



## Tracking Financial Flows after Disasters

### Reconstruction Expenditure Tracking Analysis Methodology (RETAM)

Wolfgang Fengler, Senior Economist, East Asia PREM

*This note presents a financial tracking methodology developed by the World Bank's Indonesia country team. Following the tsunami and the subsequent earthquakes in Nias (2005) and Yogyakarta (2006), the team has produced several reconstruction finance updates and monitored the sources and uses of the funding.*

*The methodology is a relatively simple accounting tool centered on the generation of a core table to facilitate sectoral and geographical analysis and is based on three methodological principles: (i) the comprehensiveness of expenditures; (ii) a specific focus on reconstruction expenditures; and (iii) matching the sectoral classifications in the Damage and Loss Assessment.*

#### The Need for RETAM: What Happened to All of the Money?

Following the tsunami, people and governments around the world participated in an unprecedented act of global solidarity. Private contributions reached record highs and donors competed to become the leading source of tsunami recovery funds. Now people are asking: What happened to all the money?

The Indonesian province of Aceh was the hardest hit of the tsunami-affected regions, and the March 2005 earthquake only added to the toll on the island groups of Nias and Simeulue and in southern areas of Aceh. Previously isolated, Aceh saw an enormous inflow of resources and aid workers. More than 1,500 projects managed by some 300 government, donor, and nongovernmental organization agencies have been active in Aceh and Nias, managing a reconstruction portfolio of US\$5.8 billion. Many observers consider the reconstruction effort a test in measuring the effectiveness of global solidarity and the development community's ability to deliver concrete results.

#### What You Don't Monitor, You Don't Manage

Many important decisions, particularly funding decisions, are made on short notice and are based on weak information. Reliable information is critical if the reconstruction effort is to be effective.

The monitoring and evaluation of reconstruction spending has received considerable

attention and many lofty promises have been made. In January 2005, United Nations Under-Secretary General Jan Egeland announced that the international community would establish a system that would "show that we are up to the task, not only getting relief to the needy parties, but also in keeping track of every penny."<sup>1</sup> This system is the Development Assistance Database (DAD), first introduced in Afghanistan in 2003. Most post-tsunami countries adopted the DAD, and in Aceh and Nias it was called the Recovery Aceh and Nias Database (RAN-D).

Efforts to establish such databases are laudable, but few have produced timely and credible information. In Aceh, RAN-D faces technological difficulties and conceptual problems. Similar to most DAD systems, RAN-D is passive and relies on self-entry by individual agencies. It also lacks a methodology for classifying reconstruction funds and has no rigorous system of quality control.

#### Lessons from Aceh, Nias, and Yogyakarta

##### Monitoring and Managing

**Lesson 1.** *Information technology can help, but ultimately, people need to track the money.* Experience from Indonesia's reconstruction programs shows that low-tech, labor-intensive data collection and analysis are superior to high-tech, self-entry-based information systems. Datasets invariably contain errors that only human operatives can detect. The most reliable information on Indonesia's reconstruction programs was

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delivered by a dedicated team of experienced data analysts consistently applying RETAM.

**Lesson 2.** *Try to capture every project.* In post-tsunami reconstruction, NGOs have become dominant players and national governments have contributed more than US\$2 billion. Financial tracking only focusing on donor funds will fail to provide a meaningful analysis. One of the early achievements was a project approval process by the Indonesia Rehabilitation and Reconstruction Agency (BRR) that captured almost all projects.

**Lesson 3.** *Manage the top players proactively.* In the initial reconstruction phase, an effort was made to coordinate the 300 projects, albeit loosely and irregularly. In the future, efforts should focus on the top 20 institutions capturing more than 85 percent of the total portfolio.

#### *Defining Needs*

**Lesson 4.** *Measure damage and losses carefully and professionally.* Immediately after disasters, the attention is on emergency aid to help survivors. While institutions such as the World Bank have no comparative advantage in emergency aid, they can make a valuable contribution by conducting a Damage and Loss Assessment. Such assessments are invaluable because they can guide initial funding decisions and influence the future reconstruction processes. Indonesia applied the Economic Commission of Latin America (ECLAC) methodology, a standard accounting tool to estimate the replacement cost of destroyed assets and lost earnings.

