

4. Case Studies

4.1. Cooking Energy for Refugees: The Cases of Zaire and Kenya

by A. Klingshirn¹

1. The Rescue Project in Kenya

Since 1992 Dadaab, a small settlement in Garissa District of Eastern Kenya, has been the site of three refugee camps, providing food and shelter for approximately 120.000 refugees who fled across the border into Kenya in face of the unrest in Somalia. Garissa District is an ecologically fragile, semi-arid area, where a sparsely populated nomadic people could make a living. The unexpected population influx with their needs for shelter and fuel, exceeded the carrying capacity of the land considerably, soon leading to a degradation of the environment, which, in turn, endangered the living environment of the local population. To make matters worse, the women collecting the fuel-wood were frequently subjected to personal danger not only through wild animals and snake bites but, much more seriously, through rape from marauding bandits.

In this disturbing situation GTZ was commissioned by UNHCR at the end of 1992 to develop and implement a strategy that would provide an environmentally sound and socially acceptable supply of household energy. One reason why GTZ was selected was that GTZ had already been supporting household energy activities in Kenya in a national programme called "Women and Energy" for nearly ten years; this meant, that a lot of experience and expertise was already available in the country, which could be mobilised quickly.

1.1. Rescue - The search for a different approach

The result was RESCUE, which is on one hand an acronym for Rational Energy Supply, Conservation, Utilisation and Education, but on the other hand it also represents a programme: it looks at rational (i.e. economic) energy supply options as well as on its efficient use, the "utilisation" implies an acceptance by the people concerned (i.e. self-help), and the "education" component recognises that unless refugees and local population alike are sensitised and understand the problem situation in its complexity (i.e. participation), the programme can not be successful.

This complexity is reflected in the objectives the programme focused on:

1. Reduce refugees' dependence on aid.
2. Secure the supply of household energy (fuel for cooking and lighting) to the refugees during the time they have to live in the camps while at the same time conserving the natural resources of the local population.
3. While the refugees are in the camp, make use of the opportunity for environmental awareness-raising, training and reinforcement of self-help efforts.
4. Introduce rehabilitation measures which will make refugees aware of their share of the responsibility for destroying the environment and mitigate conflicts with the local population; and finally,
5. Improve the safety and protection of women, especially when collecting fuel-wood.

The strategy was based on a approach which was different from the usual approaches in a number of important respects. In spite of the emergency situation (but not neglecting it) an effort was made to integrate aspects of development policy, and also involve both groups who would be

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affected by the measures, namely, the refugees and the indigenous host population, in the process of designing the programme. The refugees were not regarded as aid recipients, who were receiving everything free of charge, but as persons who were responsible - together with their hosts - for managing their own living environment. Merely, in view of the emergency situation, the time normally allowed for the implementation of such measures was reduced to a minimum. A later evaluation showed, that this time could have been reduced even more.

In practice this meant that the socio-cultural and economic parameters of both groups were reflected in the programme components - sensitisation, education, training and production - and the skills available in these groups could be utilised to carry out the programme as efficiently as possible:

the focus was on activities which would be beneficial for the refugees not only while they were in the camps, but also after they had returned to their homeland, while benefiting the local population at the same time.

In view of the lack of even minimal purchasing power, especially on the part of the refugees, a system was developed in which the acquisition of improved household technology and kitchen management methods was linked to other modalities of exchange (trees for stoves) which, in turn, were linked as much as possible to the rehabilitation of the environment.

The resource conservation measures (establishing tree nurseries with fencing around them, experimental plantations and green belts, stove production centres, etc.) were designed and organised in such a way that they could be integrated into the local development planning process and eventually continued by the indigenous host population.

1.2. Rescue evaluation - What are the impacts?

At the end of the second year an external evaluation judged the overall impact to be positive. The refugees had accepted the challenge to share some of the responsibilities for meeting their own energy supplies needs and to be involved in repairing environmental damages to which they had contributed.

More than 80% of the households had one or two improved cooking stoves, one of which was often owner-built and one "bought" in exchange for environmentally relevant work. The same households were also introduced to improved kitchen management techniques; environmental awareness training was made available to household, schools and partner aid organisations alike. In the four tree nurseries and greenbelts experience was gained not only on the conditions of survival for various types of trees, but also with regard to the views and attitudes of both target groups. The three camps were protected with three rows of live hedges instead of barbed wire (one, or at most two, rows will suffice in the future), which made them seem less like refugee camps, optically at least. Finally schools and aid organisations planted mostly shady trees in their compounds which flourished well and as such set an example of household planting.

