Running An Innovation Aground: Experiment of Private Financing of Irrigation In Vidarbha

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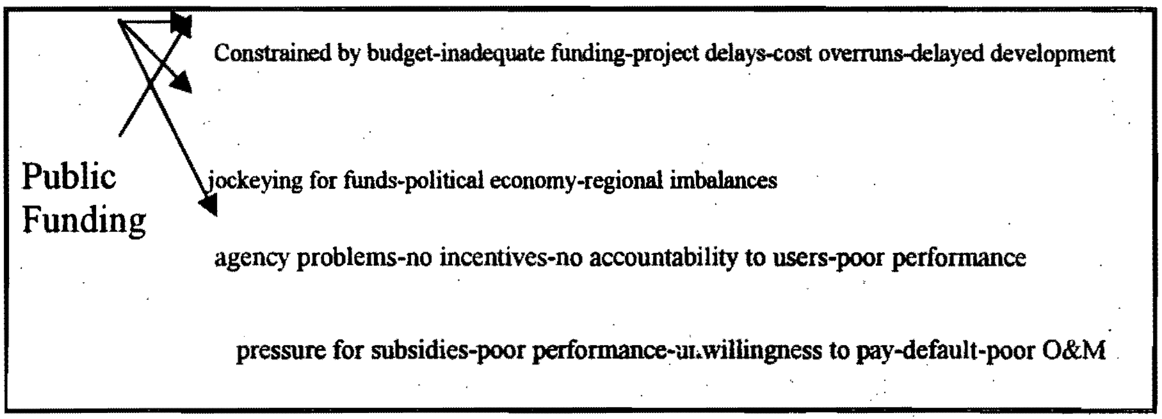
Abstract *:Financial constraints to speedier irrigation developments; regional imbalances due to politics of allocation; absence of accountability and incentives for performance for the irrigation bureaucracy and the vicious cycle of poor performance- unwillingness to pay irrigation charges- no funds for O&M and hence poorer performance were identified as the ills of publicly funded irrigation projects. Private financing of irrigation can set off a chain of behaviours that could address some of these issues. Market borrowings for creation of irrigation infrastructure was considered to be a brilliant move from this point of view. In Maharashtra the motivation for borrowing from the market was different. Unable to continue ignoring irrigation development demands from hitherto neglected regions, unable to find adequate funds for continuing to fund irrigation through State budgets, heartened by the positive response from capital markets to Narmada and KBJNL issues and recognising the possibility of raising easy finance from the market, GoM opportunistically adopted the policy of market borrowings for irrigation development. GoM set up five Irrigation Corporations including Vidarbha Irrigation Development Corporation (VIDC). The State Acts which set these Corporations up embodied commitments of the GoM for part State financing of the projects, balance coming from the market. These corporations could source money from the market directly and were not constrained by norms governing Government paper. The positive response in the first year emboldened the State to increase the scope of the private borrowings and it expanded the projects under the VIDC. It did not wish to or could never meet its obligations under the VIDC Act and State contributions fell short of the target by 80%. As the State's profligacy eroded its credibility in the market, it became more and more difficult to attract adequate subscription to the bonds. As of now, with two DRT attachment notices against the State, the GoM has decided to stop furnishing further guarantees to any debt of any State agency or Co-operatives. Without State guarantee, the whole programme has come to a grinding halt. Irrigation development has of course stopped altogether in Vidarbha. This experiment by itself is not enough for passing judgment on advisability of market borrowings for irrigation infrastructure. The experiment was vitiated by opportunistic behaviour of the State and spoilt by interference of regional dynamics.*

I. Introduction:

As they extend over large geographic areas, often transcending administrative boundaries as they are based on transfer of benefits arising out of rights on water in a specific manner, as they create non-excludable goods at least within a limited geographic area (the command) and as they need huge, lumpy investments, canal irrigation systems are seen to be typical public goods. Not surprisingly in most countries, large scale systems of dams, reservoirs and canals are funded by the State. Yet not all irrigation is financed publicly. Ground water irrigation facilities are mostly created out of private investments, often supported through debts from the banks. There are many instances of financing, creation and more often maintenance of tanks by self-financing efforts of a cohesive community. But private financing of canal irrigation is rare. Public financing of irrigation creates four sets of interrelated problems:

- When done through State budgets, allocations for the irrigation system have to compete with other State priorities and hence funds flow to irrigation projects tends to be slow, patchy and uncertain. In consequences, projects get delayed and the consequent cost over-run further exacerbates the problem.[39]
- State action is notoriously prone to influencing by interest groups. Funds tend to be allocated to irrigation projects in response to these influences rather than merits of projects. This may lead to sub-optimal investments and regional imbalances. State financing may also lead to huge hidden subsidies in irrigation.[40]
- State run irrigation projects dilute the incentives for proper performance for the staff. Staff is accountable to their State bosses in the bureaucracy and not to the users. As a result, irrigation supply often fails to match demand in terms of time and quantum.[41]
- Finally, such seemingly poor quality performance significantly reinforces the unwillingness to pay irrigation charges and this in turn cripples the operations and maintenance of the system due to insufficient funds



Such deliberations were carried out in the corridors of economic policy making in India and in fact the Working Group on Irrigation for the Tenth Plan actually recommended setting up an Irrigation Finance Corporation. The chapter of raising debt from public for the purpose of creating irrigation infrastructure began in the eighties with the series of tranches of the Narmada bonds. This trend was subsequently picked up with the setting up of Krishna Bhagya Jal Nigam Limited (KBJNL) in Karnataka. Maharashtra joined this bandwagon in 1997 with the setting up of five irrigation corporations, one each for Vidarbha, Tapti valley, Godavari Valley, Konkan and Krishna Valley regions respectively.

