Auditing of post-disaster recovery and reconstruction activities

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Abstract
Purpose – This paper seeks to explore the application of auditing and quality assurance principles and practices to the planning and implementation of post-disaster recovery and reconstruction.
Design/methodology/approach – The paper notes the risk to a disaster recovery organization’s credibility if fraud and poor performance are apparent in its efforts to support disaster recovery and reconstruction, and it provides examples of relief organizations’ efforts to ensure that their actions are both credible and effective. The paper examines the complex and multi-faceted processes of post-disaster recovery and reconstruction, and it describes the growing emphasis around the world on social justice/equity issues and the importance of proper governance. It explores the advantages and pitfalls of incorporating auditing practices into the effective implementation of recovery and reconstruction activities. The paper concludes with a discussion of the importance to the affected communities of knowing that expenditures – both financial and emotional – will achieve something better.
Findings – Recovery and reconstruction efforts can help to mitigate possible future disaster effects by making the community more sustainable and more survivable. Mechanisms for assessing whether recovery funds were well spent are often weak or missing. A potential solution is to adapt and apply the processes and protocols of performance auditing and performance measurement to recovery and reconstruction – identifying risks and controls, setting measurable targets, assessing whether sustainability and survivability goals are met.
Originality/value – Recovery and reconstruction efforts would gain greater credibility with aid donors, stakeholders, and the affected public by having formal programs in place for assessing recovery performance.
Keywords Internal auditing, Disasters, Performance monitoring, Performance measures

Introduction
Governance of organizations and activities has been, and continues to be, the subject of considerable debate in Europe, Asia, Australia, and North America. So, too, has been the issue of transparency – of information, decision-making, documentation, and results. These issues have been extended into the realm of post-disaster management. For example, Resolution 10 of the African delegates at IDRC (2006) states:

Encourage good governance and best practices as necessary mechanisms for establishing sustainable and effective disaster risk management and disaster reduction programmes in Africa (IDRC, 2006).

This issue can also be expressed in terms of risk:

Is there a lack of transparency (sic), lack of accountability, and/or corruption in sectors related to your organisation’s core work which may negatively influence the beneficiaries’ vulnerability to natural hazards/disasters? (Wamsler, 2006, p. 8).
Recent disasters around the world have raised thorny and difficult issues regarding recovery and reconstruction – what will be re-built, how will it be done, and how (and by whom) will decisions be made and implemented[1]?

Emergency managers have moved beyond immediate disaster response and short-term recovery and are now re-focusing their efforts more on the survivability of communities; environmental professionals are placing greater emphasis on the sustainability of environmental quality. Sustainability and survivability[2] are two aspects of the same concept: achieving continual improvement in ecosystems, the built environment, and human society. The practice of emergency management has concentrated largely on preparedness and response, and only in the last ten-15 years have practitioners begun to focus on mitigation and recovery – areas that involve diffuse, long term, and potentially quite costly activities. While some financial accounting paradigm is usually applied to recovery and reconstruction projects, there is rarely any systematic consideration of whether such lengthy projects actually achieve the goals for which they were implemented. A lot of money gets spent, but one does not always know why.

The monitoring and evaluation of the disaster recovery and reconstruction process can be significantly enhanced by applying the principles and practices of auditing and assessment to provide objective assurance that systems of governance, including risk management, operational performance, and financial control, are actually working. That is, auditing and assessment can help to determine whether:

- financial and operational information, for both internal and external use, is reliable and credible;
- operations are performed efficiently and effectively;
- assets are safeguarded; and
- actions and decisions comply with laws, regulations, and contracts.

Considering the often monumental amounts of money invested in post-disaster reconstruction, it is imperative to ensure that those funds are well spent and that both accountability and transparency are robust at every phase of the process.

