Anand, P. B.

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Getting Infrastructure Priorities Right in Post-Conflict Reconstruction

P. B. Anand *

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Abstract

In this paper, an attempt is made to identify some key challenges for infrastructure sectors in post-conflict reconstruction. In spite of the Hague and Geneva Conventions, infrastructure can be damaged in conflicts, and reconstructing infrastructure is often essential to sustain recovery. Conflicts erode governance institutions, weaken public expenditure management systems, and increase transaction costs making it difficult for principals to monitor their agents. Infrastructure includes both ‘hard’ and ‘soft’ assets of societies and the rebuilding of social institutions and capacity of communities is as crucial as reconstructing roads and bridges. A framework is developed here for assessing alternative infrastructure policies for their impact on three key dimensions of (i) governance and state rebuilding, (ii) conflict prevention and peace, and (iii) poverty reduction. Drawing upon evidence from evaluation studies including Afghanistan, Bosnia-Herzegovina, Croatia, East Timor and Rwanda, a number of policy tensions and action points for policymaking in infrastructure sectors in post-conflict contexts are identified.

Keywords: infrastructure, conflict, reconstruction, water

JEL classification: D74, H41, H54, O19
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1 Introduction

There are three main reasons why post-conflict reconstruction (PCR) is relevant to development discourse. First, conflict is an important challenge to development in a world where conflicts predominantly exist in the developing countries. According to Gleditsch et al. (2002), of some 34 armed conflicts active in 2001 involving 29 countries, 26 were in developing countries. According to Eriksson, Wallenstein and Sollenberg (2003), in 2002, the number of armed conflicts was 31, involving 24 countries, 22 of which were developing countries.

Second, the poor are often the main victims of conflicts. As a result, conflicts exacerbate inequality and retard progress towards the Millennium Development Goals (MDGs), which do not, however, make specific mention of conflicts. There is some evidence\(^1\) to suggest that conflicts can increase poverty and hunger (goals one, four and five); they can lead to increased risk of HIV/AIDS and malaria (goal six); they can also significantly affect access to primary education (goal two) and child mortality (goal four).

Third, conflicts influence aid priorities and thus have a crowding-out effect. During 1991-2002, approximately 5 per cent of official development assistance (ODA) was allocated to emergency and distress relief, mainly to address humanitarian crises arising out of conflicts.\(^2\) On the other hand, PCR efforts also provide an opportunity to generate a double dividend of peace as well as strengthening governance institutions leading to stable and sustainable recovery.

Against this background, this paper is an attempt to examine key policy issues for one aspect of PCR, namely infrastructure provision. Infrastructure is broadly defined to include goods and services which are essential ingredients of quality of life and economic activity and these include water supply and sanitation services, health and education services, transport and communications, electricity and other energy sources. In section 2, key challenges to PCR are identified; in section 3 a menu of policy issues aimed at infrastructure components of PCR is discussed.

2 Infrastructure in post-conflict reconstruction: key challenges

Is the task of development in post-conflict contexts any different from development in peace times? In trying to answer this question, nine issues are discussed in this section. This list is by no means exhaustive.

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1 See Stewart (2003); Luckham et al. (2001); Collier et al. (2003); Malapit, Clemente and Yunjal (2003); Smith and Vaux (2003).

2 This figure is likely to underestimate the overall amount of aid allocated to address conflict-induced emergencies. For example, the share of bilateral ODA allocated to social sectors increased from approximately 24 per cent in 1981-82 to 33 per cent in 2001-02 (OECD 2004a: 178).
2.1 Conflict and complexity

Conflict does not signify a war between two nations but is a shorthand expression for a complex web of conflicts (Goodhand 2001). It is difficult to clearly distinguish internal conflicts and international conflicts (Gleditsch et al. 2002: 619); 91 out of 116 armed conflicts in the period 1989-2002 were intra-state conflicts (Eriksson, Wallenstein and Sollenberg 2003).

A number of studies identify the various causes of conflict. In my view, these various causes can be broadly grouped into three thematic areas: (i) economic factors include macro-economic shocks, skewed distribution of resource endowments, limited or missing property rights institutions, dominance of primary commodities, narrow composition of exports, and aid dependence; (ii) political factors include governance and state failure, limited or missing democratic institutions, ethnic fractionalization, capture of state apparatus, and corruption, and (iii) social and historical factors include arbitrariness of post-colonial definition of nation, weak or questionable links between identity, ethnicity and nationhood, exacerbated by skewed resource ownership. These factors often interact making it difficult to isolate a single or root cause of conflict. Understanding the causes of conflict is crucial to making peace work and PCR sustainable.

2.2 Is infrastructure important in PCR?

How central infrastructure should be in PCR depends on whether infrastructure was significantly damaged in conflict and whether infrastructure is crucial to sustaining various activities and reforms within a PCR package. Infrastructure can be damaged in several ways. As per the international humanitarian law, based on the Hague Regulations and Geneva conventions, in particular, the Geneva Convention IV, certain protections are provided for civilians in times of conflict. These have been further strengthened through Geneva Convention of 1977 and two Protocol additions to it. As per the Protocol 1, Clause 2 of Article 54, it is illegal:

to attack, destroy, remove or render useless objects indispensable to the survival of the civilian population, such as foodstuffs, agricultural areas for the production of foodstuffs, crops, livestock, drinking water installations and supplies and irrigation works.

In the case of civil strife also, warring parties are urged to respect international legal provisions. However, in spite of such provisions, infrastructure installations can be damaged in several ways. For example: (i) in conflicts triggered by natural resource ownerships and endowments, such as oil or minerals, the control of infrastructure can be the source of contention; (ii) causing damage to infrastructure can be a strategy to weaken opponents; (iii) unintended and collateral damage to infrastructure; and (iv) infrastructure damage as resources are diverted to war (for example, conscription of teachers or cutting down on maintenance expenditures).