This paper traces the subsequent developments in these Corporations and their finances. It attempts to separate the issues specific to private financing of irrigation from the issues pertaining to regional development, political economy of development and the process of gradual hiving off of irrigation responsibility by the State.

[39] See e.g. the Report of the Water and Irrigation Commission, 1997, page 615.

[40] See Phansalkar, SJ, Political Economy of Irrigation Development in Vidarbha, (submitted to IWMI), 2003

[41] See Raju KV, Gulati Ashok and Ruth Meinzen-Dick, Innovations in Irrigation financing: Tapping Domestic Financial Markets in India, discussion Paper, 48, MSSD, IFPRI, 2002

II. History of irrigation development in Maharashtra

During the British regime, the focus of water resources development in Maharashtra as elsewhere was to obviate and to mitigate frequently occurring droughts and destitution arising from them. This effort was done mainly in Western Maharashtra regions. The Ukai project on Tapti was planned and put on stream during the time of the Bilingual Bombay state but other than that the irrigation development in the Maharashtra areas was patchy at the best. Irrigation development in Maharashtra began in right earnest after the formation of Maharashtra state in 1960. The pace of irrigation development is shown in Table 1. It may be seen that in the Eighth Plan, as much as 30% of the plan allocation was made to Irrigation. Secondly it may be noticed that the per Ha investment costs have been rising over the Plan periods and have now gone beyond Rs. 100000/-. Thirty three major irrigation projects and over 175 medium irrigation projects have been completed in the State so far. In addition to these, minor projects with command less that 1000 Ha are created both in the State and the local sectors. Schemes such as the Employment Guarantee scheme are used to create water bodies and irrigation tanks with commands of the order of a hundred hectares. KT Weirs and Lift Irrigation schemes are the other type of small irrigation projects.

Table 1:

Plan wise investment and creation of irrigation command in Maharashtra

(Amounts in Rs. crores, Command area in Lakh Ha)

SN	Plan and period	Amount invested (% to plan size)	Command created	Cumulative irrigated area	Cost (Rs. per Ha)	Comments
1	Pre-plan (before 1951)	17	2.74	2.74	520	
2	First (1951-56)	8 (5)	0.4	3.14	2000	
3	Second (1956-61)	34 (15)	0.84	3.98	4048	
4	Third (1961-66)	65(15)	1.72	5.7	3779	
5	Fourth (1969-74)	233 (23)	3.84	11.02	6068	Annual plans not mentioned
6	Fifth (1974-78)	426 (16)	4.68	15.7	9103	
7	Sixth (1980-85)	1341 (20)	5.5	22.7	24382	Annual plans not mentioned
8	Seventh (1985-90)	1811 (16)	3.6	26.3	50305	
9	Eighth (1992-97)	5529 (30)	5.04	32.21	109702	Annual plans not mentioned

Source: Report of the Maharashtra Water and Irrigation Commission, Volume 1 page 614

Three factors, namely more strongly articulated demand from farmers, presence of a helpful bureaucracy that had social and kinship affinity with the people there and political-administrative domination from the sugar lobby, irrigation investments have tended to concentrate in the Western Maharashtra regions since then. The major exception to this rule has been completion of the Jayakwadi project on Godawari river that benefited Marathwada region. Two Committees appointed by the GoM, namely the Dandekar Committee and the Indicators and Backlog Committee have documented the huge extent of regional imbalances in irrigation development in Maharashtra. As of 1994, the created irrigation potential of different regions of Maharashtra was as shown below:

Table 2 :

Status of Irrigation and Irrigation backlog as in 1994

SN	Item	Kokan	Western Maharashtra	Marathwada	Vidarbha
1	Net sown Area	8.78	73.20	47.55	51.06
2	Created Irrigation Potential (SRE)	2.01	40.68	12.39	12.17
3	Irrigation potential % of Sown area	22.9	55.57	26.06	23.85
4	Backlog Amount	630	600	2770	4265

Source: Report of the Indicators and Backlog Committee 1997, page 52.
Area in lakh Ha, amounts in Rs. Crores. SRE stands for Standard Rabi Equivalent and adjusts for length of irrigation in various command areas.

