

# Managing Post-Disaster Reconstruction Finance

International Experience in Public Financial Management

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## Abstract

In recent years, natural and man-made disasters have confronted the international community with its most demanding reconstruction challenges since the aftermath of World War II. Managing the inflow of resources and spending those resources well have proven to be two of the main difficulties in such reconstruction projects, particularly after large-scale disasters. A central dilemma of the public financial management of reconstruction is the need for very high levels of accountability to demonstrate fiduciary credibility, while at the same time ensuring the rapid implementation of recovery programs. This paper identifies options and lessons for managing post-disaster reconstruction finance in three key areas: (i) the establishment of special institutions

to manage the reconstruction process; (ii) the selection of public financial management systems with respect to the application of country systems, special fiduciary arrangements, or donor/NGO execution; and (iii) monitoring and evaluation systems. The authors synthesize the phasing of assistance and approaches in eight recent post-natural disaster reconstruction efforts (Aceh-Indonesia, Yogyakarta-Indonesia, Sri Lanka, Maldives, Pakistan, Colombia, Grenada, and Honduras) to help guide the priorities and options for future instances of public financial management for disaster reconstruction. The paper also compares the challenges posed by post-conflict versus post-natural disaster public financial management.

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## I. Introduction

1. The past three years have presented the development community with some of its most demanding reconstruction challenges since the aftermath of World War II. While post-conflict reconstruction remains a priority in parts of Africa, the Middle East and South Asia, reconstruction after natural disasters has received equal attention, particularly after the tsunami in December 2004. Over the period from July 2006 to June 2007, there have been a total of 366 disasters—almost four times more than in 1975. These disasters included earthquakes, floods, landslides, wild fires, droughts, wind storms, epidemics and extreme temperatures, and affected almost 200,000 people, killing 18,000 and producing damage valued at almost US\$30 billion.<sup>1</sup> Recent projections on the rapidity of climate change will further increase the number and intensity of natural disasters (World Bank Independent Evaluation Group, 2006).

2. The World Bank and other development partners have been involved in post-disaster reconstruction in response to the devastation resulting from the recent tsunami in Indonesia (Aceh), Sri Lanka, the Maldives and India, and also from the earthquakes in Pakistan and Indonesia (Yogyakarta/Central Java). All these activities came in addition to other large-scale post-conflict reconstruction programs in Afghanistan, East Timor, Haiti, Sudan and several other countries, most recently Lebanon. In some cases such as Aceh, the legacy of conflict and natural disaster were overlapping. While both contexts often trigger the need for a rapid scaling-up of support and are characterized by weak capacity environments, responses may be subject to important differences. A cross-cutting theme in both instances, however, was the need to strengthen (and in many cases establish) effective modalities of public financial management in accordance with local prevailing capacities and fiduciary risks.

3. The World Bank's reconstruction and mitigation portfolio (related to natural-disasters) has also been increasing sharply since the 1980s. During period of 1984 and 2005 there were 528 projects worth US\$26.3 billion to support disaster-related activities. These represent 9.4 percent of all World Bank loan commitments since 1984. Most of them are Emergency Recovery Loans (ERLs), and include International Development Association (IDA) credits and grants (World Bank Independent Evaluation Group, 2006).

4. In most disasters, the available domestic resources are not sufficient to meet the financial and human needs. The impact of disasters in developing countries is typically disproportionately greater in terms of GDP and government revenues. Consequently, international donor agencies are frequently called upon to finance reconstruction in post-disaster and post-conflict countries. In the case of large-scale natural disasters such as the Asian tsunami, private contributions were also an important part of the reconstruction program. In these contexts, international agencies such as the World Bank are often called upon to provide support in terms of reconstruction financing and experience,

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<sup>1</sup> Source: 'EM-DAT: The OFDA/CRED International Disaster Database', July 2007, Universite Catholique de Lowain, Brussels, Belgium.

international good practice, impact evaluations, and technical task of with coordinating the various donors and agencies engaged in the process.

5. Spending these significant financial resources well has been a key concern in all these reconstruction episodes. Appropriate arrangements for Public Financial Management & Accountability (PFMA) are increasingly viewed as a crucial ingredient in ensuring that reconstruction proceeds with integrity in a timely and effective manner, while also adequately managing fiduciary risk.

6. The international community has increasingly emphasized the performance of Public Financial Management (PFM) systems to enhance the use of domestic resources in developing countries and to underpin the scaling-up and effectiveness of aid. Strengthening of country financial management systems and donor harmonization have both emerged as key priorities in enhancing aid effectiveness, including through budget support. The recent Public Expenditure and Financial Accountability (PEFA) framework has developed an approach based on a systemic diagnosis in order to identify weaknesses in PFM and the use of performance indicators to design reforms and monitor improvements.<sup>2</sup>

7. This paper focuses on special considerations for strengthening PFM arrangements in post-disaster environments that have yet to receive systematic attention. This paper's objective is threefold: (i) to present key features of PFM in post-disaster environments and the choice of PFM modalities, and (ii) to highlight the similarities and differences between PFM in post-disaster and post-conflict environments, and (iii) to present summary issues and options that need to be considered in the context of post-disaster reconstruction.

8. The application of sound fiduciary principles is very challenging in post-disaster situations, because the need for speed often overrides more conventional mechanisms for planning and implementation of budgets. In addition, post-disaster and post-conflict situations often entail the engagement of many public and private development partners, necessitating the need to ensure that all these parties work together effectively towards the objective of reconstruction. Mitigating the risk of corruption represents a crucial element in maintaining donor commitment and supporting the legitimacy of the overall reconstruction process.<sup>3</sup> We examine how recent PFM arrangements in eight cases of post-natural disaster reconstruction—Aceh-Indonesia, Yogyakarta-Indonesia, Sri Lanka, Maldives, Pakistan, Colombia, Grenada, and Honduras—have contributed to the management of reconstruction finance, highlighting key issues and considerations,

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<sup>2</sup> The multi-donor PEFA initiative performance measurement framework covers 28 indicators, with an additional three to assess donor practices (see PEFA, 2005) across the full budget cycle.

<sup>3</sup> Recent PFM work has also focused on identifying appropriate reform frameworks for low capacity contexts. For example, the platform approach to Public Financial Management and Accountability (PFMA) is being piloted in a number of countries as reforms to date have often proved unwieldy, poorly coordinated, and unsustainable. The approach aims to achieve increasing levels ('platforms') of PFMA competence over a manageable timeframe. Each platform establishes a clear basis for launching the next, based on the premise that a certain level of PFMA competence is required to enable further progress to take place (see DFID, 2005).

together with a variety of approaches for strengthening these arrangements. Our approach seeks to adopt a more systematic assessment, such as comparing prioritization and sequencing of post-disaster PFM arrangements with conventional perspectives used in assessing PFM systems and processes. From a comparative perspective, this paper also highlights similarities to and differences with purely post-conflict reconstruction, drawing selectively on examples in Afghanistan, East Timor, Haiti and Sudan.

9. Section II of this paper analyzes the difference between post-disaster and post-conflict reconstruction and sets out the basic phases in the reconstruction process. In Section III, we analyze three major reconstruction management and fiduciary issues that have been critical in recent post-disaster reconstruction experiences: (i) establishment of special agencies, (ii) PFM modalities, and (iii) monitoring and evaluation (M&E) systems. Section IV analyzes recent country experience against this framework. Section V presents some lessons on strengthening PFM arrangements for reconstruction based on the comparative experiences.

## **II. Managing the Reconstruction Process**

10. The growing engagement of both governmental and non-governmental international development stakeholders has generated an expanding literature focusing on lessons learned and providing guidance for future instances of engagement (see World Bank Independent Evaluation Group, 2006). A number of contributions have also focused on very specific topics such as the preparation of damage and loss assessments, participatory planning, independent/demand-side monitoring, and monitoring and evaluation systems (Agustina 2007, Fengler 2007). More limited attention has been given to providing a more integrated perspective on PFM for reconstruction, particularly one that amends mainstream good practice (PEFA, 2005).

11. This paper focuses on post-disaster reconstruction, but also provides a comparative perspective on post-conflict situations. Post-disaster and post-conflict reconstruction episodes share several similarities and the more recent post-disaster reconstruction experiences have been informed by the deeper knowledge of post-conflict reconstruction. But just as there are similarities, so there are also important differences. The next part of this paper focuses on these differences and similarities before analyzing the phases of post-disaster reconstruction and presenting a “protocol of events”.

### ***Post-disaster versus post-conflict reconstruction***

12. While post-disaster and post-conflict reconstruction share the characteristics of immediacy and scale, notable differences exist. Natural disasters are typically unforeseen, while post-conflict reconstruction, often signaled by a peace agreement, offers some lead-time. However, even in post-conflict situations the call for reconstruction will require swift action, particularly when domestic and international resources aim to stabilize a fragile peace (Table 1).

**Table 1 Post-disaster versus post-conflict reconstruction**

Similarities	Differences	
	Post-disaster	Post-conflict
<ul style="list-style-type: none"> <li>• Donors need to respond fast, often with large volumes of aid</li> <li>• Set-up of new reconstruction agencies</li> <li>• Use of World Bank’s financial instruments (e.g., MDTF, ERL)</li> </ul>	<ul style="list-style-type: none"> <li>• Unforeseeable sudden event</li> <li>• Government system typically functioning regularly pre-disaster</li> <li>• More linear reconstruction path</li> </ul>	<ul style="list-style-type: none"> <li>• Often foreseeable</li> <li>• Government system associated with and often weakened by conflict</li> <li>• High likelihood of falling back into conflict</li> </ul>

13. Conflict often weakens the administrative and service-delivery capacity of states more than natural disasters. However, large-scale disasters, particularly if they affect a large proportion of a country, may also overwhelm in-country systems. Notably, post-conflict situations always carry the risk of unresolved political issues and a return to hostilities, making the reconstruction process fraught with uncertainty.<sup>4</sup> In the two most tsunami-affected regions, the coastal regions of Aceh and Sri Lanka, conflict and disaster overlap. However, in contrast to Sri Lanka, following the signing of the Helsinki Peace Accord on August 15, 2005, Aceh has remained on track towards a durable peace settlement.