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4 For example: (i) in conflicts triggered by natural resource ownerships and endowments, such as oil or minerals, the control of infrastructure can be the source of contention; (ii) causing damage to infrastructure can be a strategy to weaken opponents; (iii) unintended and collateral damage to infrastructure; and (iv) infrastructure damage as resources are diverted to war (for example, conscription of teachers or cutting down on maintenance expenditures).
damaged both directly as targets in conflict, or as a means to weaken the authority and legitimacy of rulers, or indirectly as collateral damage. Thus, conflicts tend to damage both the physical (‘hard’) capital of societies and the social (‘soft’) capital of networks, formal and informal collective action institutions. In some cases, conflict may exaggerate ‘negative’ social capital in societies with considerable ethnic diversity (see Addison 2003).

2.3 Is infrastructure different?

From a public finance point of view, the state has an important role in infrastructure provision. Some of the infrastructure services are pure public goods (street lights, mosquito control); some services (schools, hospitals, bridges and roads, water source development, water treatment plants) generate benefits that are either non-excludable or non-rival in consumption. Some services are private goods but do include important externalities (hygiene education, clean water supply, sewerage). Many of these will not be supplied in efficient quantities if left to markets. Some services amenable to supply by markets also require the state to design and set up clear rules of the game and regulation. In post-conflict context, often state institutions remain eroded or weak. As a result, standard public finance instruments such as taxation or user charges can be difficult to use. Also, erosion of state institutions may include a weakened public expenditure management regime with limited information on where and how the resources are being utilized.

Second, conflict can erode trust, limit information flows from consumers to the government and vice-versa. This can result in an increase in transaction costs and make unit costs of infrastructure provision in PCR higher than in normal circumstances.

Third, the increased transaction costs also increase opacity between the service provider and the consumer and retard information flows specially from the consumer to the service provider about their preferences. From a public choice point of view, this increases the informational requirements of evaluative processes in arriving at social ordering of preferences or makes the policy planner’s job more difficult than in peace times.

Fourth, conflict may exacerbate ethnic rivalry or weaken trust, and diminish possibilities for collective action. The weakening of trust may also significantly limit or weaken market activity.5 Thus, many private goods ordinarily supplied by markets in peace times, remain under-supplied. This affects infrastructure provision in several ways. For example, the ‘exit’ and ‘voice’ mechanisms may be missing, making consumers more dependent on state provision or making state a monopoly producer even for private goods. Accountability mechanisms tend to be weak in post-conflict contexts and thus the monitoring of service delivery and performance standards can be difficult. This results in wastage, inefficiency and leakage of valuable resources and makes recovery delayed or infrastructure spending less effective.

Fifth, from a principal-agent viewpoint, the increased transaction costs and missing accountability mechanisms render contracts between principals and agents weak, ineffective and less credible, and the monitoring of agents by principals more difficult.

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5 See Aguilar (2003) for a discussion on the institutional impediments to private sector development.
Finally, depending on how the various causes interacted in generating a conflict, there can be *path dependency* in recovery. For example, where ethnic fractionalization or state capture were the main causes of conflict, the principles of fairness and equity may require greater attention than efficient use of resources.

### 2.4 What happens if we ignore infrastructure?

Infrastructure failures in post-conflict period can become weapons in the hands of combatants and opponents of peace to derail and undermine the legitimacy and effectiveness of the reconstruction process. This may exacerbate civil strife or demoralize staff working in remote locations and thus further delay the process of state rebuilding. More importantly, infrastructure failures can act on gender and other aspects of identity and exaggerate powerlessness, vulnerability and disability.

### 2.5 The problem of missing baseline

In post-conflict contexts, infrastructure planners need to cope with the problem of ‘missing baseline’. The PCR process needs to address not only infrastructure that may have been damaged in the conflict but also infrastructure that never existed or infrastructure that has been damaged due to lack of maintenance over years as resources have been diverted to war efforts or drained away by systemic corruption in anticipation of conflict. For example, Goodhand (2001: 15) notes that in Sri Lanka, as the share of military expenditure in government spending increased from around 4 per cent in 1981 to over 22 per cent in 1997, it must have crowded out other expenditures on social sectors. Collier *et al.* (2003: 14 and 15) provide various examples, including Mozambique where it was estimated that about 40 per cent of immobile assets in agriculture, communication and administration sectors were destroyed by conflict. A related problem is not so much a missing baseline but of priorities getting trapped by legacy effects. For example, again in Mozambique, the east-west transport networks were originally better developed by colonizers and thus were targets during the conflict and acquired priority in PCR than the north-south networks connecting the remote regions to the capital.

### 2.6 Displacement of people

Conflicts often result in significant displacement of population. Such displacement uproots people but also social institutions and raises important epidemiological issues. According to the UN High Commission for Refugees, as the nature of conflicts has changed from inter-state conflicts to increasing number of internal conflicts, the number of internally displaced persons (IDPs) increases significantly. It is estimated that ‘there are between 20-25 million IDPs worldwide, with major concentrations in Sudan, Angola, Colombia, Democratic Republic of Congo, Afghanistan, Sri Lanka, Bosnia-Herzegovina and countries of the former Soviet Union’ (UNHCR 2003: 6). According to Collier *et al.* (2003: 24-5), conflict-induced movement of people increases mortality in conflict-affected countries. Various causes and interaction effects can be at work. Movement of people need not be a public health disaster. However, during conflict when state institutions are already weak, there is limited ability to cope with the influx of people and take appropriate public health measures. It is not surprising that diarrhoea
was the cause of 74 per cent of deaths among Kurdish refugees in Iraq in 1991 and 87 per cent of deaths among Rwandan refugees in Zaire in 1994 (Collier et al. 2003: 25; also Goma Epidemiology Group 1995; Moss et al. 2003). Collier et al. also suggest that conflict induced displacement significantly increases exposure risk of people to malaria which contributes to higher mortality rates among displaced persons. Therefore, infrastructure planning in PCR needs to have the ability to deal with both short-run emergencies as well as long-run requirements.