**Reputational risk – what’s in a name?**

*The Economist*’s Intelligence Unit surveyed 269 business executives from around the world in 2005 regarding the importance of protecting a company’s reputation. From a choice of 13 categories, so-called “reputational” risk was identified as the most significant threat to a firm’s wellbeing:

Reputation is one of the most important corporate assets, and also one of the most difficult to protect. . . . ahead of regulatory risk, human capital risk, IT network risk, and market risk and credit risk . . . . Companies worry particularly about exposure of unethical practices, and about failing to deliver minimum standards of service and product quality to customers. However, the biggest threat to reputation arises from compliance failures, with 29% of companies citing failures to meet regulatory or legal obligations as a major source of reputational risk. (*The Economist*, 2005, p. 2).

Although these comments are from the private sector, I submit that they apply with equal force to the government sector and non-governmental organizations (NGOs), especially in the context of post-disaster recovery and reconstruction. One does not
have to look very far for recent examples. One report, *Big, Easy Money: Disaster Profiteering On The American Gulf Coast*, published by CorpWatch “...explores some of the corporate contractors to determine how, 12 months after the worst disaster on American soil, so little seems to have been accomplished despite billions having been pumped into the region,” and refers to large corporations “taking advantage of the lack of any system of accountability to profit handsomely” (CorpWatch, 2006, p. 2).

A brief survey of LexisNexis reveals a number of recent articles and reports with titles such as: “Disaster profiteering’ abuses needlessly slowing rebuilding of New Orleans, Gulf Coast after Katrina”; “Rebuilding delayed is rebuilding denied”; “Disaster profiteers pocket millions in deals”. No disaster reconstruction organization, program, or project needs press of this kind.

**Some illustrative examples**

The US Government Accountability Office (GAO), formerly known as the US General Accounting Office, evaluated the US Agency for International Development’s (USAID) performance in providing disaster recovery and reconstruction assistance to several Central American countries in the wake of Hurricanes Mitch and Georges (1999). GAO objectives, in part, were to determine:

- whether the programs and projects funded by USAID and the other US departments and agencies addressed the intended purposes of disaster recovery and reconstruction;
- whether USAID coordinated with other US government entities and other international donors to avoid duplication; and
- what USAID did to help the affected countries strengthen their audit institutions’ capabilities to resist corruption (USGAO, 2002, p. 2).

Considerable attention was focused on whether money was properly spent, and at the same time, whether funded projects actually met their intended goals.

The Tsunami Evaluation Coalition (TEC) has published a number of reports on the links between relief, rehabilitation and development for the Indian Ocean earthquake and tsunamis of 26 December 2004. Their concern is not only the practical aspects of moving beyond immediate recovery into long-term reconstruction and sustainable improvement, but also the credibility and accountability of the process used for this transition:

Shelter reconstruction, poverty alleviation, risk reduction and livelihood recovery are slow, highly complex undertakings that frequently involve factors outside the control (and competence) of international humanitarian relief agencies. These factors can include issues of land rights and availability, national poverty trajectories and environmental considerations. (TECa, 2006, p. 16)

TEC studies do not find that many international agencies lived up to their own standards with regard to respect and support for local and national ownership: where local and national capacities were recognised, they were often applied in strengthening international organizations more than local responses. (TECa, 2006, p. 18)

The link between rehabilitation efforts and wider development trends has not been sufficiently thought through. There is therefore a risk that some rehabilitation efforts may
These reports stress the need for relief agencies, governments, and NGOs to think beyond the immediate relief effort and to consider how best to use both financial and human resources for sustainable development and long-term improvement of the affected society. At the same time, there is a strong need for transparency and accountability to help avoid disappointments through unfulfilled promises to affected populations and dysfunctional shortcuts in development planning. Transparency and accountability will not necessarily guarantee good outcomes, but they can increase the odds of success.

