not at all true as shown above.

#### INCREASED REGIONAL INEQUALITIES AND IT'S SOCIAL COST

If Narmada Project is not implemented in Gujarat, the future development would continue to be concentrated in only 60 Talukas in Ahmedabad-Vapi rail-road corridor where social benefit cost ratio has become unfavourable, because of the ecological imbalance and environmental deterioration. The unfavourable socio-economic costs ratio is because of overuse, misuse, and

flooging of the limited natural resources, like water and table indicates that quality (Table 2). This the water deteriorates substantially as it enters rail road corridors. The social cost of increasing regional inequalities is very high. present it is being manifested in several states in country. The increased inequalities at sub-regional level have equally high social costs because of political discontent, and law and order problem.

The Frivate benefit cost ratio in the rail-road corridor is still favourable due to ever increasing state incentives and subsidies in the short run. One does not know how long it will continue to remain favourable. The present nature of development in the rail-road corridor has potential of several Bhopal type tragedies which could turn even this limited short-run favourable private benefit cost ratio into a nightmare and disastrous high social costs.

#### RECURRING DROUGHTS

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Gujarat has low and erratic rainfall with large variation over time and space. Only a very small portion in South Gujarat has sufficient rainfall with less than 30% co-efficient of variation. The distribution of Gujarat's water resources is heavily concentrated in the Southern and Central part of the main land.

In view of low and erratic rain fall, limited surface and ground water concentrated in South and Central Gujarat and limited irrigation, Gujarat agriculture is highly susceptible to droughts and famines. The droughts of 1984, 1985, 1986 and 1987 have very

Water Qualities Observed in Polluted reaches of major rivers of Gujarat (April 183)

Sr. No.	Name of river	Location	D/O mg/e	BOD/COD mg/e	Turbidity NTU	Ph	Sp.conductance ms
1	Sabarmati	Vasna Narol bridge	nil	147/379	90/-	7.6	223.0/-
2 ·	Mahi	Vasad	6.50	2.0/9.9	16.0/-	8.5	29.41/-
3	Narmada	Garudeshwar	7.8	1.0/7	23.0	8.6	39.60/-
<del>1</del>	Tapti	NH-8 bridge Kathod	6.2	0.5/8	10.0/-	7.6 •	60.0/-
5	Mirdhola	NH-8 bridge SH-6 bridge sachin	5.0	9.9/32.0	10.0/-	7.2	150.01/-
6	Purue	D/S-SH-6 bridge, Navsari	5.0	7.2/29.0	150/-	7•9	1150/-
7	Kaveri `	Bilimora	0.0	28.0/80.0	16.0	7•9	4800 <b>/-</b>
8	Ambica	Bilimora Amalsad bridge	6.8	20.0/56.0	27/-	7.4	5500/ <b>-</b>
9	Awrange	Atlialpur bridge, Bulsar	6.0	10.8/8.0	41.0/ <del>-</del>	7.2	6100/-
10	Par	Rly.Bridge D/s of Haria	1.6	27/72	1800/-	7.1	3500/-
11	Kolak	At Pataliya bridge	2.0	1+3/120	29/-	8.5	3100/-
12	Damanganga		4.0	1.0/16.0	16.0/-	7.0	6000/-

Source: Gujarat Pollution Board

clearly established the need to augment the water resources of Gujarat. The impact of 1987 drought was extremely severe. Where it affected 77% of Gujarat booulation. 71% of cropped area in more than 15,000 villages. The recurring and consecutive droughts can be eliminated only by augmenting the water resources of Gujarat. This can be achieved only through Narmada Project. All other alternatives will be adhoc and piecemeal.

In this debate and heat, everybody has forgotten that Rajasthar has also very high stakes in Narmada Project, because it is goin to provide water to its highly water deficient areas of Barmer and Jalore district of Rajasthan.

#### COST OF THE PROJECT

According to Baba Amte the cost of the project is very high and therefore Gujarat will not be able to mobilize the necessary financial resources. The cost of the project was estimated to be Rs.4.240 crores at 1981-82 prices.

The total cost of the SSNP at 1986-87 prices is estimated at Rs.6.406.04 crores which has been approved by the Planning Commission on 5th Oct. 1988.

