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PUBLIC INVESTMENT ON MAJOR AND MEDIUM IRRIGATION AND ITS REALIZATION

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ABSTRACT

Indian Agriculture is much dependent on monsoon which is highly uncertain, irregular and uneven. Rainfall controls our agriculture; this brings out the importance of irrigation for our agricultural productivity. Investment in irrigation constitute the single largest component of agricultural investment overall and particularly in the public sector. This paper looks into the trend of public expenditure on Irrigation and impact of public expenditure on Net Irrigated Area. In this paper I have tried to give some explanation of the divergence between public investment in Major Medium Irrigation (MMI) and net irrigated area by it.

KEYWORDS

irrigation, agriculture, Major Medium Irrigation (MMI), net irrigated area, public expenditure.

1.1. INTRODUCTION

Around 58% of the Indian workforce is engaged in the agricultural sector, while the share of the Sector in India's GDP is only 13.68% in 2012-13 (data.gov.in). Rainfall controls our agriculture. But the agriculture in India is much dependent on monsoon which is highly uncertain, irregular and uneven. So irrigation is essential for agriculture. About 80% of the rainfall occurs in 4 months, so it is essential to provide irrigation for crop production in rest of the 8 months. Also because the monsoon is very uncertain so it is important to provide irrigation to protect crops from drought. In rain deficit areas, irrigation is the major source of water for agriculture. For a populous country like India, in order to grow food crops and agricultural products in large quantities to feed the growing population, intensive farming and rotation of crops is important. Therefore, extensive irrigation is necessary for more production.

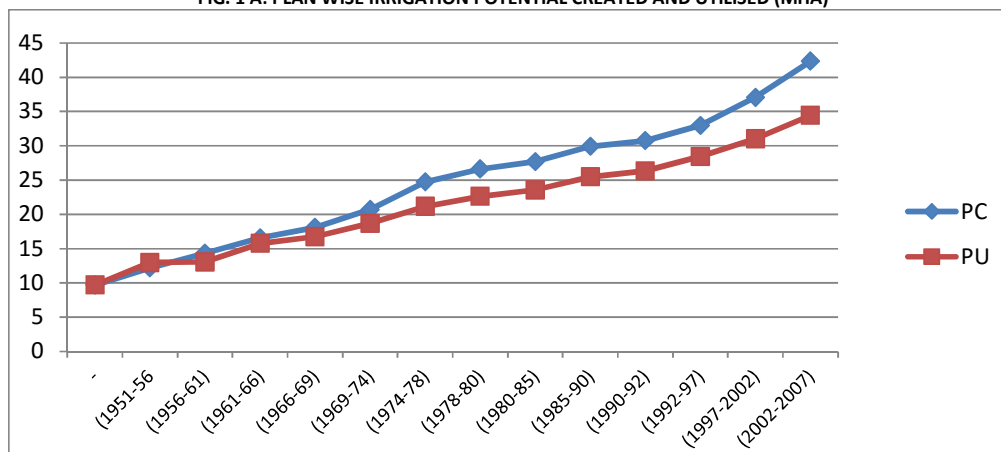
Irrigation Projects in India are classified into three categories viz. Major, Medium and Minor Irrigation. Projects which have a Cultivable Command Area (CCA) of more than 10,000 hectare are termed as Major Projects, those Irrigation Projects which have a CCA of less than 10,000 hectare but more than 2,000 hectare are termed as Medium projects and those Irrigation Projects which have a CCA of 2,000 hectare or less are known as Minor projects (Govt. of India, Ministry of Water Resources).

Investment in irrigation constitute the single largest component of agricultural investment overall and particularly in the public sector. The irrigation sector accounts for a major portion of the public investment in the successive five-year plans of India. Irrigation will continue to get very high priority in strategies to increase food production and Labour absorption in agriculture.

1.2. MAJOR AND MEDIUM IRRIGATION

Irrigation projects which has a CCA of more than 2,000 hectare comes under this category. Such projects require substantial financial outlay and are, therefore, constructed by the government or any other agency which may draw financial assistance from the government and financial institutions. Also given the fact that there is a huge gap between potential and net irrigated area there is a need to increase investment on major and medium irrigation. This increasing gap has been shown in the following graph.

