

## CHAPTER 8. IMPLICATIONS FOR DISASTER RELIEF POLICY

### 1. Introduction

The analysis we have now done has set the stage for us to be able to draw some policy conclusions. Let us first obtain an overall picture of what has been dealt with by enumerating the most important points of our study.

### 2. Major Effects of Disaster Relief

#### 2.1 Disaster Relief Prevents a Catastrophe from Worsening and Reduces the Risk for Economic Stagnation

We have seen how natural disasters may aggravate the economic conditions of LDCs or of certain disaster-prone areas in such countries. If disaster preparedness is insufficient and insurance markets are deficient, a natural disaster will bring substantial risks for economic deterioration that is deep and difficult to repair unless a sufficient amount of foreign disaster relief is forthcoming. So, foreign disaster relief would appear to be indispensable in preventing worsening the conditions for economic development in disaster-prone countries. In this particular sense it may be regarded as a general development inducing form of foreign assistance that may be very efficient. The reason for this view is that the increase in traditional development aid that would have been required at a later stage to compensate for the absence of foreign disaster relief probably would have to be much larger in order to neutralize the aggravated situations of poverty and underdevelopment which may follow a disaster.

## 2.2 Foreign Disaster Relief May have Indirect Effects on the Overall Economic Development of Recipient LDCs

Disaster relief may also influence development beyond these important (compensatory) recovery effects in a number of ways. It is this "development inducing potential" that has been the focus of our detailed analyses in this study. We have tried to shed light on the importance of disaster relief for long-term economic development in LDCs by analyzing the economic effects of the disaster relief to Guatemala in the period from 1976 to 1980. In doing so we have found the following.

1) The growth of total output in Guatemala increased after the 1976 earthquake. From 5.1 per cent on the average for the pre-disaster 1959-75 period to 5.7 per cent for the post-disaster years 1976-80. Moreover, our estimates indicated a total gain in production for the 1976-80 period of US \$790 million as compared to the assumed growth path without any disaster relief from abroad. We were not able to identify any explanatory factor for this gain other than the foreign disaster relief provided. Hence, we have taken US \$790 million to be the upper bound of the total effects of the relief. The lower bound is the compensatory effect of the relief, US \$154 million. This means that the development inducing effect of the relief could be anything between zero and US \$636 million. The lack of precision in these results left us with a considerable degree of uncertainty about the effects of the disaster relief. This showed the need for complementary approaches to the estimation of these effects. The following two alternative approaches were developed here.

2) The amount of disaster relief invested in activities that may have improved the general conditions for economic development in Guatemala appears to have

been significant. Seven per cent of disaster relief grants have been used for activities of the type classified by us as development inducing, i.e., to provide new or improved production capacity, infrastructure, transmission of know-how, new techniques, etc. (see Chapter 6, Table 16 and section 8). This percentage varies with the year and type of organization considered. In 1976, the year during which the major share of relief was given, it was as much as 38 per cent for the NGOs and 13 per cent for the FGOs (see Chapter 6, tables 14 and 15). Taking into consideration that damage to private production sectors was relatively small (see Chapter 2, section 4) and that relief in 1976 to large extent was directed to re-starting production in these sectors, this means that the disaster relief may have been of considerable importance in raising real output that year. In any case, these are figures that deviate considerably from what is likely to be compatible with the maximum and - although less markedly - with the minimum estimates of the development inducing effects derived in chapter 5. These figures, however, may in different ways fail to reflect the extent to which relief activities have improved development preconditions. Firstly, even "purely compensatory" activities, such as the reconstruction of houses, roads, bridges, factories, etc., may have inseparable development inducing effects (see chapter 4, specially, section 6, and chapter 7). Secondly, there are income distributional effects of the relief with beneficial effects for the economy as a whole, to which we shall soon return (see chapter 4, sections 4 and 5). On the other hand, individual cases of what we have called "development inducing" activities may not have led to actual improvements of the preconditions of economic development.

3) There are examples of disaster relief projects with seemingly obvious development inducing proper-

ties (see chapter 7). Looking closely at individual projects we have been able to identify disaster relief operations with significant beneficial effects on the conditions for economic activities in the areas assisted, e.g., increased levels of know-how, employment, real income, degree of market integration, disaster preparedness, etc. The purpose at this stage, however, has not been to identify "typical" or "representative" projects of the disaster relief given to Guatemala but to provide a third empirical perspective on the topic of this study and, again, a complementary perspective on the estimates attempted by the preceding two approaches: the macroeconomic approach taken in chapter 5 and the minimum nature of the estimates according to the classification approach taken in chapter 6. Although each one of these three empirical approaches (by itself) has not confirmed our hypothesis about the development effects of disaster relief, together they provide a basis for evaluating - although still subjectively in essence - whether disaster relief to Guatemala has had and to LDCs in general can have significant development inducing effects.