Another issue related to displacement is that of diminished human resource capacity of institutions in the post-conflict phase due to displacement and migration and further due to HIV/AIDS, particularly in many post-conflict countries. The significant negative impact of HIV/AIDS on education and health sectors in Africa is well recognized (see Haacker 2004; Bennell 2005). In post-conflict countries, this may critically affect the capacity of local institutions and government in terms of technical and managerial skills crucial to preparing strategies and also engaging with donors and external agencies. Donors and international agencies may also find high staff turnovers or allocating excessive responsibilities on relatively inexperienced staff or volunteers, as the East Timor case of UNHCR seems to suggest (Dolan, Large and Obi 2004). As Dabelstein (2002) points out, international organizations may inadvertently exacerbate the human resource shortage by drawing good local staff away from local institutions. Human resource shortage is not insurmountable and staff development and continuous training are possible. Also, such activities can bring in new human resources previously unavailable locally (for example, in Afghanistan). However, in PCR, when time is already at a premium, the scope to release staff for training purposes may be rather limited. The trade-off between institutional capacity-building and achieving physical progress in reconstruction has been recognized in other studies (Rohland and Cliffe 2002: 13).

2.7 Impact of visual media

In the age of ocular culture, visual images from the scenes of conflict tend to exaggerate the effects of infrastructure failures (which lend themselves to better visual presentation than governance or state failures or underlying complex political factors). This leads to pressure on donor governments and international community to ‘sort things out quickly’ rather than sort things out correctly. Such pressures can also influence which aspects of infrastructure are prioritized in the reconstruction process. Images and imagery can also have a positive effect on the peacebuilding process, especially when this involves cooperation of previously contending factions. However, a main problem is that visual media can create perverse incentives or exaggerate the bias in favour of ‘hard’ and physical rather than ‘soft’ and social infrastructure.

2.8 The problem of increased expectations

Another issue is that the arrival of the UN peacekeeping or other international forces or the establishment of a transition authority is perceived as an acknowledgement of responsibility by international community. Such a perception can lead to ‘increased expectations’ among local people about the standards and quality of infrastructure to be provided as part of PCR without regard to whether such standards are appropriate or affordable. The initial humanitarian relief efforts by international NGOs can
unintentionally contribute to increasing dependence and the heightening of expectations.6

2.9 The governance dilemma

These various challenges contribute to a ‘governance dilemma’ in PCR. Getting institutions right may be crucial for infrastructure to work,7 yet, getting state institutions to work takes time and time is often a luxury in PCR when urgent humanitarian needs require quick action. Therefore, response cannot wait until state institutions are fully developed. The process of rebuilding state institutions itself requires reliable infrastructure to be in place. For example, in an analysis of determinants of civil war in Uganda, Deininger (2003: 596) suggests that ‘higher distance to infrastructure has a marked positive impact on the probability of civil strife’. It is argued that the costs of policing (and hence the probability of civil strife) decrease in the presence of infrastructure and public goods. Thus, roads and bridges may be crucial to ensure mobility of peacekeepers which is essential to contain conflict and maintain security. On the other hand, ‘throwing concrete’ before appropriate institutions are in place can also contribute to rebels being able to group and move quicker or for state or military forces to oppress particular ethnic groups and thus delay recovery.

3 Developing an agenda for infrastructure planning in PCR

In this section, an attempt is made to identify some key issues for infrastructure planning in PCR. This section is based on various evaluations of PCR in some recent experiences and is presented in the form of guidance for practice. There is an important assumption that there is a coalition for change driving the PCR process. Where there is an international involvement as in the case of East Timor, Iraq and Afghanistan, such a coalition for change tends to be dominated by international institutions and donor agencies. However, it is important to recognize that many of the issues discussed here are equally relevant where the coalition for change is made up of national and local government agencies and NGOs.

3.1 Start with a blank sheet

Past experiences, visual images from media, public opinions, perceptions of humanitarian disasters and vulnerability can be valuable in developing a preliminary assessment of infrastructure goals, possible strategies and means to achieve them. However, it is important to start with a blank sheet as each conflict is unique and the economic, social, political and environmental contexts can be significantly different.

Time is a luxury in PCR. Development planning in peacetime can permit a wider consultation process and involvement of all or a majority of stakeholders in policy

6 For example, distribution of shelter packs or bottled water during emergency relief can raise expectations about the quality of materials used and also that such things are going to be given free.

7 A framework highlighting the centrality of getting institutions right for delivering infrastructure services to the poor is discussed in World Bank (2003b).
design. For example, project preparation time for the East Timor Reconstruction Project was 3.5 months compared to the World Bank side average of 15 months. Further, the institutional erosion can lead to state and market failures that limit the degree of freedom to act.

Starting with a blank sheet means a willingness to listen to local partners and stakeholders and start the planning process from their vision and perspective. During this stage, emphasis may be on qualitative rather than quantitative assessments. An inclusive and open process of consultation that includes a diverse range of opinions may be crucial. Involving local partners right from the start is identified as being crucial in explaining why some sectors in East Timor made significant progress compared to others (Rohland and Cliffe 2002: 11). It appears from the East Timor case that involvement of local partners should include political leaders, technical experts and community groups. However, such consultative process may not be easy or smooth, specially when the competing groups have different sets of priorities, an issue discussed further below.