14. In post-conflict countries, the reconstruction challenge is often compounded by the need to rebuild a functioning public administration. While the immediate priority is to re-establish key public services, governments often at the same time need to establish “core” public functions such as PFM and the civil service. This often entails a trade-off between speed and sustainability. In both, post-disaster and post-conflict reconstruction, multi-donor trust funds (MDTFs) have emerged as one vehicle for channeling and coordinating reconstruction resources.

***The phases of post-disaster reconstruction***

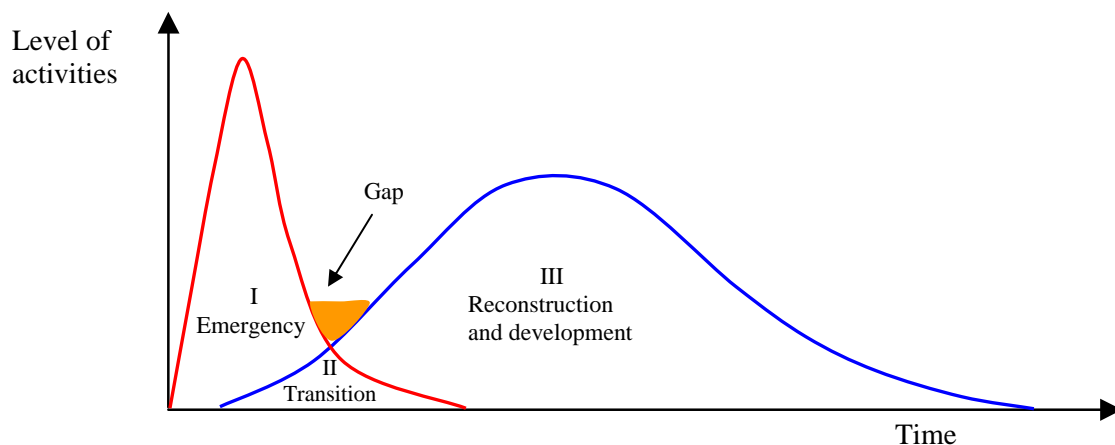
15. When a disaster strikes, governments need to rapidly mobilize and deploy a significant level of public resources for relief and reconstruction. Whereas the relief phase is typically concerned with providing immediate support, the reconstruction phase typically involves a trajectory of returning to “normality”. Recovery management includes the implementation of capital projects (e.g., housing, schools, clinics), as well as re-establishing basic public services in a sustainable manner. Similar to post-conflict settings, post-disaster reconstruction needs to bridge the gap between the relief and reconstruction. The reconstruction phase itself will also be subject to prioritizing certain types of reconstruction such as housing, livelihoods, physical and social infrastructure (Figure 1).

<sup>4</sup> Estimates are that about half of peace agreements are associated with a reversion to conflict (see Collier, Hoeffler, and Soderbom, 2006).



- Phase I is characterized by the relief effort and is typically led by the national government (in some cases led by the military), together with UN agencies. During this phase, which usually lasts several weeks, planning for reconstruction begins.
- Phase II presents the transition from an emergency to a full-scale reconstruction program. Early reconstruction starts while emergency relief activities still continue. This is a critical phase for the success of the whole reconstruction program. In many reconstruction programs the transition between emergency relief and reconstruction is poorly managed. This can create an unnecessary gap before reconstruction activities start and corresponding frustration among those affected. For example, frustration in post-tsunami Aceh ran high six months after the natural disaster when core relief activities were being phased out before most reconstruction activities had begun.
- Phase III represents the fully fledged reconstruction program of which each component has its own sequence. For instance, in India the focus of the first reconstruction year was on re-establishing livelihoods, particularly of affected fishing communities. By contrast, in Aceh and Nias the first year was dominated by housing reconstruction, followed by a focus on infrastructure (see BRR NAD-Nias and International Partners, 2005).

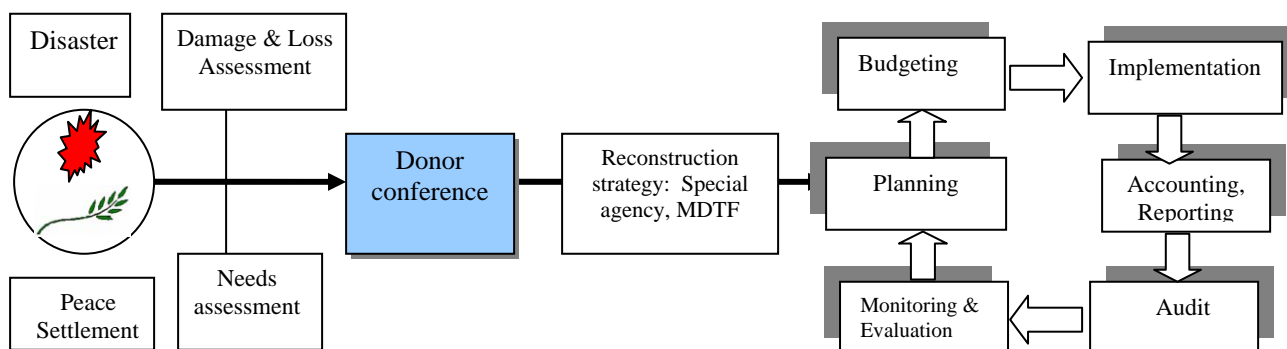
**Figure 1 Implementation phases of post-disaster reconstruction**



***Managing the reconstruction process – A protocol of events***

16. The immediate wake of a disaster (or conflict) typically comprises a number of stages that proceed in rapid succession: (i) damage/loss, or needs assessments, (ii) donor conference, (iii) development of a reconstruction strategy (some elements of which may have already been presented at the donor conference), and (iv) the coming into force of implementation modules and the integration into the budget cycle (Figure 2).

**Figure 2 Mobilizing and executing reconstruction finance – A protocol of events**



17. **Damage/loss and needs assessments.**<sup>5</sup> Damage/loss and needs assessments have become vital instruments for government and donors in estimating the level of damage, mobilizing resources, and designing implementation arrangements. These assessments are often carried out by the host governments together with joint donor missions, typically led by the World Bank, the United Nations, and/or regional development banks.

18. Damage/loss and needs assessments are related concepts but their methodology is fundamentally different. Damage/loss assessments account for the loss of assets and the loss of flow of production of goods and services, as well as any temporary effects on the main macroeconomic variables subsequent to the event. Meanwhile, needs assessments calculate the financing requirements for reconstruction, mainly through public channels, and do not necessarily reflect the damage/losses. Needs greatly depend on the availability of resources, the duration of the recovery period, the government's own policies and the level of insurance coverage. Thus, the monetary figures for needs assessments can be higher or lower than those for damage/loss assessments depending on the underlying determinants of need (Table 2).

<sup>5</sup> Damage/loss assessments are mostly applied in the aftermath of natural disasters while needs assessments are frequently used to estimate financing requirements in the post-conflict situation. The Economic Commission for Latin America and the Caribbean (ECLAC) has developed a standard methodology to assess damage and losses after natural disasters (see ECLAC, 2003). Needs assessments take a broader costing approach and include institutional, policy and infrastructure needs. In post-conflict reconstruction needs assessments predominantly focus on the costs of state-building (see UNDP/UNDG/World Bank, 2004).

**Table 2 Needs assessments versus damage/loss assessments**

Needs can be <b>higher</b> than damage/loss, because:	<ul style="list-style-type: none"> <li>• Building back <i>better</i>, i.e. beyond minimum services (that existed prior the disaster)</li> <li>• Emergency/transitional costs; incl. pure logistics of delivering reconstruction</li> <li>• Inflation</li> </ul>
Needs can be <b>lower</b> than damage/loss, because:	<ul style="list-style-type: none"> <li>• Fewer public services are needed in the case of large loss of life or migration</li> <li>• Insurance, the private sector, or households cover part of the costs</li> </ul>

19. **Donor conference.** The impact of a disaster or conflict often far exceeds a developing country’s capacity and resources to independently manage recovery. And as Hurricane Katrina demonstrated, capacity can also be overwhelmed even in developed countries. Financial assistance from international donors in these situations often plays a significant role. Donor conferences have become an important mechanism for mobilizing such international assistance. In such a forum, the preliminary estimates of damage/loss and needs assessments are presented, together with initial key policies of the government for directing the reconstruction (including the potential establishment of an MDTF).

20. **Reconstruction strategy.** The preparation of a comprehensive reconstruction strategy includes decisions on the institutional and financial arrangements of the reconstruction program. Depending on the scale of the disaster or the capacity of the national government, establishing a separate reconstruction agency is one option, particularly if the reconstruction effort receives continuous national and international attention. In this phase, governments typically also take decisions on establishing MDTFs.

21. **PFM strategy.** The next important step is the implementation of the reconstruction program in conjunction with the government’s budget system. In most reconstruction episodes, particularly the largest, reconstruction financing flows both through the government’s budget as well as outside the regular mechanism (“off-budget”). In many cases, countries face a trade-off between rigorous planning and rapid action. The regular budget system is too rigid to allow for a sufficiently flexible response. In contrast, off-budget mechanisms face increased fiduciary risks and usually complicate coordination. The following section elaborates on the special considerations for reconstruction PFM.

