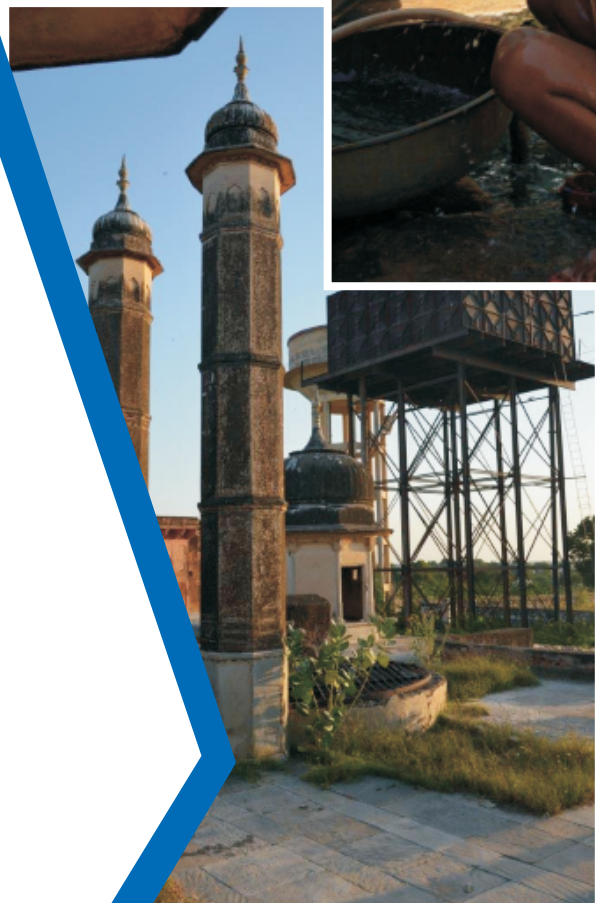
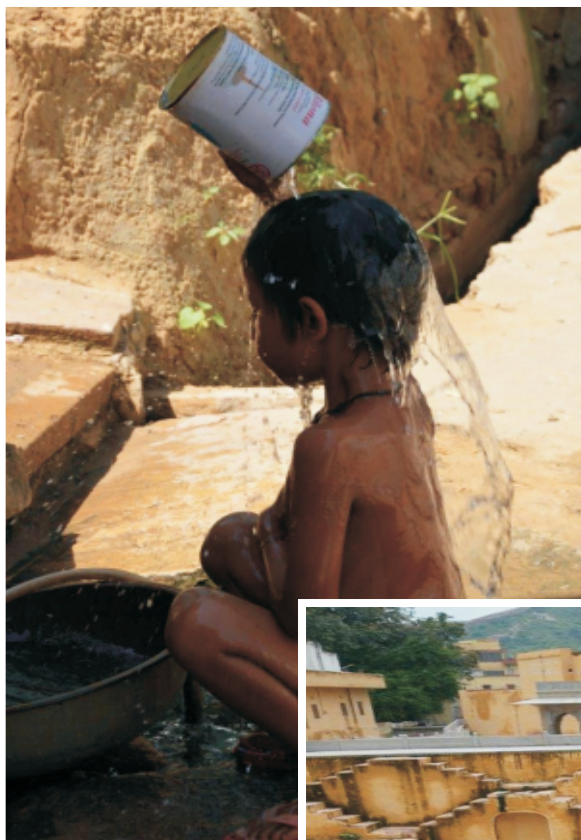


**EUROPEAN UNION STATE  
PARTNERSHIP PROGRAMME  
SPECIAL STUDIES SERIES**

**Rajasthan Study 3  
PUBLIC EXPENDITURE REVIEW OF WATER  
SECTOR IN RAJASTHAN**



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EUROPEAN UNION STATE PARTNERSHIP PROGRAMME

SPECIAL STUDIES SERIES

## Rajasthan Study 3

# PUBLIC EXPENDITURE REVIEW OF WATER SECTOR IN RAJASTHAN

October 2012

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## 1 BACKGROUND

### 1.1 State Partnership Programme

The State Partnership Programme (SPP) with Chhattisgarh and Rajasthan is based on the European Commission (EC) India Country Strategy Paper (CSP), 2002-2006, and the National Indicative Programme (NIP), 2004-2006. The SPP is in line with the CSP, as it centres on poverty alleviation, the protection and management of the environment and improving governance. The first priority of the NIP is 'to assist India in eliminating poverty and building its 'human capital' (para. 2.1). The NIP emphasizes a policy-based approach that focuses on governance, institution building and stakeholder involvement to achieve development targets. The NIP identifies water scarcity as the main constraint for social and economic development in Rajasthan. The Government of Rajasthan (GoR) prioritized the water sector for the SPP as being fundamental to progress in health, education and poverty reduction and committed to comprehensive reforms. The SPP for Rajasthan accordingly supports a comprehensive multi-sector and integrated policy approach to address the current unsustainable and inequitable use of water.

The SPP in Rajasthan is a five- year programme, which commenced in 2007. The financial arrangements of the SPP in Rajasthan can be summarised as follows. An indicative EC contribution to the Rajasthan water sector of Euro 73.5 million is planned. These funds are intended to be additional to and/or to supplement the existing budget lines of GoR programmes. The GoR and EC agreed a system of fund releases whereby tranche releases are triggered by the achievement of specified milestones. An additional Euro 6.5 million has been allocated for technical assistance (TA), reviews, evaluation and audits. The contract for the TA programme was let to a consortium led by BCEOM (France) and the contract for reviews, evaluation and audit was let to a consortium led by GHK (UK). The activities planned as part of the TORS described here form part of the GHK (UK) Joint Review Mission (JRM) contract.

### 1.2 Design of SPP in Rajasthan

The design of the SPP is rooted in a 'budget support' model, which relies on the state developing a perspective plan (water sector policy) and a comprehensive integrated financial plan i.e. a Medium Term Expenditure Framework (MTEF). In fact, these requirements were considered critical to the programme and were included as milestones based on which progress would be gauged and fund releases made by the EU.

In this background, the SPP is supporting the following 6 areas of reform ensuring the 'gap-filling' and 'additional' nature of its funding:

- i. Support to State Water Resources Planning Department (SWRPD).
- ii. Sustainable water campaign
- iii. Institutional development & capacity building of water sector line departments
- iv. Institutional developments of PRIs/user groups
- v. Capacity development component of PRI/user groups plans
- vi. Investment component of PRI/user group plans.

### 1.3 Progress of MTEF in Rajasthan

Although many of the initial actions were delayed, the state did develop the sector perspective plans- the first draft of the MTEF was prepared in 2008 and the Water Sector Policy was approved in 2010. Further a Water Sector Policy Action Plan has also been prepared and a Project Implementation Plan (PIP) for the SPP is also in place.

However, the use of the MTEF as a perspective- planning tool to inform the budget of water sector related departments has been limited. Successive JRMs have been making observations and highlighting actions to enhance the quality and use of the MTEFs. Some of the key observations in this regard are:

- The current MTEF is an incremental projection of current trends rather than a considered plan of future fund needs. Hence, the expenditure still remains ‘resource-led’ rather than ‘needs- based’.
- There has been no sectoral analysis of spend among the constituent departments of the sector and assessment of need for re-alignment in light of the State Water policy/ Action Plan.
- The linking of MTEF heads to State Water Policy/ Action Plan further needs, identification of outputs, rates and prioritization.
- The current MTEF does not display any resource gap, which is one of the objectives of developing an MTEF.
- The institutional capacity of the inter-departmental working group needs to be enhanced.

## 1.4 Financial Trends in Budget Allocation for Water Sector

In light of the above observations, the MTEF has been unable to enhance its visibility beyond the SWRPD and/ or inform the budget allocations of various constituent departments. Further, since there is no historical analysis of budget trends and consequent review of appropriateness, it is difficult to guide the state Water Policy aligned requirements and justify the budget for acceptance by the Finance Department.

The JRM has been suggesting a Public Expenditure Review (PER) of the water sector for the last 5-7 years and use that as the basis for future planning through the MTEF. However, there has been little progress in this regard over the last few JRMs.

## 1.5 Objectives of JRM Special Studies

The proposed focus of the special studies is on facilitating evaluation and lesson learning in the context of water sector in Rajasthan. Although some of these components can be identified immediately, it is expected that the need for additional special studies will become apparent and/or be identified as implementation of the action plan proceeds and new challenges emerge. Therefore, the objectives of the special studies are:

- To provide a flexible demand-responsive framework for evaluation and lesson learning that informs strategic discussions that involve the: GoR, EC Delegation, SPP(Rajasthan) Programme Steering Committee, SPP(Rajasthan) Joint Review Mission team, SWPRD, SPP(Rajasthan) TA team and others.
- To consolidate practical lessons (positive and negative) that has been learnt in Rajasthan and elsewhere in India that are relevant to implementing the Water Policy Action Plan.
- To make this information available in a form that can be used to inform strategic decision-making at different institutional levels within the SPP(Rajasthan)

## 1.6 Public Expenditure Review Special Study

### 1.6.1 Background

In the context of a sector policy approach and perspective planning, a comprehensive review of the water sector for the last 5-7 years would provide a useful starting point to make the MTEF efforts more credible and effective. It would also enable analysis of expenditure policy and target intra- sectoral changes in allocation. It would hence be useful to the Government of Rajasthan in its efforts to target the SPP funds in areas where critical gaps exist.

### 1.6.2 Objectives

Hence, a special “Public Expenditure Review (PER) of Water Sector in Rajasthan” is proposed with the objective of analyzing past trends in water sector finances in order to inform the future projections and targets for the water sector MTEF in the state. Hence, the PER would carry out the following:

- Analysis of the long-term (7-10 years) trends in water sector financing to bring out how the pattern of public spends has evolved over the years (share in total budget expenditure, sources of funding etc.).
- Review of recent water budget spends (2006-07 to 2010-11), including analysis by type (revenue/ capital/ plan/ non-plan), by economic classification (salaries/maintenance/ etc.), by use (irrigation/ drinking water/ industrial), by habitation (urban / rural) and by districts (across various water programmes).
- Understand the funds flow mechanism, accounting and reporting, funds absorption status in various departments. In particular, the use of off-budget funds for water sector funding should be included in the analysis and trends highlighted. Similarly in multi-sectoral programme such as MGNREGS, the proportion of funds spent on water sector and factors affecting these should also be highlighted.
- Assess the financial management systems and practices in the water sector including efficacy of the internal audit, control and reporting systems.

Based on these, the study would provide recommendations / suggestions on

- i. Likely increase/ decrease in total funding needed to align the expenditure with the state water policy action plan.
- ii. Broad changes in intra-sectoral allocation needed in light of the State Water Policy.
- iii. Areas of prioritised funding where SPP can make a difference, especially in the context of community led capital investment.
- iv. Improvements in financial systems, procedures and reporting to enhance the efficacy of funds and spend in the sector.

### 1.6.3 Methodology

The preparation of the PER will involve:

- Desk review of various documents including the budget documents, earlier MTEFs, JRM reports etc. relevant studies on water sector finances of Rajasthan/other states/ countries should also be considered
- Meeting with concerned stakeholders i.e. the SWRPD, the MTEF Working groups as well as senior officials of water sector departments and the finance department
- Field visits to 3 districts and interactions with users/ officials and accounts officers; and discussion with the Accounts and audit personnel of water related departments about financial management and audit systems in place.



## 2 REVIEW OF EXPERIENCE ON MTEF

### 2.1 Background

As is well-known, assessing impacts of any kind of public investment is complicated because many factors influence the relationship between public spending and the expected outputs/ outcomes. These factors act in a complex and sometimes contradictory way to each other: such as the time lag between the investments made and the benefits reaped, difficult to establish one-to-one causal relationship between exogenous and endogenous variables etc. Although, public investment on rural/ urban infrastructure, particularly on water sector, carry relatively huge capital outlays, which takes a gestation period for returns to show up. However, there is overwhelming evidence to support the view that there exists a high degree of positive correlation between increased public expenditure towards water sector and poverty reduction (particularly in rural areas), and researchers have established the fact that efficient use of public resources with clear policy linkages could be beneficial both in short and long run. Similarly, it has also been argued that public spending through budgets has been one of the most direct and effective instruments that governments can use to promote sustainable, inclusive and equitable growth with substantial reduction in absolute and relative poverty, particularly in the third world. In other words, public policies favouring increased budgetary investments towards components of rural development and especially, towards water sector, play a crucial role in shaping the overall growth of the economy while ensuring development parity across regions and users.

However, one of the most important issues in economic analysis in general, and analysis of public policies in particular, has to do with the 'appropriate' allocation as well as utilization of such public resources. It is often argued, and justifiably so, that problems relating to efficiency in planning, budgeting, management and utilization of public resources have been major constraints in the domain of government interventions for development. In such a scenario, one of the central questions in the contemporary discourse on public policies in India and elsewhere, is how well do budget outlays translate into physical outputs/ services and ultimately lead to improvements in the development outcomes in various sectors. Further, reprioritization of budgets, favouring a particular sub-sector in an economy, could result in desired outcomes within a selective period of time. Of course, availability of resources, resource absorption capacity of the sector, better planning and budgeting and finally linking desired outcomes with that of policy goals and objectives of the economy is crucial for overall development of the sector.

What is more crucial in this regard is to address the issues relating to poor efficiency, lack of transparency (especially in government apparatus) and weak budgetary management, which have been the core concerns among policy makers these days. It has also been argued that the single most proximate cause of poor budgeting outcomes, particularly in developing countries, as identified by the Public Expenditure Management Handbook (World Bank, 1998), is the failure to link policies, planning and budgeting. This view is also explicitly supported by the Oxford Policy Management (OPM), which has experienced similar problems in dealing with policy and budgetary issues in countries in South Asia and Sub-Saharan Africa (OPM Review, 2000). Along with the World Bank & OPM views, there is near consensus among several other multilateral funding agencies like the European Union (EU) and International Monetary Fund (IMF) etc., regarding this issue and they have been prescribing and fervently pushing for implementing "Medium Term Expenditure Framework (MTEF)", not only as a simple remedy, but also as a 'panacea' to this problem. Consequently, during the last couple of decades, the implementation of MTEF is increasingly being accepted as an appropriate policy response/ measure to the problem of the inadequacies of linking policies with planning and budgeting systems and also for the broader performance problems of government (OPM Review, 2000).

As pointed out in the foregoing for prudent management of limited public resources i.e. linking planning and public policies, appropriate budgetary provisions, efficient use of public

resources in producing desired results, adhering to appropriate methods for spending public money etc., MTEF has become an indispensable tool before the public authorities and also gained momentum in recent years. The MTEF as a tool also encourages cooperation across Ministries and planning over a longer horizon than the upcoming fiscal year. In the budget documents of several nation states, MTEF refers to the targeted expenditures for the present financial year and the two (minimum) following financial years for various macroeconomic variables. Naturally, this holistic approach is preferable to piecemeal, reactive, short- term decisions that ordinarily characterize budgeting in many countries including India. Although, in India, in the MTE Framework, the annual budget includes three year spending plans (for few components of expenditure, notably a portion of the plan expenditure), only the single upcoming fiscal year is voted on by the Parliament each year.

Apparently, MTEF has several positive features, viz.:

1. **Enhances Stability:** The MTEF enhances stability by letting provinces and national ministries know exactly what amount of financial resources will likely be available to them in the next three years. These spending projections certainly could serve as a starting point for planning the next year's detailed budget and this would definitely allow government planning to be more credible and accurate. Further, it delineates the equitable division of revenue across different spheres of government.
2. **Encourages Investment:** MTEF not only talks about the expenditure framework for an economy or for a particular sector but also encourages higher investments in the economy by provisioning appropriate taxation principles so that quantum of public spending can be more predictable.
3. **Improves Transparency:** It also helps improve budget transparency and can generate more public discussion by making government's longer- term policy goals and overall strategy for getting there publicly available. Further, outlining future spending provides a signal to civil society and public at large about the government's priorities and how it intends to implement its vision over a period of time.
4. **Facilitates Programme Evaluation:** An MTEF sets a rolling target of public expenditure for ensuing couple of financial years based on the baseline investment scenario. Hence, such future predictions of expenditure targets provide a baseline for assessing the effectiveness of the programmes/ schemes implemented in the past.