**Lesson 5.** *Needs and damage/losses are fundamentally different concepts, although related.* Needs are typically understood as requiring support from government, donors, public sources, or NGOs. In most disasters, needs are significantly lower than damage and losses because of insurance cover and personal contributions from the affected population. However, in some cases, such as in Aceh, needs can be higher than damage and losses, if (i) transitional costs, often related to the emergency, are high; or (ii) there is a surge in inflation, often triggered by supply-side shocks, transport bottlenecks, or labor shortages.

**Lesson 6.** *Establish “core needs” to calculate the minimum needs to be built back.* “Minimum core needs” assume that a portion of the household and private sector damage and losses will be covered by themselves, possibly through insurance or savings. They are also a first-step finan-

cial benchmark for reconstruction programs. In Aceh and Nias, they were calculated using the Damage and Loss Assessment and the master plan of the government.

#### *Tracking Expenditures*

**Lesson 7.** *Match sectoral expenditures with damage and loss categories.* Sectoral definitions should follow the Damage and Loss Assessment as closely as possible. If a project is cross-sectoral, corresponding shares will be allocated to each sector covered by the project.

**Lesson 8.** *Separate pledges from commitments and disbursements.* Pledges are captured immediately after the disaster and typically confirmed at donor meetings. However, it is more important to monitor the commitments—reconstruction portfolio—and disbursements because they reflect the actual activities on the ground. Defining commitments and disbursements may be a challenge because funding often flows through many channels before it reaches beneficiaries (lesson 10).

**Lesson 9.** *Separate emergency funding from reconstruction and development projects.* Emergency spending played a significant role after the tsunami, including in-kind support such as medicine, temporary shelter, food, and cash for the clean-up work. Reconstruction finance tracking should exclude emergency-type spending and focus on investments to replace assets that have been damaged or lost such as housing, schools, bridges, and roads.

**Lesson 10.** *Avoid double counting by focusing on either the executing or the funding agency.* Often, donors transfer funds to NGOs or other donors to implement projects. To eliminate the risk of double counting, it is important to differentiate between execution and contribution. In Aceh and Nias, RETAM captured individual projects at the level of the executing agencies to avoid double counting. When reconstruction programs are managed by fewer players, as after the Yogyakarta earthquake, focusing on the funding agencies is a better option.

#### **Reconstruction Finance Analysis**

##### *The “Master Table”*

The master table, core element of any reconstruction expenditure tracking analysis, summarizes the allocations and disbursements of the overall reconstruction program. It is organized by sectors matching the categories of the Damage and Loss Assessment and by

institutions including national governments, donors, and NGOs.

*Step 1—Finding the Data*

The master table is built by collecting information on the projects and programs to be implemented in the affected area. In Aceh and Nias, this information can be obtained from the reconstruction agency because donors and NGOs must submit their project plans to BRR. This information includes project name, key activities, funding source, implementing agency, targeted regions, project duration, and budget allocation. In cases where no data center exists, the information is collected by directly contacting the institutions (table 1).

*Step 2—Organizing and Analyzing the Data*

Projects are classified by sector, matching the categories to the Damage and Loss Assessment and emergency activities are separated from reconstruction expenditures. To maintain consistency with damage and loss data, projects are classified using the same sectoral categories. This process is critical as there are often unclear project definitions, multisector projects, and unclear sector mapping.

The quality of the master table depends on the classification of each individual project. It is important to have clear sectoral (and geographic) definitions and an understanding of the flows of funds to avoid double counting. See table 2 for their pitfalls and challenges.

The final step in constructing the master table is to link all data with the original data source to update, cross-check, and avoid losing any data. Linking the data depends on the

type of software program used to store the information. However, most programs only need a simple formula to link all the dataset entries into one master table.

*Gap Estimates*

Once the master table is established, the existing expenditures can be compared with needs and used to calculate sectoral gaps.<sup>2</sup> Two types of gaps can be calculated:

- **Needs compared with the reconstruction program:** compares all projects being implemented and in the pipeline with estimated needs to help budget planning and forward estimates (see figure 1).
- **Needs compared with disbursements:** compares actual project disbursements with needs and actual amount of funds spent to help estimate progress on the ground.

Sectoral gaps represent the difference between total budget allocations (or disbursements) and the minimum build-back needs. In situations where core minimum needs are unavailable, the financing gap can be obtained by subtracting from the total budget allocated either the total damage and losses or the government plan for reconstruction in each sector. Damage and losses, government plans, and core minimum needs have to be adjusted to account for inflation.

**Conclusion**

The World Bank is formally known as the International Bank for *Reconstruction* and Development (IBRD) and has a mandate to provide knowledge on reconstruction.