### **III. Key Issues and Options for Post-Disaster Reconstruction**

22. The initial preparation for post-disaster recognition will need to address three factors that will be critical for success during implementation. The first concerns the institutional management of the reconstruction process, particularly with respect to the establishment of special agencies. A second issue concerns the capacity and modalities for PFM. For example, the recent Independent Evaluation Group (IEG) evaluation highlights that problems in procurement are prone to be a significant weakness in project implementation (see World Bank Independent Evaluation Group, 2006). Poor preparation

in terms of PFM approaches can also lead to a gap between emergency project approvals and effectiveness. Finally, effective and timely monitoring and evaluation systems are critical for assessing the progress of reconstruction, and providing early warning signals for corrective action as needed.

### ***The role of special reconstruction agencies***

23. Special agencies have been a core feature in many reconstruction processes, particularly after large-scale natural disasters. This raises three sets of questions:

- Should disaster-affected countries set up a special agency? If not, what are the alternatives?
- What should be the functions of a special agency?
- How to ensure that such special agency ends its mandate on time?

24. The experience suggests that the optimal choice of agency depends on the scale of the disaster and reconstruction program (the larger the disaster, the more partners and the likely need for a special agency), country size, what is the location of the disaster logistically (the more remote, the more likely the need for a special agency), and the pre-existing capacity of central and local agencies to handle the special spending/implementation demand of reconstruction. It is especially important to clearly delineate the exact roles and responsibilities of these types of agencies vis-à-vis particular functions (planning, coordination, implementation, monitoring and evaluation) and particular sectors/line agencies (e.g., education, housing).

25. There are several possible options with regard to the institutional arrangements for managing reconstruction (Table 3).<sup>6</sup> Two models that are commonly adopted: (a) integrate a new agency into an existing ministerial system usually in the form of a coordination body, or (b) create a completely separate agency with specific authorities and responsibilities. The government may have strong leadership in post-disaster reconstruction and often plays a leading role. Conversely, in post-conflict settings the government role is frequently weak, often requiring international intervention, for example through the United Nations.

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<sup>6</sup> Institutional arrangement refers to an institution or agency which is established in responding to post-disaster and/or post-conflict reconstruction and that usually has a limited period of life. It is unlike regular disaster management institution which is usually part of government function and responsible for disaster preparedness, promoting disaster prevention/risk reduction, and integrating disaster risk management into national development strategy (see Demeter, 2007).

**Table 3 Managing the reconstruction process – Institutional options and considerations**

<b>Institutional Options</b>	<b>Advantages</b>	<b>Disadvantages</b>	<b>Bottom Line</b>
<b>Separate reconstruction agency</b> <i>(centralized or decentralized)</i>	<ul style="list-style-type: none"> <li>• Most independent; and fully focused on reconstruction effort</li> <li>• Possible establishment of special mechanism for resource allocation, procurement and staffing</li> <li>• The task can be effectively addressed</li> </ul>	<ul style="list-style-type: none"> <li>• Takes time to clarify roles and responsibilities of the agency</li> <li>• Possible disconnect from other government activities</li> <li>• May lack local ownership</li> <li>• Can take a life of its own and is difficult to phase out</li> </ul>	<ul style="list-style-type: none"> <li>• Advisable in large scale and/or localized reconstruction episodes if agency has decision-making authority</li> <li>• Sunset clauses are critical to avoid the agency taking a life of its own or surviving beyond its mission</li> </ul>
<b>Integration into existing ministerial system</b> <i>(centralized coordination board)</i>	<ul style="list-style-type: none"> <li>• Planning and budgeting, and oversight systems are in place</li> <li>• Established links with the international community</li> <li>• Sufficient implementation capacity</li> </ul>	<ul style="list-style-type: none"> <li>• The task may not be effectively addressed</li> <li>• Risk of lacking independence and local ownership/ leadership</li> <li>• Civil service rules impede recruitment of professional staffs from outside</li> </ul>	<ul style="list-style-type: none"> <li>• Advisable in small countries or governments with established track record and strong administration to manage reconstruction</li> </ul>
<b>Integration into existing provincial and local government structures</b> <i>(decentralized coordination board)</i>	<ul style="list-style-type: none"> <li>• Full local ownership</li> <li>• Rehabilitation of sectors corresponds to most of the decentralized functions if country is very decentralized</li> </ul>	<ul style="list-style-type: none"> <li>• Provincial and local governments could be overburdened due to (i) losses from the disaster, and (ii) inadequate capacity to manage a large reconstruction program</li> <li>• Civil service rules impede recruitment from outside</li> <li>• Potential fiduciary risks as existing government system may not adequately address reconstruction challenges</li> </ul>	<ul style="list-style-type: none"> <li>• Advisable if reconstruction effort is of manageable scale, local governments are strong and already empowered through decentralization</li> <li>• If central agencies lead the reconstruction process in the early phase local governments should gradually play an increasing role</li> </ul>
<b>International intervention/ support</b> <i>(interim government)</i>	<ul style="list-style-type: none"> <li>• Ensuring the existence of government and administration</li> <li>• Access to international community</li> </ul>	<ul style="list-style-type: none"> <li>• May lack local support</li> <li>• Lack of understanding of local needs</li> </ul>	<ul style="list-style-type: none"> <li>• An option if the government and administrative functions have collapsed</li> <li>• This option is only preferred for a short-term transition</li> </ul>

26. The reconstruction agencies or coordination boards, which are established to oversee and guide the overall reconstruction process, have three main functions: coordinating, monitoring, and implementing.

- **Coordinating** is a core function since the reconstruction work is often large and complex, requires a multi-sector approach, and involves multitude of players (government, donors, NGOs) that cannot be effectively managed by the existing government structure. Coordination is critical to avoid overlap and unnecessary loss of resources through facilitation, better information and communication.
- **Monitoring** is essential in the reconstruction process to ensure urgent needs have been addressed by sufficient funding and that resources are used effectively and reach the intended community. Since funds are likely to come from multiple sources and are often outside the government budgetary system, the regular government monitoring system may not be sufficient. The situation on the ground changes rapidly, so monitoring often guides and informs many important policy decisions.
- **Implementing** could be an optional role in special cases where the reconstruction project is large and complex and the capacity of government is not sufficient to

undertake such a large-scale project. It is important to note that this function is not to perform regular service-delivery functions. However, to date there is only limited experience of reconstruction agencies being given an implementation role.

27. There are a number of compelling arguments for separating the functions of coordination and monitoring from implementation. First, since these agencies are typically created from scratch they have no operational capacity or experience in implementation. Second, if experienced line agencies or local governments are by-passed they may feel they have only limited buy-in in the reconstruction process. Third, establishing separate new bureaucracies for implementation may create incentives for these bureaucracies to be perpetuated and hinder their eventual phasing-out. Finally, assigning the new agency with implementation could undermine its monitoring role and leadership.

***PFM modalities: Country systems, emergency procedures, donor/NGO execution***

28. Both multilateral donors, such as the World Bank, and bilateral donors have increasingly emphasized the importance of country systems in channeling donor support. In post-disaster reconstruction there are often challenges in using country systems exclusively, mainly because the reconstruction and budget cycles rarely match. In addition, large-scale disasters also trigger significant non-governmental support which is typically channeled “off-budget”. Questions arising from post-disaster budgeting include:

- What should be the balance between using country versus special/donor-executive procedures?
- What is the role of “off-budget” mechanisms?

29. These choices will depend on a rapid assessment of the existing country systems, with a special emphasis on guaranteeing that resources are spent in a timely manner for the purposes for which they were intended. A number of reasons may suggest the need for greater flexibility relative to standard central or sub-national government planning, budgeting, implementing, and monitoring procedures. Foremost, it may not be easy to align the timing of the reconstruction spending with the typical annual budgeting and appropriations cycle. While governments may have emergency procedures in place, they are often untested.

30. Typically reconstruction expenditures will place a heavy emphasis on capital investment spending, and some special spending to rapidly rebuild social services (e.g., special provision of teachers and doctors). A more general problem in any process of public expenditure is ensuring that capital and recurrent budgeting are adequately integrated, in particular to ensure that effective management of these assets and their maintenance is ensured (see Sarraf, 2005). Given that the emphasis of reconstruction is on rapidly rebuilding, and building new infrastructure to avert risks associated with future natural disasters, special emphasis will need to be placed on transferring future ownership and responsibility of these new assets. Reconstruction processes often create assets that will need to be maintained by the public sector (e.g., schools, roads, clinics to be managed and maintained by national or sub-national entities) or private agents (e.g.,

housing). Both during the reconstruction phase and the transition back to “normality”, policy makers must seek adequate capacity and accountability for asset management functions.

31. The urgency and volume of reconstruction expenditures mean that special emphasis needs to be placed on ensuring that resources are spent for their intended purposes, without grinding implementation to a halt. International taxpayers and private donors will likely seek to ensure that resources are not subject to waste and corruption. Appropriate prioritization in this regard will depend on how vulnerable the operating environment and country systems are to these type of risks. Besides ensuring that both country and donor executive PFM systems have adequate controls, independent monitoring structures and complaints procedures will often need to be strengthened, for example in coordination with the special reconstruction agencies.

32. Good PFM practices apply in post-disaster and post-conflict reconstruction. For instance, the reconstruction budget should be credible, meaning that the resources promised for reconstruction are actually delivered and used for the intended purposes within a given timeframe. Also, accountability for reconstruction to the target population and the financial sources is critical. However, post-disaster and post-conflict reconstruction efforts demand different treatment from regular budget cycles and procedures. This is because a speedier and more flexible response in a crowded environment of multiple actors is necessary. In short, reconstruction budgets often need to be drawn up from scratch, need to operate outside regular national or sub-national budgets, and need to allow for a speedier implementation of projects (Box 1).