## 2.2 International Experience

### 2.2.1 African Status

Although, a number of African countries started implementing MTEF, the quantitative evidence shows that MTEFs are not yet unambiguously associated with their objectives (Houerou and Taliercio, 2002). With regard to the experience of implementing MTEFs in South Africa, the MTEF was adopted in 1998 with the publication of the Medium Term Budget Policy Statement and was rationalized as a tool during the subsequent period. Implementation of MTEF in South Africa, as noted by the analysts, enhanced stability by letting provinces and national Ministries know what resources would be likely to be disbursed to them over a three-year period. Secondly, it encouraged investment by making taxation, interest rates and government spending more predictable. Thirdly, it improved transparency by making government's long-term policy goals and overall strategy available to the public. Finally, this facilitates programme evaluation by providing a baseline for assessing the effectiveness of the past year's programme.

In case of South Africa, the Ministry of Finance is compelled to determine anticipated revenues, expenditure and deficit, and make recommendations of revenue division between national departments and a couple of provinces as a part of initiating the budget process. In relation to policy planning, a Budget Council was instituted to deliberate on the macroeconomic constraint of the budget and ultimately, binding decisions around these

deliberations are undertaken by the Cabinet. This seems to suggest that practice of MTEF is in line with the prerequisite of good practices. Thus one can conclude that MTEF practice in South Africa is effective. There is a view that MTEF in South Africa led to improved allocation of resources to strategic priorities among and within sectors, provided line agencies with a hard budget constraint which ultimately increased autonomy and offered incentives for efficient and effective use of funds.

In Uganda, MTEFs were initiated independently of any-donor led operation. Ministry of Finance Planning and Economic Development exercised strong leadership over the process. The MTEF overcomes the tension between long term 'desires'-based planning and incremental, short-term budgeting driven by fiscal pressure. The MTEF matches unlimited needs to limited resources, ensuring that the overall intent of public policy is achieved over time. The MTEF increases effectiveness by improving the procedures and institutional arrangements of the public expenditure management system.

However, except Uganda and to some extent South Africa, as noted above, there was no such clear evidence that there is a significant impact of MTEF in terms of macroeconomic balance. Similarly, for resource allocation, there are some limited and qualified evidence to suggest that MTEFs are linked to reallocations to a subset of priority sectors. With respect to budgetary predictability and consistency, there is no support for the assumption that MTEFs are associated with greater discipline and less deviation. At best, these cases present a mixed picture (Houerou and Taliercio, 2002).

The preliminary impact assessment of MTEF in Africa has been presented below.

#### Summary of Preliminary Impact Assessment of MTEF Reforms in Africa

Expected Outcomes	Actual Outcomes
Improved macroeconomic balance, especially fiscal discipline	No clear empirical evidence of improved macroeconomic balance
Better inter- and intra-sectoral resource allocation	Some limited empirical evidence that MTEFs are associated with reallocations to subsets of priority sectors
Greater budgetary predictability for line ministries	No empirical evidence of link between MTEFs and greater budgetary predictability
More efficient use of public monies	No evidence that MTEFs are developed enough to generate efficiency gains in sectoral spending

Source: Houerou and Taliercio (2002).

However, commentators have also presented a number of possible explanations that might mitigate the weak performances of MTEF so far. Firstly, except Uganda, MTEF in most of the countries, say for example Ghana and Tanzania are all less than a decade old. So, in this short period of time, it would not be possible to assess the impact of MTEF accurately. As with any comprehensive budgetary reform, MTEF needs to be developed over the long term. Even MTEF in Uganda, which is nearly a decade old, does not reveal a one to one correlation between impact and longevity. The Ugandan case might also suggest the tentative hypothesis that MTEF reforms take a minimum of a dozen years (Kąsek and Webber, 2009).

It has also been argued that any attempts of assessing a country's effectiveness in employing MTEF, as a tool, various steps of this tool needs to be understood clearly. These steps could be setting of fiscal aggregates, policy planning and making of binding decisions etc. Apart from this, effective implementation of the MTEF requires the setting of aggregate and sectoral spending ceilings based on realistic revenue projections are needed. Hence, the effectiveness of MTEF depends on few pre-conditions. These pre-conditions are as follows:

- **Good Macroeconomic Policies:** As a basis of MTEF, good macroeconomic policies are pre-requisites. Better analysis and forecasts of resource augmentation, possible impact of certain other non-economic variables etc. are also needed as a basis for a successful MTEF.
- **Adaptable Fiscal Policy and Instruments:** The MTEF approach is based on a strong link between macroeconomic policy and fiscal policy. Plans for future expenditure must be based on reasonable estimates of prospective resources. Apart from fiscal policy instruments, other monetary variables need to be predicted accurately for addressing a wide range of uncertainty over the period of MTEF implementation.
- **Reprioritization and Reallocation:** Behind the move to MTEF there is a conviction that the annual budget, by itself, is a poor mechanism for shifting/ altering resources from lower-to-higher priority use. A major function of an MTEF is to provide a better mechanism for aligning budgets with policy objectives so that maximum benefit can be reaped. It is also viewed that annual budgets are not sufficient (in terms of time frame) to accommodate the changes that are required which are caused accidentally.
- **Budgetary Discipline:** Budget allocations must be based on a hard aggregate budget constraint derived from what is affordable and the line ministries must adapt to their budget allocations.
- **Institutional Conformity and Absence of Bias:** An MTEF requires a supportive institutional base where various actors can use MTEF as a framework within which expenditure decisions are taken. In particular, political decision-makers must accept the MTEF as the means by which resources are allocated.
- **Transparency:** Certain degree of fiscal transparency and policy transparency is required, which ultimately improves the accountability of actors engaged in the planning and budgeting process. Fiscal transparency means being open to the public about the structure and functions of government, fiscal policy intentions, public sector accounts, and fiscal projections. Policy transparency means being open to public about what government intentions are in a particular policy area, which outcomes are to be achieved, and the costs of achieving these outcomes.

Furthermore, it is evident from various OECD country experiences that some stringent conditions have to be fulfilled before accruing full benefits of the Medium Term Expenditure Frameworks (IMF, 1999) and these preconditions are unlikely to be fulfilled in most developing countries. From the experience across the world in terms of implementing MTEF, it would be plausible to conclude that to reap the benefit of MTEF, a good budgeting system along with other important improvements in public administration and management are prerequisites (Kąsek and Webber, 2009). Experience suggests that MTEFs single handedly cannot deliver improved public expenditure management in countries, which lack other key aspects of budget management, notably budget execution and reporting (Houerou and Talierto, 2002). So, before implementing MTEFs, a comprehensive and detailed diagnosis of budget management systems and processes must precede MTEF.

Theoretically, though MTEF is a sound policy tool as it is quite rational to plan and manage finances in such an integrated manner, we must be cautious before prescribing it as a prepackaged solution to diverse countries budget problems. Experience across the globe suggests that identifying the essential components of a successful MTEF is not easy and despite the theoretical popularity, there are very few established medium term frameworks so far (OPM Review, 2000).

## MTEFs in Africa

Country	Year of Initiation	Who is involved
Uganda	1992	The Bank participated in the MTEF reform and offered assistance on an ad hoc basis.
Tanzania	1998	MTEF reform was promoted by the 1997 PER. The MTEF was developed in the context of the annual, participatory PER process. Key elements of MTEF implementation (e.g. preparation of the MTEF FY00-02 itself) and expenditure reallocation targets were included as conditionality in the Programmatic Structural Adjustment Credit (6/2000).
South Africa	1997	The first effort at MTEF reform was supported by the Bank, which also provided advice during implementation.
Rwanda	1999	MTEF reform was proposed by the 1998 PER. The MTEF position paper and plan of action were financed by DFID.
Namibia	2000	----
MOZAMBIQUE	1997	The MTEF was promoted and supported by the Bank and DFID, which provided consultants and training.
Malawi	1996	The MTEF was introduced in 1996 by the Fiscal Restructuring and Deregulation Programme (FRDP I) and further supported by FRDP II in 1998 and FRDP III in 2000.
Kenya	1998	MTEF reform was promoted by the 1997 PER. Key elements of MTEF implementation were included as conditionality in the Economic and Public Sector Reform Credit (6/2000). MTEF reform was promoted by the 1997 PER. Key elements of MTEF implementation were included as conditionality in the Economic and Public Sector Reform Credit (6/2000).
Guinea	1997	The MTEF was adopted as part of World Bank's Public Management Adjustment Credit.
Ghana	1996	The World Bank promoted MTEF reform. The MTEF was introduced as part of Public Financial Management Reform Programme.
Gabon	1998	MTEF was first proposed in 1998 CAS.
Burkina Faso	2000	The World Bank has been a fairly active partner in the MTEF reform.
Benin	2001	The World Bank has been active in supporting MTEF reform.

Source: Houerou and Taliercio (2002).

As a whole, MTEF has several merits with a number of limitations. MTEF is theoretically a sound policy tool and even the basic acceptance of the principles of medium term budgeting may improve the realism of sectoral budgets. This would significantly benefit many developing countries where a large gap between stated policies and actual resources leads to ad hoc spending cuts in budget implementation (OPM Review, 2000).

### MTEF in Botswana: A Case

Preparing budgets within a medium term fiscal framework is not a practice entirely new to the region. Current MTEFs have their antecedents in the economic planning systems that were part of the paradigm of government in the first two decades after independence, when countries set great store by the National Development Plans (NDPs). Though most NDPs have since been discontinued, Botswana, whose first plan appeared in 1968, has successfully kept up the economic planning tradition. Describe a modern day MTEF to officials of Botswana's Ministry of Finance and Development Planning (MFDP) and they will tell you that they have been making budgets within a medium term expenditure framework for as long as they can remember.

The NDPs in Botswana constitute a well-managed development planning process, setting out national objectives on a broad range of issues. Policy objectives for the plan period are arrived at after inter-ministerial consensus and are set out by the MFDP in its keynote issues paper. These broad objectives are reviewed by the Economic Committee of Cabinet (ECC) and, in accordance with its directions; ministries outline their sectoral priorities along with projections of capital and recurrent expenditure for the plan period. Spending ministries have considerable flexibility in selecting the plan projects they want to implement, subject to the sustainability of recurrent expenditure. The MFDP develops the macroeconomic framework that ties together the macroeconomic objectives with the allocation of budgetary resources. Extensive discussions ensue between representatives of the government, the public sector and civil society, with contentious issues being resolved by the ECC. Only after each NDP has been discussed within government and a consensus reached, does it go to the National Assembly for debate and approval, although the NDP is formally reviewed only at the mid-term stage of the plan period, it is in effect updated annually in the light of changes in economic parameters.

The planning process in Botswana has proved to be effective. Substantial reserves have been built up, enabling the government to withstand periodic downturns in the diamond market. The country has been praised for ensuring that the proceeds of mineral revenues have been channeled to key sectors like education, health and physical infrastructure, and the checks on manpower growth, which are an integral part of the planning and budgeting system, have helped Botswana avoid the downward spiral in real pay and supporting expenditure experienced by other countries in the region. Observers readily agree that the country's NDP style MTEF has been a critical instrument in its unique record of utilizing mineral resources effectively for development. Practitioners too, concur, which is why the system has been durable (Michael Stevens).

#### 2.2.2 Experience of Developed Countries: Case of Australia

Australian experience is quite useful as it is one of the oldest one. In the early 1980s, Australia embarked on its comprehensive reform programme with a key consideration of perceived inadequacies in the links between policies and programmes and the resources allocated to their implementation. Its subsequent fiscal crisis raised fundamental concerns about the affordability of government policies. The response to this was to take the system of forward estimates which had played a peripheral role in decision making and place it at the center of both resource allocation decision making and resource use. Australia had the following key elements.

*Aggregate Fiscal Targets:* Beginning in 1985, the Australian government adopted a medium term "trilogy" strategy of not increasing outlays or revenue as a proportion of GDP and of reducing the deficit/ GDP ratio. The later economic crisis further led to this commitment tightened to no real increase in expenditure. The credibility of the forward estimates became central to the success of this strategy. By the end of the 1980s the deficit of 4 percent was converted to a surplus of 2 percent, government had significantly reoriented expenditure to reflect its core strategic priorities and the incentives for efficient and effective use of resources had been considerably strengthened. The early 1990s recession saw a return to deficits and fiscal targets have been focused on a realistic time path for returning to balance

(the 1997-98 budget deficit is forecast to be less than 1 percent). More significant has been the “Budget Honesty” commitment of the government, which required the government to regularly publish projections of expenditure and revenue, notably in the three months prior to an election<sup>1</sup>.

*Forward Estimates of the Cost of Existing Policy:* The Australia ‘forward estimates’ system evolved from the late 1970s through the 1980s. The forward estimates process develops estimates that, on a rolling basis, project the level and composition of expenditures for three years beyond the current fiscal year, assuming no policy changes. These are adjusted regularly to take account of factors such as inflation, where program expenditures are indexed, and government policy decisions that may increase or decrease estimated costs. The practice prior to 1983-84 involved the Department of Finance collecting bids for programme spending from sponsor departments without rigorously examining the basis for them, except with respect to the first year. Accordingly, these bids reflected departments’ own assessments of their future needs, a practice that has been described as “a major cause of ... creeping incrementalism of government [expenditures]”.

Under this approach, the Department of Finance negotiated with departments the estimates for existing programmes, and then assumed responsibility for updating the forward estimates at regular intervals to reflect, as indicated above, changes in economic parameters, other technical variations and, most important, the effects of government policy decisions. The same process is followed with new policy and programme proposals, for which projected costs for the full forward estimates period are required as part of the policy proposal considered by Cabinet. Thus, the Department of Finance is seen as “owning” the forward estimates. Furthermore, whereas previously there tended to be widespread annual renegotiation of estimated expenditures, the present system is much more policy focused, involving ministers primarily in the relatively small percentage of budgetary matters that require policy or strategic decisions (although the funding implications may involve a high proportion of budget funding). The forward estimates are a disciplining mechanism in the budgeting process that enables a greater focus on strategic policy issues. At the same time, they provide much greater predictability as to resource levels for departments and agencies. In essence, the system envisages that if government policy does not change then funding will be provided in accordance with the forward estimates.

The impact of forward estimates show that that Australia has a budget system in place with forward estimates, and the haggle over the base for each new budget year does not take place any more, is a huge advance. In 1983, a significant decision in the evolution of the forward estimates system was made when the government decided to publish them. The requirement to disclose costs for the three- year forward period was intended to ensure that decisions were made with greater awareness of future commitments, and to provide Parliament and the public with better information about budgetary realities and public expenditure patterns and priorities. The decision to publish also meant that forward estimates had to be taken more seriously, thus leading to their progressive upgrading. As the system has evolved, the government is required to disclose and justify the costs of policy decisions leading to discretionary changes in expenditures over the three- year forward estimate period. The estimates are published in the budget alongside the budget year figures and changes between the forward years and the budget are reconciled in budget documents- that is, the budget estimates are reconciled with the forward estimates compiled the previous year. These reforms have tended to shift the focus for ministers and senior officials to a medium-term period (of four years), rather than the current budget year.

The impact of the forward estimates has been such that an evaluation of government reforms in 1993, in linking the forward estimates system to the record of overall government spending restraint, characterized them as “central to the expenditure control process”. The

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<sup>1</sup> The New Zealand Fiscal Responsibility Act goes even further by, in addition, committing government to make public its long- term fiscal objectives and to pursue policies which are consistent with maintaining crown debt at a prudent level and with a reasonable degree of predictability about the level and stability of tax rates in future years.

forward estimates process and system was so central because it provided the backbone, which linked the Australian Expenditure Review Committee's macroeconomic and strategic policy-making, portfolio budgeting, and the running costs system. It has provided a framework for a more strategic approach to decision making, much greater predictability in funding for current policies and for removing from the budgetary arena those decisions best made elsewhere (most notably management decisions). The system has built on trust and has changed behaviour fundamentally. Perhaps the most important factor here has been the fact that, having changed the formal rules, all the players have played by the new rules.

