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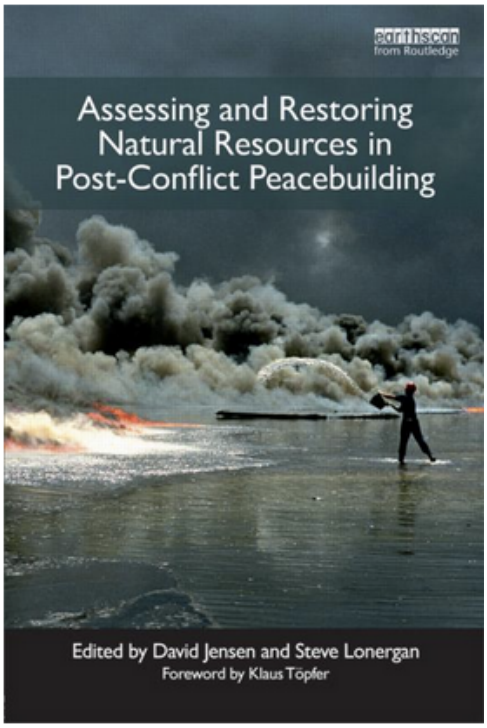

Addressing infrastructure needs in post-conflict reconstruction: An introduction to alternative planning approaches

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Addressing infrastructure needs in post-conflict reconstruction: An introduction to alternative planning approaches

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The term *infrastructure* refers to both hard and soft entities: it encompasses institutions and human capabilities, as well as material and physical processes and structures. Economic infrastructure often includes transportation, energy, communications, and financial services. Social infrastructure includes water and sanitation services, schools, hospitals, and health care. And institutional infrastructure includes the facilities, equipment, and personnel required for governance at the local and national levels.

Infrastructure is often heavily damaged and destroyed during conflict. Because institutions of governance are often fragile in post-conflict situations and because some infrastructure requires a sizable investment over a long period, securing investments and achieving necessary partnerships between the public and private sectors can be difficult (FRIDE 2009). This chapter identifies post-conflict challenges pertaining to infrastructure restoration and then introduces and compares the various approaches to planning infrastructure investment in post-conflict countries.

INFRASTRUCTURE CHALLENGES IN POST-CONFLICT COUNTRIES

In most post-conflict countries, access to infrastructure suffers: electricity consumption per capita decreases while electricity transmission and distribution losses increase, fewer people have access to telephones and communication services, and access to sanitation services and improved sources of water declines (*Foreign Policy* and Fund for Peace 2010; World Bank Group 2010). As a result, restoration of infrastructure can be a major dividend of peace and a key factor in the success of post-conflict recovery. As Merriam Mashatt, Major-General Daniel Long, and James Crum note: "In conflict-sensitive environments, the condition of infrastructure is often a barometer of whether a society will slip further into violence or make a peaceful transition out of the conflict cycle. The rapid restoration of essential services, such as water, sanitation, and electricity,

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assists in the perception of a return to normalcy and contributes to the peace process" (Mashatt, Long, and Crum 2008, 1).

Post-conflict investment patterns analyzed by the World Bank reveal that telecommunications investments, particularly in mobile networks, materialize soon after the end of a conflict. Electricity generation and distribution projects are often completed about three years after the conflict and increase in frequency after year five. Private investments in transport and water tend to come much later. Within the transport sector, seaports receive the majority of private investment (Schwartz, Hahn, and Bannon 2004).

Restoration of infrastructure in post-conflict countries must address five main challenges. First, major infrastructure projects often require significant financial investments and cost-recovery measures. However, because some infrastructure exhibits properties of public goods—it is impossible or too costly to restrict access to the good, so it is not feasible to charge a fee for it—it is difficult to recover costs and therefore to attract foreign investors. For example, Jordan Schwartz, Shelly Hahn, and Ian Bannon find that the private sector rarely invests in large-scale power generation and distribution infrastructure in the years immediately after a crisis. They do note, however, that small-scale providers are quick to mobilize resources to take advantage of the demand for services and the relative lack of regulation (Schwartz, Hahn, and Bannon 2004).

Second, the distribution of the costs and benefits of infrastructure projects can be skewed, creating winners and losers. In such cases, though an infrastructure project may result in a net benefit to society at large, a group of persons may end up as losers. This can be a serious source of local conflict, adding to post-conflict instability.

Third, weak governance capacity often translates into corruption, dysfunctional regulatory oversight, and poor management and maintenance of public infrastructure. Post-conflict governments also find it extremely difficult to coordinate myriad infrastructure projects and the many people involved.

Fourth, post-conflict legal systems often provide inadequate protection for large private sector infrastructure investments. This can be a major disincentive to foreign investment and support.

Finally, infrastructure projects must be planned in a way that addresses the possibility of spikes in insecurity as well as short-term shifts in political support. For example, in Afghanistan deteriorating security is a primary cause for delays in completing U.S.-funded projects in the energy sector (SIGAR 2010).