Recovery and reconstruction

The complex and multi-faceted processes of post-disaster recovery and reconstruction extend well beyond the immediate period of restoring basic services and life support infrastructure. While immediate restoration of services can be a matter of weeks, full recovery can stretch out ten-15 years. What will happen during that period? Will the emphasis be on re-creating what was there before? Or on improving the built environment, the larger physical environment, and the quality of life? Or, perhaps, on enhancing the community’s ability to mitigate and survive future disasters? Will the community leaders evaluate recovery success through sector-specific performance measures (e.g., restoration of economic activity, construction of old vs. new buildings and residences, repopulation of devastated areas), or will they engage in “an ongoing search for a ‘new normal’” (Vale and Campanella, 2005)? Performance auditing of reconstruction programs and activities could help create that new normal in which a community not merely returns to what it was before but becomes a more environmentally sustainable and physically survivable community.

International disaster assistance, especially in developing countries, can have an important influence on both the implementation and the outcomes of post-disaster reconstruction. The emerging trend in post-disaster recovery embraces the ideas of sustainability and survivability that must be included in, if not form the central premise of, an evaluation of the success or failure of a post-disaster reconstruction regime:

Mitigation...is defined as a statement of intent or a plan of action to reduce such significant hazard risks while incorporating sustainable values; this includes seeking opportunities to relocate inappropriate land uses out of hazard areas and to rebuild damaged homes and infrastructure in more resilient ways instead of replicating brittle, unsustainable development practices. Sustainable communities also recognize the interconnectedness of social, economic, and environmental goals, and strive to break down the de facto zoning of urban and rural living space, which has previously resulted in the poor occupying the more hazardous regions in frail dwelling units (Ranganath, 2000).

There is a multiplicity of recovery and reconstruction activities that can be pursued by a plethora of government jurisdictions, government agencies, NGOs, private and volunteer groups – independently, in cooperation, in competition. These activities may include rebuilding houses, buildings, and infrastructure; creating communications infrastructure; providing loans, credits, technical assistance; strengthening disaster mitigation efforts such as disaster preparedness and risk reduction, early warning and...
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prevention, and watershed management; developing or re-constituting institutional capacity for management and governance; training in process and methods. Given this bewildering array of activities, issues, and desired outcomes, what would one choose (or be able) to audit? How? To what level of detail? For that matter, is it possible to audit even a small number of activities in a large-scale and multi-year disaster reconstruction process without creating confusion and counterproductive behaviors?

Imbedded within the process of post-disaster reconstruction are a number of difficult questions that must be answered – or at least acknowledged – if the effort is to achieve anything remotely resembling success. Who decides what gets rebuilt where and how? Who benefits, and who has to give way so that others may benefit? How do decisions get made, and is there any assurance that decisions will be equitable? And how will we know that equitable decisions were made?

Justice/equity issues

Those who initiate and manage reconstruction projects and programs must be cognizant of the importance of environmental justice/equity issues in the context of hazard and vulnerability. Hazards of any type have a disproportionate impact on the poor and disadvantaged. Among the difficult equity issues coming to a head in the environmental management world are: industrial plant and landfill siting; development in industrial or depressed areas, residential settlement on slopes or in other marginal areas; higher population density; immigrants and language differences; differential access to social services and information sources. Most of these issues have not yet been adequately addressed in disaster recovery planning or community dialogue.

Agyeman (2005) raises the issue of “just sustainability” and stresses the potentially re-distributive function of developing sustainable communities. He links the principles of justice/equity with both environmental quality and sustainable development. Indeed he foresees a more holistic approach toward sustainability embedded within progress on economic, environmental, and social fronts.

Pellow and Brulle (2005) place the environmental justice issue squarely within the context of socio-economic inequality and environmental degradation. They explore the “winners and losers” aspect of disaster effects, whereby the distribution of environmental degradation adheres to the class/race pattern of the society – wealth accumulates at the top, risks at the bottom.

Shubh Kumar-Range notes the socio-economic and gender-based differentials in vulnerability to disasters and asserts that greater attention must be paid to the contribution and place of women in responding to and recovering from disasters. Structural adjustment programs of the past two decades have increased competition for natural resources, with a resultant tendency to marginalize local populations at the expense of capital inflows into rural areas. Without an adequate framework for social equity or environmental protection, the outcomes are often literally disastrous (Kumar-Range, 2001).