### 3.2 Develop a framework for priority actions and performance objectives

To integrate infrastructure planning with broader development processes requires an assessment of how a conflict affects specific infrastructure sector issues. Some international organizations\(^8\) already include conflict analysis in their policy and project analysis processes. A number of such approaches already exist. Examples of some of these approaches are summarized in the Appendix. While those examples concentrate on assessing causes of conflicts, for policy purposes in PCR, a more useful approach is to ask how a particular infrastructure strategy contributes to conflict prevention.

Rohland and Cliffe (2002: 10-2) discuss a framework to assess various infrastructure sectors in the East Timor reconstruction. Each sector programme is examined against four reconstruction objectives and whether a sector-wide approach has been used or not. The four objectives considered were (i) to build technical and managerial capacity; (ii) to achieve rapid physical reconstruction; (iii) to restore service delivery, and (iv) to establish sustainable policies and institutions. Another aspect included was whether sector-wide planning was used. Twelve sectors, namely, education, health, justice, defence, agriculture, roads, water, power, public administration, community development, private sector, and finance were assessed. The progress made in each sector is assessed against the four objectives. Their framework focused mainly on reconstruction aspects and did not assess strategies in relation to conflict prevention dimension.

Based on the vicious and virtual circle models (Collier et al. 2003), I would like to propose an alternative model. In each infrastructure sector, various strategies can be examined in terms of their impact on:

- Poverty reduction (and achievement of MDGs)

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\(^8\) For instance, the World Bank (OP 2.30 and conflict analysis framework) and the DFID. The Asian Development Bank includes a risk and vulnerability assessment for both emergencies and PCR (see Operations Manual, section D7/BP).
- Effective governance and state reconstruction
- Conflict prevention and peace.

It is possible that some actions or strategies contribute to predominantly one of these three dimensions. Such a framework can help in clarifying the differential impact of various alternative strategies on the three key dimensions for PCR. This framework can be adapted to each infrastructure sector. For example, it is possible for sector staff or stakeholder groups to assess the impact of each strategy on a scale of 0 to 5 corresponding to ‘no impact’ to ‘very significant impact’ for each dimension.

In Figure 1, four alternative policy packages are compared in terms of their impact on the three dimensions. Policy package A has positive impacts on all three dimensions and is obviously superior to packages B and C both of which have positive impacts on two dimensions and negative impact on one dimension. Package B generates significant

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9 While theoretically it is possible to rate each strategy for its positive or negative impacts on these three dimensions (and hence, shown as such in figure 2 above), in reality, it would be naïve to think of an infrastructure manager coming up with strategies having a negative score on any of these three dimensions. At best, some strategies may have no impact on one of the dimensions but may have significant impact on one or the other dimensions.
gains in relation to poverty reduction and governance dimensions but has negative impact in terms of conflict potential. Package C has a positive impact on conflict prevention and governance but has a negative impact on poverty reduction. (An example of package C may be salary reforms of police and civil servants.) Policy D is obviously a trajectory to vicious circle as the Liberia experience suggests, and needs to be rejected. In early stages of PCR, it is likely that higher importance is given to conflict prevention than poverty reduction, and thus policy package C may be preferred to package B. Three further examples may be considered to illustrate the framework.

Example 1: A project to train police personnel may have a high score on conflict prevention dimension; it may have some impact on improving governance, but may have little impact on the poverty reduction objective.

Example 2: A project to rebuild a government secretariat that was damaged in conflict may have a high score on the governance dimension; it may have a small or no impact on conflict prevention dimension and virtually no impact on poverty reduction dimension.

Example 3: A project to train NGO health workers may have little impact on the conflict prevention dimension but a significant impact on the poverty reduction dimension and some impact on governance dimension.

These examples suggest that an analysis using this framework can be useful in clarifying which projects are more appropriately funded through security assistance strategy and which are more appropriate to be financed through development aid.

This approach can also be expressed in terms of a relationship, where:

\[ \text{AID} = f(\text{EMERG}, \text{GEOG}, \text{MDG}, \text{CP}, \text{GOV}, X_1, X_2...) \]

\[ \text{EMERG} = \text{Magnitude of emergency and humanitarian crisis} \]

\[ \text{GEOG} = \text{Geographic or strategic factors (following Buhaug and Gates 2002)} \]

\[ \text{MDG} = \text{Impact on achieving poverty reduction and MDGs} \]

\[ \text{CP} = \text{Impact on conflict prevention} \]

\[ \text{GOV} = \text{Impact on governance} \]

\[ X_1, X_2 \text{ etc} = \text{Other factors (country size, economic record, duration of conflict and so on)} \]

Another alternative is to use a summary matrix to score various elements of a project for their impact on the three dimensions. This is illustrated in Table 1 with project components taken from Istria Water Supply and Sewerage Project in Croatia (World Bank 2003c).