III. Decision to raise finance from the market

Till 1997, all investments in irrigation had been financed out of the plan expenditure of the State. The State's ability to finance had constrained the pace of irrigation development. Demand for expeditious completion of approved projects was quite strong and the impacts of these projects would surely be salutary. Hence the State decided to borrow funds from the open market in order to execute the irrigation projects. If the Styate government itself were to issue loans, then it would be constrained by the procedures well laid out for this purpose in the Constitution and would have interefered with the normal State government borrowings. Hence Special Purpose Vehicles in the form of Irrigation Development Corporations were thought as appropriate solutions. Maharashtra set up five such Corporations by a single Ordinance, later passed as Act number 8 of 1996 and amended later for expanding the scope of the Corporations. This Ordinance specified the areas of operation of each of the Corporations. (To be specific, these are Krishna Valley Irrigation Development Corporation, Tapti Valley Irrigation Developm,ent Corporation, Konkan Irrigation Development Corporation, Godavari Valley Irrigation Development Corporation and Vidarbha Irrigation Development Corporation.) The Act specifies that fifty percent of the expected investment amounts for the period 1997-2002 would be provided by the State Government through its budget, the rest would be raised by the Corpcration from the market by issuing bonds. State Government would stand Guarantee for timely payment of interest amounts and repayment of the principal amounts on the bonds. The amounts in rupees crores proposed to be invested in irrigation were stated as follows:

	State Government	Through borrowings	Total
MKVIDC	3500	3600	7100
VIDC	1300	2500	3800
GIDC	1300	2600	3900
TIDC	1400	3270	4670
KIDC	172	384	556

Official explanation for issuance of bonds was mainly to augment the availability of funds for investment in irrigation infrastructure. It is perhaps instructive to speculate about the reasons for this step. By the mid-nineties three things had happened. In the first place, year 2000, the deadline for using up the allocated waters of Krishna and Godavari appeared too close to ignore. The ruling elite in Maharashtra of course were primarily interested in developing Krishna basin (the home to the sugar cultivation). And so the official statement simply indicated the urgency of creating structures to use Krishna waters. Experts who gave testimony to the Water and Irrigation Commission pointed out that the deadline was also expiring ~~for~~ Godavari. With Dandekar[42] Committee report, the fact of regional imbalance in irrigation development had become widely known. But the official acceptance of backlog had made it impossible for them to invest huge sums in Krishna basin without At least showing some development in other basins as well. And certainly the State did not have funds for all that development. Thirdly, first the example of Narmada Bonds and then the example of KBJNL in Karnataka had demonstrated how the irrigation infrastructure could be created using borrowed money. Till that time, Maharashtra enjoyed a solid reputation for financial solvency and hence expected very good ratings for its bonds. In fact CRISIL did rate the first tranche of these bonds at "AA+ (SO)", a very high rating. And in 1997 in particular, equity market had ceased to be of much interest to people and high priced government backed bonds were sure to attract funds.

IV. Vidarbha Irrigation Development Corporations: a profile

Vidarbha Irrigation Development Corporation (VIDC) was established in 1997 under the VIDC ordinance dated March 12th 1997, ratified subsequently VIDC Act, which was passed on April 28 1997. . The main stated objective with which VIDC came into existence was to expedite the work of irrigation in the region. Hence it was sought to mobilise the funds required. For a time line of events concerned with VIDC, see Annex 1. The properties and assets worth Rs. 874 crores were transferred from the GoM's Irrigation Department in Vidarbha to VIDC. The break-up of the value of assets transferred to VIDC is as follows:

[42] Report of the Fact Finding Committee (Chairman VM Dandekar) on Regional Imbalances, GoM, 1984

Particulars	Value (in crores)
Land	51
Dams	348
Canals & Branches	173
Roads	10
Buildings	51
Rehabilitation & Resettlement	17
Command Area & Others	9
Establishment, Tools & Plants	104
Others	111
Total	874

Source: Records of VIDC

Ten major projects were also transferred to VIDC in 1997 along with the above assets. In 1998 additional 86 projects (4 major projects, 27 Medium projects and 55 Minor Projects) were transferred to VIDC taking the total to 96 projects under VIDC.
The total Assets transferred through other 86 projects were worth Rs. 1029 crores.

Organisation Structure

Chairman
(Ex-Officio, the Irrigation minister GoM)

↓

Board
(Set of political appointments and Senior IAS officers)

↓

Managing Director
(Ex-offico, Secretary Irrigation)

↓

Executive Director

↙ ↘

Chief Engineer, Amrawati Division

Chief Engineer Nagpur Division

As of now, the entire staff of the erstwhile Irrigation Department up to the level of the Chief Engineers working in Vidarbha have been transferred to the VIDC, protecting their service conditions. Thus the VIDC has absorbed the assets as well as the staff of the GoM. Clearly Corporation was created simply because otherwise the GoM could not have accessed market funds directly. It is quite unrealistic to assume that the VIDC can or will do any thing that is decided purely on professional grounds, independent of the GoM. The shell is owned by the Government, the frame has been installed by the Government and the soul is of the Government as well.

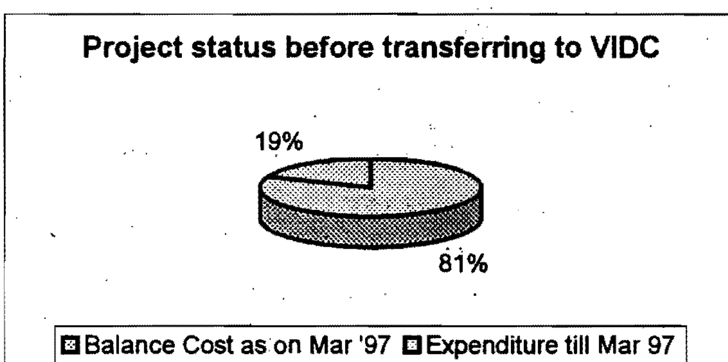
The current projects under VIDC are shown in Annex 2.