Vale and Campanella (2005) state this issue most clearly: What we call “recovery” is also driven by value-laden questions about equity. Who sets the priorities for recovering communities? How are the needs of low-income residents valued in relation to the pressing claims of disrupted businesses? Who decides what will be rebuilt
The social justice/equity issue is highlighted in a recent Oxfam America report on Hurricane Katrina:

Government at all levels must hold itself accountable to both hurricane survivors and the taxpayers underwriting this recovery. Tracking of recovery funds now is used primarily to flag fraud, which deserves careful attention and has received much media notice. But fraud must not be confused with waste and negligence, both of which divert funds away from the poor, who need the most assistance. Such disregard of the survivors deserves similar attention. With regular poverty thresholds for CDBG funds waived, it is imperative that both states make updated data available regularly, documenting and analyzing the distribution of aid in terms of income, race, gender, and disability, among other factors. Monthly reports, written in plain language and published widely, not only would document the possibility of fraud but would help the public track the progress of the recovery. Such data would provide important evidence of the extent to which equity is being achieved – while there is still time to change course (Pipa and Green, 2006, p. 43).

An important step toward addressing these equity issues is to involve all parts of the affected community in planning for and implementing post-disaster reconstruction and long-term mitigation. Maximizing community involvement will illuminate the physical, economic, cultural, social, psychological, and infrastructure problems that must be solved in creating (or re-creating) a more survivable community (Participatory Planning Guide for Post-Disaster Reconstruction, 2004).

Audit concepts and issues
The Institute of Internal Auditors (2004) defines internal auditing as follows:

Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization’s operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.

Types of audits
Financial statement audits provide reasonable assurance about whether the financial statements of an audited entity present fairly the financial position, results of operations, and cash flows in conformity with generally accepted accounting principles. Financial-related audits include determining whether:

- financial information is presented in accordance with established or stated criteria;
- the entity has adhered to specific financial compliance requirements; or
- the entity’s internal control structure over financial reporting and/or safeguarding assets is suitably designed and implemented to achieve the control objectives.

A performance audit is an objective and systematic examination of evidence for the purpose of providing an independent assessment of the performance of an organization, program, activity, or function in order to improve public
accountability and facilitate decision-making by parties with responsibility to oversee or initiate corrective action.

Performance auditing includes determining:

- whether the entity is acquiring, protecting, and using its resources (such as personnel, property, and space) economically and efficiently;
- the causes of inefficiencies or uneconomical practices;
- the extent to which the desired results or benefits established by the government or other authorizing body are being achieved;
- the effectiveness of organizations, programs, activities, or functions; and
- whether the entity has complied with significant laws and regulations applicable to the program.

While there are a number of national and international auditing standards and standards-setting bodies[3], I have drawn primarily from two for the purposes of this discussion. The *Government Auditing Standards* (2003) (aka, “the Yellow Book”), issued by the Comptroller General of the United States, is the guiding reference for audits of US government agencies, it and is used by many public sector auditors throughout the United States. The International Standards for the Professional Practice of Internal Auditing (aka, “The Red Book”) is published by the Institute of Internal Auditors (2004), an international body representing 100,000 internal auditing professionals worldwide with 249 Chapters and Institutes in 94 countries. The IIA standards are used by private and public sector auditors in the United States.

The basic elements of any auditing standard and auditing program are auditor independence and auditor competence:

The internal audit activity should be free from interference in determining the scope of internal auditing, performing work, and communicating results. Internal auditors should possess the knowledge, skills, and other competencies needed to perform their individual responsibilities (IIA).

In all matters relating to the audit work, the audit organization and the individual auditor, whether government or public, should be free both in fact and appearance from personal, external, and organizational impairments to independence.

The staff assigned to perform the audit or attestation engagement should collectively possess adequate professional competence for the tasks required (GAO).