In Seventh Five Year Plan of Govt. of India, an irrigation potential of 4.3 Mn. hectare is to be created at the cost pf Rs.1155.56 crores. If we use this norm, the cost of SSNP wo out to be Rs.4,837 crores at 1984-85 prices. If we adjust these figures for price changes and bring it to 1986-87 level the cost of SSNP works out to be Rs.5,562.4 crores. This cost does not

include the cost of rehabilitation, environment and ecology etc. Making adjustments for these costs, the cost of SSNP of Rs.6,406.04 crores becomes compatible with the National norm.

It should also be remembered that the National figures include both major and medium irrigation project whereas SSNF cost should be major project. It would further make the SSNF cost compatible with the National norms.

While calculating the cost of irrigation projects in Gujarat, it must be remembered that Gujarat has a flat terrain and therefore the cost of irrigation project will be higher than the National average. Still the estimated cost of SSNP is compatible and comparable with the National Cost. This means that if SSNP is to be dropped on cost criteria than the same applies to the most of the major and medium irrigation projects of the country.

#### BENEFITS

As against the cost of Rs.6.406 crores, the estimated value of the increased product and bi-oroducts has been estimated to be Rs.12.000 crores which yields the benefit cost ratio to be 2 as against the planning commission stipulation of 1.5.

Doubts have been expressed about this likely value of benefits. Therefore we made an alternative estimate on the likely value of benefits from SSNP. For this we used the World Bank Study (No. 536) on "Economic Return to Investment in Irrigation in India". This World Bank study estimated the differences in the net value added per hectare between irrigated and rain fed land in India.

The result shows that a gross cropped hectare irrigated land products about Rs.2.950 (in 1979-80 prices) per year more than a hectare of rain fed land. If the higher cropping intensity of irrigated land is taken into account by analysing the productivity differences, in terms of net area, the difference is about Rs.4.480. Adjusting Rs.2.950 for price changes to 1986-87 it is estimated to be Rs.5.600. On this basis the value of product and bi-product from 18 lakh hectares of irrigated land in Narmada Command Area works out to be Rs.1.000 crores. With the higher crooping intensity the output value shoots upto Rs.1,500 crores. That makes the SSNP the highly viable project.

The above assessment of benefits is based on the primary increases in agricultural production. Theorically we should also take into account the benefits in the form of agro-processing of the primary produce. Let us illustrate the agro-processing potential with the case of paddy-rice. A farmer does not produce a rice, he cultivates paddy. Faddy plant produces the following.

Straw (about 50% of the weight)

Husk (about 10.5% by weight)

Bran (about 3.5% by weight)

Rice kernal (about 36% by weight)

All the products that can be made out of these 4 raw materials are indicated in Figure 1. A recent paper (V. R. Gaikwad. Application of Science and Technology for Integrated Agricultural and Rural Development - A farm industry Linkage approach in U. K. Srivastava and S. Vathsala (Ed) Agro-processing, Strategy for

### Figure 1

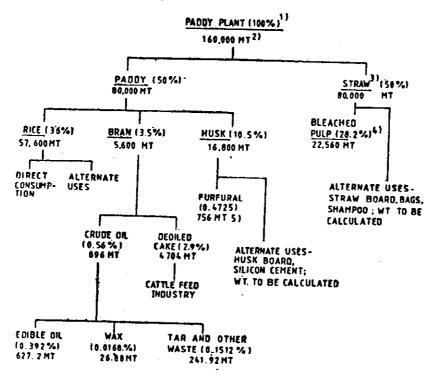


Figure 4: Percentage by weight of various components of paddy plant.

#### Note:

- 1) Figures in parentheses are approximate weight (in percentage) out of the total weight of paddy plant.
- 2) Figures given below each component are derived on the following assumption:
  - a) Paddy area under cultivation 10,000 hectares
  - b) Cropping intensity—two paddy crops per year
  - c) Paddy yield per hectare for one season-4 MT
  - d) Paddy straw yield/hectare (at 1:1 paddy: straw) 4 MT
  - e). Total paddy production =  $10,000 \times 4 \times 2$ 
    - = 80,000 MT

Total straw production =  $10,000 \times 4 \times 2$ 

= 80,000 MT

Total weight of paddy | = 160,000 MT

- f) Entire paddy and straw produced is processed; seed and other requirements not considered.
- 3) The paddy straw ratio for most of the common varieties varies between 1:0.7 to 1:1.5. Here we have assumed the ratio of 1:1.
- Based on the figures given by V. Podder, Paper Industry in India, Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi. 1979, pp. 60-63.
- 5) At 4.5 recovery rate from husk against possible 6 per cent.