While all these activities still had shortcomings (the local community was not well enough integrated, the trees around the tents were not always protected and cared for, the extension skills of some of the personnel were still lacking in competence, property rights of the host population were not always reflected or clarified, etc.), it can still be said with confidence, that the general approach was right, extremely valuable lessons were learned that will contribute to better programmes in the future. However, it also became clear that the concept needs to be expanded into areas other than household energy in order to arrive at a comprehensive approach. Also more practical experiences - under different settings - are needed.

2. GTZ Involvement in HHE-Related Activities in Fuel-Wood Provision and Energy Conservation in Zaire

In the beginning of 1994, as a result of the civil war in Rwanda, approximately 1,2 million people fled from Rwanda to Goma, a town at the Northern border of Lake Kivu in Zaire, where up until then only about one hundred thousand people had lived. Several camps were established in the vicinity of Goma. The town Bukavu on the southern edge of Lake Kivu hosted approximately 300,000 refugees in its surroundings at the same time, the population of the town had doubled because of the refugee influx.

For the immediate energy requirements of the refugees, the German Ministry of Economic Cooperation and Development provided approximately two million dollars in emergency aid. Since a number of development cooperation projects had already been carried out before the civil war, good regional knowledge and expertise was available, so that the implementation could begin immediately. This was extremely important as within a few weeks serious environmental degradation processes became visible, caused by the energy and housing needs of the refugees. Already in August 1994 the area around Goma was completely denuded.

Between July and December 1994, three main activities were implemented:

- Fuel-wood purchase and distribution in selected camps;
- Reforestation measures;
- Dissemination of fuel-wood saving measures and technologies as well as kitchen management.

GTZ organised the purchase of fuel-wood and transported it with lorries to the collection places of the international Red Cross and from there to the camp centres for further distribution to the households. Daily, 10 to 12 lorries with a load of 20-25 m sq. each supplied 29 children's camps, 14 hospitals, one camp for the handicapped and two other camps where 76,000 people lived. Obviously it was impossible to supply all camps, more than a million people in total, so the cutting of trees continued and, consequently, the deforestation continued.

The measures in the area of forestry, which were carried out in cooperation with the Zairean Ministry of Environment, centred around Goma and the Virunga Park, a protected national park where approximately 250,000 people collected their firewood. During the six months while the project activities lasted, 32 tree nurseries were set up in an effort to replant 370 hectares. 2500 seedlings were needed per hectare sq. for planting during the 1995 March-April planting season. Establishing and keeping the tree nurseries was labour-intensive and problematical insofar as the distances to the nurseries were great and led through areas where fighting was taking place. For this reason, regular care was not always possible

Finally, parallel to the reforestation measures and the fuel-wood transport and distribution, various activities were carried out for the construction and correct use of energy-efficient cooking stoves. Prior to this, a study had been carried out to select the most acceptable models available in the area and to get an overview of the local (refugee and host) expertise. Experienced project personnel from a Special Energy Programme, which had been working in the area before the fighting, trained a number of trainers to build communal stoves in the Children's camp. The saving rate of the communal stoves was 50% and above. In addition, Rwandan refugees were trained to construct and use improved household stoves (saving rate approximately 20-30%) and employ more efficient kitchen management methods. The trainers came from other similar projects in Kenya and Zaire, where they had gained experiences in emergency situations

The results were encouraging: in a first effort 17 stove builders (masons, metal workers, extension personnel) were trained and 22 communal stoves (either permanently installed or transportable) were built. Later on, communal stoves were built in all children camps and other institutional set-ups working in the area to provide medical care and other services.

In other camp, Kahindo, a core team of 19 trainers and 40 extension staff trained 8,000 local stove builders who then built for the individual households free of charge. Energy-saving methods and efficient kitchen management techniques (splitting, drying, maintaining and putting out fires as soon as the cooking process has stopped, soaking hard grains, using lids, cutting firewood into small pieces, efficient meal planning and stove maintenance) were also taught by the core team. For the vulnerable groups (single and old people, the disabled, single mothers with small children who could not collect fuel themselves, and sick people) 4,000 all-metal stoves were purchased in Kenya and distributed. Towards the end of the programme small scale businesses were catered for especially. They were found to be a rewarding group to work with, as the major consumers of fuel and as such more interested in saving, while being multipliers for others at the same time.

The experiences within this programme - as far as technical training, environmental awareness materials and information was concerned - were shared with other aid organisations, such as the International Red Cross, CARE, MSF Belgium and others, so that step by step a large pool of expertise was built up.