Restoration of infrastructure also involves trade-offs in relation to natural resources. The dilemma is whether to focus on infrastructure that will aid in the rapid extraction and exportation of natural resources so the country can earn much-needed foreign exchange to pay for recovery or, alternatively, to focus on services that have a more significant impact on nonincome dimensions of human development. When state institutions are controlled by nonstate entities whose goal is to extract income from natural resources, infrastructure investments may be distorted and misused in an effort to facilitate resource extraction and sale (Verstegen 2001; Bardhan 2004; Addison and Bruck 2009).

Another challenge involves ownership of and access to land and related natural resources that may be needed for, or may be negatively affected by, a major infrastructure project. Resolution of land use disputes and compensation for damage or lost access are often key prerequisites to infrastructure development (Brookings Institution and University of Bern 2007; Solomon et al. 2009). Environmental and social impact assessments are often needed to identify and help mitigate potential effects. However, such assessments are often constrained by a lack of access to baseline environmental data, poor community-level participation, inconsistent monitoring, and noncompliance with mitigation plans.

ALTERNATIVE PLANNING APPROACHES

Overcoming the challenges to infrastructure reconstruction and connecting infrastructure investments to the peacebuilding process are overarching objectives of post-conflict recovery. Planning approaches that have been adopted to address infrastructure reconstruction needs include incrementalism; imposed strategic planning; stakeholder consultations and bottom-up planning; demand-based approaches; and human freedoms, rights, and security approaches.

Incrementalism

A common approach in post-conflict countries is to base infrastructure investments on initial work conducted during humanitarian operations. In other words, rather than conducting detailed needs assessments and systematic mapping of infrastructure damage, the incremental approach focuses on what has already been provided and simply scales up services from the starting point of these early successes.

The advantage of incrementalism is that risks are minimal as new infrastructure investment is made in services that are already operating to some degree. The disadvantage is that although certain services are crucial for immediate humanitarian relief, they may not be the most appropriate starting points for long-term reconstruction. Also, path dependence in terms of what already exists may mean that other important options are not considered or fully evaluated. Scaling up from relief also means that those who are involved in relief may influence the direction and nature of reconstruction, even if what they recommend are not the most appropriate solutions for the given context. The distribution of benefits and potential social impacts are also often neglected.

For example, in Afghanistan an incremental approach has largely been used in the energy sector. Although this approach has increased Afghanistan's electricity production, the Special Inspector General for Afghanistan Reconstruction has raised concerns (SIGAR 2010). In particular, his 2010 report to the U.S. Congress noted that many energy projects are being implemented across the country in an ad hoc manner, rather than as part of an integrated strategy. Ways in which specific energy projects can support broader strategic goals and overall peacebuilding are rarely considered. The report further notes that the government faces

serious challenges in coordinating projects and sustaining existing facilities; for instance, it lacks the capacity to collect revenue from end users and to maintain power plants and transmission lines. The report calls for an updated energy master plan to establish priorities and time frames, taking into consideration the current security context and broader strategic goals.

Imposed strategic planning

Imposed strategic planning occurs within the context of a top-down reconstruction plan or development strategy that is largely based on a needs assessment by international actors or national authorities. This needs-based approach is often undertaken by international and national experts with only a minimal degree of stakeholder consultation. It is used primarily when a post-conflict government lacks either the capacity or the legitimacy to carry out a national consultation process.

The advantage of imposed strategic planning is that an integrated plan can be developed and financed at an early post-conflict stage. The plan can also provide an effective framework for coordination and for monitoring progress against milestones. However, although such top-down plans may provide effective solutions to meet post-conflict infrastructure needs, the lack of local ownership can be a major weakness. Local people may accept the plan as long as donor resources are available; however, acceptance can rapidly switch to disownment if problems arise, or when the responsibilities for the services created are transferred to the local communities.

For example, the initial post-conflict needs assessment in Iraq was conducted by the World Bank, the UN system, and the Coalition Provisional Authority with only minimal local-level consultation. The needs assessment identified US$35.8 billion worth of reconstruction needs over a four-year period (UN and World Bank 2003). However, the needs assessment was the main international reconstruction framework for only one year. It lacked local ownership and did not fully reflect national priorities. It was replaced by the 2005–2007 National Development Strategy, which the newly established interim Iraqi government developed, using a more extensive consultation process.

By way of contrast, in Aceh, after the devastation caused by the December 2004 tsunami, a locally owned reconstruction plan was developed by the state planning agency BAPPENAS (Badan Perencanaan dan Pembangunan Nasional) in 2005. An Asian Development Bank study noted that 94 percent of key performance indicators set in the master plan (and revised in 2008) had been achieved (Asian Development Bank 2009).

Stakeholder consultations and bottom-up planning

A third approach to infrastructure planning is to rely on detailed stakeholder consultations and to conduct bottom-up planning. Focus groups, small sample surveys, and, where the context permits, full-scale representative sample surveys may be used to determine specific needs and priorities on a local level (Anand 2011).