PCR involves a number of different types of activities in each sector and project. In the urgency of action, it is possible to stretch projects to cover a diverse range of objectives. Some of these may contribute directly to the three primary dimensions of reconstruction. The framework, when used in a participatory manner, can help in clarifying relative impacts on these three dimensions and thus determine whether or not such activities, however important, should be funded through aid mechanisms.
Table 1
An illustration of assessing project objectives of WSS project in Croatia for the impact on poverty reduction (MDG); governance and conflict prevention

<table>
<thead>
<tr>
<th></th>
<th>Poverty reduction impact</th>
<th>Impact on governance and state rebuilding</th>
<th>Impact on conflict prevention</th>
<th>Overall assessment/comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Eliminate existing water shortages in the project area</td>
<td>H</td>
<td>L</td>
<td>L</td>
</tr>
<tr>
<td>2.</td>
<td>Provide additional water supply capacity needed for the expansion of the tourism industry and growth in domestic and industrial/commercial demand in the project area</td>
<td>H</td>
<td>L</td>
<td>M</td>
</tr>
<tr>
<td>3.</td>
<td>Reduce unaccounted water in the Pula Water Works (PWW) distribution network</td>
<td>N/A</td>
<td>M</td>
<td>N/A</td>
</tr>
<tr>
<td>4.</td>
<td>Protect existing water sources and coastal tourist areas from pollution</td>
<td>M</td>
<td>L</td>
<td>M</td>
</tr>
<tr>
<td>5.</td>
<td>Increase efficiency in the delivery of water supply and sewerage services in the project area</td>
<td>H</td>
<td>H</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Note: Impact is indicated as H=high; M=medium; L=low. The last column is left blank in the above table. Depending on implicit weights attached to the three dimensions or based on qualitative assessment, the analyst using this framework may indicate the overall impact as H, M or L or in the form of summary comment.

3.3 Promote coordination among different agents of change

In post-conflict context, a number of international and national organizations can be acting simultaneously within a sector with limited coordination. According to the World Bank (2003d: 11), the following is identified as a lesson from the evaluation of water and sanitation projects in Bosnia-Herzegovina is:

In an emergency reconstruction program, it is essential to have a workable coordination system in place to avoid duplication of effort and inconsistent applications of policy that lead to different treatment regimes. The objectives of this project were not attained at the planned level, as most funding aid-agencies opted to work on their own … The use of differing sets of policy and procedures caused confusion during project implementation, and unplanned overlaps in donor activities led to a reduction in the overall program scope. In the end, lack of coordination weakened sector reform activities, and prevented the phased implementation of the rest of the SRP operations within the anticipated timeframe…

The importance of coordination for a smooth transition from relief/rehabilitation to development was noted in an evaluation of donor responses to Afghanistan (Dabelstein 2002: 7). Such coordination may be important in all aspects of PCR, including overall vision and reconstruction goals (developed in a consultative and open process of starting with a blank sheet), financial resource mobilization, disbursement time-scales and procedures, progress evaluation mechanisms, emphasis given to local partners and community organizations etc. An analysis of reconstruction in East Timor also suggests
that ‘unified sectoral planning encourages a focus on sector policy and institutions as a whole, which may not be present when donors negotiate individual projects in a disparate manner’ (Rohland and Cliffe 2002: 12). Some aspects of such coordination require formal institutional arrangements; others such as information sharing can begin even before formal arrangements are in place.

As Easterly (2003a) points out, ‘aid coordination’ can lead to formation of a ‘cartel of good intentions’. Single windows can also become monopolies that undermine ‘potential gains from specialization and division of labour among aid agencies’. Therefore, it is important to limit coordination to the minimum and permit heterogeneity and scope for specialization. In the long run, policy coherence and consistency may be more important while in the short run operational coordination in aid delivery may be a priority. The evaluation of Rwanda notes that: It is more important—and realistic—to agree on shared goals than on shared strategies, for the simple reason that there exists more than one path to the same goal’ (Baare et al. 1999: 40). It is also important to have participation of all stakeholders (local counterparts, and NGOs) and not just donors in the coordination process. This may require careful consideration of the venue and frequency of coordination meetings, developing (non technical) briefing papers and translating them into local languages and making them available; using radio and other media; making key sector leaders available to answer questions.

### 3.4 Involve local communities and NGOs in PCR

Where PCR is driven by international intervention, it is crucial to recognize that both instrumental and intrinsic ethical arguments highlight the need to involve local communities and NGOs. Rohland and Cliffe (2002: 13) observed that ‘… activities that succeeded in bringing widespread concrete physical reconstruction to zones outside Dili were almost all community based’. In their view this is because ‘… local level institutions often survive dramatic conflict more intact than peak level institutions, and thus tend to have more capacity to deliver in the initial stages of a post-conflict period’. According to Dabelstein (2002: 7), in the case of Afghanistan, in spite of the long period of conflict, the critical role of functioning local institutions (both governmental and civil society) was recognized.

While emergency action tends to focus on rebuilding capacity of government institutions, the above experiences seem to suggest that building the capacity of community and NGO institutions also is a priority. Hansson (2003: 204) suggests that the ‘high level of social solidarity and other social capital’ in Eritrea were crucial in avoiding problems in coordinating reform.

However, participation of local communities can also mean that the reconstruction programmes are pulled in different directions by different political forces, for example, elites and local chiefs. The experience from social funds (FAS) in Angola also seems to indicate that a decentralized approach involving local communities where possible and giving them the ownership of local component is a way to successful project implementation (Adauta de Sousa et al. 2003: 44-5).

Creating appropriate skills among internally displaced persons is another way of involving local communities. As already noted, displacement and erosion of livelihood
during conflicts lead to de-skilling of local communities. Training local people in such skills and doing this in a gender-sensitive manner, are both important priorities.

3.5 Recognize that ensuring horizontal equity in PCR can be quite challenging

Reconstruction is not a socially neutral activity. As WIDER research studies have highlighted, maintaining horizontal equity in post-conflict context is an obvious policy objective (Nafziger, Stewart and Väyrynen 2000; Stewart 2001). However, horizontal equity can literally be interpreted as equality of claims or entitlements of all the ethnic groups to programme outcomes, as the case of three thousand houses in Sri Lanka suggests (Uvin 1999: 15). In that example, to sustain the peace process, rather than allocating houses on the basis of need, each of the three communities were allocated 1,000 houses. Similarly, the Rwanda evaluation pointed out that development aid mostly reinforced inequality. Baare et al. (1999: 31) note that although donors have sought to reorient projects to deal with the dynamics of violent conflict, they seem not to have been able to do the same for the profound, structural, long-term causes of the conflict. Doing so will require significant further reflection and capacity for innovation.