FIG. 1 A: PLAN WISE IRRIGATION POTENTIAL CREATED AND UTILISED (MHA)

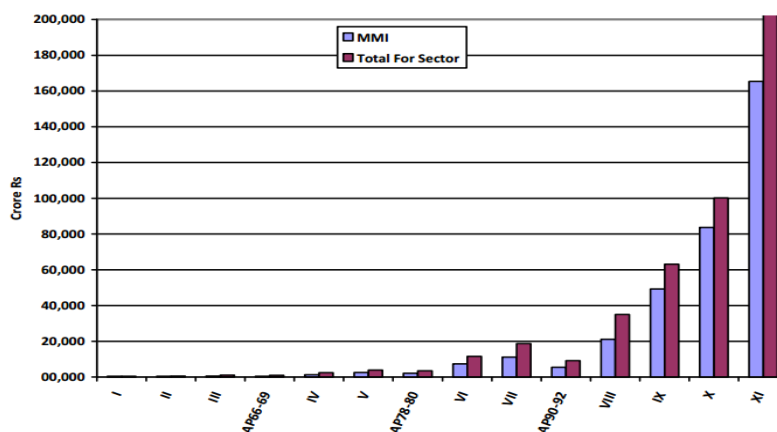


Source: Report of the working group on the water resources, Ministry of Water Resources

PC- potential created, PU- potential utilised

It is a well-known fact that public expenditure on agriculture as well as on major and medium irrigation (MMI) has been declining as a share of GDP particularly since liberalisation. But if we look at the public expenditure in real terms on MMI then it shows a clearly rising trend after liberalisation. Public investment was Rs. 6998.83 crore in 1990-91 which has increased to Rs. 26572.1 crore in 2009-10 (This has been calculated based on data given in annual plan documents by planning commission). While if we look at the impact of public investment in terms of net irrigated areas then we find that the net irrigated area remains stagnant or declined after liberalisation. Net irrigated area was 17453 (thousand hectares) in 1990-91 but it declined to 14978 (thousand hectares) in 2009-10 [Source: Directorate of Economics and Statistics, Ministry of Agriculture, government of India]. The diagram below shows the plan-wise expenditure on irrigation sector whole and on major and medium irrigation.

FIG. 1 B: PUBLIC INVESTMENT IN IRRIGATION



Source: Planning Commission

The year-wise break-up of public expenditure and net irrigated area by MMI is given in the following table.

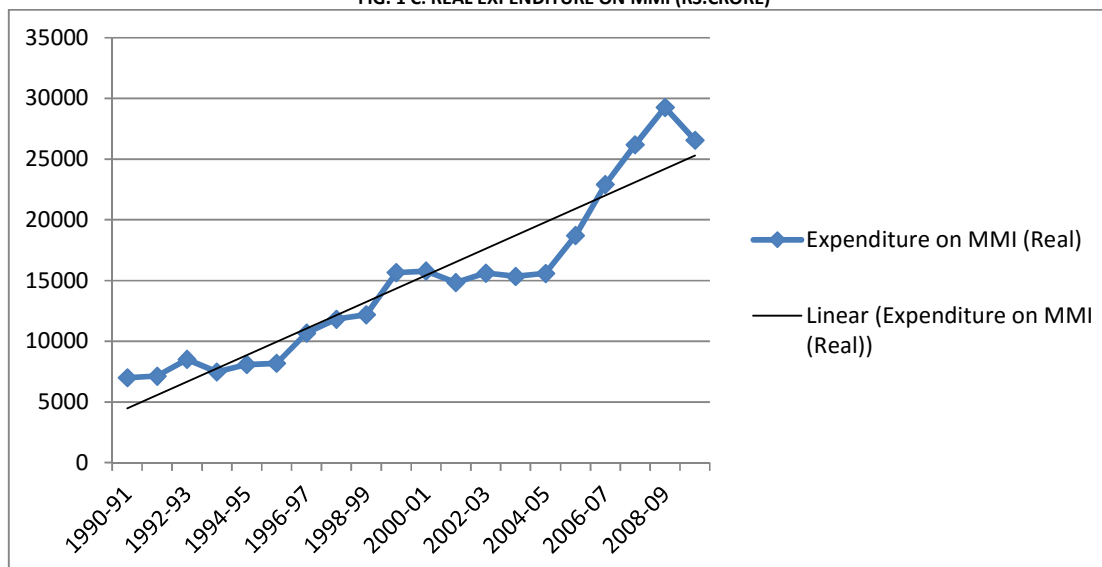
TABLE 1: PUBLIC INVESTMENT AND NET IRRIGATED AREA BY MMI

Year	Net irrigated area by MMI (thousand hectares)	Public expenditure on MMI (in real terms) in Rs crore
1990-1991	17453	6998.84
1991-92	17791	7138.19
1992-93	16986	8513.24
1993-94	17138	7483.47
1994-95	17279	8089.53
1995-96	17120	8192.65
1996-97	17109	10684.56
1997-98	17397	11829.07
1998-99	17311	12187.09
1999-00	17440	15658.21
2000-01	16012	15788.33
2001-02	15202	14838.50
2002-03	14073	15621.80
2003-04	14458	15351.06
2004-05	14766	15603.64
2005-06	16718	18716.82
2006-07	17027	22917.06
2007-08	16748	26190.32
2008-09	16881	29269.00
2009-10	14978	26572.07