The advantage of this approach is that a cross section of stakeholders is consulted and needs that are specific to a geographic region can be identified. The disadvantages are that wide-ranging consultations require a considerable amount of time and that a policy vacuum exists while consultations are taking place. If shortcuts are taken in the consultation process, the whole exercise may be considered to lack legitimacy, especially by those who do not sufficiently benefit from the plans. Another downside is that sometimes stakeholders cannot reach consensus on infrastructure priorities, in which case technical experts make final decisions.

Demand-based approach

A fourth approach is to use more detailed analysis not just of needs but also of the demand for various infrastructure and design strategies. The advantage of a demand-based approach is that services can be targeted and tailored according to what is likely to generate the most benefits. Involving the private sector and developing public-private partnerships is easier using this approach. The disadvantage is that a demand-based approach may not be suitable for many services with the properties of pure public goods. Demand-based planning can result in a bias toward services for which willingness to pay exists. Thus services that the poorest and most vulnerable households need the most could be the ones most neglected or given least priority; in this case existing vertical inequalities would be reinforced.

A World Bank–International Labour Organization study of demand-driven approaches to post-war reconstruction concludes, "We are still very much in the 'learning phase' regarding the benefits, applications and optimal methodologies for demand-driven approaches" (Goovaerts, Gasser, and Inbal 2005, 12). The study further notes: "The potential benefits and pitfalls associated with demand-driven approaches suggest that there is need to carefully design such approaches, to ensure that they are applied in the most beneficial way possible" (Goovaerts, Gasser, and Inbal 2005, 14).

Human freedoms, rights, and security approaches

A fifth approach focuses on enhancing substantive freedoms, human rights, and human security. This approach places citizens at the center of decision making. Instead of alternative proposals being evaluated against technical criteria, demand, or net present value, proposals are considered according to the extent to which they have been chosen by citizens themselves and to which the proposals will contribute to enhancing citizens' freedoms, rights, or human security. When this approach is being used, infrastructure interventions that empower individuals and increase their freedom and security will be given greater priority over other projects (Anand and Gasper 2007).

In a people-centered approach, infrastructure planning has to address both freedom from want and freedom from fear. Individuals from many different social groups—women, children, the elderly, the disabled, the unemployed, and the

impoverished—are seen as active agents of change rather than passive recipients waiting to receive services or aid from elsewhere. At the same time, freedoms come with responsibilities: no person or group of persons should interpret freedom as a license to inflict violence on others.

Normally this approach has the advantage that it is focused on the individuals affected by the conflict and on enhancing their freedoms. However, at the field level, there are two major challenges in its practical application. First, infrastructure planners may lack the expertise to understand the potential impacts of infrastructure on human freedoms, rights, and security. They could argue that the question of trade-offs between the winners and losers of infrastructure projects is a political one that should be left to local or national authorities. Planners can become excessively focused on the well-being of the individuals concerned rather than accepting that citizens may place more importance on having a voice and that they may sacrifice well-being in order to achieve higher-level freedoms. These tensions can enlarge the divide between conflict resolution and the promotion and protection of human rights—as Albert Gomes-Mugumya notes in the case of Northern Uganda (Gomes-Mugumya 2010).

Second, in post-conflict countries where the rule of law and basic government capacity are lacking, human rights approaches that emphasize the need for identifying both rights holders and duty bearers can be difficult to apply in practice. Planners need to consider the limits of their efforts and must ask how trade-offs can be made and whether the freedoms and rights of insurgent groups should also be considered.

CONCLUSIONS

It is challenging to pursue justice and fairness when peace is fragile and relies temporarily on windows of reprieve from unresolved historical injustices or group inequalities. In the immediate aftermath of a conflict, planners may take initial steps using incrementalism, but such an approach cannot be sustained for long-term recovery. A coherent and coordinated reconstruction framework will require strategic planning, and such planning requires in-depth stakeholder consultation to achieve legitimacy with and ownership by local citizens. Stakeholder consultations can pave the way for some degree of shared vision and buy-in. However, consultation is not the same as ownership, and stakeholders may perceive the process as being top-down window dressing that limits their role to that of passive recipients rather than creating a real opportunity to actively participate.

Demand-led approaches can be useful in attracting much-needed investment but may not be appropriate for infrastructure projects that involve significant public good dimensions or externalities. On the other hand, an approach that emphasizes human freedoms, rights, and security offers a new way to understand the potential benefits and impacts of infrastructure.

To be in a position to choose an approach is often a luxury in post-conflict reconstruction. Where institutional conditions and the local reality do present such a choice, it may be necessary to use a combination of these approaches to

maximize peacebuilding dividends of infrastructure investments. Cutting across all approaches is the need to anticipate, identify, and mitigate the potential environmental and social impact of infrastructure investments and to see such investments as part of a wider effort to promote freedoms and justice.

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