*Institutional Mechanisms for Making the Trade-offs:* The Expenditure Review Committee (ERC) established by the Australian Government in the mid-1980s was central to the subsequent improvements in all three levels of budgetary outcomes. This committee was a sub-committee of the Cabinet, consisting of the Prime Minister, the Treasurer and Minister of Finance but also of a number of other senior "spending" ministers. This committee was responsible for determining the overall fiscal framework and for managing strategic policy making, including policy changes necessary to reflect fiscal realities as well as the shifting priorities of the government. One of the key strategic decisions made by the ERC was the resource envelope for each sectoral minister for finalization of the annual budget. Depending on whether the envelope was higher or lower than the forward estimates of existing policy (adjusted for the individual policy decisions made by ERC), individual sector ministers would have to seek programmatic changes that would produce savings or they may be able to introduce new initiatives. The key point here is that it was left to sector ministers to determine the best allocation of resources to policies and programs in their sector consistent with overall government policy and within a hard budget constraint.

The third element of the system was the running costs system. This system provides line managers with considerable flexibility in managing their personnel and administrative resources within a hard budget constraint but one, which is predictable over the medium term. This system eliminated the annual haggle over funding levels for administration and has meant that ministers have been freed from involvement in decisions at this level. It is the efficiency dividend component of the system which has enabled decisions on running costs to be kept out of the Cabinet arena and has built the trust between line agencies and the Ministry of Finance.

Finally, it is worth noting that the forward estimates system enabled the Australian Ministry of Finance to assume something of a banker role. The Australian government along with all this also undertook major modernization of its tax system that involved an investment of over A\$1 billion. Because of the forward estimates, Australian Ministry of Finance was able to reduce the Tax collection costs.

## 2.3 India and MTEF

The budget preparation in India is guided by a budget calendar, which is generally indicated in the budget circular issued by the Ministry of Finance for each year. The budget circular is issued in the month of September and it provides sufficient time to the ministries/ departments to complete their budget preparation before the budget is presented in February for the ensuing fiscal year, which starts from 1<sup>st</sup> April each year. The budget preparation involves participation of ministries/departments when they submit their initial budget estimates followed by interactions with the Ministry of Finance, where the budget ceilings (particularly the plan budgets) are communicated to the administrative departments. The departments finalize their budget estimates after taking into account the expenditure ceilings communicated by the Ministry of Finance and the plan allocations from the Planning Commission, which determines the size of funding for new schemes. A detailed medium term expenditure framework for various sectors is yet to be worked out. The budgeting, in India, thus remains strictly annual without a multi-year perspective relating to expenditure commitments of various sectors.

However, the five- year plans in India provide the basis for a multi-year perspective for resource allocation. However, the economic planning and budget differ in their scope and



time span. While plans provide a conceptual framework by focusing on various sectors in the economy, the budget is more concerned with systems of control over the use of funds by government and pays more attention to financial aspects. It is not uncommon to initiate major projects and schemes, which are not provided for in the plan.

There is no denying fact that integration of planning and budgeting, a key requirement for performance of government sectors is possible under a multi-year expenditure planning. Further, a multi-year perspective to budgeting is necessary as a single year is not sufficient to prioritize expenditure for a particular programme/ scheme/ sector for achieving targeted objectives and/ or overall development. Also, a realistic multi-year expenditure planning is an important requirement for performance oriented budgeting and linking resources to policy objectives. A multi-year approach to expenditure planning depends on getting unbiased revenue forecasts in the medium term that provides the available resource envelope for the government to formulate different developmental schemes/ programmes within the known resource base to achieve sectoral objectives. Although, it is quite clear that a multi-year perspective in expenditure planning and budgeting has been lacking in India, for a few components of total expenditure in the country, there exists a rolling expenditure target.

In this respect, attempts were made in the 1980's for introduction of a medium-term framework, which was not followed up in later years. The enactment of the Fiscal Responsibility and Budget Management (FRBM) Act and stipulation of presenting a Medium Term Fiscal Policy (MTFP) along with the budget brought back the issues once again into the budgeting system in 2003. However, the MTFP mandates to present three year rolling targets relating to major fiscal indicators such as revenue deficit, fiscal deficit, tax revenue and outstanding liabilities as percent of GDP only. Nonetheless, in enhancing transparency in India's fiscal operations, some progress has been made in this direction especially after the adoption of the FRBM Act in 2004. The government started presenting fiscal policy strategy documents and projecting major fiscal indicators in the medium term. This has provided better understanding of government fiscal policies relating to revenue generation and expenditure prioritization etc. The budget documents also contain relevant information on macroeconomic forecasts, fiscal deficit indicators, deficit financing sources, government borrowings and debt stock, prior year budget out-turns, and outlines of new tax policies and fiscal data etc. By 2010, all the state governments including the union government have presented such a medium term fiscal framework statement, as part of FRBM, which is largely focused on targets for major macro-economic variables.

In 2012, the Government of India sought to consolidate its achievements in FRBM by suggesting adoption of a three year rolling Medium Term Expenditure Framework (MTEF). This was sought to be enabled by necessary amendment in the FRBM Act as highlighted by the Union Finance Minister in para 19 of his Budget Speech:

*".. a provision for "Medium-term Expenditure Framework Statement" is being introduced in the Act. This statement shall set forth a three Year rolling target for expenditure indicators. It would help in undertaking a de novo exercise for allocating resources for prioritised schemes and weeding out others that have outlived their utility. This would provide greater certainty in multi-year budgeting framework. It would also encourage efficiencies in expenditure management."*

It is expected that the state governments would soon amend their respective FRBM Act and prepare multi-year state budget based on MTEF approach. Thus, considering the national policy direction, it is only a matter of time before state Ministries/departments would be required to prepare annual budget within the framework of the state level MTEF.

### 2.3.1 Assessment of Implementation of MTEFs in India

MTEFs are prepared with an objective to make budget management process more strategic and performance oriented by linking budgetary outlays to outputs and then outcomes. So, the basic purpose of implementing MTEF is not only restricting to measure the physical outputs of budgetary expenditures but also enhancing financial performances of these budgetary expenditures in terms of outputs and outcomes. More so, MTEFs are also linked

to the Ministries/departments objectives with that of wider goals of the government wherever it is feasible. As stated above, in India the current budgetary process at the national and sub-national levels articulates the linkages between budgetary outlays and physical outputs at scheme level wherever it is feasible. But it has been observed that linkage between schemes' outputs and department objectives are weak, and many a time the arbitrariness of budgetary allocations for the schemes and programmes ends up with non-realization of desired outcomes and even outputs.

Further, through MTEFs the emphasis generally is more on monitoring inputs, which limits accountability for outputs and policy objectives. This is further accentuated by the fact that besides objectives being long term in nature, their achievement cannot be attributed to any single output or within a short span of timeframe. In addition, implementation of MTEFs infuses resource consciousness and strategic reprioritization through knowledge of informed likely resource availability over medium term within which the spending agencies are to contain their expenditure.

Since the past few years, a significant trend that has emerged in State Budgets is the increasing role of Centrally Sponsored Schemes (CSS), with a major portion of such funding to departments being routed through off-budget transfers (by passing state budgets/treasury system/ or directly transferring resources from the Union Government to the implementing agencies / societies). The situation is very acute these days and it is very difficult to quantify exactly the quantum of public expenditure happening in various sectors by the public authority. It has also been noticed that at the sub-national level, parallel programmes are being run to achieve the same targets and objectives while deploying huge amount of public money through different channels with sheer lacking convergence.

Given the scenario in India, MTEFs aim to strengthen the linkages among outlays, outputs and objectives and goals consistent with overall fiscal discipline in the following ways:

- Supporting the concerned administrative departments in utilizing the MTEF document in the formulation of departmental annual plans / five year plans / strategy documents;
- Preparing departmental resource envelope involving projections for likely availability of resources for next couple of years to the department;
- Developing 'logical framework' to establish direct linkages between government goals, department objectives, and department schemes with their respective outputs;
- Assisting in identifying those small/insignificant schemes in each department wherein rationalization could be done, i.e. wherein the services can be provided through 'other' flagship programs that have untied funds;
- Assisting in prioritization of department objectives;
- Supporting the departments in undertaking gap analysis to identify interventions;
- Supporting the concerned departments in preparation of their budget demands based on costing methodologies of MTEF document and updating costing methodologies in the MTEF document, if required; and
- Identifying opportunities for savings for undertaking additional interventions and reprioritization of expenditure under constraining resource envelope.

However, successful implementation of MTEF needs to be strengthened to achieve desired results. For ensuring translation of outlays into realization of objectives and goals, processes of *budget formulation, execution and monitoring* have to be strengthened. It is true that MTEF through strategic allocation of resources among sectoral and departmental priorities competing for limited fiscal resources and better costing of schemes enhances *budget formulation* process. Similarly, in implementing *the budget*, the MTE framework enables government to make informed choices that are affordable in the medium-term, and to reprioritize expenditure as required. It also promotes operational effectiveness in the service delivery by establishing clear linkages among department schemes, outputs and objectives, and also suggesting interventions wherever required. Further, by linking expenditures to specified achievement in performance indicators and identifying unit costs under specific

outputs, MTEF provides a strong monitoring framework. Experience of Planning & Budgeting in MTEF and conventional budgetary practices can be summarized as follows:

Dimension	Conventional Budgetary Practices	MTEF
Sector level Budget	Each department prepares its own budget  There is no integrated sector budget document.	Provides rolling, multi-year, integrated sector budget.
Medium-term perspective	Only annual plan budget estimates are prepared within the framework of the state's Five Year Plan.  Non-Plan and off-budget expenditure are budgeted on year-on-year basis.	All budget components are brought under medium term perspective.
Inputs of Public Expenditure Review (PER) in budget Formulation	Public Expenditure Review is not undertaken prior to budget formulation.	PER is an integral process component of MTEF preparation.
Identification of resource gaps	Resource gaps are not explicitly identified.	Highlights programmatic and resource gaps.

### 2.3.2 MTEF and Water Sector: Other States

PricewaterhouseCoopers (2010) undertook preparation of Medium Term Expenditure Framework (MTEF) for WRD included undertaking sector level and project level analysis for all irrigation related activities of WRD of Madhya Pradesh. It did separate analyses for Major, Medium, Minor, CAD and Flood Control. The study showed that the status of key indicators in irrigation sector of Madhya Pradesh included (i) Uneven spatial and inter-temporal rainfall that requires storage for capturing water at social and environmental costs and impacts; (ii) Inefficient and underutilization of developed water resources for irrigation, and; and (iii) Insufficient and ineffective operation and maintenance of irrigation projects with poor cost recovery and ineffective operation and maintenance of irrigation projects with poor cost recovery. Delving over experience of past expenditure trend, it noted that: (i) in line with the 106 percent growth in allocation for GoMP's Eleventh Five Year Plan vis-à-vis the Tenth Five Year Plan, amount allotted to the development head of Irrigation and Flood Control has also doubled; (ii) amongst the various categories of irrigation projects, share of Minor Irrigation increased from 29 percent to 38 percent while that of Major and Medium Irrigation fell from 70 percent to 61 percent in the total allocation for Irrigation and Flood Control under the Eleventh Five Year Plan. This indicated an increased focus on smaller scale irrigation projects; (iii) allocation under Demand No.23 had increased substantially in 2007-08 as existing projects had been given higher allocation for speedy completion with 8 major and 9 new medium schemes under during the 11th Five Year Plan; and (iv) Object wise analysis of non-plan expenditure showed that the object 'major construction work' had shown a trend growth of over 34.46 percent over the period 2004-10, expenditure under maintenance object has registered a negligible growth of 1.72 percent over the same period. This clearly hinted at inadequate funds being allocated for day to day upkeep and repair of existing irrigation systems. This could be an important factor contributing to low utilization of irrigation potential created in the state. The expenditure projection methodology of the study included (i) separate analysis undertaken for expenditure on Major, Medium, Minor, CAD and Flood Control; (ii) Project level analysis undertaken under each of the above heads; (iii) Objective parameter for allocation of funds across ongoing major projects formulated; (iv) Projections made at minor head level for plan expenditure and at object level for non plan expenditure; (v) Trend analysis undertaken for forecasting non salary plan expenditure; and

(vi) The proposed strategy leading up to development of MTEF for the department was around improving the ratio of irrigated area to irrigation potential created. The interventions suggested by the study were: (i) Physical targets and corresponding financial requirements for attaining I/P (Irrigation to potential) ratio of 0.6 and 0.7 (as two scenarios) under major irrigation have been calculated; (ii) Additional allocations required for maintenance and repair under Major and Medium irrigation as per norms given by 13th Finance Commission have been estimated; (iii) Possible improvements in planning processes for minor irrigation have been proposed; and (iv) possible targets for increasing coverage under CAD were suggested and costed. It arrived at annual growth of 13.33 percent expected under trend scenario and annual growth of 15.24 percent and 16.09 percent expected under two scenarios considered for MTEF expenditure requirements for next five years. Further, an increase of 17.96 percent was assumed for salary head as has been assumed in FRBM Report 2010-11 for Madhya Pradesh. For this, the anticipated Plan Resource Availability was to grow at an average annual growth rate of 15.83 percent anticipated from 2009-10 RE to 2014-15. Also in order to achieve reconciliation and reprioritization, it states that reconciling plan expenditure requirements with anticipated plan resource availability is required. For containing the trend plan expenditure growth within the projected resource envelope, the non-salary plan expenditure will have to grow at 13.04 percent, given that salary component inclusive of 6th CPC recommendations is poised to grow at 17.96 percent. This would result in the overall total plan expenditure annual growth of 13.78 percent. Affordability during 2010-11 to 2014-15, however, contingent on the assumption that the State Plan Scheme allocations grow at an annual trend rate of 16.16 percent while the CSS allocations grows at a rate of 23.85 percent, which is quite high. If the CSS allocations grew at lower rate, affordability becomes an issue. The department has to identify savings/ additional resources to the extent of Rs.276.50 crore in 2010-11 under Scenario first while Rs.465.86 crore under Scenario two would be required. The savings/additional resource requirement however is projected to decline every year reaching a requirement of Rs.350.61 crore in 2014-15. Since the salary component is a committed expenditure under non-plan, the department will be required to explore savings in the non-salary component of non-plan expenditure or undertake reprioritization of expenditure to be able to meet the resource requirements for identified interventions. Keeping in view the current economic situation of average revenue buoyancy in the state and discussions with the government, it was decided to cap the overall plan expenditure at trend projection levels for MTEF. Hence, assuming that the department will make up for the amount under trend deficit, reprioritization exercise for WRD was suggested by identifying Heads from which savings would have to be identified and reallocated to Heads linked to proposed interventions under the moderate reform scenario.

The study also reviewed institutions. It reported that in case of major/ medium projects, budgeting process for irrigation projects is contingent on the ceiling available for plan schemes received from the State Planning Board and also seemingly it's a more top down process than a bottom up approach. A more scientific methodology is thus a need to ensure allocative efficiency in the department. In case of minor irrigation, they are district schemes and as per the 74th amendment, the decision of the projects to be undertaken has been devolved at the third tier of the government. It is a general perception that DPC has been unable to function optimally and decisions are more influenced by politics rather than local priorities. The district planning being driven by political considerations renders the resource demand from districts becoming a simple demand aggregation exercise without any prioritization or consideration to district ceilings provided by the State Planning Board. Water Resources Department is left with no option but to allocate available resources to districts and give DPC the discretion to allocate sanctioned resources among various projects. Hence, the allocation at the district level is not need based due to weak planning processes and political pressures. Despite being a bottom up approach for allocation of funds, the process, as a matter of fact, involves a combination of finding a match between the requirements of the district and the district plan ceiling. In order to resolve such a structural issue, amendments are required in composition of DPC. Presently, only few local leaders and department officials at district level are involved in formulating recommendations for

schemes. It was recommended that this exercise be further devolved to block level and village level (if required). An aggregation of schemes at block level with mandatory priority ranking should be undertaken with reasons being stated for the rankings.

**Maintenance Norms:** For increasing the potential utilization, as per the discussion with department officials, the costing norm is Rs.30,000 per hectare for major and medium irrigation. Minor irrigation is mostly private owned and very small part is owned by the government. For maintenance expenditure, Thirteenth Finance Commission had recommended the maintenance cost norms for all sub sectors in irrigation. According to the 13th Finance Commission, for utilized potential (i.e. irrigated area) Rs.1175 per hectare should be spent and for unutilized potential (the gap between potential created and actual irrigated area) Rs.588 per hectare should be used for major and medium irrigation projects. Presently, approximately Rs 150 per hectare is being spent for major and medium irrigation and Rs.50 per hectare for minor irrigation. Thus, there is a huge gap between resource allocation and required expenditure. For development of area under CAD, according to department officials, the costing norm is Rs.10,000 per hectare.