4.2 Status of Irrigation Projects before VIDC

Cost and expenditure till the date of the transfer to VIDC on the 10 Major projects mentioned below

Project Name	Estimated Cost	Expenditure till Mar – 97	Balance Cost as on Mar '97
Gosikhurd Project	2091	195	1896
Dhapewada Lift Irrigation Scheme	44	1	43
Wan Project	158	95	63
Human Project	354	9	345
Khadakpurna Project	178	6	172
Lower Wunna Project	261	136	125
Bembla Project	308	25	283
Tultuli Project	326	4	322
Lower Wardha Project	263	17	246
Upper Wardha Project	662	386	276
Total	**4645**	**874**	**3771**

The projects were only in an initial stage when they were transferred. The project that had the highest stage of completion was Upper Wardha.



In 1998-99 the total estimated cost of the above 96 projects was Rs. 10443 (10 major projects 4993, balance other projects.) crores and till Mar-1999 Rs 2303 crores were already spent. Thus investment worth Rs. 8140 crores were yet to be made..

V. Experience of Market Borrowings and Irrigation Development in Vidarbha Financial Plan envisaged for the VIDC

Given the annual outlay of Rs 200-250 crores to Vidarbha for irrigation in the State budget till 1997 and the size of the backlog, it was clear that it would take another 20-30 years before Vidarbha could cover the backlog. The 10 major irrigation projects with a irrigation total capacity of 5.89 lacs hectors of land were proposed to be covered via VIDC under the original bill with a total project cost of Rs. 3800 crore. The project cost of Rs. 3800 crore was to be jointly funded by Govt. of Maharashtra and the Borrowings from the market in a ratio of 30 : 70 in which. GoM was to invest Rs. 1300 crores through budgetary allocations and the balance was to come from market borrowings This was a five year plan.

The original financial Plan was approved in the assembly under the Shivsena-BJP Government in 1997 was as follows: .

Year	Govt. Contribution	Borrowings Public Bonds	Total Funds available for projects
1997-98	150	400	550
1998-99	250	500	750
1999-2000	300	600	900
2000-2001	350	600	950
2001-2002	250	400	650
Total	**1300**	**2500**	**3800**

The Interest Rate on market borrowings was assumed at 14% (average) and the principal repayment was not considered for the time being.

Analysis & Evaluation

Annual Burden on Government for repayment of the interest as well as for making good the promise of the contribution is shown below.

Year	Burden of Annual Repayment (Interest)	Expected component of allocation in Annual Budget (Interest + Govt. Contribution)
1997-98	56	206
1998-99	126	376
1999-2000	210	510
2000-2001	294	644
2001-2002	350	600

These figures between Rs. 206 and 600 crores did not seem unrealistic in a State budget that had then a size of Rs. 20000 crores. Also, it seemed that this way of financing the projects would meet a long standing demand of the region for execution of irrigation projects. The annual allocation would be in the range of 1 to 3 % of total budget, which was considered as manageable amount to fit in the budget. With this view, irrigation projects worth Rs.3800 crores were sanctioned along with Rs. 1300 crores as GoM Contribution. A similar kind of arrangement was already undertaken in case of Krishna Valley Development Corporation. With a small demand on the exchequer, the

Government was in a position to make major investment in irrigation. So every thing seemed fine. Apparently the philosophy and the calculation of burden of repayment has merit and so the above plan can be easily accepted as feasible venture. In the proposed plan, the following points were of critical importance.

Time to completion of the project

Most of the 10 major projects were more than 10 years old in 1997 and were still in their initial phases. Expecting these projects to complete in 5 years was a little unrealistic given the past experience. The projects under consideration were most important in terms of Vidarbha's total irrigation potential. The projects were 81% incomplete as mentioned earlier. Only 19% work was finished in past 10-15 years. Expecting the balance work to be done in five years even if money were available was unrealistic.

Cost Escalation :
As against the realistic completion time the escalation is very significant. Normal cost escalation due to inflation can be taken at 3-4%, or about the same size as annual Government contribution. Hence clearly, the projects were not expected to take off significantly at all!

Borrowing limit:
Generation of funds to the tune of Rs. 500 crores every year for 5 consecutive years itself was a tough and complicated task. The capital market was becoming resistant to fresh issues after 1999-2000. Consistency in generation of funds over this long period can become more intricate as time passes. Perhaps two or three issues are needed each year for the State to raise Rs 500 crores in a year for one IDC. Which meant that an issue would be made each quarter.

Quantum of work:
Handling the work burden of nearly 700-900 crores in a year is quite enormous task in itself. Expecting this from a bureaucracy used to handle a fifth of those funds was optimistic. Given the situation and experience level, learning and shifting to the newer and faster technology would be a tough task. The corporation needed to ascertain its own capability to handle such enormous amount of work and expedite the work.

Contingency provisions:
There should have been an alternative to public borrowings. Market borrowing is at the best of times a little uncertain. At times even GoI debt programme has bombed. There always is the possibility of case of no-response / failure / delays in funds inflow through public borrowings. Also a contingency plan is needed even for carrying out the projects. The project cost was to be funded by mostly public borrowings. Since this was not free of uncertainties, project implementation had an inherent uncertainty.