Source: Various annual plan documents

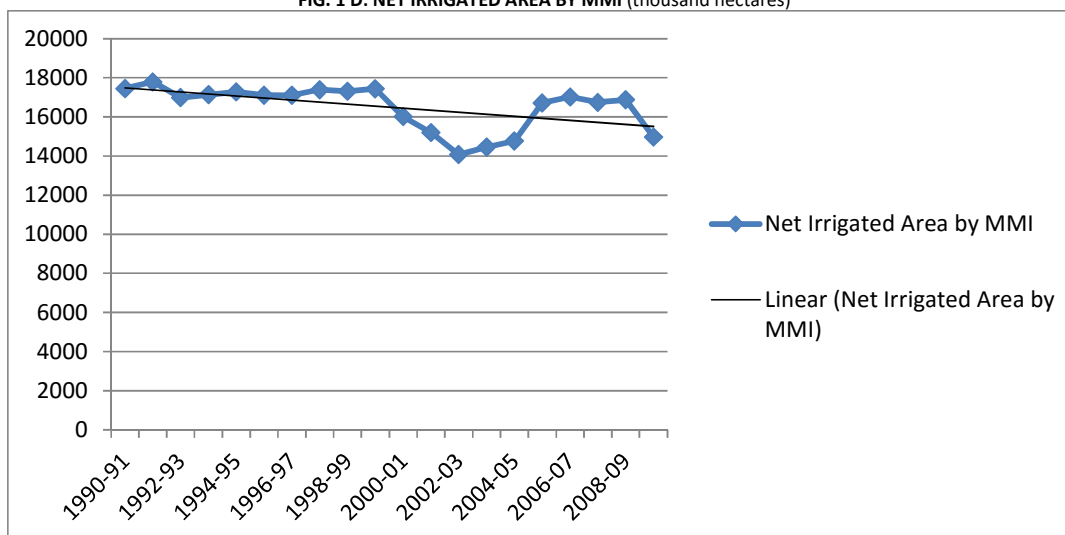
It can be seen from the table that public investment in major and medium irrigation has been increasing since 1991 but its impact in terms of net irrigated area has been very dismal i.e. net irrigated area has been more or less stable although declined to 14,978 thousand hectares in 2009-10 from 17,453 thousand hectare in 1990-91. This divergent trend between investment on major and medium irrigation and its realization in terms of net irrigated area can be seen clearly from the following diagrams.

FIG. 1 C: REAL EXPENDITURE ON MMI (RS.CRORE)



Source: Various annual plan documents.

FIG. 1 D: NET IRRIGATED AREA BY MMI (thousand hectares)



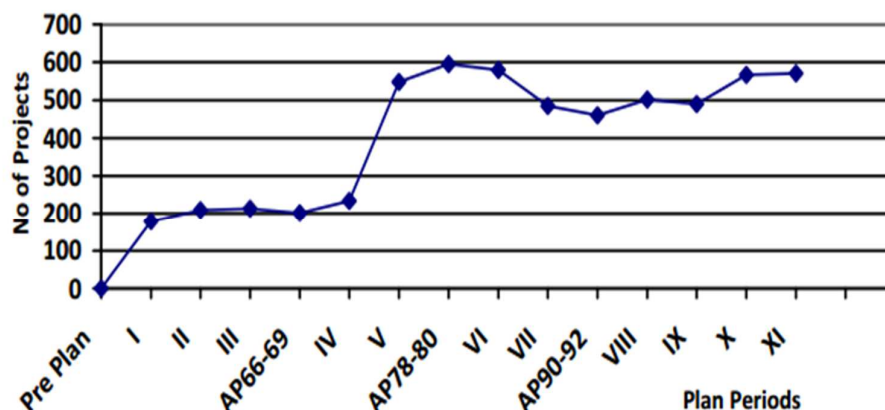
Source: Directorate of Economics and Statistics, Ministry of Agriculture.

1.3. POSSIBLE REASONS FOR DIVERGENCE

In this paper I have tried to give some explanation of the divergence between public investment in MMI and net irrigated area by it.

- a) Delays in the ongoing projects- delays in the completion of these projects are one of the reasons why we are not able to achieve the potential irrigated area. If we look at the statistics provided by planning commission which shows that huge number of MMI projects are awaiting completion at the end of each plan period. This also explains the increasing gap between potential created and potential utilized.