3. From Participation to Empowerment to Self-Reliance

Environmental mitigation projects in emergency situations are not different from other development projects in the goals they want to achieve and the approaches they need to follow. However in certain respects, such as in the speed of action required, the time horizons for the different target groups, and the generally greater complexity of the problems, there are significant differences. In almost all sectors of everyday life results have to be achieved in a very short time in a politically and economically unstable environment. The elements of sustainability and economic independence of the activities implemented will almost certainly come second to quick action. Most of the time it is necessary to proceed at several levels simultaneously: planning, awareness raising, training, self-help construction, design and testing and production all are needed to be implemented at once. Since there is no time for in-depth research and detailed testing procedures, the recourse to prior experiences and established procedures is all the more important. Despite this handicap, a gradual change from emergency to development planning must be initiated in the early stages of emergency responses and rehabilitation measures planned from the beginning rather than after the return of the refugees.

Priority Issues for Household Energy and Deforestation

Although this paper has focused on household energy and deforestation problems in refugee-affected areas, it is clear that in an acute emergency situation there are more pressing needs, such as appropriate settlement strategies (location, size of camps, type of compounds), the provision of food and clean water, the protection of water sources (often a life-threatening problem, which has to receive the utmost priority), health and hygiene campaigns (preventive). However, from a natural environment point of view the procurement of fuel and building materials is also a central concern, that has long been neglected. The following are a number of steps that can be taken to mitigate these problems. These measures have all been supported by GTZ within the last two years in emergency situation in Eastern Africa. While they may not be the best procedures in every situation, they have proven expedient and useful in the given circumstances. Reflecting on the experiences gained, the points are presented in order of time and importance:

1. As dry wood stocks can usually cater for fuel-wood needs in the first weeks or months only, the felling of young, green trees poses the most immediate threat to the surrounding forests. Building poles should, wherever possible in the future, be included in the relief package. Proper shelter material and sufficient blankets can save large amounts of trees being cut for shelter construction and additional amounts of firewood being burnt for warmth.
2. Depending on the diet provided, the most effective and probably cheapest way of saving firewood and women's labour at the same time is the milling of hard grains either in central milling facilities or in small, decentralised, locally operated mills.
3. The second most effective measure of immediate impact is mass training in energy-saving methods (such as the storing and drying of wood) and the construction of simple windbreaks to protect the fire as a first step and improved stove construction as a second step. In addition to saving fuel, these activities contribute to creating environmental awareness, especially if accompanied by continuous training.

4.2. Impact of humanitarian crisis on ecosystems (emphasis on vegetation)

by Urs Bloesch¹

1. Introduction

This paper is based mainly on experience at field and policy level in the recent humanitarian operations for Rwandan and Burundian refugees and displaced people in Rwanda, Tanzania and Zaire. The impact of a massive influx of refugees/displaced people on the environment with emphasis on the vegetation will be analysed. Some recommendations on the policy level will be presented for reducing the damages to ecosystems.

2. Environmental Issues

A massive influx of refugees/displaced people may lead to an over-exploitation of the local ecosystems and thereby to a long lasting reduction of the natural resources for the local communities. This may provoke severe social conflicts between local people and the refugees/displaced people.

This impact is twofold:

- a) *Immediate impact on the environment*
Need for building material for refugees huts
- b) *Gradually increasing impact on the environment*:
Energy needs for cooking and heating, needs for water and sometimes fodder for livestock.

The cutting of trees and bushes for building shelters starts rapidly after the arrival of the refugees/displaced people in an area. After a few days, the damage to the vegetation is done. This activity is very difficult to prevent. Usually, greater damage results from satisfying daily needs (energy, water and grazing). However, this kind of damage can be reduced if appropriate measures are taken.

Full protection of the vegetation within and near a camp is not realistic. Nevertheless it is pertinent to reduce the destruction of the vegetation as far as possible in order to protect the soil. Otherwise, there is the risk of rapid soil erosion entailing a considerable loss in soil fertility.