Actual Repayment Responsibility / Capability:
Irrigation projects are developmental projects. As the Commission states, they are essentially welfare projects. Artifacts such as dams and main canals serve multiple users: city dwellers who need drinking water, municipalities who need to supply water to towns, industries who need water for industrial purposes, recreation, fisheries and of course agriculturists who use water for irrigation. The income by way of irrigation charges can never be deemed to be adequate for servicing the debt taken for creating the

infrastructure. The Commission has suggested use of Benefit cost Ratio for assessing the feasibility of the projects. The BCR is calculated for the project as a whole, benefit being measured not in terms of water cess but in terms of expected extra production to the farmers in the command area. It is possible that systems of charges and collection of charges can be made which will lead to limited sustainability in terms of O & M expenses of completed projects. In fact this too can happen only after user groups take significant lead in the matter of management of distribution and collection of charges and the whole logic of PIM is based on such a hope. Repayment of the debt therefore becomes sole responsibility of the government.

The question is therefore whether the GoM has/had made provisions for payment of the bonds when they fall due.

VIDC started functioning in 1997. It functioned successfully for a year. The first tranche of bonds issued by VIDC attracted huge response. This made the Government more ambitious and more projects were added to the VIDC kitty with more budget and contribution as follows.

Revised financial plan in 1998 – 99 Total project cost: 8140 crores
No. of projects : 96

Govt. contribution: 2245 Borrowings: 5895

Duration: 10 years

Year	Govt. Contribution	Borrowings Public Bonds	Total Funds available / needed for projects
1997-98	225	590	815
1998-99	225	590	815
1999-2000	225	590	815
2000-2001	225	590	815
2001-2002	225	590	815
2002-2003	225	590	815
2003-2004	225	590	815
2004-2005	225	590	815
2005-2006	225	590	815
2006-2007	220	585	805
Total	**2245**	**5895**	**8140**

Revised Annual Burden on GoM as an outlay for irrigation projects in Vidarbha:

Year	Burden of Annual Repayment (Interest)	Expected component of allocation in Annual Budget (Interest + Govt. Contribution)
1997-98	82	307
1998-99	164	389
1999-2000	246	471
2000-2001	328	553
2001-2002	410	635
2002-2003	492	717
2003-2004	574	799
2004-2005	656	881
2005-2006	738	963
2006-2007	820	1045

The comments made on the first financial plan apply *a fortiori* to this too. The duration of the completion was extended from 5 years to 10 years. This is significant as mentioned earlier and can give realistic look to the plan.

Yearly provisions of raising finance and expenses

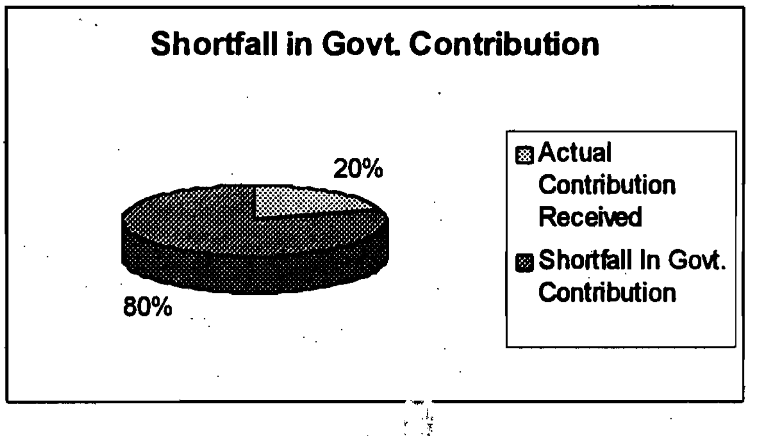
According to the approved plan above, the implementation started in 1997 when VIDC came into existence and subsequently work was started and bonds were floated to generate funds from the public. As per the financial plan cost of the Projects (balance) was Rs 7824 crores. Rs.2245 was to be government's contribution and remaining amount of Rs. 5579 was to be raised from public borrowings.

Government Contributions:

The record of yearly contributions by GoM is shown below.

Financial Year	Actual Govt. Contribution Received (shortfall against plan) (Rs. crores)
97-98	37.38 (187)
98-99	25 (200)
99-2000	202.31 (23)
2000-1	- (225)
2001-02	-(225)
2002-03	-(225)
Total	**264.69 (1085)**

In the above Table, figures in brackets show the shortfall in Rupees. Crores from the original plan. The GoM has been unable to make budgetary provisions to irrigation development according to the original plan. The shortfall amounts to 80% of the promised amount. It is not clear whether the shortfall in Government contribution was of the same order in other cases particularly KVIDC. But we suspect it was much smaller. That is why this amount of shortfall is not just a lapse caused by financial stress but downright chicanery.