### 2.3 Foreign Disaster Relief can Reach People that are Difficult to Reach with Traditional Forms of Development Aid

What is most striking is that a natural disaster such as the earthquake in Guatemala may put bureaucratic or political hinders out of the way, opening new possibilities for foreign assistance to reach poor people in the least developed areas of the nation. In fact, we have found indications that as much as 34 per cent or more of the disaster relief reached segments of the population - mainly poor, illiterate Indians - who have neither participated in economic development nor benefited from foreign development assistance of the traditional kind.

### 3. Adverse Effects of Disaster Relief in General

#### 3.1 Is Disaster Relief Inefficient? And, is it less Efficient than Traditional Development Aid?

It has often been claimed that disaster relief is inefficient in that it frequently leads to "overlapping" efforts. This inefficiency has been shown to exist during the early stages of the distribution of assistance but rarely in later stages. However, the relevant question to ask is how much of such inefficiency is an unavoidable consequence of the state of emergency resulting from the disasters.

As we have seen, the provision of disaster relief goes on for long time after the disaster (see chapter 1, p. 8). In this reconstruction phase during which the major share of disaster relief is provided, signs of inefficiency have been rare. Even though we have not systematically analyzed this matter, there are several indications that the disaster relief to Guatemala during later periods has been free from obvious forms of misallocation and squandering (see chapter 6, section 8 and chapter 7, section 9). In this respect, the role played by the National Reconstruction Committee (CRN) has been important. The creation of the CRN, motivated directly by the urgency of assisting stricken areas and by the huge amounts of disaster relief given to the country, seems to have helped avoid "overlapping" of assistance and to have facilitated an efficient allocation of the disaster relief means. It should be pointed out that the CRN appears to continue to play a central role in planning, coordinating and implementing individual relief projects and in allocating the disaster relief that is still in progress (see chapter 7, section 8).

This experience about the efficiency of disaster relief (often even during the emergency phase) contrasts with what is often claimed to be the case for traditional

development aid. It is claimed that the use of such aid is badly rooted in the preferences of the local population, and that such aid often uses inappropriate techniques. Even if we lack a firm basis for a general conjecture that the development component of the disaster relief given to Guatemala is superior in effectiveness to the traditional forms of foreign aid to that country, it seems important to point out that the idea that disaster relief - in contrast to traditional development aid - is generally inefficient is not supported by our evidence.

### 3.2 Foreign Disaster Relief Reduces the Efforts of Recipient Countries to Help Themselves

Foreign disaster relief may be associated with efficiency problems in another respect. As a response to the international organizations providing disaster relief, it could be that the disaster-prone country reduces its own efforts to take appropriate measures to increase disaster preparedness, e.g., that it avoids taking preventive measures or appropriate insurance protection (see chapter 3). This would be a serious problem if the disaster-prone country itself is in the long-run best suited to arrange the disaster prevention that is adequate for its conditions.

However, we have seen that, given the economic and overall conditions of disaster-prone areas of LDCs, the only significant instrument to improve disaster preparedness (at least in the near future) appears to be foreign disaster relief (see chapter 3, section 7).

We should point out that the reduced incentives just mentioned have also been indicated in connection with traditional forms of foreign assistance. Foreign aid, it is argued, creates dependence, makes it difficult for local efforts to be mobilized, discourages saving, etc. Therefore, there would seem to be no a priori reason to reallocate resources from a given amount of foreign aid to traditional development

assistance. But as different forms of foreign aid may in different ways affect, and to a varying extent eliminate the recipient country's own initiatives and resource mobilization, this aspect should be taken into consideration in a more systematic way.

#### 4. Effects of Different Forms of Disaster Relief

We have seen that different forms of disaster relief have different effects. Of particular interest are the different long-run effects not often considered in drafting disaster relief policies.

##### a) Net Negative Disaster Relief Effects

An extreme form of inefficient disaster relief appears to be that which binds the recipient country's own resources without any major benefits. Some examples that we have found are clothes, medicines and certain types of items usually provided, e.g., temporary shelter (see chapter 4, section 5).

##### b) Commodity Relief that Interferes with Local Production

Disaster relief that provides commodities that are locally produced may have an impact on local prices with dramatic consequences for producers in disaster-stricken areas. By reinforcing the depressed conditions of local markets it may risk counteracting economic recovery and aggravating even further real income conditions of just the people most in need, e.g., of disaster afflicted low income farmers (see Chapter 2 subsections 5b and 5c, and Chapter 4, section 5.1).

c) Disaster Relief that Creates Adverse Future Dependence

Disaster Relief operations that provide physical goods or in different ways affect their availability so that the need for, e.g., capital goods increases in the future, may lead to prolonged import requirements and adjustment problems.