Hence, main institutional reasons for the constrained performance of the department are summarised as: (i) Lack of scientific methodology in budgeting and fund allocation; (ii) Inadequate indicator based monitoring and evaluation of the projects undertaken and implemented; (ii) Inconsistent and inadequate effort in bridging the gap between the potential created and its utilization; (iii) Time & Costs Overruns: Insufficient and ineffective operation and maintenance of urban/rural water supply with poor recovery costs.

### 2.3.3 MTEF in the Context of Water Sector: A Case of Rajasthan

Water plays a crucial role as basic element of sustaining life, as a source of irrigation and for non-agricultural uses. Over the years, over-exploitation of this scarce resource has increased manifold to meet the demands of the growing population. Intensive competition and the resultant socio-economic and political tensions between uses and users for available supplies, and depletion of groundwater tables are the indications that demand for water is surpassing its availability. Water has thus become an important and highly contentious issue of public policy these days. It is therefore essential to work out rational strategies and policies for coping with the situation and encourage informed public discussion of alternatives to arrive at an acceptable social consensus on how best to balance competing claims with an economizing scale of public resource use.

There is no ambiguity about the fact that Rajasthan, where drought is a rule rather than an exception, needs more focused water policies for overall economic development, which may further induce poverty alleviation. A few major factors, among others, that place Rajasthan in a more precarious situation compared to other regions in India are: i) the frequency of droughts (four out of every five years); ii) extremely low and erratic rainfall; and iii) very limited surface water sources, like perennial river basins, resulting in greater dependence on groundwater resources (Reddy, 2010).

#### 2.3.3.1 Challenges in Water Sector in Rajasthan

Rational and sustainable water management has become a far more complex and difficult task (economically, technically, socially and politically) than can be handled by traditional cost– benefit analysis of particular projects. It calls for reliable information on a wider range of aspects and comprehensive knowledge regarding the current and emerging situation regarding sources and uses of water; the scope for and ways of augmenting supplies and increasing the efficiency of water use; alternative possibilities available, their technical feasibility and implications both beneficial and adverse (including displacement, forest submergence, impact on riverine and estuarine ecosystems as well as sustainability) and associated costs, and the distribution of costs and benefits between regions and a wide range of stakeholders.

The major challenges that the Water sector in Rajasthan faces are (GoR 2010 & GoR 2012): (a) increasing gap between demand and supply and decreasing per capita availability

of water, (b) inequity in access to water, (c) depleting ground water resources and deteriorating quality of water, (d) no control over ground water exploitation, lack of water legislation, (e) high cost of service, low cost recovery, and low expenditure on Operations and Maintenance (O&M), (f) uncertainty in availability of water, (g) low operational efficiency of water resource systems.

Rapid urbanization coupled with rapid economic growth has led to urgent requirement of various urban infrastructures namely roads, water & sanitation, solid waste management etc. But decades of under investment in these sectors have reached a point where there are capacity constraints in these sectors and due to lack of maintenance; limited results have been gained out of these public investments. Further, lack of robust institutional structures; poor commercial management- tariff & cost recovery; outdated systems- Finance, Accounts & MIS; have led to these sectors attracting lower capital over the years.

Similarly, nearly all cities and towns have piped water system but do not function efficiently and are characterized by low pressure and frequent breakdowns. In rural areas, most villages have hand pumps, but they remain unoperational for days together. The pressure is inadequate and often the chemical and biological quality of the supplied water is not as per recommended standards.

Due to deteriorating assets, declining productivity has led to increasing operating cost. This in turn has led to declining service levels which encourages customers not to pay leading to declining revenues, lesser access to financing and thus lesser investment in the asset. This leads to a vicious cycle of unsustainability- unsustainable utilities, depleting natural resources and increasing demand- supply gap. In this situation Service Providers are in perpetual operational & financial distress. Service expansion is impossible.

Rajasthan starting working on the Water Sector MTEF almost simultaneously with the EU-SPP (2007 onwards). However, after several iterations, in 2012 it acknowledged the utility of MTEF as a tool for better medium term planning and committed to align it with the water sector policy as well as the budgeting cycle of the state government. Hence, MTEF is expected to help in better planning of water use while realizing policy objectives within a definite period of time.

### **2.3.3.2 Availability of Water**

Rajasthan has 1.16 percent surface water and 1.72 percent ground water of the country. About 66 percent of the land is classified as arid and semi-arid, suffering from recurrent water scarcity. Out of the total 142 desert blocks in the country, 85 blocks are located in the state. The state has no perennial river barring Chambal which traverses some parts of the south-eastern portion of the state. Monsoon rains are scanty, erratic, and unevenly spread over the state. Rajasthan has to depend on its share of water from inter-state river basins. The total surface water available in the state is 21.71 BCM, out of which 16.05 Billion Cubic Metre (BCM) is economically utilizable. The state has so far harnessed 11.85 BCM (72% of utilizable portion). In addition, the state receives allocation of 17.88 BCM through inter-state water sharing agreement. Current deficit between demand and supply of water is 8.0 BCM, which is likely to increase to 9.0 BCM by 2015. Irrigation potential is likely to be 37.91 lakh hectares by the end of 2011-12, with the construction of 118 major and medium and 3,311 minor irrigation projects. Nearly 90 percent of the ground water is used for agriculture purpose, leaving a small share of 7 percent for supply of drinking water. Out of 237 blocks, only 30 blocks are in 'safe' category, 8 blocks in 'semi critical' category, 34 blocks in 'critical' category, and 164 blocks in 'overexploited' category. Out of 121,133 habitations, 51,283 habitations are partially and 69,850 habitations are fully covered under drinking water supply. No. of quality affected habitations is 32,150. All the 222 towns of the state are fully/partially covered by drinking facility.

Due to geographical location, Rajasthan has very limited amount of water resources; both surface and ground water. Having 5.5 percent of population and 18.7 percent livestock of the country, it has only 1.72 percent of ground water and 1.16 percent surface water of the country. The situation has become worse due to the higher population growth in the last

decade, which has put pressure on present low per capita availability of water of 807<sup>2</sup> m<sup>3</sup> which is expected to decline to 457 m<sup>3</sup> by 2045 and consequently, it would lead the state from 'scarcity' to 'absolute scarcity zone' (Reddy, 2010). Further, as Rajasthan has 51 percent of the fluoride and 42 percent of the saline affected areas in the entire country, quality of water is also a serious area of concern.

Ground water is already overexploited in most of the regions. Out of 32 districts, in 16 districts ground water is overexploited (more than 100%) and the rates of exploitation are as high as 165 percent in Jhunjhunu and 153 percent in Jodhpur (Reddy, 2010). Nearly 90 percent of the ground water is used for agriculture purpose, leaving a small share of 7 percent for supply of drinking water. In sum, the available water is not enough to cater to the needs of the drinking, agriculture and non- agriculture demands.

### 2.3.3.3 Equity in the Water Sector

Inequity in the water sector is prevailing across regions, sectors and between rich and poor as well as gender groups. Regional differences are seen in terms of geographical locations i.e. between districts or regions and between rural and urban locations. Similarly, disparities across different sectors like irrigation, drinking water and industry are also prevalent in Rajasthan.

Rural water supply in southern region fares best; followed by northern, eastern and western regions. Further, in the case of quality of water, the western region has the highest incidence of fluoride and chemical (nitrate, salinity, etc.) contamination (Rathore, 2004). On the other hand, the western region also has the widest coverage of piped water supply (mainly regional schemes), followed by the north-eastern and southern regions. Dependence on hand pump is very high at 91 percent in the southern region and 71 percent in north- eastern region. In urban areas the coverage of house connections range from 100 percent in the towns of the Churu and Jhunjhunu districts to as low as 22 percent in the Kota district. On the other hand, water shortages are highest in Sawai Madhopur (83%) and Bharatpur (72%), while Dungarpur has the least shortages when WHO norms are applied for estimating the water demand. Similarly, regional differences are substantial even in the case of groundwater development and extent of irrigation.

Between rural and urban locations, there is a clear urban bias in the provision of tap water. While 80 percent of urban households have access to tap water, only 21.6 percent have that access in rural areas. The average supply of water is above 100 litres per capita per day in urban areas as against 39 litres per capita per day in rural areas.

Besides, the state is faced with several challenges, including the following<sup>3</sup>:

- Increasing gap between demand and supply and decreasing per capita availability of water
- Uncertainty in availability of water
- Inequity in access to water
- Low operational efficiency of water resource systems
- Depleting ground water resources and deteriorating quality of water
- No control over ground water exploitation, lack of water legislation<sup>4</sup>
- high cost of service, low cost recovery, and low expenditure on Operations and Maintenance (O&M)
- Lack of ownership among the stakeholders

<sup>2</sup> It is less than half of the national average of 2000 m<sup>3</sup> per capita.

<sup>3</sup> GoR (2010) State Water Policy, February, State Water Resource Planning Department; GoR (2012-17) The 12<sup>th</sup> Plan Working Group Report (2012-17), Water Resource Department.

<sup>4</sup> The state is in the process of enacting a new law on management of water resources. National Law University (Bangalore) has prepared the draft statute for GoR. This new law will ensure, among others, public participation in the decision making process for the water sector.

#### 2.3.3.4 Sustainability

As the groundwater is overexploited in many regions in Rajasthan and there is very limited utilizable surface water, priority must be given towards future sustainability. Firstly, there is an urgent need for groundwater stabilization and management of groundwater exploitation. Otherwise, in the short run or medium run, groundwater may become extinct in these districts. Groundwater development and harnessing must be done in an integrated manner with surface water bodies like tank sand canals. The enormous natural capital of traditional water harvesting structures that lay idle must be revitalized and these structures need to be revived and followed up with appropriate institutional arrangements for managing them in a sustainable manner (Reddy 2010). Further, to enhance water availability through promotion of water use efficiency; the most cost effective option is demand management. The possible strategies could be adopting appropriate economic measures, technologies or putting appropriate institutional mechanism in place. Further, “Sustainability of institutions is often critically linked with the integration of market principles into the institutional arrangements. Similarly, incentive and disincentive structures such as pricing of resources and subsidizing the technologies help to fast track the adoption of technology” (Reddy, 2010).

#### 2.3.3.5 Expenditure Trend

Despite the grim situation of water resources in Rajasthan, the lack of political commitment would be visible if we have a quick glance at the budgetary expenditure in water sector in Rajasthan. In the 11<sup>th</sup> Five Year Plan, overall, state’s own budget allocation on water sector as a share of the total state budget has declined to 8.7 percent in 2011-12 from 12.8 percent in 2007-08. As a share of Rajasthan’s GSDP, water sector budget (Rs.7647 crore) was only 2.2 percent i.e., a per capita expenditure of Rs.1104 per year or Rs.3 per day. The similar disquieting trend would be visible if the off-budget expenditures are examined; especially the water related projects/ activities under MGNREGS declined significantly indicating the state’s inability to leverage central assistance.

Now, considering the gloomy picture in the water sector in Rajasthan, MTEF could be a plausible remedy as it could at least ensure certainty in the resource mobilization in this sector, which is a prerequisite in successful implementation of any programme in any sector. Additionally, budget estimate in the MTEF is supposedly need based and more realistic and it prioritizes expenditure. In the MTEF framework, for proper need based assessment of budget requirement in water sector, the whole expenditure envelope should be taken into account.

#### 2.3.3.6 Institutional Structure

In the institutional structure of Rajasthan, water resources are developed, used and monitored by several departments; viz.

- State Water Resource Planning Department (SWRPD): It is the nodal agency for regular coordination between line departments for integrated planning and management of the water resources of the state.
- Public Health and Engineering Department (PHED): Provision of rural and urban water supply and sewerage services is the responsibilities of PHED.
- Command Area Development and Water Utilization (CAD&WU): CAD& WU is the nodal agency for the development of command areas of major canal projects (e.g. Indira Gandhi Nahar Project, Gang Canal Project, etc.).
- Panchayati Raj Department (PRD): At present, PRD has been entrusted with this responsibility of implementing Total Sanitation Campaign (TSC) scheme; earlier it was the responsibility of PHED.
- Water Resources Department (WRD): It is responsible for harnessing available surface water through various major, medium, and minor irrigation projects.
- 
- Ground Water Department (GWD): Ground water resources of the state is developed and managed by the GWD.



- Rural Development Department (Directorate of Watershed Development and Soil Conservation): WD&SC, which is a directorate under RDD is mainly engaged in implementation of Integrated Watershed Management Programme (IWMP).

Apart from the above, Indira Gandhi Nahar Board (IGNB), Rajasthan Water Supply & Sewerage Management Board (RWSSMB), state level Rajiv Gandhi National Rural Drinking Mission (RGNRDM) also has some responsibilities towards maintaining water resources.

The expenditure of some of the departments above is reflected in the state budget documents and a significant portion is off-budget expenditure. So, in the MTEF framework, the entire resource envelope must be taken into account. Separate cells could be set up in major departments for institutionalizing the MTEF. One other important factor for effective implementation of MTEF is a regular Public Expenditure Review (PER). The line departments could also conduct field study through independent agencies to assess whether budget spending has produced the desired output/ outcome.

Several research reports indicate that significant proportion of off-budget funds is remained unutilized. This could be attributable to the shortage of technical and managerial staff across the departments. The studies also recommend that at present, the budget for operation and maintenance is very low and it must be stepped up significantly for successful implementation of MTEF.

### **2.3.3.7 State Water Policy**

The state formulated a new State Water Policy and Action Plan in February 2010 to deal with the water sector challenges. The policy incorporates Integrated Water Resource Management and signals a shift in the role of the Government of Rajasthan (GoR) away from a controller to a facilitator of water services provision, as well as a shift away from predominantly engineering-based supply side management to local community-based demand side management. The water policy and action plan spells out several key policy measures, including prioritisation of water uses, enactment of revised/new water related legislation, establishment of Water Regulatory Authority, and improving cost recovery through rationalisation of water pricing.

### **2.3.3.8 Twelfth Five Year Plan**

The Twelfth Five Year Plan (2012-2017) of the state emphasizes the need to complete irrigation projects that have been under implementation for many decades, provide adequate funds to maintain the system that is already in place, and bridge the gap between potential created and potential utilised through better coordination across agencies and departments and a better involvement of water user associations that need to be empowered and provided necessary information inputs.

Another focus area of the Twelfth Plan is to increase water use efficiency especially in agriculture sector by adopting pressure irrigation, change in cropping pattern, and shift from agriculture to horticulture.

The Twelfth Plan also envisages major interventions such as control of extraction of ground water, water harvesting and water recharge, water conservation programmes, development of alternative resources through waste water recycle and desalination technologies, and water demand management through tariff rationalisation.

Proposed outlay (at current prices) of the state's Twelfth Five Year Plan for water sector (irrigation and flood control, ground water, and drinking water and sanitation) is Rs. 20735.5 crore, which is significantly higher (67%) than the proposed outlay of the Eleventh Five Year Plan (Rs.12388 crore). However, water sector share in the total plan outlay of the Twelfth Five Year Plan has declined substantially, from 17.3 percent in the previous Five Year Plan to 10.7 percent.

## 2.4 Conclusions

It emerges that MTEFs alone cannot deliver improved PEM in countries in which other key aspects of budget management remain weak. There are three reasons for the breach between the promise of MTEFs and their actual impact.

- First, and most importantly, MTEF reforms have not taken sufficient account of initial country conditions in basic aspects of budget management, notably budget comprehensiveness, execution, and auditing. The fact that comprehensive, detailed diagnoses of budget management systems and processes does not precede all MTEFs led to inadequate design and sequencing of the reform programmes.
- Second, MTEF reforms, with the exception of a few cases, have typically not paid sufficient attention to the political and institutional aspects of the reform process.
- Third, operational MTEFs do not closely resemble their textbook cousins, which raise questions about the feasibility of launching full-fledged MTEFs in many developing countries.

The above suggest that while one should recognize that MTEFs are potentially valuable PEM tools, they should be carefully crafted so as to make them more effective. The following also emerges as suggestion.