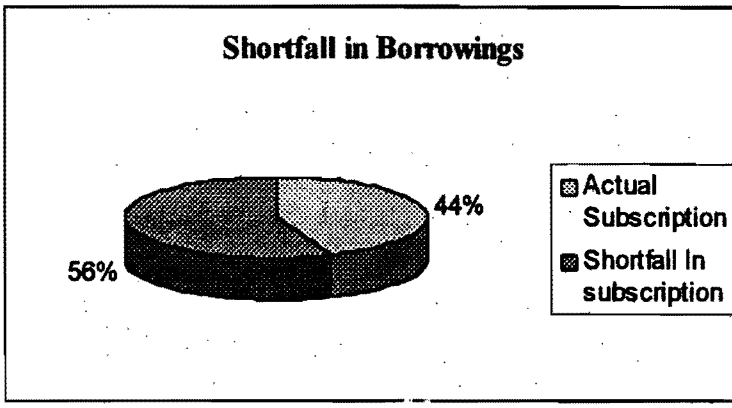


Market Borrowings:

VIDC opted to generate funds through market borrowings by floating bonds with a payback guarantee of Government. The bonds were floated in six tranches (Series) with interest rates ranging from 13% to 15.75% Following funds were generated till now through the public bonds

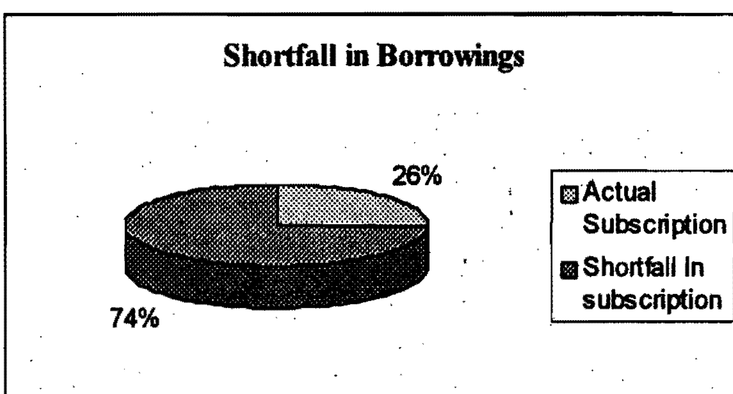
Year	Instrument Series & Bonds Value (floated)	Actual Subscription
97-98	Series I – 100	226.37
98-99	Series II – 75 Series III-125	79.5 153.29
99-2K	Series IV-150	306.81
2K-01	Series V-300	453.45
2K-02	Series VI-250 Series VII-225	210.79 41.55
2K-03	Series VII continued	88.75
Total		**1560.51**

Shortfall in Borrowings:
Borrowings also fell short of required amounts during past six years. The shortfall was



present since the inception of VIDC and it continued through out. The cumulative shortfall in borrowings has gone up to Rs. 1980 crores, or about 60% of the planned level of borrowings.

The above shortfall is against the borrowing expected till date. But if we consider the balance borrowings as against total borrowings expected through 10 years as planned earlier, it becomes Rs. 4335 crores. So out of total Rs.5890 crores that were to be raised through borrowings, Rs 4335 crores is yet t be raised.



Yearly work progress & financial status

Expenditure Done:

VIDC initially started with 10 major projects worth Rs 4645 crores when Rs. 874 had been already spent on them. and the balance cost was Rs. 3800 crores. Later in 1998 4 major; 27 medium and 55 minor projects were added and total investment need of projects in 1998 became Rs. 9533 crores. Prior to transfer Rs. 835 crores were already spent on these projects. The total balance cost for the projects in 1998 became Rs. 8140 crores to be completed in 10 years Now in 2002 the total balance cost for the 96 projects has become Rs. 7824 crores to be completed in 4-5 years if the earlier schedule has to be maintained. The total amount of work done till date against expected is given below

(works shown in Rs. Crores)

Year	Expected work	Actual Work Done	Shortfall of work
97-98	815	180.74	634.26 (77)
98-99	815	233.39	581.61 (71)
99-2K	815	491.98	323.02 (40)
2K-01	815	606.07	208.93 (25)
2K-02	815	323.35	491.65 (60)
2K-03	815	126.59.	688.41 (84)
Total	**4890**	**1962.29**	**2927.88 (60)**

Updated Expenditure and Balance cost:

The project costs were updated and as of now following is the balance cost of project

Sr. No	Particulars	Estimated Total Cost	Expenditure up to Mar 31,2002	Balance Cost on 1/4/2002
1.	Land Rehabilitation & Resettlement	1347	435	912
2.	Works	8378	2666	5712
3.	Establishment, Tools & Plants	1788	588	1200
	Total	11513	3689	7824

Source VIDC Record

Project Status and completion schedule:

The irrigation projects under construction are likely to be completed by the year 2009 as per the schedule given below, provided they are funded.

Sr. No	Year	Major	Medium	Minor	Lift Irrigation	Expenditure up to Mar 02
1.	2001-02	-	5	17	1	304
2.	2002-03	-	-	-	-	-
3.	2003-04	1	3	9	1	373
4.	2004-05	4	4	9	3	1407
5.	2005-06	-	7	17	3	363
6.	2006-07	-	3	-	-	5
7.	2007-08	5	-	-	-	1211
8.	2008-09	4	-	-	-	26
	Total	14	22	52	8	3689

Year wise Breakup of Planned Project Expenditure for coming 10 years (2003 – 2009)