An important aspect of horizontal equity is to integrate gender and social analysis into reconstruction design right from the start. This may require sensitizing international and local staff, local institutions and NGOs in gender and social analysis; creating opportunities for the participation of women, children, the elderly and the disabled in reconstruction programme design. Having formal rules for participation of women and minorities may be essential (as the example of women members in Eritrean constitution commission seems to suggest, Hanssen 2003: 191).

3.6 Clarify both short-term and long-term policy aims for each sector

In PCR, there is much scope for the urgent issues of restoring services to dominate the planning process. The evaluation of water supply and sanitation projects in Bosnia-Herzegovina (World Bank 2003d) noted that:

In the midst of hectic repair and rehabilitation efforts, institutional development measures such as reducing unaccounted water, improving efficiency and skills of staff and improving collection of bills, received lower priority. A stepwise package of the most urgent measures should have been defined in the project documents to ensure that the various entities could take needed first steps to return to normal operations after the crisis.

The Afghanistan evaluation also highlights the need for ‘a vision of the end goals which is shared by the donor community and key local actors’ (Dabelstein 2002: 7). The issue of cost recovery and tariff policy can be used as an example to illustrate this issue. In humanitarian relief, usually services are provided free; this may continue in the early stages of PCR as work on restoring infrastructure services continues. However, services cannot forever be provided for free. At some point in the early stage of PCR, a transition needs to be made from an emergency restoration mode to normal operations mode. A gradation of priorities related to time is necessary in terms of moving from free provision to recovery of operation and maintenance costs in the first stage and then
achieving full cost recovery and financial sustainability as longer term goals. However, as the East Timor evaluation suggests this can be a difficult challenge:

Moving from a situation of largely free electricity (which is financially unsustainable) to normal cost recovery will incur risks of social and political instability in the fragile post-independence period, as this is an unpopular decision for any government to have to implement. Perhaps this issue could have been more appropriately addressed during the political transition, prior to raising of expectations on the receipt of free electricity … one could argue that sustainable policies should be implemented early on, or tendencies will develop that are difficult to reverse later on (Rohland and Cliffe 2002: 20).

Thus, clarifying the long-term vision right at the outset can be important. However, care should taken not to let long-term visions recede more urgent restoration tasks. Otherwise, delays in implementation can increase ‘local suspicions about the sincerity of the international community’s commitment’ (Dabelstein 2002: 7).

3.7 Recognize that aid can have differential impact at different stages in PCR

Analysis presented in Collier and Hoeffler suggests that the effectiveness of aid can vary over time during different periods in post-conflict. Their results seem to suggest an inverted U pattern in terms of aid absorption and effectiveness. They find that aid is unusually productive and growth supra-normal during the first full period of post-conflict when ‘the typical country experiences a temporary growth spurt of around 2 percentage points per year in excess of normal growth. This growth spurt is largely, or entirely, dependent upon aid’ (2002: 8). They draw two main conclusions from their analysis:

The pattern of aid disbursements should gradually rise during the first four years [post-conflict] and gradually taper back to normal levels by the end of the first post-conflict decade. Actual aid practice has not, historically, followed this pattern.10

Among policies the key priorities for improvement [in a post-conflict country] should be social policies first, sectoral policies second, and macro policies last.

The main implication is of longer-term engagement (also recognized in the Rwanda study by Baare et al. 1999). Their second conclusion is better seen as an observation rather than as a policy recommendation. It is probably picking up the fact that during early stages of post-conflict, aid efforts concentrate on humanitarian relief measures (hence, social policies) whereas the transition over time from humanitarian relief to recovery requires sectoral and macro-policy reforms. The above results, particularly the result that effectiveness of aid may have an inverted U relationship with time after ceasefire, if misinterpreted, can lead to complacency among donors and hamper the much needed initial efforts to help countries cross the peace onset period. While aid

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10 According to Collier et al. (2003: 157), aid peaks in the first two years of post conflict and thereafter aid volumes taper off, just when it may be most needed or can be most effective. Kang and Meernik (2004) also find that aid follows an inverted U pattern in post-conflict period but according to them the OECD aid peaks in the fourth year after conflict.
may be most effective three or four years after ceasefire, that effectiveness is a cumulative effect of intervention and sustaining peace over a sufficiently long enough duration.

3.9 Create appropriate accountability mechanisms

Accountability in PCR is an important but complex issue. As already mentioned in section 2, the erosion of governance institutions during conflict results in increased transaction costs and weakens the capacity for enforcement of contracts between principals and agents. Accountability is particularly important in infrastructure. Balancing between the urgency of reconstruction versus the time needed to ensure accountability and procedural transparency is a difficult task. However, this is crucial to avoid corruption and the ‘capture’ of reconstruction process by some factions or firms. International law and human rights principles may be adequate to ensure accountability by donors and international peacekeeping forces (Cerone 2001). Accountability is usually central to constitutional and legal developments in the post-conflict context. However, developing a code of practice and accounting systems for PCR (see Dabelstein 2002: 7) and training the staff of local agencies and NGOs are also important priorities.