## 3 REVIEW OF PUBLIC EXPENDITURE ON WATER SECTOR: RAJASTHAN

### 3.1 Review of Public Expenditure

This chapter presents a review of public expenditure on water sector. This is based on desk research covering the period from 2008-09 to 2012-13. The on-budget data are compiled from the relevant Demand for Grants for each of the six core departments and off-budget data are collected from the implementing agencies and from the websites of the concerned Ministries of the central government.

### 3.2 Water Sector Budget

The water sector budget in Rajasthan consists of 'on-budget' and 'off-budget' components. The on-budget allocation consists of (a) the state's own allocation under 'Plan' and 'Non-Plan' heads and (b) central assistance under Central Schemes (CS) and Centrally Sponsored Schemes (CSS). The off-budget allocations refer to central assistance under flagship programmes like Total Sanitation Campaign and Rajiv Gandhi National Rural Drinking Water Mission that are directly transferred to the state implementing agencies.

#### 3.2.1 On-budget Data

The water sector budget data in Rajasthan are available at a highly disaggregate level. The on-budget data are spread over six core departments of the water sector (Table 3.1). Unlike in other states, none of the water sector departments is allotted a Demand for Grants for submission of budget estimates to the state legislature for approval<sup>5</sup>. Rather, annual budget estimates of a department are contained in more than one Demand for Grants, each one of which represents a specific scheme, or a programme, or an activity of the water sector. For instance, budget of Water Resource Department is spread over four Demands for Grants viz. Demand for Grants No. 19 (Public Works); Demand for Grants No. 30 (Schedule Tribes); Demand for Grants No. 46 (Irrigation); and Demand for Grants No. 51 (Scheduled Caste).

Under each Demand for Grants, allocations/expenditures are provided over several major heads (Table 3.2). For instance, under Demand for Grants No. 46 (Irrigation), the Major Head 4700 represents capital expenditure on major irrigation. Similarly, under the same Demand for Grants, the Major Head 2700 represents revenue expenditure on major irrigation.

For the purpose of PER study, on-budget data are compiled from the relevant Demand for Grants for each of the six departments as described above. The trend analysis covers (i) actual expenditure from 2008-09 to 2010-11, (ii) revised estimates of 201-12, and (iii) budget estimates of 2012-13.

#### 3.2.2 Off-budget Data

The off-budget data are spread over Panchayati Raj Department which implements TSC; Rural Development Department, which is responsible for implementation of water related projects under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) and IWMP; and the state level Mission that implements RGNRDWM.

<sup>5</sup> The estimates of expenditure from the Consolidated Fund of the state that are included in the Annual Financial Statement (commonly known as budget) and required to be voted by the legislature are submitted by various government departments in the form of Demands for Grants. Generally, one Demand for Grants is allotted to each department.

**Table 3.1: Department-wise Demand for Grants and Major Heads of Expenditure**

Department	Demand for Grants	Major Heads
1. SWRPD	30 (Scheduled Tribes)	2702, 4702
	46 (Irrigation)	2702, 4702
	51 (Scheduled Castes)	2702
2. WRD	19 (Public Works)	4700, 4701
	30 (Scheduled Tribes)	2700, 2702, 4700, 4701, 4702
	46 (Irrigation)	2700, 2701, 2702, 4700, 4701, 4702, 4711
	51 (Scheduled Castes)	2701, 2702, 4700, 4701, 4702, 4712
3. PHED	19 (Public Works)	4215
	27 (Drinking Water Supply Scheme)	2215, 4215
	30 (Scheduled Tribes)	4215
	51 (Scheduled Castes)	4215
4. GWD	30 (Scheduled Tribes)	2702
	38 (Minor Irrigation and Land Conservation)	2702, 4702
5. CAD&WU	22 (Command Area Development)	2705, 4705
	30 (Scheduled Tribes)	4705
	51 (Scheduled Castes)	2705, 4705
6. RDD	38 (Minor Irrigation and Land Conservation)	2402

**Table 2.2: Description of Major Heads of Expenditure**

Description of Major Heads	2215	Revenue expenditure on Water Supply and Sanitation
	2402	Revenue expenditure on Soil and Water Conservation
	2700	Revenue expenditure on Major Irrigation
	2701	Revenue expenditure on Medium Irrigation
	2702	Revenue expenditure on Minor Irrigation
	2705	Revenue expenditure on CAD
	4215	Capital expenditure on Water Supply and Sanitation
	4700	Capital expenditure on Major Irrigation
	4701	Capital expenditure on Medium Irrigation
	4705	Capital expenditure on CAD
	4711	Capital expenditure on Flood Control Projects

In the present study, off-budget data are collected for the following programmes: (i) Total Sanitation Campaign, (ii) Rajiv Gandhi National Rural Drinking Water Mission, (iii) Integrated Watershed Management Programme, and (iv) water related activities under Mahatma Gandhi National Rural Employment Guarantee Scheme. The data are collected from the

implementing agencies and from the websites of the concerned Ministries of the central government.

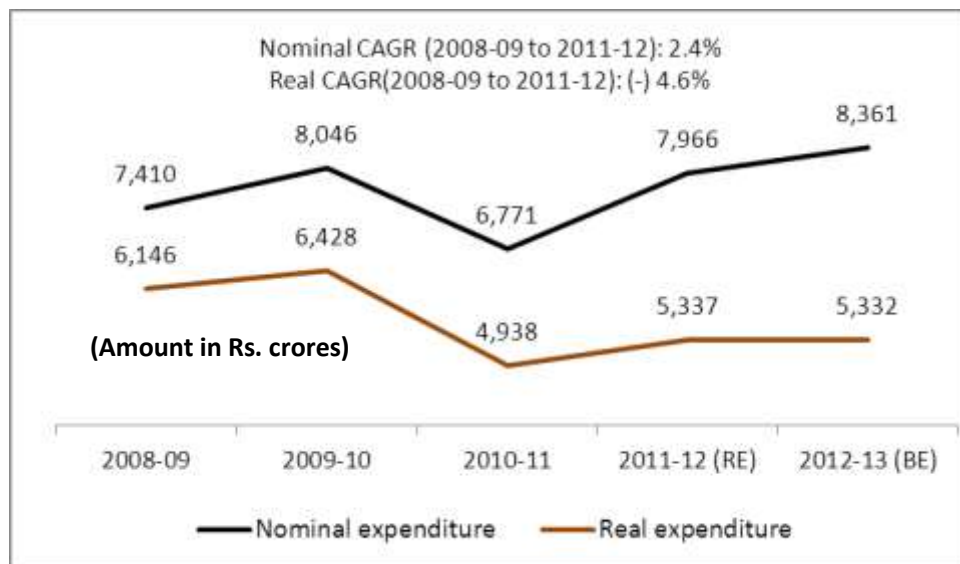
### 3.3 An Overview of Recent Trends in Expenditure

#### 3.3.1 Growth in Total Expenditure in Nominal and Real Terms

**Nominal Expenditure:** The total public expenditure on water sector in Rajasthan (including both on-budget and off-budget expenditure) increased from Rs.7410 crore in 2008-09 to Rs.7966 crore in 2011-12, reflecting a meagre compound annual growth rate (CAGR) of 2.4 percent per year (Figure 3.1). The budget for the current year 2012-13 is set at Rs.8361 crore, which represent a 5 percent increase over the previous year.

The lower CAGR of 2.4 percent per year during 2008-09 to 2011-12 as mentioned above, is due to a steep fall in budget spends by 15.8 percent (by Rs.1275 crore in value term) in 2010-11 over the previous year (Figure 3.1). This dip in expenditure reflected lower capital expenditure on major irrigation and several water supply and sanitation schemes on one hand and decline in off-budget expenditure on water related projects/ activities under MGNREGS on the other.

Figure 3.1 Nominal vs. Real Expenditure in Water Sector

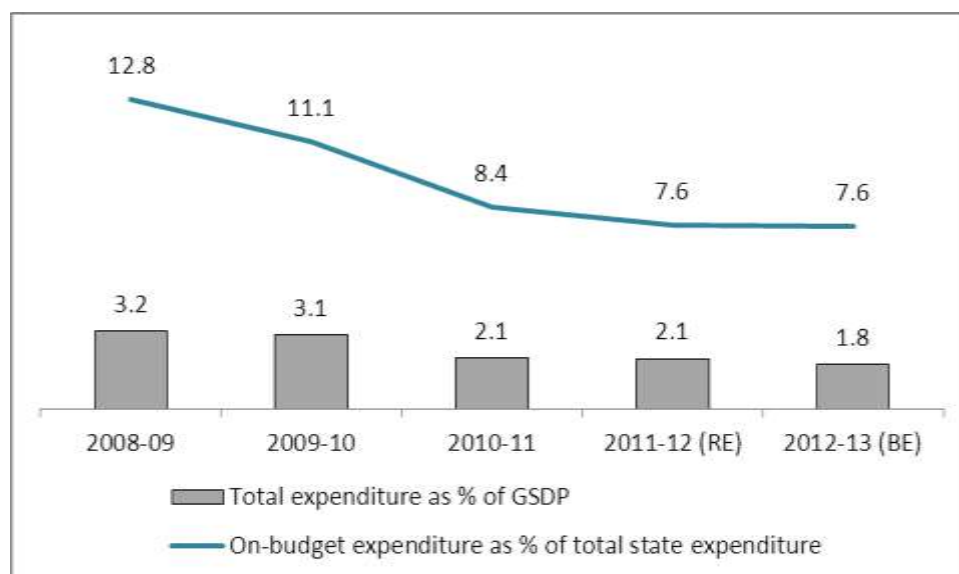


**Real Expenditure:** In real term, the water sector spends registered a CAGR of (-) 4.6 percent during the four year period from 2008-09 to 2011-12 (Figure 3.1). The budget allocation for the current year (2012-13) in real term has been set almost at par with the level of spending in the previous year.

#### 3.3.2 Share of Water Sector Expenditure in TSE and GSDP

The share of on-budget expenditure for water sector in the Total State Expenditure (TSE) has steadily declined from 12.8 percent in 2008-09 to 7.6% in 2011-12 (Figure 3.2). As per budget estimates, the water sector's share in TSE during 2012-13 will remain at the same level as that of the last year. Given the critical scenario of water sector in the state, this declining share in TSE does not portray a healthy trend.

**Figure 3.2 Share of Water Sector Expenditure in TSE and GSDP**

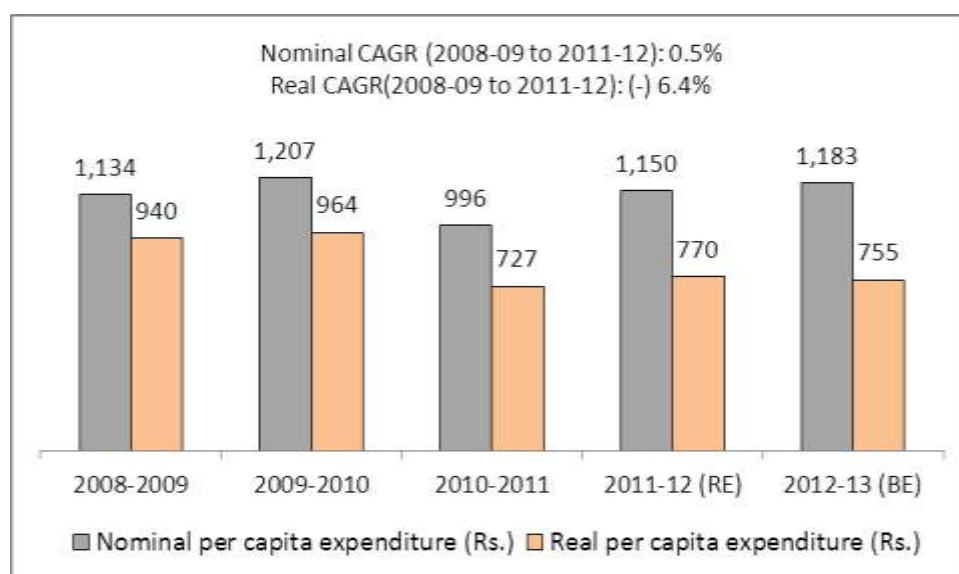


The total expenditure on water sector as a share in Gross State Domestic Product (GSDP) has declined over the years, from 3.2% in 2008-09 to 2.1% in 2011-12 (Figure 2.2). The share is expected to decline further to 1.8% by the end of 2012-13.

### 3.3.3 Trends in Per Capita Expenditure

Between 2008-09 and 2011-12, CAGR of per capita expenditure on water (taking into account both on-budget and off-budget expenditure) was 0.5 percent in nominal term and (-) 6.4 percent in real term (Figure 3.3). The budget allocation for the current year (2012-13) is equivalent to per capita expenditure Rs.1183 (Rs.755 in real term) or Rs.3 (Rs.2 in real term) per person per day.

**Figure 3.3 Per Capita Expenditure on Water Sector**



### 3.3.4 On-budget and Off-budget Components of Total Expenditure

As mentioned at the outset of this chapter, the water sector budget in Rajasthan consists of 'on-budget' and 'off-budget' components. The growth and relative shares of these two components in the total expenditures in the recent period has been as follows.

**On-budget Expenditure:** The on-budget expenditure marginally dipped from Rs.5542 crore in 2008-09 to Rs.5224 crore in 2011-12, reflecting a CAGR of (-) 2 percent over the four year period (Table 3.1). The negative growth in on-budget expenditure had been due to significant decline in expenditure by PHED at a CAGR of (-) 6.1 percent. For the current year (2012-13), the on-budget provision is set at Rs.5809 crore, which represents an increase by 11 percent over the previous year<sup>6</sup>.

**Off-budget Expenditure:** In contrast to negative growth in on-budget expenditure, the off-budget expenditure grew from Rs.1868 crore in 2008-09 to Rs.2742 crore in 2011-12 reflecting a CAGR of 13.6 percent (Table 3.1). However, the growth in off-budget expenditure during the period under consideration (2008-09 to 2011-12) would have been higher but for steady decline in expenditure on water related projects/ activities under MGNREGS at a CAGR of (-) 11.5 percent. The off-budget allocation for 2012-13 is estimated to be Rs.2553 crore, which is 7 percent lower than the last year's expenditure.

It may be noted here that decline in expenditure on water related projects/activities under MGNREGS as mentioned above is a disquieting trend. This shows that the state could not avail central assistance under MGNREGS for water related projects/activities. The situation is going to be worse during the current year. The water sector budget under MGNREGS has been set at Rs.803 crore for the year 2012-13, which represents 37 percent reduction over the last year's spending.

**Relative Shares of On-budget and Off-budget Expenditure:** In 2008-09, on-budget expenditure accounted for 75 percent of the total water sector expenditure while the balance share represented off-budget component (Table 3.3). Since then on-budget component had declined to 66 percent in 2011-12. As per budget estimates of 2012-13, the share of on-budget component is expected to increase to 69 percent from 66 percent in the previous year. Thus, as of 2012-13, the ratio of on-budget and off-budget components is expected to be 69:31.

## 3.4 Structure of On-Budget Expenditure

### 3.4.1 Department/major head-wise on-budget expenditure

Analysis of major head-wise expenditure during the four year period from 2008-09 to 2011-12 reveals the followings (Table 3.4):

- On the average, PHED accounted for 59 percent of the total on-budget expenditure. In terms of major heads, the expenditures on rural and urban water supply represented 32 percent and 23 percent of the total on budget expenditure respectively.
- The average share of WRD in the total expenditure stood at 37 percent. While expenditure on multipurpose/major irrigation projects accounted for 25 percent of the total on-budget expenditure, the share of expenditure on medium/ minor irrigation projects was only 9 percent.

As per on-budget provisions for 2012-13, the share of PHED is expected to be 54 percent reflecting a decline by 5 percent point as compared to the average share over the previous four year period (Table 3.4). This decline in share would be mainly in favour of WRD. In particular, the shares of major irrigation and minor irrigation in the total on-budget provision for the current year, as compared to last four year average, are slated to increase by 2 percent point and 3 percent point respectively.

<sup>6</sup> Further details regarding on-budget expenditure will be discussed later in this chapter.

### 3.4.2 Source of On-budget Funding

In 2008-09, the state's own resource, both under Non-Plan and Plan heads, and the CS and others (through treasury route) supported 81 percent and 19 percent of the total on-budget expenditure respectively (Table 3.5). The respective shares changed over the years. As of 2012-13, the state's own funding and central support stood at 99 percent and 1 percent respectively. The substantial reduction in on-budget central assistance reflects shift in central assistance from on-budget to off-budget funding through different flagship programmes.