Source: V. R. Gaikwad and V.K. Gupta, A Guide to Management of Small Farmers' Integrated Rice Cooperatives in Asia, (Report submitted to FAO of UN, 1981), Oxford and IBH Publishing Company Pvt. Ltd., New Delhi, 1988.

Acceleration and Exports, Oxford Publishing Company, 1989) has indicated that with an investment of Rs. 2 to 3 crores each block of about 10,000 hectares under paddy crop with two cropping seasons in a year and 4 tonnes/ha production has a potential of supporting a complex of processing industries which includes rice mills, solvent extraction plant for rice bran oil, processing of husk for variety of products and straw paper/board mills. Then processing operation generates value added 66% on a very conservative estimate over and above the raw material (farm level) and generates avenues for rural off farm employment in the area (See Draft Report, of Working Group on AGRO-PROCESSING INDUSTRY - VIII Five Year Plan, Ministry of Food Processing Industry, GOI). Similar exercise can be done in case of all the agricultural commodities.

If this value added is also included in the benefits for the project. the benefits mentioned above would further increase by 66%. This means that benefits would be about Rs. 20,000 crores. easily be doubled. This aspect has been ignored in the original calculation of benefits from the project. Therefore, the benefits are underestimated.

The benefit cost ratio would be close to 3: 1 if the value addition from agro-processing is included in the benefits as indicated above.

#### RESOURCE MOBILISATION

The total cost of SSNF at 1986-87 prices is Rs.6,406.04 crores

as per the approval of the Flanning Commission dt.5.10.88. Out of this. Rs.266.77 crores have already been spent in Sixth Plan period and as per the projected figures, Rs.789.36 crores are to be spent during the current Seventh Plan period. However, according to the present accelerated work schedule, it is expected that Rs.1.000 crores would be spent during the current plan period.

Many critics of this project forecast total cost of this project from Rs.11.000 crores to Rs.15.000 crores, but the fact is that the cost at 1986-87 prices is Rs.6.406 crores. Out of the total cost, if we take away the amount already spent upto Seventh Plan i.e. Rs.1.266 crores then on the remaining expenditure of about Rs.5.318 crores, the final cost would come to only Rs.7.900 crores for the next 10 years including escalation of prices. This is not withstanding the fact that out of the original cost of Rs.6.406 crores, Rs.1.502 crores would be share of other participating states, which would be much higher as per the escalation prices.

Taking the basis of the cost of Rs.6.406 crores, as approved by the Planning Commission, and taking out Rs. 1.502 crores as share of other states olus about Rs.3.400 crores by way of budgetted provision by Govt. of Gujarat there would be a net gap of Rs.1.500 crores which the Nigam would have to raise to complete the project in the compressed schedule of 10 years. Nigam's strategy is not to borrow these funds at 14 to 15% interest but to borrow these resources in such a way that the average cost of interest would be lower than 10%. While on the Fixed Deposits,

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the Nigam would be paying interest 12 - 14% whereas on the other side, the Nigam has planned to raise resources from additional sale of kisan Vikas Patra in the 62 talukas in which Narmada water is to flow. As is known, Govt. of India gives 75% of the total sale amount on the KVP to the State Govt. as soft loan at a very cheap rate of interest of 7.5% and with a very long repayment period. Through this scheme of KVP, it is expected to raise atleast Rs.300-400 crores in the next 10 years.

Feople are making hue and cry about the debt service problem that the Nigam would face for such a large borrowing, but such critics have never thought of a differential interest rates on resources from different avenues which can reduce the cost of interest. For example, the World Bank finance is available at a much cheaper rate. The budgetary resources available from the State Govt., which forms more than 75% of the the total requirements, is available free of interest as equity to the Nigam.