#### **Box 1 What is different about reconstruction budgeting?**

- **Speed.** Reconstruction is typically faced with significant time pressures and finite duration. Progress is measured on a month-by-month basis, not an annual basis as in regular projects. The need for a swift response means that the time periods for project preparation, budget approval and procurement need to be significantly shortened.
- **Flexibility.** Disasters or peace settlements rarely occur in sync with the budgetary process. In order to respond to such events, most governments have funds for immediate emergencies but often lack procedures needed to establish fast-track funding for the immediate recovery. Once budgets are approved, emergency-recovery situations demand a greater flexibility to reallocate funds within certain limits. In post-disaster environments, conditions change so rapidly that waiting until the national budget revision takes place would create unacceptable delays.
- **Multiple actors.** After large-scale disasters and high-profile conflicts, many government and non-government actors, often with limited expertise in the affected region or country, want to engage in the reconstruction. Aceh, a region that had been isolated before the tsunami, now has more than 300 institutions supporting the reconstruction effort. These institutions often use different budget mechanisms to channel their funds (often off-budget) and contribute to the reconstruction program.

33. The main challenge in managing reconstruction finance is to integrate the specific reconstruction needs and conditions (speed, flexibility, multiple actors) into regular country systems in order to meet the highest fiduciary standards. In almost all

reconstruction episodes there has been some degree of adjustment to the regular budgetary process (Section III). The degree of this adjustment depends on the scale of the reconstruction effort, as well as the strength and flexibility of the respective country systems. Table 4 summarizes the main features of standard budget processes and their possible adjustment in reconstruction episodes.<sup>7</sup>

**Table 4 Regular and reconstruction budget cycles**

	<b>Regular budget cycle (PEFA-principles)</b>	<b>Reconstruction financing</b>
<b>Planning</b>	<ul style="list-style-type: none"> <li>• Builds on past budget performance evaluation</li> <li>• Includes macro-framework based on economic outlook</li> </ul>	<ul style="list-style-type: none"> <li>• Builds on a damage/needs assessment</li> <li>• Needs to focus on rapid action while avoiding delays associated with standard annual planning cycles</li> <li>• Reconstruction agency/board may take on a special role</li> </ul>
<b>Budget Preparation</b>	<ul style="list-style-type: none"> <li>• Detailed vetting of projects by MoF and line ministries</li> <li>• Approval by parliament</li> </ul>	<ul style="list-style-type: none"> <li>• Budgets are established from scratch</li> <li>• Needs high degree of flexibility, and anticipation of contributions from donors and NGOs</li> <li>• Standard unit costs often need to be revised upwards</li> </ul>
<b>Budget Execution</b>	<ul style="list-style-type: none"> <li>• Regular on-budget implementation</li> </ul>	<ul style="list-style-type: none"> <li>• Use of off-budget channels, particularly by UN and NGOs</li> <li>• Special procurement and/or disbursement arrangements, including procurement agents</li> </ul>
<b>Accounting and Reporting</b>	<ul style="list-style-type: none"> <li>• Standardized and timely accounting and reporting of transactions</li> </ul>	<ul style="list-style-type: none"> <li>• Emphasis on comprehensiveness and transparency of the reconstruction budget, including off-budget flows</li> </ul>
<b>Audit and External Scrutiny</b>	<ul style="list-style-type: none"> <li>• A key fiduciary principle is that restriction funds are used for the purpose for which they were intended</li> <li>• Both ex ante and ex post controls are important to ensure that funds are spent on intended purposes</li> </ul>	<ul style="list-style-type: none"> <li>• Reliance on overly detailed ex ante controls will reduce flexibility and may risk delays in implementation. However some ex ante controls will be necessary.</li> <li>• Ex post audit will be critical for assessing compliance and, in conjunction with adequate follow-up measures and sanctions, averting abuse</li> </ul>
<b>Monitoring and Evaluation</b>	<ul style="list-style-type: none"> <li>• Evaluates budget performance according to regular budget indicators. Examples include fiscal deficit, budget realism (implementation compared with original budget), and disbursement ratios</li> </ul>	<ul style="list-style-type: none"> <li>• Reliable information and analysis are even more critical in large reconstruction programs than in regular development projects</li> <li>• Updates need to be more frequent but real time tracking is unrealistic and not needed: quarterly updates of fund flows, reconstruction progress and basic economic indicators would be a major achievement</li> </ul>

34. **Reconstruction strategy and budget cycle.** Whereas securing sufficient resource commitments for reconstruction is an obvious priority in the wake of conflict or natural disasters, the subsequent speed and integrity of reconstruction is the subject of increasing concern. Donors' commitments are themselves contingent on the assurance that resources will be spent well. International agencies, including the World Bank, have the credibility to assist in meeting these expectations and influencing other donors for fund mobilization. PFM is important because it creates a "credible environment" in which donors feel confident to make firm aid commitments and ensures that aid reaches the intended beneficiaries, helps governments strengthen fiduciary standards (including through demonstration effects), and garners stronger support from civil society organizations.

<sup>7</sup> See Annex 1 for a full adaptation of the PFM framework to reconstruction programs.



35. Although core fiduciary principles apply, management, planning, budgeting and project implementation often need to follow a different sequence and modalities in order to be effective in the early years of reconstruction. There are at least six decisions to take:

- Management and institutional set-up. Depending on the scale and location of the disaster, the size of the country and the strength of the local institutions, affected countries may set up independent reconstruction agencies (see above). Alternatively, existing central or sub-national government institutions typically coordinate the implementation of the reconstruction program.
- Reconstruction planning versus rapid project implementation. A credible plan that includes key policy decisions is essential. However, lengthy planning exercises and overly detailed reconstruction plans can do more harm than good. Most importantly, the reconstruction process needs to start quickly, particularly to provide employment and livelihoods; plans can be readjusted along the way.
- On-budget versus off-budget. Fund flow arrangements highlight the tension between speed and orderly budget implementation in reconstruction programs. International partners have increasingly emphasized the use of country PFM systems to channel aid even in reconstruction situations. However, a large share of project implementation may be channeled outside regular budgetary processes, particularly if NGOs and the UN system are playing a significant role. This is not a major problem *per se* if a robust monitoring and evaluation system is in place. For funds that go through regular budgetary systems, it is critical to introduce a higher degree of flexibility and iterations of budgeting to allow for faster disbursements and reallocations. However, governments can only achieve such flexible fund disbursements if they have already established special fund-flow mechanisms that can also be used for the early reconstruction phase.
- Front-loading versus back-loading of funds. While quick action is essential, too much front-loading of reconstruction funds will likely increase inflation and reduce the resources available in the second and third years of reconstruction. The higher the share of NGO funding, the more funds the government can program in later years because NGO funding tends to be exhausted after two years.
- Regular versus special procurement regimes. Reconstruction procurement faces a dilemma. On the one hand, standard procurement processes need to be shortened to accelerate reconstruction. On the other hand, extra caution is needed because the influx of additional resources will put additional strain on the procurement system, which was often weak before the disaster. A number of special/streamlined procurement arrangements have therefore been used, and a number of countries have also used independent procurement agents.
- Emphasis on ex ante or ex post controls. Reconstruction needs to strike a forward-looking balance between signaling a high degree of accountability, while not allowing the implementation process to grind to a halt. The key decision is on the balance between ex ante and ex post controls. The more rapidly reconstruction begins; the more governments need to rely on ex post controls. However, the importance of these ex post controls then becomes even more significant than in regular development programs.

### ***Monitoring and evaluation***

36. A typical post-disaster reconstruction episode has a larger and more diverse number of development actors than in regular development projects. These include central and sub-national governments, special institutions, multi- and bi-laterals donors and NGOs. In the case of Aceh and Nias, more than 300 institutions managing more than 1,500 projects contributed to the reconstruction effort—excluding emergency support. In such an environment timely and reliable information is critical, particularly as the situation on the ground changes rapidly, which raises the following questions:

- What are the most effective systems for capturing comprehensive, timely, and consistent information concerning reconstruction spending?
- Who should manage and utilize these resources?

37. The most appropriate system will again depend on the size of the disaster, the number of major players engaged in reconstruction spending, the quality of their own reporting, and existing capacity within the agencies tasked with the M&E role. Special care must also be taken that development of the perfect system does not stand in the way of an operationally effective system. Hence details such as proactive data collection and analysis protocols, the key audience for regular reporting, and modalities for M&E follow-up are likely to be especially critical. There is broad agreement that good PFM systems are essential for the implementation of policies and the achievement of developmental objectives by supporting aggregate fiscal discipline, strategic allocation of resources and efficient service delivery. The PEFA framework also provides benchmarks for PFM out-turns (budget credibility), cross-cutting features (comprehensiveness and transparency), the budget cycle (policy-based budgeting, predictability and control in budget execution, accounting, procurement, recording and reporting, external scrutiny and audit), and donor practices. The PEFA framework inspired some of the early actions, even in countries with weak capacity. These actions include the establishment of a consolidated budget (integrating both capital and recurrent expenditures), attempting to consolidate activities of multiple donors and ensuring that forward recurrent costs are covered (Sarraf, 2005).

38. Reliable information and analysis is even more critical in large reconstruction programs than in regular development programs. Multiple resource sources (from national governments, donors, NGOs) and implementation streams for reconstruction provide a particular challenge in tracking funds and evaluating results. In addition, the reconstruction PFM cycle is more compressed and iterative than regular budget cycles. The key benchmarks for the M&E system are the production of timely and comprehensive estimates of (i) funds allocated and spent (covering all sources from domestic, international, public, and private), (ii) reconstruction progress, and (iii) economic and social impacts.

#### **IV. Country Findings**

39. The eight natural-disaster country case studies reveal a significant degree of diversity in the scale of the reconstruction challenges and implementation modalities. The case studies include three post-tsunami countries (Aceh-Indonesia, Sri Lanka, the Maldives); three post-earthquake countries (Colombia, Pakistan, Yogyakarta-Indonesia); and two post-hurricane countries (Grenada and Honduras). While all experienced severe damage/loss from natural disasters, Aceh and Sri Lanka had also suffered damage/loss from conflict. The extent of the national and international response, the type of intervention, and the institutional and the financing mechanisms all showed significant diversity between the eight cases (see Table 5). This exercise relied on a mix of desk reviews and interviews with World Bank staff.<sup>8</sup>

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<sup>8</sup> See Annex 2 for a summary of the reconstruction profile in the post-conflict setting.