**Table 3.3: Trends in Water Sector Expenditure**

Rs. crore	2008-09	2009-10	2010-11	2011-12 (RE)	2012-13 (BE)	CAGR <sup>1</sup> (%)
<b>A. On-budget</b>						
Water Resources Department	1845	1874	1827	2062	2386	3.8
Public Health and Engineering Department	3505	3334	2452	2904	3109	-6.1
Ground Water Department	52	55	55	62	60	5.9
Command Area Development	92	104	132	93	134	0.5
Watershed Development & Soil Conservation	26	38	22	33	22	8.2
State Water Resource & Planning Department	22	1	14	69	98	46.5
<b>Sub-total (A)</b>	<b>5542</b>	<b>5406</b>	<b>4501</b>	<b>5224</b>	<b>5809</b>	<b>-2.0</b>
<b>B. Off-budget</b>						
Total Sanitation Campaign	22	32	38	31	90	12.5
National Rural Drinking Water Programme	0	671	853	1429	1660	
MGNREGS	1846	1937	1379	1280	803	-11.5
IWMP	0	0	0	1	0	
<b>Sub-total (B)</b>	<b>1868</b>	<b>640</b>	<b>2270</b>	<b>2742</b>	<b>2553</b>	<b>13.6</b>
<b>Grand total (A+B)</b>	<b>7410</b>	<b>8046</b>	<b>6771</b>	<b>7966</b>	<b>8361</b>	<b>2.4</b>
<b>% Share</b>						<b>Average<sup>2</sup></b>
Water Resources Department	24.9	23.3	27.0	25.9	28.5	25
Public Health and Engineering Department	47.3	41.4	36.2	36.5	37.2	40
Ground Water Department	0.7	0.7	0.8	0.8	0.7	0.7
Command Area Development	1.2	1.3	1.9	1.2	1.6	1.4
Watershed Development & Soil Conservation	0.4	0.5	0.3	0.4	0.3	0.4
State Water Resources & Planning Department	0.3	0.0	0.2	0.9	1.2	0.3
<b>Sub-total (A)</b>	<b>75</b>	<b>67</b>	<b>66</b>	<b>66</b>	<b>69</b>	<b>68</b>



Rs. crore	2008-09	2009-10	2010-11	2011-12 (RE)	2012-13 (BE)	CAGR <sup>1</sup> (%)
Total Sanitation Campaign	0.3	0.4	0.6	0.4	1.1	0.0
National Rural Drinking Water Programme	0.0	8.3	12.6	17.9	19.9	0.4
MGNREGS	24.9	24.1	20.4	16.1	9.6	10
IWMP	0.0	0.0	0.0	0.0	0.0	21
<b>Sub-total (B)</b>	<b>25</b>	<b>33</b>	<b>34</b>	<b>34</b>	<b>31</b>	<b>32</b>
<b>Grand total (A+B)</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100</b>

Note: <sup>1</sup> CAGR is calculated for the four year period from 2008-09 to 2011-12. <sup>2</sup> Average is calculated for the four year period from 2008-09 to 2011-12.

Further analysis of budget data shows that by the end of the current year(2012-13), the on-budget allocations under Non-Plan, Plan and CS and other heads would account for 38 percent, 31 percent, and 0.8 percent of the total water sector budget, adding up to a total share of 69 percent (Table 3.5)<sup>7</sup>.

**Table 3.4: On-budget Expenditure by Major Heads**

Rs. crore	2008-09	2009-10	2010-11	2011-12 (RE)	Average share (%)	2012-13 (BE)	Share (%)
<b>A. Water Resources Department</b>							
Multipurpose	196	165	176	177	3	165	3
Major Irrigation	1127	1199	1098	1196	22	1396	24
Medium Irrigation	232	224	291	267	5	273	5
Minor Irrigation	204	200	176	318	4	407	7
Modernization	84	84	83	101	2	141	2
Flood Control	2	2	2	2	0	4	0
<b>Sub-total (A)</b>	<b>1845</b>	<b>1874</b>	<b>1827</b>	<b>2062</b>	<b>37</b>	<b>2386</b>	<b>41</b>
<b>B. Public Health Engineering Department</b>							
Rural Water Supply	2,126	1,933	1,223	1,386	32	1,416	24
Urban Water Supply	1,183	1,194	1,090	1,362	23	1,512	26
Training	1	1	1	1	0	1	0
Others	195	206	139	155	3	179	3
<b>Sub-total (B)</b>	<b>3,505</b>	<b>3,334</b>	<b>2,452</b>	<b>2,904</b>	<b>59</b>	<b>3,109</b>	<b>54</b>
<b>C. Other Departments</b>							
Ground Water (minor irrigation)	52	55	55	62	1	60	1
Command Area Development	92	104	132	93	2	134	2

<sup>7</sup> The individual percentage figures do not add up to 69% due to rounding up errors.

Rs. crore	2008-09	2009-10	2010-11	2011-12 (RE)	Average share (%)	2012-13 (BE)	Share (%)
Watershed Development & Soil Conservation	26	38	22	33	1	22	0
State Water Resource and Planning Department	22	1	14	69	1	98	2
<b>Sub-total (C)</b>	<b>193</b>	<b>198</b>	<b>222</b>	<b>258</b>	<b>4</b>	<b>314</b>	<b>5</b>
<b>Grand Total (A+B+C)</b>	<b>5542</b>	<b>5406</b>	<b>4501</b>	<b>5224</b>	<b>100</b>	<b>5809</b>	<b>100</b>

### 3.4.3 Trends in Revenue and Capital Expenditure

**Growth in Revenue and Capital Expenditure:** During the four year period from 2008-09 to 2011-12, on-budget revenue expenditure increased at a CAGR of 8.3 percent, while capital expenditure declined at a CAGR of 12.3 percent (Table 3.6). In absolute term, on-budget capital expenditure decreased from Rs.3055 crore in 2008-09 to Rs.2063 crore in 2011-12. The budget provision for capital outlay for the current year (2012-13) has been set at Rs. 2544 crore, which represents 23 percent increase over the previous year.

Due to declining trend of capital expenditure, the ratio of revenue to capital expenditure shifted from 45:55 in 2008-09 to 61:39 in 2011-12 (Table 3.6). The average ratio over the four year period (2008-09 to 2011-12) was 54:46. For the current year (2012-13), the share of revenue and capital expenditures are slated to be 56 percent and 44 percent of the total on-budget provision respectively.

**Capital expenditure by major heads:** The decline in capital expenditure as mentioned above had occurred in respect of two major heads, namely water supply and sanitation and major irrigation. During the four year period from 2008-09 to 2011-12, capital expenditure for water supply and sanitation and major irrigation decreased at CAGRs of 17.6 percent and 8.7 percent respectively (Table 3.7). The steady decline in capital expenditure for major irrigation, of course, reflects gradual completion of the on-going projects undertaken during the Eleventh FYP period.

**Table 3.5: On- budget Expenditure by Source of Funding**

Rs. crores	2008-09	2009-10	2010-11	2011-12 (RE)	2012-13 (BE)
Non-Plan	2,456	2,766	2,779	3,062	3,167
Plan	2,020	2,238	1,640	2,089	2,578
CS & Others	1,066	402	82	72	63
<b>Total</b>	<b>5,542</b>	<b>5,406</b>	<b>4,501</b>	<b>5,224</b>	<b>5,809</b>
<b>Share in total on-budget expenditure (%)</b>					
Non-Plan	44	51	62	59	55
Plan	36	41	36	40	44
CS & Others	19	7	2	1	1
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Share in total sector expenditure (%)</b>					
Non-Plan	33	34	41	38	38

Plan	27	28	24	26	31
CS& Others	14	5	1	0.9	0.8
<b>Total</b>	<b>75</b>	<b>67</b>	<b>66</b>	<b>66</b>	<b>69</b>

**Table 3.6: On-budget Revenue and Capital Expenditure**

Rs. crore	2008-09	2009-10	2010-11	2011-12 (RE)	2012-13 (BE)	CAGR <sup>1</sup> (%)
Revenue expenditure	2487	2781	2,11	3,61	3264	8.3
Capital expenditure	3055	2,25	1690	2,63	2,44	-12.3
<b>Total</b>	<b>5542</b>	<b>5,06</b>	<b>4,01</b>	<b>5,24</b>	<b>5,09</b>	<b>-2.0</b>
<b>% Share</b>						
	2008-09	2009-10	2010-11	2011-12 (RE)	2012-13 (BE)	Average share (%) <sup>2</sup>
Revenue expenditure	45	51	62	61	56	54
Capital expenditure	55	49	38	39	44	46
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Note: <sup>1</sup> CAGR is calculated for the four year period from 2008-09 to 2011-12. <sup>2</sup> Average is calculated for the four year period from 2008-09 to 2011-12.

**Table 3.7: On-budget Capital Expenditure by Major Heads**

Rs. crore	2008-09	2009-10	2010-11	2011-12 (RE)	2012-13 (BE)	CAGR <sup>1</sup> (%)
Water Supply & Sanitation	201	120	971	132	1407	-17.6
Major Irrigation	548	523	358	418	560	-8.7
Medium Irrigation	74	59	122	77	93	1.2
Minor Irrigation	173	134	121	258	367	14.2
Command Area Development	57	87	115	76	113	10.1
Flood Control Projects	2	2	2	2	4	15.2
<b>Total</b>	<b>355</b>	<b>225</b>	<b>1690</b>	<b>2063</b>	<b>244</b>	<b>-12.3</b>
<b>% Share</b>						
	2008-09	2009-10	2010-11	2011-12 (RE)	2012-13 (BE)	Average share (%) <sup>2</sup>
Water Supply & Sanitation	72	69	57	60	55	
Major Irrigation	18	20	21	20	22	66
Medium Irrigation	2	2	7	4	4	20
Minor Irrigation	6	5	7	13	14	4
Command Area Development	2	3	7	4	4	7

Flood Control Projects	0.1	0.1	0.1	0.1	0.2	4
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Note: <sup>1</sup> CAGR is calculated for the four year period from 2008-09 to 2011-12. <sup>2</sup> Average is calculated for the four year period from 2008-09 to 2011-12.

### 3.4.4 On-budget Expenditure by Objects

**Salaries:** The on-budget salary expenditure increased from Rs.1004 crore in 2008-09 to Rs.1358 crore in 2011-12 exhibiting a CAGR of 10.6 percent (Table 3.8). As per budget estimates of 2012-13, salary bill will increase to Rs.1496 crore, accounting for 26 percent of the total on-budget provision as compared to 18 percent share in 2008-09.

Department wise salary bills grew at varied rates. Over the four year period from 2008-09 to 2011-12, salaries of WRD increased at a CAGR of 13.8 percent and PHED at a CAGR of 10.1 percent (Table 3.9). These two departments together account for 94 percent of the total on-budget salary bills as per budget estimate of 2012-13. The growth in salaries of GWD and CAD during the period from 2008-09 to 2011-12 had been relative slower at CAGRs of 4.2 percent and 4.6 percent respectively, while salary bills of WD&SC declined at a CAGR of 3.9 percent per year (Table 3.9).

The decline in manpower costs of WD&SC deserves some explanation. Until the beginning of the Eleventh Five Year Plan, watershed development and soil conservation had been a high priority area and accordingly the department engaged a large number of staffs from agriculture department on deputation. Somehow watershed development and soil conservation ceased to be a priority area under the Eleventh FYP and it was decided right at the beginning of the plan period that the WD&SC would first complete the existing projects and then staffs on deputation would return to the parent department. At present, WD&SC is in charge of implementation of national programme of Integrated Watershed Management Programme, for which an outlay of Rs.2200 crore has been provided under the 12<sup>th</sup> Five Year Plan. But due to shortage of technical and managerial staff, WD&SC is unable to utilise sizeable funds available under the scheme.

It may not be out of place to mention here that the water sector is faced with acute shortage of technical and managerial staffs, which is affecting severely the performance of the sector including service delivery. There is an urgent need to assess the manpower gap and make budget provisions for filling up the gap.

**Major Works:** The expenditure on major works (essentially representing capital expenditure) has decreased over the years and the budget provision for 2012-13 is Rs.2009 crore, accounting for 34.6 percent of the total on-budget amount (Table 3.8)<sup>8</sup>.

**Electricity and Water Charges:** As per current year (2012-13) budget estimates, electricity and water charges currently amount to Rs.648 crore, which is lower by 10 percent of the last year's spending of Rs.716 crore (Table 3.8). It may be further noted that the electricity and water charges account for 11.1 percent of the on-budget provision for 2012-13.

**Table 3.8: Break-up of On- budget Expenditure by Objects**

Rs. crore	2008-09	2009-10	2010-11	2011-12 (RE)	2012-13 (BE)	CAGR <sup>1</sup> (%)
Salaries	1004	1163	1182	1358	1496	10.6
Minor works	4	4	4	13	9	43.2
Major works	2488	2111	1344	1606	2009	-13.6
Electricity and water charges	579	603	629	716	648	7.3

<sup>8</sup> Refer to earlier discussion on trends in capital expenditure.

Rs. crore	2008-09	2009-10	2010-11	2011-12 (RE)	2012-13 (BE)	CAGR <sup>1</sup> (%)
Maintenance and repairs	108	110	146	157	135	13.2
Maintenance (Material)	8	9	12	13	11	17.6
Maintenance (Establishment)	38	54	53	56	81	13.6
Miscellaneous expenses	22	23	27	66	68	43.8
Interest on capital accounts	827	878	922	974	1009	5.6
Others (including adjusts.)	464	451	182	267	343	-16.8
<b>Total</b>	<b>5542</b>	<b>5406</b>	<b>4501</b>	<b>5224</b>	<b>5809</b>	<b>-2.0</b>
<b>% Share</b>						<b>Av. share<sup>2</sup> (%)</b>
Salaries	18.1	21.5	26.3	26.0	25.8	22.8
Minor works	0.1	0.1	0.1	0.2	0.2	0.1
Major works	44.9	39.0	29.9	30.7	34.6	36.5
Electricity and water charges	10.4	11.1	14.0	13.7	11.1	12.2
Maintenance and repairs	2.0	2.0	3.2	3.0	2.3	2.5
Maintenance (Material)	0.1	0.2	0.3	0.2	0.2	0.2
Maintenance (Establishment)	0.7	1.0	1.2	1.1	1.4	1.0
Miscellaneous expenses	0.4	0.4	0.6	1.3	1.2	0.7
Interest on capital accounts	14.9	16.2	20.5	18.6	17.4	17.4
Others (including adjustments)	8.4	8.4	4.0	5.1	5.9	6.6
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

**Interest on capital accounts:** The state has deployed borrowed funds for the development of the water sector. As a result, GoR has been bearing growing interest burden under capital account. For the current year (2012-13), a sum of Rs.1009 crore has been budgeted for payment of interest under capital account representing 17.4 percent of the total on-budget amount (Table 3.8).

**Table 3.9: Department- wise On-budget Salary Bills**

Rs. crores	2008-09	2009-10	2010-11	2011-12 (RE)	2012-13 (BE)	CAGR <sup>1</sup> (%)
Water Resources Department	240	265	272	354	367	13.8
Public Health and Engineering Department	688	814	828	919	1,038	10.1
Ground Water Department	30	32	32	34	38	4.2
Command Area Development	41	46	46	47	50	4.6
Watershed Dev.& Soil Conservation	5	6	4	4	4	-3.9
State Water Res.& Pl. Dept. <sup>2</sup>						
<b>Total</b>	<b>1,004</b>	<b>1,163</b>	<b>1,182</b>	<b>1,358</b>	<b>1,496</b>	<b>10.6</b>

% Share						Average share <sup>3</sup> (%)
Water Resources Department	24	23	23	26	25	24
Public Health and Eng. Dept.	69	70	70	68	69	69
Ground Water Department	3	3	3	2	3	3
Command Area Development	4	4	4	3	3	4
Watershed Dev.& Soil Cons.	0.4	0.5	0	0	0	0
State Water Res.& Pl. Dept.						
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Note: <sup>1</sup> CAGR is calculated for the four year period from 2008-09 to 2011-12. <sup>2</sup> Salary of this department is included in the budget Of WRD. <sup>3</sup> Average is calculated for the four year period from 2008-09 to 2011-12.