It should be pointed out, however, that the last two types of effects mentioned may also be relevant for traditional forms of development assistance. It should also be pointed out that disaster relief sometimes lacks possibilities of substituting cash for commodities. Such a binding constraint may cause difficult trade-off problems. In any case, our analysis has made it clear that even significantly lower amounts of cash relief (in monetary terms) might be preferred to the types of relief mentioned here (see, e.g., Chapter 4, sections 4 and 5).

d) Cash vs Commodity Assistance in General

When analyzing the effects of relief to producers and consumers in chapter 4 we were able to point out some beneficial effects of cash relief. We found that cash relief may help to improve the conditions of financial institutions, increase levels of local demand, etc., and thus help the inhabitants of the afflicted areas recover production levels to attain economic recovery earlier than would otherwise have been the case. In addition, improved conditions of production and income distribution in the areas assisted could help to reduce sectoral and regional disparities with beneficial results for the economy as a whole.

We could also see that cash relief permits adaptation to price and income changes to allocate assistance more



efficiently. There seems to be no possibility for such adaptation when relief is given in the form of commodities. But we also noted some circumstances in which commodity relief may be an efficient form of relief. This is so, when the physical capital provided is adaptable to local conditions, and is not available locally, for then, relief in commodities will be effective in compensating and neutralizing the effects of a natural disaster. Some examples are water pumps, electrical engines, transformers, etc. that are not produced at home and that may be difficult for the recipient country itself to get hold of without much delay (see chapter 4, section 4.2). In addition, this form of relief giving possibilities for a speedy transmission of more modern equipment will help to improve the level of utilization of local resources, factor productivity and income distribution in disaster-stricken, poorly developed areas.

To sum up, taking into consideration the risks connected with the provision of physical units from abroad (see Chapter 4, subsection 4.2.ii) and section 5.1) we found that cash relief in general is superior to commodity relief as a form of foreign assistance.

#### 5. Relief from Different Organizations

We have seen that organizations such as the NGOs have tended to influence local conditions in such a manner as to lead to long-run beneficial effects. Adapting their relief operations to the overall conditions of the communities assisted, the NGOs appear to have improved the efficiency of economic activities in the areas. At the same time, we have also seen that a certain subdivision of relief operations has taken place among disaster relief organizations. For example, FGOs such as AID seem to have concentrated their relief operations to assistance of a more "immediate" character

or else to have coordinated their activities with NGOs that concentrated on relief programs (reconstruction in general) with longer periods of operations. These observations indicate that there is a certain advantage in the existing pluralistic type of disaster relief.

## 6. Policy Conclusions

Now that we have seen indications that disaster relief can have significant long-run effects, it may be argued that the extent and direction of this form of assistance should be planned taking into consideration not only its immediate effects, but all its effects relevant for the recipient country. It is highly uncertain that this is currently being done. This does not mean that we want to trade short-run compensatory effects among suffering people for effects that will have their main impact at a much later stage. Such a trade-off cannot be done on other than a moral and political basis. But it means that we suggest that long-run effects not be systematically disregarded. And it means that, in the choice between two equally expensive projects with the same short-run effects but different long-run effects, the project selected should be the one with the most beneficial long-run effects for the recipient country.

More specifically, we make the following policy recommendations.

A) Individual relief projects should be planned taking the long-run effects (even the negative ones) as well as the short-run effects into consideration.

B) There should be adjustments in or additions to the existing organizational structure so that disaster relief budgets can be allocated between projects with respect to their overall effects.

C) In case certain projects seem to be specific for certain organizations governments should con- sider allocating a large share of disaster relief budgets to organizations which engage in activities that tend to have considerable long-run development inducing effects (e.g., NGOs). This may be done in- sofar as it is feasible by integrating the work of such organizations into the general disaster relief schemes of foreign governments. Alternatively, the organizations could be permitted to implement relief projects that would otherwise have been carried out by the local bureaucracy or by private entrepreneurs.

D) In chapter 1 we referred to current discussions about shifting resources from traditional develop- ment aid to disaster relief. In the subsequent analyses we have indicated some additional diffe- rences between these two forms of foreign aid. To- gether, all these factors point to the need of con- sidering a reallocation of the total foreign aid budget increasing the share of foreign disaster re- lief given to LDCs. A proposal to such an increase would probably be most compelling if it is put for- ward in the perspective of the beneficial long-run effects. That is, one can not simply (as in the current discussion) argue in favour of increasing the share of disaster relief since the two forms of aid differ substantially in respect of ambition and pur- pose.

So far this discussion has assumed a given budget for foreign assistance. But in general, it seems reasonable to assume a donor country is more willing to help with emergency assistance in connection with a disaster than it is with traditional development aid. It is not cer- tain that such a willingness to help has been system- atically exploited in the past. Moreover, this willing- ness would be easier to exploit if it were pointed out that disaster relief in fact embodies beneficial ef-

fects that improve development conditions of the recipient country and, in particular, that it may reach the "people most in need" to greater extents than actually appear to be possible via traditional forms of foreign aid. Against this background a reallocation of foreign assistance to increase disaster relief budgets could also lead to an increased total amount of foreign aid to LDCs.

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