Avoid double counting.

**Table 1. Reconstruction Data Collection Strategy**

| <i>Key players</i>  | <i>Data collection strategy</i>   |
|---------------------|---|
| National government | • Official government reporting; if a reconstruction agency is managing a large share of the reconstruction, data collection is facilitated.                                  |
| Donors              | • Data collection efforts through consultative group mechanism. Alternatively, collection of data from top 10 donors.   |
| NGOs                | • Comprehensive datasets are only feasible if government established a system to approve all projects, including from NGOs; alternatively, focus on top 10 NGOs. <sup>a</sup> |

Source: Compilation by author.

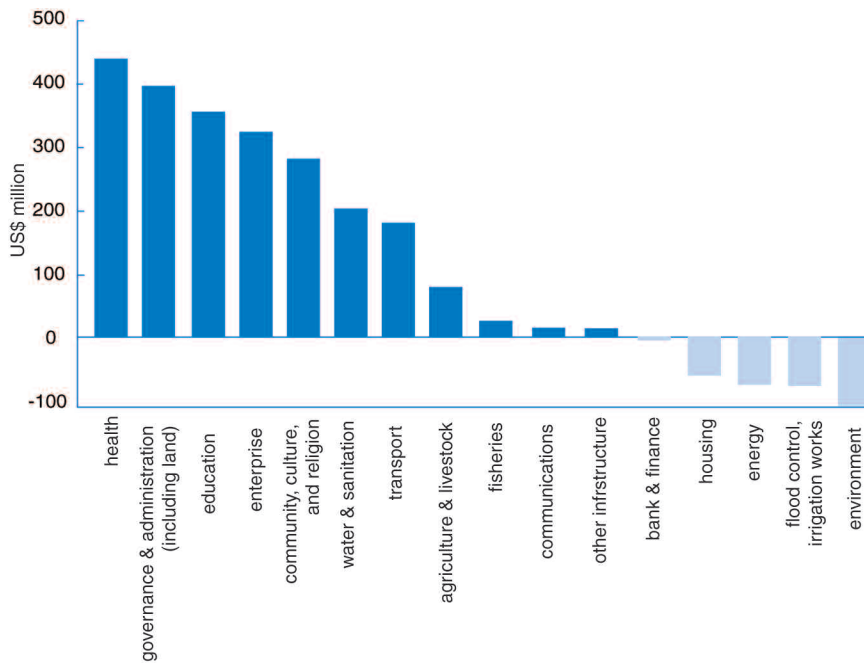
<sup>a</sup> Top 20 players (including government) managed more than 85 percent of the total reconstruction program in Aceh and Nias (lesson 3).

**Table 2. Data Analysis: Pitfalls and Challenges**

| <i>Key players</i>  | <i>Key pitfalls and challenges</i>   |
|---------------------|--|
| National government | • Separation between emergency and reconstruction programs and subnational data                    |
| Donors              | • Separation between emergency and reconstruction programs, double counting, and geographical data |
| NGOs                | • Separation between emergency and reconstruction programs and double counting                     |

Source: Compilation by author.

**Figure 1. Sectoral Gaps in Aceh and Nias (reconstruction program compared with needs)**



Source: World Bank, Reconstruction Expenditure Tracking, April 2007.

Surprisingly, little is known about reconstruction situations and poor information exists on reconstruction finance. While significant documentation is available on World Bank projects and their disbursement, there is a dearth of information on aggregate reconstruction programs.

The Aceh, Nias, and Yogyakarta reconstruction programs are the first instances where the World Bank has made an effort to provide such information on a regular basis. RETAM allows decision makers to quantify the totality of the reconstruction program and compare this with sectoral and geographic needs. RETAM establishes a standardized approach in tracking reconstruction expenditures and is also more labor intensive and less dependent on sophisticated information technology systems.

#### References

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#### About This Note

Substantial inputs were provided by Cut Dian Agustina, Ahya Ihsan, Peter Milne, and Ahmed Fahmi Zaki. This team, with Henry Hasan Masyrafah and Jock McKeon, has been regularly “tracking the money” for the reconstruction in Aceh, Nias, and Yogyakarta. The team is also grateful for the guidance provided by Andrew Steer and suggestions from Eugene Gurenko.

#### Notes

1. Press briefing by the UN Emergency Relief Coordinator, 14 March 2005.
2. Spatial gap analysis is a strong complement to sectoral analysis, particularly as misallocations are often more pronounced.