**Table 5. Post-disaster case studies**

Country	Date of event	The nature and impact of reconstruction challenge	Date of Damage & Loss or Needs Assessment	Donor Conference (Date, place and amount of pledges)
<b>Indonesia (Aceh &amp; Nias)</b>	Indian Ocean Tsunami: December 26, 2004  The signing of peace agreement: August 15, 2005	The impact of the tsunami: <ul style="list-style-type: none"> <li>• 130,000 people killed</li> <li>• Damaged &amp; losses: US\$4.5 billion</li> <li>• Impact on economy: 97% of Province GDP or 2% of national GDP</li> </ul> The impact of the conflict: <ul style="list-style-type: none"> <li>• 15,000 killed by conflict</li> </ul>	January 18, 2005	<ul style="list-style-type: none"> <li>• Jakarta, January 19, 2005</li> <li>• Donor pledges: US\$5.1 billion (grants &amp; loans)</li> </ul>
<b>Indonesia (Yogyakarta &amp; Central Java)</b>	5.9 Richter scale earthquake: May 27, 2006	<ul style="list-style-type: none"> <li>• More than 5,700 people killed</li> <li>• Damage &amp; losses: US\$ 3.1 billion</li> <li>• Impact on economy: 14% of Yogyakarta and Central Java province GDP or 1.3% of national GDP</li> </ul>	June 12, 2006	<ul style="list-style-type: none"> <li>• Jakarta, June 14, 2006 (CGI Meeting)</li> <li>• Donor pledges: US\$ 80 million</li> </ul>
<b>Sri Lanka</b>	Indian Ocean Tsunami: December 26, 2004  Conflict: Ongoing	The impact of tsunami: <ul style="list-style-type: none"> <li>• 35,322 people killed</li> <li>• Damage &amp; losses: US\$2.2 billion</li> <li>• Impact on economy: 7.6% of GDP</li> </ul> The impact of conflict: <ul style="list-style-type: none"> <li>• After more than 20 years of conflict: displaced 390,000 people</li> </ul>	January 10, 2005, The report was released on February 2, 2005	<ul style="list-style-type: none"> <li>• Jakarta, January 19, 2005</li> <li>• Donor pledges: US\$2.1 billion (grants &amp; loans)</li> </ul>
<b>Maldives</b>	Indian Ocean Tsunami: December 26, 2004	<ul style="list-style-type: none"> <li>• 29,000 people displaced</li> <li>• Damage &amp; losses : US\$470 million</li> <li>• Impact on economy: 62% of GDP</li> </ul>	Early January 2005, The report was released on February 8, 2005	<ul style="list-style-type: none"> <li>• Jakarta, January 19, 2005</li> <li>• Donor pledges: US\$302 billion (grants &amp; loans)</li> </ul>
<b>Pakistan</b>	7.8 Richter scale Earthquake: October 8, 2005	<ul style="list-style-type: none"> <li>• 73,000 people death</li> <li>• Damage &amp; losses: US\$5.2 billion</li> <li>• Impact on economy: 0.4% of GDP (excl. Azad Jammu and Kashmir/ AJK)</li> </ul>	November 12, 2005	<ul style="list-style-type: none"> <li>• Islamabad, November 19, 2005.</li> <li>• Donor pledges: US\$5.9 billion (grant &amp; loan)</li> </ul>
<b>Colombia</b>	6.2 Richter scale earthquake: January 25, 1999	<ul style="list-style-type: none"> <li>• 1,185 people killed</li> <li>• Damage &amp; losses: US\$ 1.86 billion</li> <li>• Impact on economy: 2.2% of GDP</li> </ul>	April 1999	<ul style="list-style-type: none"> <li>• None</li> </ul>
<b>Grenada</b>	Hurricane Ivan: September 7, 2004	<ul style="list-style-type: none"> <li>• Damaged 80% of public and private infrastructure</li> <li>• Damage &amp; losses: US\$800 million</li> <li>• Impact on economy: 200% of GDP</li> </ul>	September 13, 2004	<ul style="list-style-type: none"> <li>• Washington, DC, October 4, 2004. The actual pledging took place in Grenada on November 19, 2004</li> <li>• Donor pledges: US\$150 million</li> </ul>
<b>Honduras</b>	Hurricane Mitch: October 25 – November 1, 1998	<ul style="list-style-type: none"> <li>• 5,757 dead, 12,272 injured and 8,058 reported missing</li> <li>• Damage &amp; losses: US\$3.6 billion, reconstruction cost was estimated at US\$ 5 billion</li> <li>• Impact on economy: 74% of GDP</li> </ul>	December 10, 1998	<ul style="list-style-type: none"> <li>• Stockholm, June 30, 1999.</li> <li>• Total pledges US\$ 2.8 billion,</li> </ul>

40. For comparative purposes, this paper also draws on purely post-conflict examples in Afghanistan, East Timor, South Sudan, and Haiti. While East Timor's destruction was largely inflicted by human hand, it was of short duration. Such intensity can be compared with recent events in Lebanon, where destruction was concentrated in a

short period akin to a natural disaster. In contrast, South Sudan's destruction as a result of civil war was far more protracted.

41. The exact nature and scope of the reconstruction challenge, combined with the country context, may contain important situational differences. Important considerations include: (a) the scale of international aid (public/private), (b) how much aid was channeled on-budget, (c) the country's institutional and budget arrangements, (d) how aid coordination was handled, (e) whether there were cross-cutting arrangements (e.g., multi donor trust fund), (f) how comprehensive and timely was reporting on commitments, fulfilled commitments, and actual implementation/disbursement, (g) how many institutional levels were involved in the PFM cycle, (h) the financial arrangements for emergency relief and longer-term recovery, (i) what were the implementation arrangements, and (j) how fiduciary integrity/anti-corruption was managed for the various funding flows (including internal and external audit). These elements influence bottlenecks and the results achieved in the reconstruction process.

***Institutional arrangements: Special agencies, central or local implementation?***

42. All case studies involved the establishment of some type of special institutional arrangements, for example a coordination body or special agency, to promote reconstruction. However, the extent to which these bodies engaged in coordination, monitoring, and even implementation differed. All special agencies were given special roles in coordinating and monitoring, although other agents have often been left in charge of implementation. The organizational structures of these special agencies also differ. A special agency can be centralized or decentralized while a coordination body typically has a centralized structure.

43. With the exception of the Maldives and Yogyakarta-Indonesia, all case-study countries affected by natural disasters set up special reconstruction agencies. The post-conflict countries were also governed by special governance structures, either interim governments or a special power-sharing agreement as in the case of Sudan (Table 6). All of the reconstruction agencies were assigned coordinating and monitoring functions, while the implementing tasks were mostly performed by the existing government line agencies or NGOs. Indonesia (Aceh & Nias) and Pakistan represent special cases where the reconstruction agencies received implementing authority.

**Table 6. Institutional arrangements for post-disaster reconstruction<sup>9</sup>**

Country	Type of event	Date of Event	Type of Institutional Arrangements	Implementing agencies
Indonesia (Aceh & Nias)	Tsunami and conflict	Tsunami: December 26, 2004; Peace Agreement: August 15, 2005	Decentralized Special Agency ( <i>Badan Rehabilitasi dan Rekonstruksi/BRR</i> ). In the first year, BRR had a centralized structure	Reconstruction agency, central government (limited), provincial and local government, donors, NGOs
Indonesia (Yogya)	Earthquake	May 27, 2006	Centralized Coordination Board ( <i>Tim Teknis Nasional</i> ), coordinated by Coordinating Ministry for the Economy	Provincial government, local government, donors, NGOs
Sri Lanka	Tsunami and conflict	Tsunami: December 26, 2004 Conflict: Ongoing	Centralized Special Agency (Taskforce to Rebuild the Nation/TAFREN, Reconstruction and Development Agency/RADA)	Central government, donors, NGOs
Maldives	Tsunami	December 26, 2004	Centralized Coordination Board (National Disaster Management Center/NMDC)	Central government, donors, NGOs
Colombia	Earthquake	January 25, 1999	Decentralized Special Agency (Reconstruction Fund for the Coffee Region/FOREC)	Local government and NGOs
Pakistan	Earthquake	October 5, 2005	Decentralized Special Agency (Earthquake Reconstruction and Rehabilitation Authority/ERRA)	Provincial and local government, military, partner organization (PO), donors, NGOs
Grenada	Hurricane Ivan	September 7, 2004	Centralized Special Agency (Agency for Reconstruction and Development/ARD)	Central government, donors, NGOs, and external partners
Honduras	Hurricane Mitch	Oct 25 – Nov 1, 1998	Centralized Special Agency (COPECO (Permanent Commission for Contingencies))	Central government, provincial and local government, donors, NGOs

44. Colombia developed an innovative management model for managing reconstruction that has proved very successful. The reconstruction agency, FOREC, was established to coordinate the reconstruction of the coffee region (Eje Cafetero) in Colombia between 1999 and 2002. It had a decentralized management structure with a clear distinction between national and local government functions. Its role was centered on coordinating and monitoring the overall recovery operation. Project implementation was carried out by NGOs at zonal management offices in 32 reconstruction zones through a competitive selection process. This model had been successful in ensuring public participation, and social control and transparency by contracting project

<sup>9</sup> The experience of India's post-tsunami reconstruction was not part of the 8 case studies. However, in both cases, the national governments decided to empower the sub-national governments to lead the reconstruction process.

monitoring to a consortium of universities, while ensuring that the funds were administered by a fiduciary agency (World Bank, 2003).<sup>10</sup>

45. Nonetheless, FOREC also faced a number of institutional challenges, demonstrating that a specialized agency with a deconcentrated operating structure can only be fully effective if it maximizes local cooperation. The exclusion of local governments from project identification and implementation resulted in their lack of full cooperation. Institutional capacity and technical skills were dissimilar across the 32 zone managers, resulting in implementation divergences in some areas. This decentralized function also created challenges with coordination and information collection.