Those who do not know financial management, simply calculate—the burden of interest by Rs.2.000 crures muluiplied by the rate of interest and multilied by period of 10 years. However, they forget that a good financial management always borrows money only as per the requirement and only for that period for which it is required. In other words, SSNP has planned, is not to borrow all the funds at a time, but to take these resources on the requirement of yearly basis to reduce the interest cost.

It has been decided to compress the work schedule to complete this project in 10 years instead of 17 years to reduce the cost and to pass on the benefits to the State much earlier. It is estimated that if the project is completed 7 years early, it can save about Rs.4.500 crores in the cost. On the other hand, the benefits which are to accrue would be about Rs.7.800 crores in 7 years on the basis of increase in agriculture production by Rs.700 crores, Rs.400 crores income from power and Rs.100 crores income from drinking water i.e. totally Rs.1,400 crores per year.

To simplify, one can say that by completing the project 7 years early. the State would be benefitted by about Rs.14,300 crores i.e. Rs.4.500 crores savings in cost and Rs.9,800 crores income from the project.

#### THE REHABILITATION

Narmada Water Dispute Tribunal (NWDT) laid down the norms rehabilitation and resettlement for the persons affected by Sardar Sarvovar Project in Madhya Pradesh and Maharashtra. As per every land holder is to be provided some amount irrigable land - later amended by Narmada Control Authority (NCA) irrigable land. Every oustee has to be provided as assured compensation for house, material for house, transport cost of Rs.750/- and a minimum civic amenities at the new settlement. However, the Government of Gujarat liberalised these norms considerably. The award of NWDT was only for oustees of Madhya Fradesh and Maharashtra but Government of Gujarat extended it to Gujarat oustees to the also. According rehabilitation and resettlement policy in addition to

holder, every major son of landed oustee, every landless labourer and his major son, even the encroachers of Government forest land and each of their major sons would be entitled to 2 hectares of land. There is a provision of both Government as well as private land. Every pustee is provided with subsistence allowance at the rate of Rs.15/ per day for 25 days in a month for one year from the date the oustee commence residing at the new sight. This was not provided by NWDT award.

The philosophy of the liberal rehabilitation and resettlement policy is that in the past the beneficiaries of any development project hardly sacrificed anything whereas the oustee of these projects sacrificed a lot but hardly got any benefit. Their conditions worsened after the project. Sardar Sarover RR policy was to reverse this process. In view of this fact that these oustees sacrificed so much and therefore they should be significantly better off after this project. It was also realised that unless they have assets in the form of land these lot can't be imported. Therefore, land to every project affected persons should be given.

The RR policy has also drawn lessons from IRDF programmes that without the asset of the land, come what may, they can't be brought above the poverty line.

To implement this policy we do need land which can be cultivated profitably. There is 49,000 hectares of Government land available in the Command Area, declared surplus due to land ceiling act.

Thus there is land available as well as very honest intentions to

implement RR policy.

#### SUMMARY UP

We have very amply shown that there has been enough well informed and open debate on the issue. The project benefits very large backward area of North Guiarat. Saurashtra, Kutch and Rajasthan. Gujarat economy is fairly buoyant and therefore adequate financial resources can be mobilised for the project. Its benefit cost ratio is two. A social economic benefit cost ratio of this project will be even more than two. The RR policy provides permanent income generating land asset to large number of oustees from Gujarat. Maharashtra, Rajasthan and Madhya Fradesh.

The above mentioned assessment of cost and benefits, rehabilitation plans and resource mobilisation aspects indicates that the project is conceived on sound lines. The project is in fact imperative for Gujarat if the regional inequalities industrial development of Gujarat have to be reduced as indicated above.

We must however, mention that academics can only examine the olausibility of assumptions and come to a conclusion about the soundness of the project. We can examine whether those who have been ousted and compensated adequately for getting the alternative means of livelihood.

Much depends on the process of implementation. Distinguished persons like Baba Amte need to act as a watchdog to see that the

about the projected cropping pattern and yields are generated and the project is implemented in 10 years as the efforts are on. It is necessary to mobilise people's support for implementing the project and eventually generating and distributing the gains. If agro-industrial activity is to come up as per potential this also needs to be planned from the very beginning.

Some of the apprehensions expressed by Babu Amte may still come true if the implementation process is not handled speedily and in the spirit of rehabilitating the oustees in addition to those who stand to gain directly from the project.

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