Achievement of and adherence to these standards may be difficult in countries/areas where audit organizations are lacking or in situations where recovery and reconstruction activities are carried out in a fragmented manner with no coordinated plans. In such situations, it may be necessary to create an audit capability – based on a recognized set of standards – before an audit program can be initiated. At the same time, it may take a while to determine just who the “client” is for any particular set of audit activities, especially if local institutions have been significantly impacted by the disaster. By illustration, the GAO report on the USAID project noted how difficult it was to foster an indigenous capability for auditing due to host government interference and lack of experience (USGAO, 2002, p. 23).
Audit upsides and downsides in the context of recovery and reconstruction

One has to have some “there” there to audit – programs, policies, procedures, internal controls. It may be necessary for auditors to provide guidance on creating these management and control mechanisms before audits are even contemplated. The auditors can provide guidance, but they cannot create these systems; doing so would compromise the independence of the audit function. If there is something to audit, a number of other issues have to be addressed:

(1) Risk assessment – how do you decide what to audit first? What are the activities or program components that pose the greater risk (e.g. financial, reputational, safety, public health, regulatory, mitigation, etc.) to the success of the reconstruction effort?

(2) Auditing/assessment of discrete projects or entire programs?

(3) When do you conduct an audit – at the end? (When is the “end”?) In the middle? At specific benchmarks or waypoints?

(4) Safety and security issues – is it safe for auditors to operate in the project/program area? This becomes particularly salient in disaster areas already affected by armed conflict (see Renner, 2006).

(5) Focus on auditing specific activities? Or outcomes? Or internal controls? All of the above?

(6) What about corrective actions identified in the audit report? Who keeps track? Who is responsible for ensuring that they are carried out?

Auditing can be internal and/or external, based on a determination of who the audit client is: internal audits are audits prepared for clients internal to the organization such as managers and boards; external audits are primarily prepared for external parties such as stockholders, stakeholders, government agencies, banks, and so on. Choosing which type of audit to conduct can involve a number of considerations:

(1) Who would perform each kind of audit? Where would these auditing resources come from?

(2) What advantages/disadvantages does each type bring to meeting the auditing objectives?

(3) Is time-phasing an issue? When would each kind make sense?

(4) Internal during the project(s) or program(s); external at the end?

In addition to financial audits to determine that money was properly spent and accounted for, performance audits will help address a number of important issues:

(1) Are there policies, programs, procedures, processes in place to guide/direct recovery and reconstruction activities?

(2) Have project(s) goals and objectives been clearly defined and expressed?

(3) Is there an internal assessment process in place?

(4) Have risks been clearly defined, assessed? Does the risk assessment inform the internal control and assessment process?

(5) Are there internal controls in place to ensure that risks are adequately managed? Are they appropriate? Working? How do you know?

(6) Are the programs meeting/achieving the goals for which they were established?
Auditing of performance and outcomes is particularly important. Without it, one may have spent money properly and honestly but not know whether one has achieved anything.

Lizarralde explores the relationship between organizational design and performance as applied to the evaluation of post-disaster housing projects. He suggests that evaluations be done at the end of a project (not while it is in progress), and that they be done by someone external to the project. He recommends that discrete projects—rather than entire programs—be evaluated and that both process and outcomes be assessed. Lizarralde proposes a set of ten factors that need to be addressed regarding reconstruction projects and emphasizes: “The evaluation of a reconstruction project requires assessment of the following aspects: efficiency, results, timing, the quality of the product, pertinence, acceptability, strategy, scope, impacts/objectives and external aspects” (Lizarralde, 2002, p. 5).

Lizarralde and two colleagues expand the possible scope of auditing and evaluation to encompass the use of these as tools for “learning” and for improving future reconstruction projects. The goal, they say, is “to develop a holistic understanding of the project’s impacts, including both the expected and unexpected outcomes, for the purpose of gaining insight on how to improve the next project” (Johnson et al., 2004, p. 1).