46. In such exceptional conditions, where there is a small state with strong central government leadership, a centralized reconstruction management structure is most feasible. The Maldives created a centralized coordination board, the National Disaster Management Center (NDMC) led by Ministry of Defense, to manage and coordinate the relief effort and reconstruction process. In addition, the Government of Maldives created several task forces (e.g., national economic recovery and reconstruction programming, aid management) to coordinate the implementation under coordination of NDMC. On the other hand, after Hurricane Ivan that severely damaged Grenada (with damaged valued at twice the national GDP), the government established a separate agency with a centralized organizational structure to oversee the reconstruction effort.

47. With two big natural disasters in a row, Indonesia presents a unique case for reconstruction management. The government established a special agency (BRR) with a centralized structure initially to manage and expedite the reconstruction in Aceh and Nias. BRR was confronted with serious delays in the first year, having difficulty in implementing and overseeing projects outside the provincial capital, Banda Aceh. The BRR subsequently decided to decentralize its offices in the second year to work hand-in-hand with local government to improve and better integrate with local government planning and avoid duplication. Unlike Aceh, the government established a coordination body in response to the Yogyakarta earthquake, under the Coordinating Ministry for the Economy. This body has a coordination role at the central and policy level. The implementation, monitoring and coordination on the ground were carried out by provincial and local governments.

48. The reconstruction of Yogyakarta is considered as one of the most successful recent reconstruction episodes with more than 100,000 houses built within one year. About 75 percent of the reconstruction financing was provided by the central government and only about 15 percent by the international community.

49. In exceptional cases, when official government structures are weak or non-existent, the UN has acted as an interim government. The UN has been called upon to take a leadership role in several post conflict cases including East Timor, Afghanistan, and Haiti. The UN administered the transitional government and managed the initial

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<sup>10</sup> The United Nations awarded FOREC the Sasakawa Prize on October 11, 2000 for its accomplishment in helping to prevent or reduce the risk from natural disasters.

phase of reconstruction, while at the same time ensuring that the government system continued to function. The United Nations Mission in the Sudan (UNMIS) helped to stabilize the security situation and led humanitarian assistance in southern Sudan while the long term recovery process was coordinated through Core Coordination Group (CCG). In East Timor, the United Nations Transitional Administration for East Timor (UNTAET) acted as the coordination and monitoring agent. The implementation function was largely carried out by international donors and INGOs, with a limited role for local governments.<sup>11</sup>

50. Institutional arrangements for reconstruction depend on the scale of the disaster and country context. Special reconstruction agencies are only a second best solution. The best solution is strong local governments managing reconstruction supported by central government agencies. However, in most developing countries special reconstruction agencies are often the only feasible option when strong local governments with a proven track record in reconstruction are absent.

51. The size of the country and magnitude of disaster are also important factors in deciding on the set-up of special agencies. The 2004 tsunami created devastation on an epic scale in Indonesia (Aceh) and Sri Lanka, and even functioning local governments had difficulty shouldering the reconstruction effort. In Aceh, the situation was compounded by decades of conflict, weak local governments and a remote central government. India, with strong delivery system at the local level in the affected areas and less severe impact compared with Indonesia and Sri Lanka, empowered sub-national governments to lead the reconstruction. By contrast, the Maldives, a small country with an experienced government, managed the reconstruction process through existing central government systems despite the relative magnitude of the tsunami on the country's economy.

### ***Financing and execution arrangements***

52. A central feature of reconstruction experience is its reliance on multiple sources of support. Government, multilateral, bilateral, and non-governmental agencies all contribute to the reconstruction process. For example, in Aceh, Sri Lanka, East Timor and Afghanistan, international donors and non-governmental actors played a significant role in the initial relief/rehabilitation process.

53. The mix of public and private funds differs from case to case. The tsunami triggered one of the largest mobilizations of private funds in development history. People and governments around the world participated in an unprecedented act of global solidarity. Private contributions reached record highs estimated at more than US\$10 billion for emergency support and reconstruction programs. In Aceh and Sri Lanka, the NGO sector became one of the main contributors to the reconstruction efforts, and its funds have financed most of the existing reconstruction activities so far. In Aceh alone

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<sup>11</sup> For example, in Afghanistan and East Timor a lack of capacity has meant that day-to-day budget activities are carried out by international consultants (see Dorotinsky and Pradhan).



NGOs are implementing programs worth almost US\$2 billion (end April 2006) and are expected to finance about 30 percent of the total reconstruction program.

54. In weak and/or cumbersome governance arrangements, off-budget channels (partially through NGOs) seem to be critical in the early phase of reconstruction. In Aceh and East Timor, mobilization of the private sector and NGOs at the initial stages combined with community development-driven reconstruction achieved rapid results on the ground and also increased community participation (e.g., cash-for-work programs).

55. NGOs (and, within limits, the UN) can react faster to deliver emergency supplies and reconstruction in their sectors of comparative advantage (often social sectors). Classical (and larger) donors and national governments (depending on their levels of income) are slower but have a comparative advantage in bulky, large-scale and complex investments, particularly in infrastructure.

56. Due to their specialization and comparative advantage, NGOs and many donors can pre-program their funds very rapidly. This early planning and programming helps implementation. However, the complexities of reconstruction and the numerous players can create special challenges for project coordination and management, especially in situations where off-budget arrangements are prominent. It is critical that sufficient fungible funds remain available for reconstruction gap-filling and development programs in the second reconstruction phase.

57. Fungible funding is also equally important in addressing regional and sectoral gaps, especially in environment where many donors and NGOs have pre-programmed their projects and have specialties in certain sectors. The domestic government and major donors seem to have more interest in providing flexibility and fungible funding. One year after the tsunami, in Aceh and Maldives social sectors such as health and education were favored and received large financial assistance that exceeded their identified needs. On the other hand, large-scale infrastructure projects (such as transport, housing, and electricity) received less attention and remained under-funded.

58. Joint financing arrangements such as MDTFs have been used by most countries to improve the coordination and effectiveness of reconstruction processes. This model is important in situations where the bulk of resources come from bilateral and multilateral donors. The World Bank has been both a trustee and administrator of MDTFs. In addition to enhancing effectiveness of coordination, this arrangement increases donor confidence by providing assistance where fiduciary systems of a country are weak.

59. Associated with special agencies on the side of the recipient country, MDTFs have been an important instrument in resource mobilization, policy dialogue, and risk and information management (see recent review of 18 MDTFs in post-crisis post-disaster and post-conflict reconstruction, Scanteam, 2007). Since MDTFs frequently operate in high-risk and high-cost environments, they require flexible and adequate funding to enable effective and rapid responses to dynamic situations on the ground. MDTFs offer some advantages for national governments and donors in the post-crisis environment. They can increase and mobilize financial assistance and provide political visibility for the national

authorities. Donors can operate in a more effective and efficient manner by reducing information, coordination and administration costs under joint financing arrangements. While MDTFs can be an effective tool in leveraging collective donor influence, they also entail less visibility for each individual donor (Scanteam, 2007).

60. There are a limited number of cases where the government manages such joint financing arrangements. This requires sound government budget systems and a number of fiduciary risk-measurement indicators to be in place to ensure accountability and transparency, and to establish donor confidence. The Maldives established an MDTF administered by the government, while in Pakistan the government there dedicated a single-basket account as a reconstruction fund, which is managed by its reconstruction agency.

61. International donors also have their own financing instruments and procedures in responding to crises and emergency situations. The UN typically announces Flash Appeals (fund-raising) for international solidarity both from public and private donors. Immediately following Indian Ocean tsunami on December 26, 2004, the UN raised almost US\$1 billion for the first six months emergency assistance. The World Bank has responded with relative flexibility to emergency needs with a variety of projects and activities. In addition to its non-lending emergency assistance, the World Bank has increasingly used Emergency Recovery Loans (ERLs) and re-allocation funds from existing projects in response to emergency needs with accelerated approval processes. Moreover, the World Bank has introduced disaster insurance schemes to assist mainly small states that are prone to disasters, enabling them to obtain immediate financial assistance following natural disasters.

62. Post-conflict reconstruction poses a special challenge in financial management given the insecure environment. Weak administrative procedures and national budget systems simultaneously receiving large external financial assistance may cause the diversion of investments away from national development priorities. Often, governments do not have adequate capacity to coordinate and monitor pledges, expenditures or outcomes. In such settings, joint donor financing instruments such as MDTFs can play a vital role in consolidating external finances, and improving coordination and effectiveness in implementation. Sudan presents a special case: the Government of Sudan and the Sudanese People's Liberation Movement (SPLM) agreed to create two MDTFs administered by the World Bank to provide equitable access to external assistance for development.

63. In East Timor, donor financing arrangements were complex and channeled through four different mechanisms: the UN humanitarian consolidated appeal, the UNTAET budget, the CFET-UN administered trust fund, and the TFET-World Bank administered trust fund (Cliffe and Rohland, 2002). This complexity of aid financing coordination created barriers to national ownership of the reconstruction planning process and prevented the integration of all funding sources into the national budget.

64. Successful reconstruction processes include responsiveness to needs/effective prioritization, timeliness, cost-effectiveness (given time constraints), and the assurance

that funds will be spent on their intended purpose in a timely manner (including the suitable management of corruption risks). Key benchmarks that PFM systems can influence in a significant way are: timely credible information, timely and equitably implementation, and efforts to minimize corruption (Table 7). The design and implementation of PFM systems will contribute to achieving these results but they are not the single determinant. Many other factors also come into play, particularly the availability of resources, the availability and price of construction materials, the capacity to manage and implement reconstruction programs, and the level of coordination between all reconstruction parties.