Different ecosystems (see examples below) react quite differently to external disturbances

a. Rwanda

Rwandan displaced people 1993-95/Burundian refugees 1993-94

- Mainly steep (slopes), densely cultivated landscape, except the area of Mutara (Northern Rwanda)
Very strongly modified ecosystem (anthropogenic) mainly through cultivation
Limited wood resources available in dispersed afforestation composed of exotic species (mainly Pinus sp. and Eucalyptus sp., latter species has a high potential to sprout after cutting)
- Water available, but locally very variable
Except the area of Mutara, very few pastures

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Conclusion:

Long lasting negative environmental impact can be strongly reduced, provided the soil, especially on steep slopes, can be protected by minimal vegetation cover.

b. Tanzania

Rwandan refugees in Kagera Region 1994-95

Very variable types of open savannah, mainly flat to hilly landscape, predominant tree and shrub savannah with a canopy cover of 20 - 40 %

Strongly modified ecosystem (anthropogenic) mainly through fire and grazing

Average standing volume of about 20 m³/ha (savannah land), very little afforestation

Stocking rate about 2 ha for 1 TLU (Tropical Livestock Unit)

Water resources very limited.

Conclusion:

The savannah vegetation has been modified over centuries by regular fires. If loss of the humus can be avoided (area of Benaco camp is heavily threatened), a rehabilitation of the savannah vegetation should be possible by natural regeneration (eventually to complete by plantations in some areas). Nevertheless, this region lacks the capacity to provide fire wood and water for 700,000 refugees for long periods of time without causing long-lasting negative environmental impact.

Burundian refugees in Kigoma Region 1993-95

Miombo woodland in mainly flat land, canopy cover over 60%

Relatively mildly modified ecosystem through cultivation, grazing and fire

Average standing volume of about 80 -100 m³/ha (Miombo woodland), very little afforestation

Stocking rate about 1 - 2 ha for 1 TLU

Water resources limited.

Conclusion:

The essentially flat landscape, the relatively high standing volume and the annual growing rate of the vegetation are favourable for avoiding a long lasting negative environmental impact.

c. Zaire

Rwandan refugees in Goma Region 1994-95

Outside the National Park of Virunga the area is densely populated and fully cultivated (volcanic soil with very high fertility)

Very fragile ecosystem of the moist montane forest: if remaining primary forest is destroyed by clear cutting the impact will be almost irreversible

Very limited wood resources available in forests far away from the camp sites (50 100 km and more)

Very few pastures available outside of the park.

Conclusion:

The destruction of the vegetation of the National Park of Virunga was rapidly increasing. The environmental negative impact will be long lasting. This region could not support the high number of refugees without destroying the natural resources for the local communities.

Rwandan refugees in Bukavu Region 1994-95

The same remarks as for Rwanda

The cited examples demonstrate the great difference in vulnerability of ecosystems of different regions. But also within each region the local ecosystems vary considerably.

Obviously, one has to consider additional factors, such as those listed below, which influence the degree of damage to the ecosystem caused by massive influxes of refugees/displaced people.

Topography*

Local availability of burning material (fire wood or other organic material) or alternative energy sources*

Availability of pasture*

Climate*

Energy needs of refugees (defined among others by food items, family cooking/community kitchen, type of stove)

Number and type of livestock

Number of refugees

Length of stay of refugees/displaced people

Rapidity to start an environmental operation and their efficiency

The choice of the site is primordial in view of reducing the negative environmental impact. The impact of all factors marked by asterisks as well as the specific fragility of an ecosystem are decisive for the choice of the camp site.

3. Approach of a Environmental Operation

Aim:

To safeguard natural resources, the essential base of the socio-economic development of the local communities, in the areas affected by refugees/displaced people.

This aim should be achieved by:

Preventive action:

Reducing as much as possible the damage to the environment, especially through the controlled provision of burning material (building material), the promotion of energy saving methods of food processing, setting up of a water provision programme and, if necessary, by defining livestock management.

Curative action:

Contributing to the rehabilitation of the environment considering the specific ecosystem and the land use priorities defined by the local population

The environmental operation should be elaborated together with all participating local and international agencies, and together with the local population and the refugees/displaced people. The responsibilities and the role of each participant have to be clearly defined. Special emphasis has to be given to the environmental education of local communities and refugees/displaced people.

4. Conclusion

Some recommendations at the policy level:

- In regions with a high risk of humanitarian crisis it might be advisable to elaborate maps indicating areas with a fragile ecosystem
- Environmental aspects should be an important factor for camp site selection
Environmental aspects should be considered from the very beginning of a humanitarian crisis (requires an environmental expert in the first assessment team)
- Involvement of local population/organisations in the environmental operation from the very beginning
- Possibilities of using different alternative energy sources for the energy needs (cooking/heating) of the refugees
Distribution of low energy-requiring food items in case of shortage of locally available burning materials.