3.10 Recognize policy tensions and tradeoffs

Issues of tradeoffs between achieving different policy objectives were briefly considered in the discussion on the three-dimensional framework above. At the operational level also, infrastructure reconstruction involves many tradeoffs. Examples are listed below:

- **Speed of recovery or more participatory process**: Both East Timor (Rohland and Cliffe 2002) and Bosnia-Herzegovina (World Bank 2003d) evaluations suggest that in reconstruction speed of recovery, and short-term issues can dominate over longer term interests and participatory processes.

- **Cost effectiveness or something that can be fixed quickly**: It is likely that in the early period of peace onset, the emphasis is on the later. Along with a transition from humanitarian relief to reconstruction, a transition may be necessary to move towards cost effective options.

- **Mend or replace local procurement or international bidding processes**: These two tensions go hand in hand. While transparency requires international bidding processes, in some instances, the involvement of local firms may contribute significantly to long-term reconstruction objectives. Where international firms are used, it may be possible to insist on local counterpart teams to be included.

- **Bit by bit or through economies of scale**: The former may be preferred in the period of peace onset for rapid restoration of infrastructure. Once the emergency restoration phase is completed and long-term reconstruction phase begins, it may

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be necessary to take a sector-wide approach and use economies of scale where appropriate.

- *All under one roof or various specialist organizations:* Where existing organizations survive intact through the conflict, this issue may not arise. In other contexts, during peace onset period, there may be advantages in delivering various services through a small number of organizations. The consultative processes in the early periods can be used to identify the design considerations for specialist organizations to take over the reconstruction tasks.

- *Implement through government or NGOs:* As the East Timor experience suggests, this may vary from one sector to another significantly. Even in sectors where community institutions survive through the conflict, significant challenges in terms of capacity, transparency and access may exist. In East Timor, some of the infrastructure services were entirely delivered by NGOs in the initial years and gradually as government capacity was improved, the responsibilities were transferred to government ownership.

While it is important to recognize such policy tensions, each conflict is unique and it may not be possible to resolve these tensions right at the start of PCR. Some of these tensions may not arise until significant progress is already made in PCR.

### 3.11 Create appropriate financing mechanisms and ensure prompt disbursing

Reconstruction programmes draw upon various sources including private remittances of emigrants and diaspora, humanitarian aid mobilized by international NGOs, emergency aid and distress relief from bilateral and multilateral donors, reconstruction and development loans from World Bank and/or regional banks, private sector flows from domestic as well as international sources. The picture during the initial stages of PCR can be extremely complex and even as clarity emerges, there is scope for duplication. Rohland and Cliffe (2002: 7-8) describe the complexity of aid delivery mechanisms in East Timor and various issues in coordinating them. Five important issues can be identified.

First, while reconstruction tasks attract funds from a number of sources, it may not be feasible or desirable to have unified financing mechanisms for PCR. However, channelling those flows through a coordinated window can lead to streamlining of disbursements and lowering of transaction costs. The use of trust funds as vehicles to coordinate and pool together resource pledges from different donors or organizations may be a recognition of this (see Schiavo-Campo 2003).

Second, opportunities for early intervention can be squandered if financial resource mobilization takes time. An internal study of the World Bank (2001) suggests that procurement, financial management and safeguard policies can increase administrative costs by up to 20 per cent. These safeguards are important but they can delay PCR which can potentially cost lives. An analysis of Rwanda suggests the need for creating a multilateral rapid response financing mechanism for post-conflict and other emergency interventions (Baare *et al.* 1999: 42).
Third, reconstruction plans and goals must clearly spell out the long-term financial implications for local stakeholders. To some extent, a coordinated single window approach may hamper this whereby the public may not perceive the distinction between loans and grants. Hence, the need for clarity and communication to all stakeholders is essential.

Finally, financing mechanisms must be flexible and realistic. For example, debt relief and underwriting recurrent costs of civil administration may be important to build the confidence of local people (Dabelstein 2002: 7). However, experience in Rwanda suggests that debt relief can be a *double edged sword:* it releases the government from payment obligations on one hand but in turn decreases donors’ ability to influence government spending patterns on the other (Baare *et al.* 1999: 29). A World Bank (2001: 2) document notes the need for donors to avoid external pressures for large-scale ‘liquidity lending’ and to remain focused on larger development objectives even in post-conflict situations. At a time when budget support rather than micro-managed project aid is the main vehicle of development assistance in peace times, PCR poses a challenge in that state institutions remain fragile.

### 3.12 Recognize that aid plays only a catalyst role in reconstruction

Globally, while the share of aid given to emergency and distress relief has increased in the 1990s, it still forms a small component. For countries coming out of conflict, in the immediate period in the onset of peace, dependence on aid can be significantly high and crucial. Aid and international financial flows mainly act as catalysts to kick-start or prime the economic recovery. There is need to recognize this important limitation. Otherwise, it is possible to create entrenched dependence and also unnecessarily orient and develop institutions and policies mainly aligned with the convenience of donor funding mechanisms rather than appropriate to long-term and real local issues and capacities.

### 3.13 Evaluate and share lessons

Almost all the evaluation studies referred to in the discussions above include a recommendation on the need to strengthen evaluation mechanisms. Easterly (2003b: 38) (whose analysis is not specifically about post-conflict context but about aid in general) suggests that “… aid agencies seem reluctant to promote honest evaluations that could lead to publicity about failures’. While this general tendency may apply to the case of post-conflict aid financing too, the increasing number of evaluation studies suggest that there may be some change in donor perspectives.

The Afghanistan evaluation (Dabelstein 2002: 8-9) notes that:

> Mechanisms for ensuring that lessons from previous operations are incorporated into new and on-going operations are insufficiently developed in many organizations … Generalized lessons from crises situations such as Kosovo are limited by the specific agency, sector and issue focus of much of the evaluation evidence. Despite the significant level of expenditures on rehabilitation, recovery and peacebuilding, few formal evaluations have been
undertaken of such programmes and their relationship with humanitarian efforts.