### 3.5 Budget Spends on O&M Expenditure

For the purpose of analysis, relevant heads of expenditure are grouped to estimate Operation and Maintenance (O&M) expenditure.

#### 3.5.1 O&M expenditure for irrigation (WRD)

The Operation and Maintenance (O&M) expenditure of Water Resource Department for irrigation and flood control was Rs. 101crores in 2008-09 (Table 3.10).The expenditure increased steadily thereafter to Rs.159 crore in 2011-12 representing a CAGR of 16.2 percent. The O&M budget for 2012-13 is slated at Rs.175 crore representing an increase by 10 percent over the last year.

According to the 13<sup>th</sup> Finance Commission's estimates for Rajasthan, the O&M expenditure for irrigation should be Rs.486.24 crore in 2010-11, Rs.510.56 crore in 2011-12, and Rs.536.08 crore in 2012-13 (Table 3.10). But, the actual/budgeted provisions for O&M expenditure for these three years represent only 30 percent to 33 percent of the normative estimates of the 13<sup>th</sup> Finance Commission. Thus, the annual budget spends on O&M for irrigation and flood control has always been underprovided.

**Table 3.10: On-budget O&M Expenditure for Irrigation and Flood Control**

Rs. crore	2008-09	2009-10	2010-11	2011-12 (RE)	2012-13 (BE)	CAGR <sup>1</sup> (%)
Maintenance and Repairs	57	51	82	91	83	16.6
Maintenance (Material)	8	9	12	13	11	17.6
Maintenance (Establishment)	36	52	51	56	81	15.2
<b>Total</b>	<b>101</b>	<b>113</b>	<b>144</b>	<b>159</b>	<b>175</b>	<b>16.2</b>
Required O&M budget <sup>2</sup>			486.24	510.56	536.08	
Actual/budgeted O&M as % of required O&M budget			30	31	33	

Note: <sup>1</sup> CAGR is calculated for the four year period from 2008-09 to 2011-12. <sup>2</sup> GoI: The Thirteenth Finance Commission Report, Annex 7.6, p 386.

### 3.5.2 O&M Expenditure for Water Supply (PHED)

Like in the case of irrigation, trends in O&M expenditure of PHED for rural and urban water supply portrays a dismal picture. In terms of statistics, O&M expenditure increased from Rs.625 crore (Rs.265 crore for rural and Rs.360 crore for urban water supply) in 2008-09 to Rs.812 crore (Rs.343 crore for rural and Rs.470 crore for urban water supply) in 2011-12, registering a CAGR of 9 percent (Table 3.11). For the fiscal year 2011-12, the O&M budget is estimated to be Rs.726 crore, which represents a decline by 11 percent over the previous year.

What should be the required budget provision for O&M expenditure to maintain rural and urban water supply facilities? This is quite a tricky question and answers may vary widely. It is only PHED who could make proper technical and financial estimates of required O&M budget. However, Medium Term Expenditure Framework (2012-13/2014-15) provides year-wise projections of the required O&M budget for water supply (IPE Global, 2012). According to the MTEF, the O&M budget for the current year (2012-13) should be around Rs.1000 crore as against the actual budget allocation of Rs.726 crore (Table 3.11).

### 3.6 Budget Absorption Capacity

**On-budget Allocations and Expenditure:** Analysis of on-budget expenditure vis-à-vis revised budget estimates reveals that overall funds utilizations were 102 percent, 99 percent and 89 percent during 2008-09, 2009-10, and 2010-11 respectively (Table 3.12)<sup>9</sup>. This shows that budget absorption had gradually declined. Department-wise budget absorption rates varied during the period under consideration. While PHED and SWRPD performed poorly during 2010-11 with funds utilisation of 87 percent and 82 percent respectively, the other departments could absorb more than 90 percent of the budget allocations.

**Off-budget Funds Availability and Expenditure:** The utilization of off-budget funds has been far from satisfactory. For instance, WD&SC could utilise only Rs.69.47 lakh out of total release of Rs.716.79 crore as on March 19, 2012; funds utilization works out to be negligible figure of 0.1 percent (Table 3.13). The main impediment to funds utilization, as reported by WD&SC, has been lack of technical and managerial staff<sup>10</sup>.

**Table 3.11: On-budget O&M Expenditure by PHED for Rural and Urban Water Supply**

Rs. crore	2008-09	2009-10	2010-11	2011-12 (RE)	2012-13 (BE)	CAGR <sup>1</sup> (%)
Rural water supply						
Electricity and water charges	227	237	250	258	237	4.4
Maintenance and repairs	33	40	44	50	36	15.4
Contractual expenses	3	2	2	33	26	133.7
Chemical charges	2	2	2	0	0	
Maintenance (Establishment)	2	3	2	2	2	
Total	265	284	300	343	301	8.9
Urban water supply						
Electricity and water charges	330	348	358	436	388	9.7
Maintenance and repairs	18	19	20	16	16	-4.4
Contractual expenses	6	7	6	9	12	17.7
Chemical charges	0	0	0	0	0	

<sup>9</sup> For the present study, 2010-11 is the latest year for which actual expenditure figures are available.

<sup>10</sup>This issue has been discussed earlier, see section 3.2.4.

Maintenance (Establishment)	6	6	6	9	9	12.6
Total	360	380	391	470	424	9.3
<b>Total O&amp;M expenditure</b>						
Electricity and water charges	556	585	609	694	625	7.6
Maintenance and repairs	51	59	65	67	53	9.1
Contractual expenses	8	9	8	42	38	71.9
Chemical charges	2	2	2	0	0	
Maintenance (Establishment)	8	9	8	11	11	11.6
Total	625	664	692	812	726	9.1
<b>Source of funding</b>						
Non-Plan	603	636	662	772	700	
Plan	22	28	30	40	26	
Total	625	664	692	812	726	

Note: <sup>1</sup> CAGR is calculated for the four year period from 2008-09 to 2011-12.

**Table 3.12: Utilization of On-budget Allocations**

Rs. crore	2008-09			2009-10			2010-11		
	RE	Actual	Utilisation (%)	RE	Actual	Utilisation (%)	RE	Actual	Utilisation (%)
WRD	1873	1845	98	1917	1874	98	1974	1827	93
PHED	3369	3505	104	3333	3334	100	2824	2452	87
GWD	52	52	100	58	55	96	60	55	92
CAD&WU	99	92	93	106	104	99	139	132	95
WD&SC	32	26	83	36	38	104	24	22	91
SWRPD	23	22	93	4	1	27	16	14	82
Total	5448	5542	102	5453	5406	99	5037	4501	89

**Table 3.13: Utilization Off-budget Central Assistance**

Scheme	As on	Cumulative utilization (%)
TSC (central share)	23 March, 2012	31
RGNRDWM (central share)	January, 2012	64
IWMP	19 March, 2012	0.1

Note: Due to paucity of data, utilization of MGNREGS funds could not be analyzed.

Source: IPE Global (2012) *Water Sector in Rajasthan: Medium Term Expenditure Framework (2012-13/2014-15)*, Draft Report (April), New Delhi.

Another area of major concern is the poor budget absorption under TSC scheme. The available data suggests that out of central release of Rs.198 crore as on 23 March 2012, only 31 percent of the funds could be absorbed. In case of RGNRDWM, out of total release



of Rs.4213 crore of central assistance as on January 2012, a sum of Rs.2,515 crore could be utilised, which represents 64 percent utilization of funds.

### 3.7 Revenue Receipts and Cost Recovery

**Revenue Receipts:** The state collects user charges from the beneficiaries of irrigation and water supply. Over the period from 2009-10 to 2011-12, total revenue receipts had grown at a CAGR of 9% per year (Table 3.14). In absolute value term, revenue receipts increased from Rs. 309crores in 2009-10 to Rs367crore in 2011-12. The expected revenue receipts during the current year (2012-13) are Rs.402 crore, representing 9.6 percent increase over the previous year.

Department-wise, WRD is expected to account for 36 percent of the total estimated revenue for the current year (2012-13), which is significantly higher than 23 percent share in 2009-10 (Table 3.14). PHED is slated to contribute 64 percent of total revenue of 2012-13, which is less compared to its share of 77 percent in 2009-10. It may be further noted that revenue collection by WRD from irrigation had grown at a faster rate (30%) during the period from 2009-10 to 2011-12 than the growth rate (2%) PHED could achieve through user charges for water supply and sanitation.

Table 3.14: Revenue Receipts

Year	WRD		PHED		Total		On-budget exp. (Rs. crore)	Cost recovery (%)
	Rs. crore	Share (%)	Rs. crore	Share (%)	Rs. crore	Share (%)		
2009-10	71	23	237	77	309	100	5406	6
2010-11	104	25	310	75	414	100	4501	9
2011-12 (RE)	121	33	246	67	367	100	5224	7
2012-13 (BE)	144	36	258	64	402	100	5809	7
CAGR (%)	30		2		9		2	

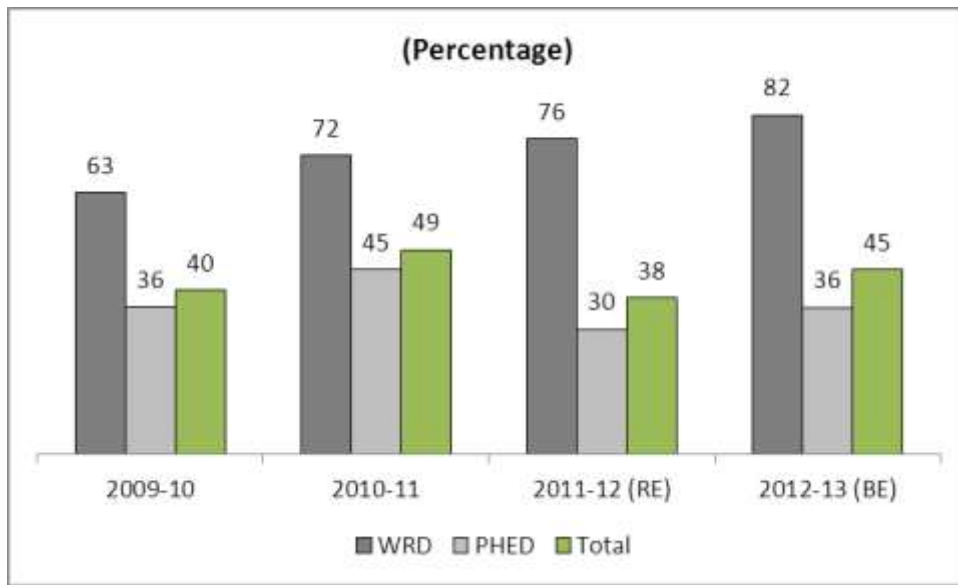
**Recovery of Total On-budget Expenditure:** The revenue collections by WRD and PHED could recover only a meagre portion of the total on-budget expenditure on water sector. The cost recovery rate was 6 percent in 2009-10, 9 percent in 2010-11, and 7 percent in 2011-12. For the current year (2012-13), cost recovery rate is expected to be the same as the last year's rate.

**Recovery of O&M Expenditure:** The low rate of cost recovery is prevalent in all states. In fact, the states never intends to recover the entire budget spends on irrigations and water supply from the beneficiaries. However, in order to sustain irrigations and water supply, it is imperative that the state recover at least O&M expenditure through user charges.

In this regard, analysis reveals that estimated revenue collection by WRD during 2012-13 will enable the department to recover 82 percent of the current level of O&M expenditure, which is significantly higher compared to 63 percent cost recovery rate in 2009-10 (Figure 3.4).

In case of PHED, revenue collection falls far short of the O&M expenditure. As per budget estimates of 2012-13, revenue receipts will recover only 45 percent of the O&M expenditure of the department, which is marginally higher than the O&M cost recovery of 40 percent during 2009-10 (Figure 3.4).

Figure 3.4: Recovery of O&M Expenditure



## 4 CONCLUSIONS AND RECOMMENDATIONS

### 4.1 Conclusions

It emerges that MTEFs alone cannot deliver improved PEM in countries in which other key aspects of budget management remain weak. There are three reasons for the breach between the promise of MTEFs and their actual impact.

- First, and most importantly, MTEF reforms have not taken sufficient account of initial country conditions in basic aspects of budget management, notably budget comprehensiveness, execution, and auditing. The fact that comprehensive, detailed diagnoses of budget management systems and processes does not precede all MTEFs led to inadequate design and sequencing of the reform programmes.
- Second, MTEF reforms, with the exception of a few cases, have typically not paid sufficient attention to the political and institutional aspects of the reform process.
- Third, operational MTEFs do not closely resemble their textbook cousins, which raise questions about the feasibility of launching full-fledged MTEFs in many developing countries.

The above suggests that while one should recognize that MTEFs are potentially valuable PEM tools, they should be carefully crafted so as to make them more effective. The following also emerges as a suggestion.

#### 4.1.1 The Importance of Initial PEM Conditions and Reform Sequencing

For MTEF to work, it has to be based upon a good macro-fiscal model and a solid budgetary management foundation. Good, realistic macro-fiscal projections are key to the success of an MTEF. The effort to improve macro-fiscal projections is necessary but not sufficient. Effort should not result in a ‘technification’ of the reform programme due to an unbalanced focus on the technical aspects of macro-fiscal modeling. The MTEF has to rest upon a solid budget foundation, which would encompass many elements, though main among them is budget execution that complies with the adopted budget. Consistency between the budget and its execution is a precondition for transparency, predictability, and accountability. In a country/ state where budget execution (eg., actual expenditure) bears little resemblance to the voted budget (i.e., the intention to spend by sectors, functions, and programmes), an MTEF is not likely to be taken seriously by sector ministers, nor by politicians, nor by civil society. For example, why should sector ministries spend their time and resources working on strategies and budget envelopes that will have little to do with reality because real allocations are done in parallel throughout the year<sup>11</sup>?

The importance of the link between the budget and its execution is vital. It is thus suggested “while improved capacity in budget formulation may be less difficult to achieve in the short term, it may prove ineffective unless accompanied by reforms in budget execution and reporting that are more difficult to achieve. It is suggested that there is a somewhat greater immediate need to strengthen budget execution and reporting, rather than budget formulation” (World Bank/ IMF, 2001). Better budget formulation would lead to improved budget execution. However, it is clearly not a sufficient condition and should not prevent reforms from focusing on getting the basics of budget execution in order.

Laying the foundation means strengthening budget execution procedures. It means strengthening the role of both internal and external audit agencies. Basically it means the publication of quarterly budget execution reports using the same classification as the one

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<sup>11</sup> In Malawi and Mozambique, there was lack of consistency between formulation and execution because of large differences between budgeted and executed expenditures. In Ghana, MTEF in its initial phase seemed promising, but lost credibility over the unpredictable release of funds and the lack of monitoring of budget execution outcomes. Hence a key issue is the credibility of the annual budget: execution must be consistent with the voted budget.

presented in the budget and the publication of external audit reports, both of which have to be underpinned by sanctions against misappropriations of resources. Indeed, these measures have to be taken as indicators of a government's real political interest in improving budget execution.

Other key elements of basic budgetary management impinge greatly on the potential success of the MTEF. Budget comprehensiveness, that is, the extent to which the budget takes account of all public expenditures, including donor funds, off-budget accounts, and user fees, matters a great deal for the relevance of the MTEF. If large proportions of public resources and expenditures are left out of the budget, the MTEF would have limited value. For an MTEF to have an impact, the problem of budget comprehensiveness must be addressed.

Good PEM practices should not be taken as exhaustive, as there are a number of other basic reforms that should be in place before or during MTEF adoption. Integration of the capital and recurrent budgets, detailed, functional budget classification systems, and good treasury management systems are three such examples.

## 4.2 Recommendations

The MTEF has to be complement to, not a substitute for, basic budgetary management reform. Before launching an MTEF reform a comprehensive and detailed diagnosis of the most important PEM problems has to be prepared, as is being done in the new generation of PERs. Reforms of budget classification, formulation, comprehensiveness, execution, controls and audit, and transparency also required to be undertaken. Introduction of the MTEF reform then are to be tailored based on these initial PEM conditions and the prescriptions for their reform. Where there is weak PEM system, a full-fledged MTEF should not be introduced. It is preferable for the government to engage in a comprehensive and in-depth reform of basic PEM systems i.e., focusing on budget comprehensiveness, execution and reporting while at the same time introducing some of the basic components of an MTEF, starting with realistic three year macroeconomic and fiscal projections.