**Table 7. Selected performance criteria for reconstruction PFM**

<b>Dimension</b>	<b>Objective</b>	<b>Results measures</b>	<b>Experience and issues</b>
<b>Information</b>	<ul style="list-style-type: none"> <li>• Timely and comprehensive information on commitments and disbursements of reconstruction resources</li> <li>• Comprehensive financial information</li> <li>• Physical progress</li> </ul>	<ul style="list-style-type: none"> <li>• Critical in reconstruction contexts given the need for timely information on:               <ul style="list-style-type: none"> <li>(i) Financial flows (govt, donors, NGOs)</li> <li>(ii) Physical progress</li> <li>(iii) Economic and social impact</li> </ul> </li> </ul>	Information piecemeal, tendency to highlight easy information, including own agency (part incentive for self-advertisement)
<b>Implementation (effectiveness and efficiency)</b>	<ul style="list-style-type: none"> <li>• Timely implementation of reconstruction according to prioritization:               <ul style="list-style-type: none"> <li>(i) Timely allocations: planning</li> <li>(ii) Timely commitments: procurement and contracting</li> <li>(ii) Timely implementation: disbursements</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Speed of implementation</li> <li>• Disbursement pattern</li> <li>• Transition between emergency and recovery</li> </ul>	The tension between quick action and careful planning has been inherent in all reconstruction episodes. In particular when setting up reconstruction agencies (e.g. Aceh, Pakistan) there is a trade off between slowing down reconstructions in the early phase in exchange for a more cohesive reconstruction program in the medium-term
<b>Implementation (equity)</b>	Equity in implementation of reconstruction	<ul style="list-style-type: none"> <li>• Sectoral allocations and gaps</li> <li>• Urban versus rural allocations</li> </ul>	Evidence that reconstruction was bunched in capital Rural/low capacity areas may be relatively neglected in reconstruction process
<b>Anti-corruption</b>	Effective management of fiduciary risk/corruption minimized	<ul style="list-style-type: none"> <li>• Were effective safeguards in place?</li> <li>• Did these vary significantly across funding flows?</li> <li>• Was an effective balance struck between speed of implementation and management of fiduciary risk?</li> </ul>	In Aceh, the reconstruction agency cancelled a number of projects considered to have unfair bidding processes. There is evidence that some government officials are reluctant to be project managers due to tight anti-corruption procedures. This slowed implementation.

65. Experience reveals a trade-off between swiftness and national ownership (capacity building) in reconstruction implementation. Physical reconstruction is to some extent less problematic and faster to implement than institutional and capacity building.

Sequencing is critical in the situation of both low institutional capacity and widespread needs. In East Timor, sectors that made progress in establishing institutions and strong levels of management capacity such as health were often slower initially in achieving physical reconstruction targets, but considerably more successful in building institutional capacity (Cliffe and Rohland, 2002).

66. In post-conflict situations, security remains a major challenge in the recovery process. In Afghanistan, implementation of the development program has been constrained by poor security conditions. In many cases, despite the rapid approval of projects and budget allocations from donors and government, implementation itself has been slow. In addition, limited capacity in line ministries in the area of procurement and financial management has been the major problem faced by Afghanistan. In East Timor, the implementation of large reconstruction projects was slow largely due to difficulties in managing standard procurement procedures in a post-conflict context.

67. There has been increasing concern over the equitable distribution of funds. The most accessible areas, usually the regional capital, invariably receive more funding than they need. Conversely, isolated areas often lag behind in funding. In Aceh, there has been a bias towards the areas closer to the capital city, Banda Aceh, which received double its needs. Similarly in Grenada, the urban areas recovered faster, benefiting from on-going construction boom, while the population depending on agriculture had difficulty returning to normality. In Afghanistan, poor security prevented donors and NGOs from providing assistance to isolated areas, thus centering reconstruction in Kabul. Although the Government of Sri Lanka has given special attention to ensure all tsunami-affected communities receive equal access to recovery assistance, the security constraints and capacity gaps have slowed the recovery in northeast Sri Lanka, which is also a conflict-affected area.

68. To conclude, several important lessons can be learned from the implementation of MDTFs with regard to financing and execution arrangements. First, it seems clear that MDTFs worked well both in post-conflict and post-disaster reconstruction (Aceh, Yogyakarta, and Afghanistan), while fragmented donor financing mechanisms are usually less effective (East Timor). Second, a balance needs to be found between the use of off-budget and on-budget funding. Off-budget channels (partially through NGOs) have proven to be effective in the early phase of reconstruction, especially in weak governance systems (Aceh and East Timor). This is because NGOs (and the UN) can often react faster to deliver emergency supplies and reconstruction in their sectors of comparative advantage (often social sectors). More traditional (and larger) donors and national governments (depending on their levels of income) are slower but have a comparative advantage in bulky, large-scale and complex investments, particularly in infrastructure. Third, fungible funding is important for the second phase of reconstruction, with government funds filling the gap. Fourth, sequencing is critical in situations where there is both low institutional capacity and widespread needs. Therefore, a balance needs to be struck between swiftness and capacity building. Finally, remote areas often do not have equitable access to resources and, as a consequence, require special attention and monitoring.

### ***Monitoring and evaluation***

69. Financing is likely to come from multiple sources. Timely and consistent tracking of budgets/commitments and execution is a critical ingredient for assessing reconstruction progress. Financial information is especially sensitive, particularly if donors and private contributions are high. An on-going assessment of commitments and disbursements across all sources (public/private, domestic/international) would highlight the extent of any reconstruction delays and potential financing gaps. Good PFM systems would then measure whether the financial resources are being translated into outcomes. When execution is decentralized across various types of domestic or international agencies or local governments, data systems need to pay particular attention to proper accounting. For instance, commitments need to be separated from disbursements, emergency projects from reconstruction projects, and financing institutions from implementing partners (Agustina, 2007).

70. In recent years, several “tracking systems” have been developed to monitor financial information and improve aid management of the recovery process. The existence of credible and integrated financial tracking systems has become more critical in recent years because of the unprecedented levels of funding after the tsunami, together with other large-scale post-conflict reconstruction efforts (e.g. Afghanistan and Sudan) with large funding.

71. The most prominent aid management and reconstruction tracking instrument is the Development Assistance Database (DAD). The DAD has been applied in a number of countries including Afghanistan, Sri Lanka, the Maldives and Indonesia. However, coverage has been limited, often focusing on UN and other core donor activities. Although the DAD includes sophisticated technical specifications, including visual breakdowns to the village level, it has faced many implementation challenges, particularly in Aceh and Nias.

72. While information technology has sometimes been an impediment to the effective implementation of information systems, it has typically not been the main obstacle for effective monitoring. Instead, the main challenges are related to data collection and analysis:

- In Aceh and Nias, a labor intensive data collection effort by a joint team of the World Bank (mainly national staff) and the reconstruction agency has proven superior to DAD’s more high-tech and self-entry-based information system in tracking funds. The Indonesia DAD—a more than US\$2 million investment—has yet to deliver any significant results.
- In Sri Lanka, DAD has been providing regular financial and project updates. Similar to Aceh and Nias, this system also builds on self-entry-based information. In order to increase compliance, the DAD team also discloses the institutions not providing data.

73. Future technical assistance should pay particular attention to more basic but effective systems. For example, the DAD system relies mainly on self-entry. A better but an admittedly more labor-intensive approach is to engage in proactive collection from key players. Furthermore, rather than focusing on excessive detail, a more straightforward classification system that focuses on the core sectors of the damage/loss assessment would generate more workable systems.

## V. Lessons Learned

74. This paper has sought to offer an initial stock-take of post-disaster reconstruction experience. The existing country experiences highlight three main lessons: (i) Reconstruction agencies are often the only workable institutional arrangement, particularly in large-scale disasters, notwithstanding high risks and mixed experiences; (ii) The core principles of good PFM still apply, but all funding does not necessarily need to be channeled through country systems if the regular budget cycle does not allow for a speedy and flexible implementation; and (iii) good information and communication are the secret to successful reconstruction but are rarely found.

***Reconstruction agencies are often the only workable institutional arrangement, particularly in large-scale disasters.***

75. The optimal choice of institutional arrangements depends on the three key factors: (i) scale and scope of the disaster and reconstruction program, (ii) the location of the disaster, and (iii) the pre-existing capacity of local agencies. If the nature of the disaster and the corresponding reconstruction program is large, the location remote and local institutions weak (Aceh/Nias, Sri Lanka and Pakistan) then the need for a special agency with a strong coordination and implementation function is great. If local institutions are strong and the logistical reconstruction challenges manageable within the existing structures, then the existing institutions have proven to be sufficient to manage the reconstruction program, even if damage, losses and the resulting reconstruction program were substantial (Maldives and Yogyakarta).

76. Independent reconstruction agencies with substantial powers are only a second-best solution, but often there is no better choice because existing institutions may have even more difficulty managing the reconstruction process successfully. Once these agencies are set up there are inevitable tensions with existing institutions. The most critical periods are at the beginning and the end, reflecting the two essential transitions of the reconstruction process: from relief to reconstruction, and from reconstruction to development.

***The core principles of good PFM still apply, but all funding does not necessarily need to be channeled through country systems if the regular budget cycle does not allow for a speedy and flexible implementation.***

77. The need for strengthening and supporting existing country systems is a core theme of current development thinking. Reconstruction is different and should be part of this important target for regular development programs. There are three main reasons to embark on more flexible and unconventional PFM arrangements. First, speed is of the highest importance particularly in the early reconstruction period. As other actors will react speedily, the conditions on the ground change fast and often make any longer-term planning obsolete. Second, disasters rarely happen at a moment when budgetary needs can easily be integrated into the budget process. Third, the reconstruction process may also entail a significant scaling-up of spending in areas where existing government agencies do not have an established track record or comparative advantage (e.g. housing, private sector development). The traditional government institutions often do not have the necessary expertise in these sectors because they are not designed for public intervention in normal circumstances.