Thus, auditing of post-disaster reconstruction activities faces a bewildering variety of possible audit targets, conceptual approaches, audit design parameters, and situational roadblocks. Auditing under these conditions will require a thorough understanding of the socio-political conditions, legal-regulatory requirements, economic limitations, and physical circumstances of the environment in which one is required to operate. If that weren’t enough, auditors will also need to apply an imaginative and creative methodology in order to add value to the reconstruction process.

**Conclusion**

More than anything else, auditing is about expectations and accountability. Citizens, taxpayers, stakeholders, and beneficiaries want to know that their expenditures—not only in money, but also in time, effort, suffering, and emotional capital—will result in something better. Amy Liu, of The Brookings Institution, affords a clear view of this principle:

Making New Orleans “better” that (sic) it was before is a fair and appropriate goal. Returning residents want to know if they are coming home to a better community. Businesses and financial institutions are wondering if their short-term investment and risk-taking will be sustained and worthwhile. Taxpayers want to know if the billions of dollars in public aid will create a more prosperous region, bringing long-term economic returns to the nation as a whole. In many respects, the quality of the effort may matter just as much or even more than speed and efficiency (Liu, 2006, p. 2).

Gopakumar Thampi stresses the importance of community involvement in disaster response and recovery. Participatory monitoring and evaluation within the affected community (rather than the importation of external evaluators) as well as the use of “Citizen Report Cards” and “Community Report Cards” to evaluate recovery and reconstruction are quite useful strategies that can be applied to provide feedback, to enhance accountability and transparency, and to identify opportunities for
improvements. Thampi specifically links two concepts central to the importance of auditing and assessment:

- Accountability. When projects are not connected to the area in which they operate – i.e. they are not staffed by local people or do not use local resources – they also do not have to be accountable to the local populations with regard to their impact. This distance helps to perpetuate the cycle of failed projects, as the lessons from each project are not passed on to the next. The view of the affected groups as passive recipients of aid also impacts the level of accountability, as they are not seen as partners to whom the project must answer with regard to its success or failure. Accountability to the local population engenders a feeling of ownership of the project, which is a key factor for project sustainability.

- Quality assessment. Without built-in assessment mechanisms, these projects cannot learn from their past mistakes and determine where they have gone wrong. In addition, this disconnects the web of post-disaster projects generally, not just from the local groups, but also from other projects, as they cannot learn from other project mistakes if the lessons are not examined and recorded (Thampi, 2005, p. 3).

The importance of learning throughout the course of recovery and reconstruction programs cannot be understated. Specifically, since “programs require long-term timeframes (ten-15 years), benefit from continuous model improvements and are highly site specific, they require a learning-by-doing adaptive process which relies on periodic evaluations” (Bettencourt et al., 2006, p. 31).

Planning for post-disaster reconstruction (including damage and hazard assessment, goal-setting, priority-ranking, organizing, and budgeting) is, of course, most important. Processes, projects, and activities that are identified and planned in advance are much more likely to be accomplished than those initiated on an ad hoc basis. Post-disaster recovery and reconstruction – which can be lengthy, complex, costly and problematic – can not only return the affected community to some version of what it was before but can also improve on what was there before.

Adapting and applying the process of performance auditing and performance measurement to recovery and reconstruction (e.g. setting measurable targets for reconstruction projects, assessing whether projects are meeting sustainability and survivability goals) and systematic evaluation of outcomes will help to ensure that the full range of community needs is met. At the same time, post-disaster recovery and reconstruction efforts can gain greater credibility with aid donors, stakeholders, and the affected public by having formal programs in place for assessing recovery performance.

Notes

1. An earlier draft of this paper was presented at the American Evaluation Association Conference in November, 2006. I am indebted to the members of the Disaster and Emergency Management Topical Interest Group for their comments and suggestions for improving the paper.

2. “Resilience” is the more common equivalent term in Europe.

3. International Organization of Supreme Audit Institutions (INTOSAI), Public Company Accounting Oversight Board (PCAOB), American Institute of Certified Public Accountants, International Auditing and Assurance Standards Board (IAASB), to name but a few.
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