FIG. 1 E: NO OF PROJECTS AWAITING COMPLETION



Source: Report of the Working group on MMI and CAD, Planning Commission

The figure shows the number of projects which are awaiting completion at the end of each plan period. As we can see the number of projects awaiting completion increased from around 200 in fourth plan period to more than 500 in the fifth plan period and remained thereafter between 500 and 600. So by implementing new projects we are just creating irrigation potential but we are not able to realize it because are not able to complete these projects even after 40 years and in some cases more than 50 years has been taken to complete the projects. Creation of irrigation potential doesn't mean that the water will reach to the fields of the farmers. Setting up of new dams before the canal network is completed, lack of maintenance of canal systems are some of the reasons why the potential created may not actually be realized as reported by the task force report on irrigation headed by Kirti Parekh.

- b) Escalation in the costs of the projects- this explains the upward trend in the public expenditure. Report of the working group on MMI and CAD (command area development) shows that out of 151 major irrigation projects, 24 shows escalation in the cost to as high as 1000% and more and these projects were started before 1980. Rest of the projects costs increase on an average by 200%. All of these projects were taken up in 1980s.

In case of medium projects, out of 132 ongoing projects, for 24 projects costs increases by 500% or more. Escalation in the costs of the rest of the projects varies between 0 to 500%.

Examples of delays and escalation in costs

- 1) Kosikhurd irrigation project-** this project was started on Wainganga River in Maharashtra. It was started in 1988 and has not yet completed. It was expected to irrigate 2.5 lakh hectares of land and by 2011 the area irrigated by this project was only 34,056 hectares. The original cost of this project was Rs. 372 crores, while Rs 6073 has already been spent by government on this project and there are estimates that the actual cost will reach around Rs 13,739 crores (PTI, April 2013).
- 2) Upper Krishna projects-** this was started in 1984 and it was expected to finish by 1994 but it gets completed by 2006 only. The initial estimation of the cost was Rs 120 crore but to complete this project government actually spent Rs 9,479 crores (The Hindu, Aug 2006).

1.3.1 ACCELERATED IRRIGATION BENEFIT PROGRAMME (AIBP)

It was launched in 1995-96 by the government. The main aim of this programme was to give loan assistance to states to help them to finish some of the pending projects which are in their final stage of completion and to create some additional irrigation potential. According to new guidelines the eligibility criteria for the inclusion of major/medium irrigation projects are as follows:

- Projects having investment clearance of Planning Commission.
 - Projects which are in advanced stage of construction and can be completed in the next four financial years can be considered for inclusion.
- But the number of unapproved projects i.e projects which do not have investment clearance from the planning commission are as high as 300.

TABLE 2: UNAPPROVED MAJOR, MEDIUM AND ERM (EXTENSION, RENOVATION AND MAINTENANCE) PROJECTS

	Number of unapproved (U.A) projects	Latest estimated cost	Expenditure up to X Plan	Ultimate Potential	Potential created up to X Plan
		(Rs. in crore)			(th.ha)
Major projects	90	100017.85	31004.66	5960.58	930.85
Medium projects	136	12947.09	5943.78	809.82	153.16
ERM	74	9095.30	4234.31	1177.07	135.10
Total	300	122060.24	41127.75	7947.47	1219.11

1.4. CONCLUSION

As we have seen above the main causes of divergence between declining trend of net irrigated by MMI and increasing trend in public investment on MMI is mainly due to delays in the completion of the ongoing projects and escalation in the costs of these projects. Some other possible reasons can be inadequate funds due to thin circulation of funds over many projects, change in the scope of the work, opposition by the people due to displacement which led to protest in some cases causing delays in the construction of the projects and misuse of funds as many cases of corruption has been reported by media in Maharashtra and Andhra Pradesh. So we can increase the net irrigated area by completing the ongoing projects in a given timeframe rather to carry out construction of new projects. In this manner the gap between potential and actual irrigated area can also be reduced.

REFERENCES

1. Chand, Ramesh and Pramod Kumar; 'Determinants of Capital Formation and Agriculture Growth: Some New Explorations'; *Economic and Political Weekly*, December 25, 2004.
2. Dhawan, B. D.; *Large scale canal irrigation: How cost effective?* *Economic and Political Weekly*, June 28, 1997.
3. Government of India, Report of the working group on MMI and CAD for the 12th five year plan, Ministry of Water Resources, 2011.
4. Government of India, Report of the working group on water resources for the 11th five year plan, Ministry of Water Resources, 2006.
5. K Mitra, Ashok; Irrigation sector reforms: Issues and Approaches, EPW, March 30, 1996.
6. Meinzen-Dick, Ruth and Mark Svendsen; *Future Direction for Indian Irrigation: Research and Policy Issues*. *International Food Policy Research Institute*, January 1991.

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