78. Assuring fiduciary integrity in such a fluid reconstruction environment is the true challenge and inevitably entails tradeoffs. While on-budget arrangements are preferred for long-term development, off-budget mechanisms have been effective in responding to emergency needs and allowing for more flexibility in rapidly changing circumstances. Coordination and integrated monitoring of projects should avoid any overlap and waste of resources. Hence, associated PFM sequencing needs to identify core emergency procedures and minimal functionality to avoid implementation delays. Rather than waiting to put in place a fully fledged system and comprehensive planning strategy, critical projects require emergency modalities, including the use of off-budget channels.

79. There is a natural burden-sharing among the different parties in the reconstruction process between the first and the second half of the reconstruction program. In the early phase, many players, particularly NGOs, bilateral donors and the UN, dedicate their funds to specific sectors and focus on the early reconstruction phase. At a later stage, fungible resources for reconstruction and development are very important. The affected governments or larger multilateral donors or MDTFs have a comparative advantage in providing these fungible programs.

***Good information and communication are the secret of successful reconstruction but these rarely exist.***

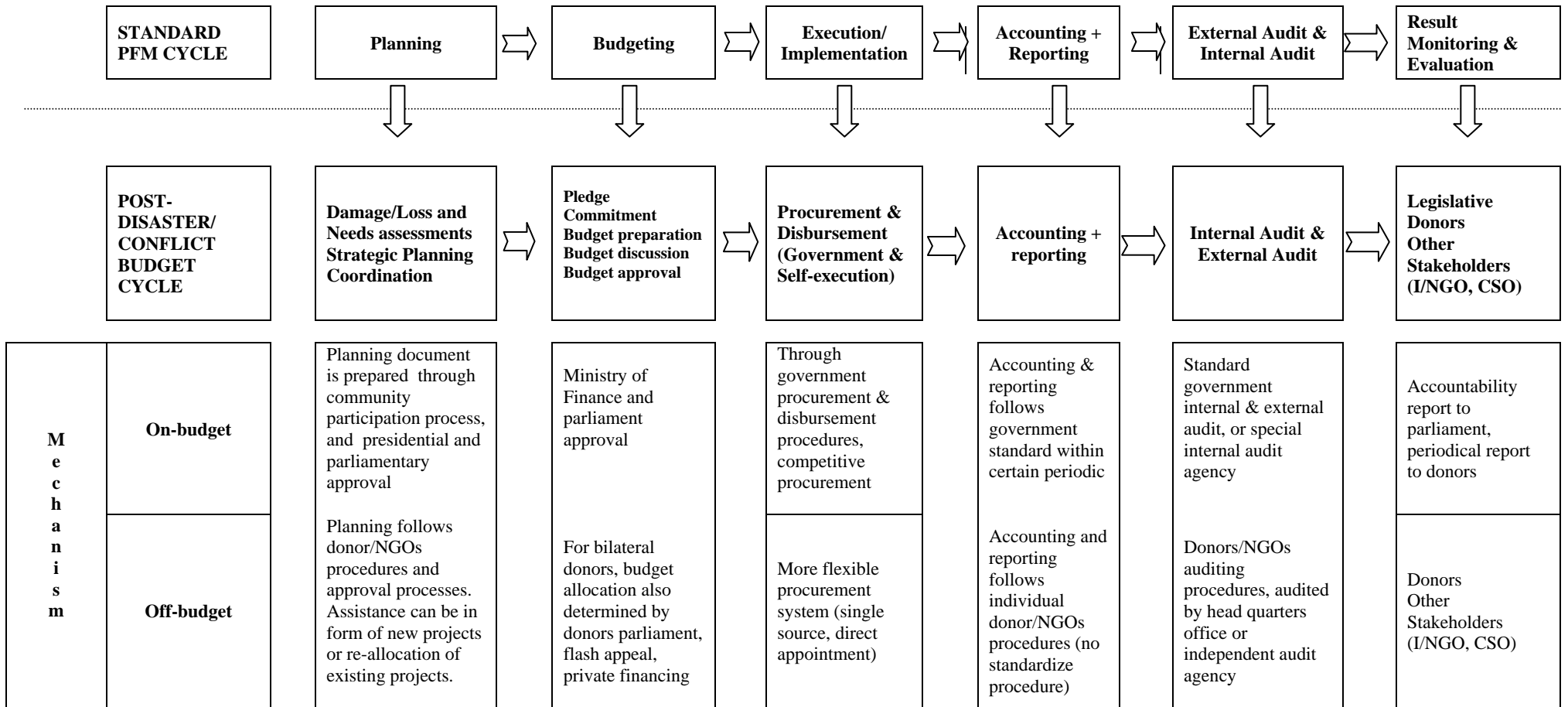
80. The combination of large amounts of funding and the need for rapid action creates an environment where reliable evaluation and monitoring is even more critical than in regular development programs. In many cases, monitoring and evaluation are not conducted comprehensively. Instead, most M&E systems only focus on the coordinating agency's own performance rather than the recovery and reconstruction performance as a whole.

81. Many important decisions, particularly funding decisions, are taken at short notice and are based on weak information. A comprehensive accounting and reporting mechanism that covers both off- and on-government budget contributions is critical to help plan and manage the use of the reconstruction program. Off-budget funds, particularly from NGOs, are often not part of the overall accounting and reporting system and special arrangements are needed to capture these off-budget flows (e.g. project approval workshops). Reliable data, both comprehensive and detailed, become equally vital, even from a legal dimension, when reconstruction and other agencies at the end of their existence are handing over their assets to local authorities.

82. However, when governments and donors have made an effort to establish comprehensive monitoring systems through complex IT-systems, the results have been mostly disappointing. Despite ambitious pronouncements, existing high-tech systems such as the UN's DAD have as yet not been able to provide timely and credible information that can be used for policy decisions. The experience of the reconstruction effort in Aceh, Nias and Yogyakarta shows that relatively low-tech, labor-intensive data collection and analysis based on a robust methodology is superior to technologically advanced and self-entry based information systems. The successful monitoring systems have collected and communicated the results of the tracking effort in regular intervals, e.g. three-month cycles for the first two years in the case of Aceh and Nias.



**Annex 1 Framework: Conventional and Post-Disaster/Post-Conflict PFM Cycle**



## Annex 2: Key facts and institutional arrangement of post-conflict country cases

**Table 1: Post-conflict country case: key facts**

Country	Date of event	The nature and impact of reconstruction challenge	Date of Damage & Loss or Needs Assessment	Donor Conference
<b>East Timor</b>	Mass violence and clash between pro-Indonesia and pro-independence groups after referendum in Aug 30, 1999	<ul style="list-style-type: none"> <li>Displaced 75% of population and destroyed 70% of infrastructure</li> <li>Need assessment: US\$307 million</li> <li>Impact on economy: 40-45% drop in GDP</li> </ul>	Oct-Nov 1999	Tokyo, Dec 1999 Donor pledges: US\$366 million
<b>Afghanistan</b>	The fall of the Taliban regime on October 2001	<ul style="list-style-type: none"> <li>Millions of people displaced</li> <li>Needs assessment: US\$14.6 b (10 years)</li> <li>GDP 2002 : US\$4.4 billion</li> </ul>	January 2002	Tokyo, Jan 21-22, 2002 Donor pledges: US\$5.1 billion
<b>Haiti</b>	The fall of Aristide's regime on February 29, 2004 after over two decades of conflict	<ul style="list-style-type: none"> <li>65% of population below poverty line</li> <li>Needs assessment: US\$1.4 billion</li> <li>Impact on economy: 5.5% of GDP</li> </ul>	July 2004 (Interim Cooperation Framework 2004-2006)	Washington DC, July 19-20, 2004. Donor pledges: US\$1.5 billion
<b>South Sudan</b>	The signing of the Comprehensive Peace Agreement (CPA) on January 9, 2005 after 21 years of civil war	<ul style="list-style-type: none"> <li>2 million people killed and more than 4 million people displaced</li> <li>Needs: US\$3.6 billion (or US\$8 billion in total)</li> </ul>	Dec, 2003 - March 18, 2005 (Joint Assessment Mission)	Oslo, April 2005 Donor pledges: US\$4.5 billion

**Table 2: Institutional arrangement of post-conflict country cases**

Country	Type of event	Date of Event	Type of Institutional Arrangements	Implementing agency(ies)
East Timor	Conflict	August 30, 1999 (Referendum)	Interim government 1999-2002 (The United Nation Transitional Administration for East Timor/UNTAET)	Interim government, donors, NGOs
Afghanistan	Conflict	October 2001 (The fall of Taliban regime)	Interim government 2002-2004 supported by The United Nation Assistance Mission in Afghanistan (UNAMA) and Coordination Agency (Afghanistan Assistance Coordination Authority/AACA)	Interim government, donors, NGO
Haiti	Conflict	February 29, 2004 (The fall of Aristide's regime)	Interim Government 2004-2006 supported by United Nation peacekeeping mission (Mission des Nations Unies pour la Stabilization en Haiti – MINUSTAH)	Interim government, donors, NGOs
South Sudan	Conflict	January 9, 2005 (The signing of The Comprehensive Peace Agreement)	Interim government with power sharing agreement between the Government of Sudan and the Sudan's People Liberation Movement/Army (SPLAM/A) The presence of the UN (the United Nations Mission in the Sudan/UNMIS) and Core Coordination Group (CCG) as coordination mechanism.	Interim government, donors, NGO

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