Project Name	Estimated Cost	Updated cost	Expenditure up to 2001-02	Balance cost as on 1/4/02	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
Gosikhurd	2091	2841	756	2085	44	374	386	360	323	333	265
Dhapewada	78	78	39	39	2	20	17				
Lower wardha	445	549	155	394	23	70	70	70	70	70	21
Human Project	34	596	11	585	18	100	100	150	110	107	
lower wuna	25	276	221	55	20	20	15				
upper wardha	662	754	546	208	120	50	38				
Bembla Project	190	353	145	207	97	40	40	30			
wan	228	228	191	37	36	1					
khadakpurna	369	369	62	307	95	00	00	32			
tultuli	19	296	7	289	0	1	1	30	69	60	128
bawanthali	182	182	92	90	5	30	30	25			
Arunavati	148	224	176	48	40	8					
Jigaon	698	930	7	923	15	45	100	114	358	291	
Lower Painganga	1402	1697	2	1695	5	100	105	183	435	435	432
Major (14)Total	6571	9373	2411	6962	520	949	992	994	1365	1296	846
Medium (27)	1024	1473	857	616	232	150	140	94			
Minor (55)	368	667	421	246	105	40	40	40	21		
Total (96)	**7963**	**11513**	**3689**	**7824**	**857**	**1139**	**1172**	**1129**	**1386**	**1296**	**846**

Funds Flow Statement for the years 1998-2001 is shown below:

Funds Flow Statement 1997-2001

Source of Funds	2001	1998	Change
Capital Contribution by GoM	1146.7	918.1	228.6
Share Capital from GoM Interest A/c	256.7		256.7
Grants	1.9	1.9	0
Secured Loans	1241.4	226.37	1015.03
Current Liabilities	60.6	30.41	30.19
Fixed Assets	2404.3	1036.37 1367.93	
Investments	0	0	0
Current Assets			
Loans & Advances	303.1	140.14	162.96
(Including KVIDC – 55 crores And for 2001, MAIDC – 25 crores)			

5.2 Loss of creditworthiness

When the whole experiment started, Maharashtra was deemed to be financially quite solvent. Gradually, the creditworthiness started being doubted and already by the year 2000 CRISIL had started downgrading the ratings for the bond issues to default status. Undeterred, profligate borrowings by the State continued. A spate of borrowings, the State interventions needed to save some of the most shameful scams in Co-operative Banks and a spate of guarantees provided to debts raised by co-operative sugar mills have completely destroyed this image. In fact on two occasions lenders of Sugar Co-operatives required the State to honour the guarantees and when it was unable to do so, went to the Debt Recovery Tribunal for recoveries. The DRT actually issued a Decree against the State Government in December 2002 attaching some of its offices. [43] Thus all future borrowings are in deep limbo and the whole programme has run aground. In February 2003, the new CM Mr. Shinde announced that the State Government would not stand guarantee to any debts of any Co-operatives or other agencies including the Irrigation Development Corporations.[44]. Without State Guarantees, the bonds of the VIDC are worthless.

[43] ToI January 19, 2003

[44] (see ToI, Februray 3, 2003)

5.3 Summary of the Experience: The experience of market borrowings

Unable to continue ignoring irrigation development demands from hitherto neglected regions, unable to find adequate funds for continuing to fund irrigation through State budgets, heartened by the positive response from capital markets to Narmada and KBJNL issues and recognising the possibility of raising easy finance from the market, GoM opportunistically adopted the policy of market borrowings for irrigation development. The positive response in the first year emboldened the State to increase the scope of the private borrowings and it expanded the projects under the VIDC. It did not wish to or could never meet its obligations under the VIDC Act and State contributions fell short of the target by 80%. As the State's profligacy eroded its credibility in the market, it became more and more difficult to attract adequate subscription to the bonds. As of now, with two DRT attachment notices against the State, the GoM has decided to stop furnishing further gurantees to any debt of any State agency or Co-operatives. Without State guarantee, the whole programme has come to a grinding halt. Irrigation development has of course stopped altogether in Vidarbha.

VI. Analysis of the Experiment

Financial constraints to speedier irrigation developments; regional imbalances due to politics of allocation; absence of accountability and incentives for performance for the irrigation bureaucracy and the vicious cycle of poor performance- unwillingness to pay irrigation charges- no funds for O&M and hence poorer performance were identified as the ills of publicly funded irrigation projects. It is naïve to pretend that mere source of funds by itself is likely to change all these four aspects significantly. In fact each of the four problems needs an adequate response. The Maharashtra Water and Irrigation Commission had opined against private funding arguing that irrigation infrastructure is essentially in the nature of a public good and it also addresses the basic needs of multiple constituencies. They had therefore indicated that there was limited scope for privatising irrigation.[45] Raising funds from the market is not tantamount to privatisation. Yet it introduces the first element of privatisation. Raising finance in the private debt market explicates the cost of capital and lays it bare. Cost of grant capital to the grantee is on the other hand zero. This can and often does promote sub optimal investment if not waste and inefficiency. Perhaps Jayakwadi project on Godavri in Marathwada and the Tembhu LI project in Krishna valley are prime examples of this.[46] Secondly, the sheer procedures of going to market require fairly rigorous discipline of commitment on time-schedules and so on and since these are transparent and since the market is quick to punish stark ineptitude and inefficiency, there are higher chances that the implementing agency will adhere to these commitments. Thus their accountability is likely to increase some what. Thirdly, private financing of irrigation may help in arguing with the users in accepting and actually paying higher user charges particularly if efforts were made to raise finance also from the potential users or the organisations such as co-operatives that work with them. Finally, private financing of dams and main canals can in turn encourage a trend for user financed and managed distributaries in irrigation and towards at least part payment from other users of water (particularly urban and industrial) since the ethos of