### 4.2.1 Sequencing and Phasing the MTEF Reform

A sequencing of reforms is required to be followed. In practice all MTEFs have been implemented in both a phased (in terms of the technical dimension) and piloted (in terms of scope) manner, either intentionally or unintentionally. Capacity constraints as well as initial conditions and operational experience call for revisiting the issue of how to phase in and pilot MTEFs<sup>12</sup>.

There are two important issues: piloting (horizontal- across sectors) and phasing (vertical-across MTEF levels- aggregate, sectoral, and service delivery). The literature show that *de facto* all MTEFs have been both piloted and phased, operating in a limited number of sectors (horizontally) and levels (vertically). This means that implementation strategies have to be explicit about what they expect and when. In countries with weak capacity, a full-fledged MTEF, which is a package of bundled reforms, cannot be introduced all at once. This raises the question of how the MTEF reform should be both piloted and phased. It, however, does not mean that there has to be always a pilot approach. There are benefits to requiring that all sectors develop some kind of SEF, even at a rudimentary level (the issues of prioritization and planning are discussed; an aggregate view of resource availability is promoted, etc.). There could be MTEF-inspired discussions and debates about goals,

<sup>12</sup> In South Africa and Kenya the MTEF was introduced on a government-wide basis, while Tanzania and Rwanda used a pilot approach by beginning with a subset of priority sectors. However, Mozambique used a hybrid approach: sectors with pre-existing integrated programs were responsible for producing SEFs while the MOF shared responsibility for SEF development with the other sectors. Kenya formally implemented the MTEF across all sectors and levels, but some ministries did not present any costing at all while others presented incomplete costing. Rwanda explicitly phased in the level of rigour of the MTEF. Similarly many MTEFs are phased in over time. In Uganda, the MFF was developed over a three-year period (1992-1994) and the SEFs were developed afterwards (1995-1997) (Moon, 2001) while in Mozambique, the first phase of the MTEF saw the estimation of aggregate resource availability, while the second phase focused on sectoral expenditures and Malawi adopted the Uganda approach by first focusing on the MFF and later developing the SEFs.

activities, and outputs. To the extent that the MTEF is about changing the way governments think about budgeting, there are benefits to involving all sectors, at least at some level. One way to handle the difference in the quality of participation is to set different standards for SEFs. The MTEF approach has to be explicit about the different level of capacity that exists at the sectoral level while not confining the MTEF to only a few sectors, which undermines the fundamental notion of the MTEF. At the same time the MTEF strategy has to facilitate sectoral participation by providing necessary training and support.

In terms of the phasing of the MTEF across the three levels (aggregate, sectoral, and service delivery units), experience show that different strategies have been tried with different results. There are examples where attempts have been to introduce a full-fledged MTEF (from a sophisticated MFF to performance agreements with service delivery units) all at once. Capacity constraints limit the feasibility of this option. At the other extreme, launching of an MTEF has focused only on the MFF. By launching an MTEF reform, and then focusing only on the MFF, there is a risk undermining the reform effort by stressing only technical aspect and excluding other relevant sectoral actors. Moreover, though the MFF is critical for the success of the MTEF, the MFF does not need to be highly sophisticated in the initial stage, especially if the projections are done conservatively. By putting too much emphasis on developing the MFF, the MTEF itself risks losing focus and balance.

In terms of sequencing, the MTEF should be piloted in across sectors according to their levels of capacity but phased in through the MFF and the SEFs at both the aggregate and sectoral levels in order to institutionalize the process. The MTEF should be phased in by concurrently focusing on the macro/fiscal and sectoral levels. This means that MFF should be developed in tandem with the SEFs, which ideally should be phased in starting with sectoral strategies and objectives (based on sectoral and economic research) and subsequently moving to costed programmes. The exact specifications would be situation and context specific depending on the administrative capacity and initial PEM conditions.

In view of the empirical findings presented hitherto, certain conclusions and recommendations are in order. These are as follows:

- In recent period (Eleventh FYP period), the public expenditure on water sector has declined in real term. The state's on-budget expenditure for the sector as a share of TSE and GSDP has steadily declined. Alongside, off-budget expenditure on water related projects/activities under MGNREGS has declined at a faster rate. Given the critical scenario of water sector in the state, this is not a healthy trend.
- There has been a sharp decline in capital expenditure for water supply and sanitation and major irrigations. While the latter reflects gradual completion of the projects undertaken during the Eleventh FYP period the former is a matter of concern.
- There is shortage of manpower and the state is required assess the manpower gap and make budget provisions for filling up the gap. A special reference could be made to Integrated Watershed Management Programme for which an outlay of Rs.2200 crore has been provided under the Twelfth FYP. But, due to shortage of technical and managerial staff, WD&SC is unable to utilise sizeable funds available under the scheme. The state is urgently required to look into the manpower issue of WD&SC.
- The study has clearly brought out under provision of O&M budget. The state is required to make a detailed O&M budget and explore ways and means to meet the resource gaps including the revision of water tariffs.
- Very low utilization of sizeable central allocations under various off-budget schemes is another area that deserves attention. It is imperative that the state draw up operational plan to address various factors impeding utilization of off-budget funds.
- It is important that the state undertake PER study on a regular basis. At periodic interval, the line-departments are also required to conduct field study through independent agencies to assess whether budget spends have produced the desired outputs/outcomes.
- The findings of study must inform the preparation and periodic update of Medium Term Expenditure Framework.

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## APPENDICES



Appendix Table 1: General Design Features of MTEFs in Africa

Country	Scope	Format	Government Levels	Period
<b>GHANA</b>	Nominally all sectors included  Both recurrent and capital included	Economic, functional, and organizational classifications	Primarily central (though some extension to sub-national level)	Three years
<b>GUINEA</b>	Seven sectors (education, health, rural development, roads, justice, urban development/housing, social affairs) included  Only recurrent included	Economic and functional classifications	Central only	Three years
<b>KENYA</b>	Nominally all sectors included  Both recurrent and capital included	Economic, functional, and organizational classifications	Central only	Three years
<b>MALAWI</b>	Nominally all sectors included  Recurrent and capital included (though separate capital budget)	Functional classification	Central only	Three years
<b>MOZAMBIQUE</b>	Nominally all sectors included, though only five have some type of costing (education, health, agriculture, roads, water)  Recurrent and some capital expenditures included (varies by sector)	Economic and functional classification (14 categories)	Central only (highly centralized budget system)	Expenditures- six years  Revenues- ten years
<b>RWANDA</b>	Nominally fifteen (out of twenty) ministries included  Recurrent expenditures only (capital in separate budget)	Functional classification	Central and regional (prefecture) levels	Three years
<b>SOUTH AFRICA</b>	Nominally all sectors included  Recurrent and capital expenditures both included	Economic, functional (eight categories), and geographical (level of government) classifications	Central, provincial, and local (highly decentralized budget system)	Four years
<b>TANZANIA</b>	Seven sectors included (education, health, water, roads, agriculture, judiciary, land)  Recurrent and capital included (though separate capital budget)	Economic, organizational, and functional (sub-sector) classifications	Central only	Three years
<b>UGANDA</b>	All eight sectors included	Economic, functional, and organizational	Central and local (as of 2000) levels	Three years

	Recurrent and capital included	(major spending agencies) classifications		
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**Source:** Philippe Le Houerou and Robert Taliercio (2002) Medium Term Expenditure Frameworks: From Concept to Practice, Preliminary Lessons from Africa, Africa Region Working Paper Series No. 28.

Appendix Table 2: Technical Design Features

Country	Macro/Fiscal Framework (MFF)	Sectoral Expenditure Frameworks (SEF)
GHANA	<p>Based on spreadsheet model (flow of funds)</p> <p>Presents projections and indicative aggregate and sectoral ceilings (though ceilings not realistic)</p>	<p>SEFs include strategic plan with objectives, outputs, activities (though quality varies by sector)</p> <p>Ministries produced costing at the programme and sub-programme levels</p>
GUINEA	<p>Based on IMF projections</p> <p>Includes projections, targets, and indicative aggregate and sectoral ceilings</p>	<p>Only priority sectors (seven) present SEFs with objectives, strategies, and performance indicators</p> <p>Some priority sectors include costing (without detailed breakdowns) for recurrent expenditures, though quality varies</p>
KENYA	<p>Based on spreadsheet (RMSM-X) model</p> <p>Presents projections and aggregate ceilings (including ceilings based on economic classification)</p> <p>Discussion of assumptions</p>	<p>Sector priorities and costing not presented in MTEF (activity-based costing at aggregate levels included in PRSP)</p> <p>PRSP costing vary by sector; in some priority sectors costing were either absent or incomplete</p>
MALAWI	<p>Based on spreadsheet (RMSM-X) model and IMF projections</p> <p>Provides projections and indicative aggregate and sectoral ceilings (though not in timely manner)</p>	<p>Some discussion of objectives and strategy</p> <p>All ministries present activity-based costing for recurrent expenditures only; quality varies considerably; no standardized format</p>
MOZAMBIQUE	<p>Based on a CGE model</p> <p>Presents projections and indicative aggregate and sectoral ceilings</p> <p>Discussion of assumptions and scenarios</p>	<p>Limited discussion of strategy in some priority sectors</p> <p>The five priority sectors present SEF costing based either on activities or programmes (at aggregate levels); no standardized format</p> <p>Most non-priority sectors SEFs presented costing according to their internal organizational structures</p>
RWANDA	<p>Based on IMF projections</p> <p>Presents projections and indicative aggregate and sectoral ceilings</p>	<p>SEFs include strategic plans (“profiles”)-policies, strategies, and outputs</p> <p>Only three sectors (health education, justice) presented some costing (of different quality); no standardization</p>
SOUTH AFRICA	<p>Based on econometric models</p> <p>Presents projections, targets, and indicative aggregate ceiling</p> <p>Discussion of assumptions</p> <p>Budget Forum prepares indicative sectoral ceilings</p>	<p>SEFs include strategic plans</p> <p>Most departments and provinces present programme costing</p> <p>Special “sectoral reviews” done initially in five sectors (health, education, welfare, criminal justice, defense, civil service)</p> <p>Standardized procedures (manual)</p>

TANZANIA	<p>Based on econometric and spreadsheet models</p> <p>Presents projections and indicative aggregate and sectoral ceilings</p> <p>Includes scenarios (base, pessimistic, optimistic)</p>	<p>SEFs include strategies, objectives, and priorities</p> <p>SEFs vary considerably in quality (some present detailed programme costing, others do not present costing); no standardized format</p>
UGANDA	<p>Based on spreadsheet models</p> <p>Presents projections, targets, and indicative ceilings</p>	<p>Sectoral objectives presented in PRSP</p> <p>SEFs vary considerably in quality, though all sectors prepare costing (some are quite detailed and comprehensive, while others are rudimentary)</p> <p>Some SEFs include performance targets</p>

**Source:** Philippe Le Houerou and Robert Taliario (2002) Medium Term Expenditure Frameworks: From Concept to Practice, Preliminary Lessons from Africa, Africa Region Working Paper Series No. 28.

Appendix Table 3: Organizational Design Features

Country	Budget Status	Process	Management Structure	Dissemination	Oversight
GHANA	MTEF is formally part of budget process  Not subject to formal approval by either cabinet or parliament		MoF manages process  Macroeconomic working group prepares MFF  Ministries prepare SEFs  No civil society input	Disseminated as part of budget	Some sectoral autonomy  Training workshops held on strategic planning  MTEF technical guide and user manual developed
GUINEA	Nominally part of budget process  Not subject to formal approval by either cabinet or parliament		MTEF managed by Public Management Adjustment Credit steering committee under Prime Minister  MoF prepares MFF  Sectors prepare SEFs with MoF support  No civil society input	Disseminated internally  Little external dissemination	No performance agreements, though some performance indicators developed  Little sectoral autonomy  Some initial training provided
KENYA	MTEF released a few months before budget approved  Cabinet approves MTEF and sends to parliament for approval		MTEF Secretariat coordinates process  Macroeconomic working group prepares MFF  Sector working groups (six) prepare SEFs  No formal civil society input	Disseminated internally by MoF  Dissemination to parliament raises profile of MTEF	No performance agreements  Little sectoral autonomy  After initial launch workshops, no further training provided
MALAWI	Not yet fully implemented into budget process  Not submitted to cabinet for approval		Budget office manages MTEF process  Sectoral participation is minimal  No civil society input	Internal dissemination  No external dissemination	No performance agreements  Little sectoral autonomy  No training provided
MOZAMBIQUE	MoF issues MTEF; no higher political approval  MTEF not prepared sufficiently in advance of budget to play meaningful role in process		Budget office manages MTEF  MFF managed by Gabinete de Estudos  Sectors develop SEFs with MoF	Disseminated internally by MoF  No external dissemination	Little sectoral autonomy  No performance agreements  No training provided

		<p>input</p> <p>MTEF launched by expenditure and macroeconomic working groups</p> <p>No civil society input</p>		
RWANDA	<p>MTEF has not yet been fully integrated into the budget process (timing problems)</p> <p>In 2001 MTEF was to replace old budget process</p> <p>MTEF approved by cabinet as part of the Budget Framework Paper</p>	<p>MTEF Design and Implementation Group (DIG) manages process; headed by budget office and includes other MOF directors</p> <p>Ministerial budget committees prepare SEFs (only half of ministries have committees)</p> <p>No civil society input</p>	<p>Disseminated internally by DIG</p> <p>No external dissemination</p>	<p>MTEF Policy Group provides broad policy guidelines</p> <p>No performance agreements</p> <p>Little sectoral autonomy</p> <p>Launch and strategic framework workshops held</p>
SOUTH AFRICA	<p>Medium Term Budget Policy Statement (MFF and SEFs) is published three months before budget</p> <p>MTEF also published as part of budget</p> <p>Cabinet approves MTEF and MoF presents it to parliament</p>	<p>Budget office manages MTEF</p> <p>Department of state expenditures (DSE) evaluates SEFs, which are prepared by sectors</p> <p>MoF prepares MFF</p> <p>MTEF review teams (composed of sector specialists, MoF officials, consultants) prepare SEFs</p>	<p>MoF disseminates MTEF as both part of MTBPS and the budget</p> <p>MTEF presented to parliament, which allows civil society and private sector greater scrutiny</p>	<p>Medium Term Expenditure Committee and Ministers' Committee on Budget oversee process</p> <p>No performance agreements</p> <p>Provinces have high degree of autonomy</p> <p>MTEF highlights changes from previous version</p> <p>Support provided on an ad hoc basis only</p>
TANZANIA	<p>MTEF not completely integrated into FY1999/00 budget process (PER, 1/01), though situation has improved recently</p> <p>MTEF not formally submitted to cabinet or parliament</p>	<p>MoF, supported by PER working group, manages process</p> <p>Budget guidelines committee, supported by macroeconomic group, prepares MFF</p> <p>Sector working groups prepare SEFs</p> <p>Working groups are composed of government officials, donors, IFIs,</p>	<p>MTEF is discussed in detail in the PER consultative meetings and minutes are circulated as part of the PER</p>	<p>Pilot performance agreements in a few sectors</p> <p>Sectors do not have much autonomy</p> <p>Sectors beginning to develop performance indicators</p> <p>Budget office provided training to sectors (including format</p>

		academia, private sector, giving civil society official status in the process		for SEFs)
UGANDA	<p>MTEF is integral part of the budget process</p> <p>Presented as part of the Budget Framework Paper (BFP)</p> <p>BFP approved by cabinet and parliament</p>	<p>MoF manages process</p> <p>Participatory process of arriving at sector ceilings through “budget workshops”</p> <p>MoF macro unit prepares MFF</p> <p>Sector working groups (composed of sector specialists, MoF, World Bank, donors, NGOs) develop SEFs</p> <p>Formal civil society input</p>	<p>Disseminated internally through working groups</p> <p>Disseminated externally through parliament</p>	<p>No performance agreements</p> <p>No sectoral autonomy</p> <p>MoF has provided some training</p>

**Source:** Philippe Le Houerou and Robert Taliario (2002) Medium Term Expenditure Frameworks: From Concept to Practice, Preliminary Lessons from Africa, Africa Region Working Paper Series No. 28.

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