The Rwanda study (Baare et al. 1999: 41) also highlights the importance of strengthening evaluation mechanisms and opportunities for self-criticism:

There is an unmet need for an ongoing critical reflection on the assumptions underlying dispositions made within aid agencies when planning assistance in the context of violent conflicts. Existing mechanisms, such as reviews and evaluation, have their part to play, but especially in conflict related complex emergencies, a more flexible mechanism would be required that can impact in earlier stages in the planning process.

As Easterly (2003b) points out, donors are mainly accountable to their principals and this may influence how programmes are evaluated. Thus, donors may give a high priority to the views of their country governments, media and taxpayers. It is easy to forget that local people of the conflict affected country are the ultimate stakeholders and their evaluation of programme successes and failures are equally important.

4 Conclusions

Conflict is both a cause and an effect of governance failure. Correcting for such governance failures and addressing the primary causes of such governance failure are tasks integral to PCR. Some of these causes, such as contested endowments to natural resource ownership or developing a constitution that recognizes and protects the rights of different ethnic groups without fractionalizing the political space, require long-term institutional change. Others such as creating market institutions, property rights and information access can be done in short term provided there is commitment and stability. Developing and sustaining PCR can be crucial to enable conflict countries to break out of the vicious circle (of state failure, worsening inequality, poverty, conflict) and move to a virtuous circle (of good governance, equality, freedoms, and development). However, PCR is an all-inclusive expression and includes both short-term humanitarian relief works and long-term strategies to promote sustainable development and integrating the country with the global economy. Delivering infrastructure forms a crucial component in the transition to peace. A number of theoretical and practical issues concerning infrastructure planning in PCR have been discussed in this paper. An important message from this paper is that at present infrastructure interventions in PCR seem to be dominated by ‘hard’ investments while the role of ‘soft’ institutions, participation and building coalitions for change are postponed to later stages. Reconstructing local institutions is crucial to sustaining peace. Infrastructure reconstruction is an opportunity to re-build various local institutions.
Appendix: Examples of conflict assessment tools

Here, I do not intend to provide an exhaustive review but give examples of some of the approaches.12

The conflict analysis framework of the World Bank (2002) uses information relating to various variables of ‘highlight key factors influencing conflict’. These variables are organized into six areas, namely: social and ethnic relations; governance and political institutions; human rights and security; economic structure and performance; environment and natural resources; and external factors. Each of these variables is analysed in terms of seven dimensions to determine how it relates to conflict and to poverty, namely: history/changes (how the issue has evolved over time); dynamics/trends (future path of the issue); public perceptions; the degree of politicization of the issue; the extent to which the issue has led to organization of interest groups; how the factor contributes to conflict and its intensity; and how the issue relates to poverty.

Interestingly, the expression conflict analysis framework has been used in an earlier document by Warner et al. (1996) as a tool to link participatory rural appraisal and policymaking. The tool is used to summarize various conflicts that local people perceive to exist between the local use of natural resources and their use by external stakeholders. For each issue, the magnitude and importance (high, medium and low) of the conflict are identified. Also, for each issue, resolutions are identified and whether they require internal or external actions is indicated. Goodhand (2001) suggests the use of the five capitals (physical capital, financial capital, human capital, natural capital and social capital) from the sustainable livelihoods approach for conflict analysis. Verstegen (2001) is an attempt to examine poverty and conflict linkages in entitlements perspective and identify policy recommendations.

The European Commission has developed a checklist of root causes of conflict. This checklist includes twenty-five questions grouped under eight categories, namely: legitimacy of state; rule of law; respect for fundamental rights; civil society and media; relations between communities and dispute solving mechanisms; sound economic management; social and regional inequalities; and geopolitical situation. Each question requires a qualitative assessment and judgement rather than a quantitative analysis. According to the Commission the checklist has been used by EC desk officers to summarize information for over 120 countries.13

A conflict impact analysis tool has been developed by Conflict Prevention Network (2002) for use by EC desk officers. Sixteen problem areas (based on four root causes, namely, imbalance of social, political and economic factors; non-democratic or ineffective government; inadequate opportunities for peace; lack of organized civil society) are identified. The impact analysis is organized in the form of a table or matrix. The components of each problem area are listed (first column); possible manifestations are identified (second column); the significance is quantified on a scale of 1 to 4 (third

12 A bibliography of some papers dealing with conflict analysis tools is compiled by Morris (2004). Also see a compendium of operational frameworks for peacebuilding organized by Canadian International Development Agency via URL //www.acdi-cida.gc.ca .

column); the practitioner is encouraged to identify whether the trend is of increasing intensity or decreasing (fourth column). The practitioner’s judgement whether the problem is significant or not is recorded in the fifth column.

DFID’s conflict analysis framework involves three methodologies. The strategic conflict assessment (SCA) aims to identify the history, various causes of the conflict, links, dynamics and triggers, the various international actors and aims to match the crucial elements of the conflict to influence and capacity of international actors. A second approach called peacebuilding framework (PBF) extends the above approach to project and programme design aspects. The third aspect of programme level conflict assessment (PLCA) focuses on assessing conflict for existing programmes/sectors (see Smith and Vaux 2003: 22).

The above examples suggest that it is possible to include some form of conflict analysis can be included as part of monitoring and early warning systems. However, they also suggest that even a qualitative assessment of conflict requires deep understanding of the ground reality of conflict. Diagnostic tools can be helpful in anticipating the direction of the conflict or various underlying causes of conflict; they may be of limited use in clarifying policy priorities within an infrastructure service or in determining relative priorities between different sectors.
References