[45] Commission's report, Vol. I, pages 630-691

[46] For comments and arguments on Jayakwadi see Bhongle, "Rajkaran Panyache" (original Marathi), Rajhans, Pune. Tembhu , with a lift of 405 metres and a cost of capital exceeding a few lakhs per Ha is course the current epitome of the ultimate profligacy.

hidden subsidies would have been replaced by "pay for the facility because it costs money to create it" type ethos. Clearly, to make these effects come into reality, a political commitment to the idea of "users pay" is a precondition.

It may be instructive to find out under what conditions the experiment of market borrowings have worked. In the first place it is instructive to try and understand when would one have said that the experiment has in fact worked. As the basic requirement, one would say that it has worked if all the projects were in fact implemented in time schedule committed in the prospectus of the public issue. Market borrowings were seen as useful for loosening the funds constraints and hence thus to expedite irrigation development. This itself could not happen because the State could not honour its commitments for making its promised contributions to the financial plan. The projects suffered from funds shortage right from the word go. Why were they then taken in the plan at all? The only reason for this is to be found in political expediency. Deadline on Krishna water was expiring in 2000. To use all the water in Krishna valley would have needed significant investments. It would also have raised the irrigated area in Western Maharashtra substantially. The regional imbalance in irrigation development was already out in the open after the Dandekar Committee Report and more recently after the Backlog and Indicators Committee Report. Thus it was impossible to invest money in Krishna valley alone ignoring other regions within the State. Hence the Corporations came about as a way of putting up a façade that some thing is being done for other regions as well. It was essentially a diversionary tactic. Budget allocation to Krishna have always remained at much higher level. In fact, at times money raised by VIDC has been "lent" to Krishna Valley Corporation and used by them for their purpose. Thus creation of VIDC and money for it in the private market was throwing dust in the public eye while also carrying out the original agenda of speedier development in Krishna valley. Secondly of course, the extra money did help. Unfortunately, the State borrowed too much and too often. The overall financial burden on Maharashtra is now stated to be around Rs. 78000 crores, a figure that is at least three times its annual budget. Thus the State Government pushed the State in debt trap from 1998 onwards, some thing that could not be envisaged in at the time of initiating the project. Raising money from the booming capital market thus turns out to be merely politically opportunistic behaviour rendered none the less reprehensible because it comes from the State. In short, the experiment did not succeed because it was never meant to be tried successfully! So we venture to suggest that this disastrous outcome of the experiment should not be used to judge the concept of market borrowings.

Annexure -1

Time Line

1996 -1997

- Idea of Vidarbha Irrigation Development floated.
- Assembly Debate
- Financial Plan Announced
- Governor's Ordinance Issued

1997-1998

- VIDC formed through VIDC Act passed in assembly
- 10 major projects transferred to VIDC
- Series I of public bonds issued by VIDC and Rs. 226.37 collected
- Govt. Contribution of Rs. 37.38 crores received.
- 86 additional projects (4 major, 27 medium and 55 minor) transferred to VIDC
- Rs. 180.74 crores spent (Administration + Construction + Machinery + Land Acquisition)

1998-99

- Series II issued – Rs. 79.5 crores generated
- Series III issued – Rs. 153.29 crores generated
- Govt. contribution of Rs. 25 crores received
- Rs. 233.39 crores spent (Administration + Construction + Machinery + Land Acquisition)

1999-2000

- Series IV issued – Rs 306.81 crores generated
- Govt. contribution of Rs. 202.31 crores received
- Rs. 491.98 crores spent (Administration + Construction + Machinery + Land Acquisition)

2000-2001

- Series V issued – Rs. 453.45 crores generated
- Rs. 606.07 crores spent(Administration + Construction + Machinery + Land Acquisition)

2001-2002

- Series VI issued – Rs. 210.79 crores generated.
- Series VII issued – Rs. 41.55 crores generated.
- Rs. 323.35 crores spent (Administration + Construction + Machinery + Land Acquisition)

2002-2003

- Series VII extended – Rs 88.75 crores generated.
- Rs. 126.59 crores spent (Administration + Construction + Machinery + Land Acquisition)

Annex II
Current Projects Transferred to VIDC

Major:

Gosikhurd Project
Upper Wardha Project
Dhapewada Lift Irrigation Scheme
Wan Project
Human Project
Khadakpurna Project
Lower Wunna Project
Bembla Project
Tultuli Project
Arunawati Project
Lower Wardha Project
Jigaon Project
Bawanthadi Project
Lower Painganga Project

Medium Projects

Chenna River, Dham River, Chandrabhaga Karwafa Lal Nala, Purna Dongargaon Madan Talaw Nawargaon, Pakadiguddam, Umarzari, Pentakli, Wagholi Buti, Sondyatola LIS, Utawali Sonapur TomataLIS, Lower Chulband, Man, Jam River, Katangi Torana, Kar River, Karajkheda, Adan, Sayaki, Kalpathari, Pendhari Nala