4.3. Environmental Health and Environmental Impact: Policy and Practice in Emergency Water Supply and Sanitation

by Paul Sherlock¹

1. Introduction

1.1. Aim of the paper

The aim of this paper is to look at the gap between policy and practice concerning the environmental impact of refugees and displaced people and of emergency environmental health responses, and to discuss some possibilities for bringing policy and practice closer together.

1.2. Scope of the paper

The discussion will focus on environmental health work, which includes water sanitation and hygiene promotion as well as water supply in the context of wider environmental issues. Oxfam's response to emergency situations is usually in this field, and Oxfam is committed to integrating these related activities where possible.

1.3. Oxfam and emergency environmental health

Since Oxfam was founded in 1942, the organisation has worked with millions of refugees and displaced people in many different countries on emergency water supply and sanitation programmes. Over the past year, Oxfam has helped provide water and sanitation facilities for almost two million refugees and displaced people, mostly in the Great Lakes Region of Central and East Africa.

2. Policy Aims and Good Practice

2.1. Policy aims

One of Oxfam's fundamental aims is to work with poor people as a force for change to address the causes of poverty and alleviate suffering. Oxfam works towards increased sustainability of livelihoods of displaced people and refugees as well as resident populations. Working towards "sustainable livelihoods" is understood to mean "increasing the ability to maintain and to improve livelihoods while maintaining or enhancing the global assets and capabilities on which livelihoods depend". It is obvious that in crisis situations priorities need to be decided within the range of assets and capabilities that are important in livelihoods. Oxfam aims to respond to urgent human needs in emergencies and help poor people to reduce their vulnerability (the inverse of sustainability) in crisis situations, and our focus is generally on public health work.

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2.2. Good practice

In all of Oxfam's operational projects and work with local partners, project managers are encouraged to consider the sustainability of projects: for example, is operation & maintenance of water supply systems feasible and affordable, and is the water supply environmentally sustainable? There is a section in Oxfam's project application form to address the environmental impact of the proposed activities (this grant application form has to be approved before project implementation).

Oxfam's Public Health Team is particularly concerned with the effects of environmental degradation on people's health. In as much as environmental health work in emergencies is concerned with providing a healthy environment for refugees and displaced people to live in, it makes sense to avoid pollution in the area of the settlement, including pollution of local water sources and careless disposal of refuse. Oxfam is careful to maintain good relations with host communities and tries to avoid, where possible, depletion of local resources and environmental degradation in the areas around camps, which would affect local livelihoods.

3. Field Experience

The following examples illustrate just a few of the potential environmental impacts of the presence of refugees and displaced people and the water and sanitation projects that Oxfam has been associated with over the past few years. They show how, despite the best policy intentions, good practice is not always achieved, and illustrate some of the constraints to good practice discussed in section 4.

3.1. Jijiga 1988: unsustainable water supply

In May 1988, several hundred thousand Somali refugees arrived in the Ethiopian Ogaden desert from Northern Somalia (now Somaliland). Two camp areas were set up Hartisheik and Harshin. The latter, moving after two months to create Hartisheik 'B' camp.

Both local and international politics at the time meant that the camps were sited 72 km away from the main water source at Jijiga town. Water was trucked in small quantities from Jijiga to the camp from the start, but because water was short in the beginning, any local water sources in the area were exhausted by the refugees. These were mostly small water catchment ponds or 'burka's' used by the nomad population to keep their families and animals alive.

This created a problem for the nomads, so when the tanker operation improved, the nomads came to the camps there for their water, creating many conflicts. The water source in Jijiga was the main bore-hole for the town, so when more water was required, the town's own supply came under pressure. Additional bore-holes for the camp have now been drilled, only 45 km from the camp. But for three years water was trucked from Jijiga, putting pressure on the aquifer, and putting the town at risk and costing UNHCR \$ 1 million per month.

3.2. Ngara 1994: unsustainable water supply

When about 250,000 people fled Rwanda to the Ngara area of Tanzania, they were directed by the Government to a site at Benaco. This was due to the existence of a lake that had been made in 1986, and that there were no local inhabitants living or farming around the lake. Two days after the refugees had arrived water was being pumped out of the lake to be treated with chlorine and distributed through tap-stands. However, it took about a week to get people to move from the lake to the tap bars, in the mean time Oxfam had started to construct a water treatment plant and distribution network.

It was quickly realised that the lake alone could not supply all the refugees, estimates showed that it might last 4-6 months. However, the lake did last 8-9 months into the next rainy season. UNHCR reacted very quickly to the possibility of the lake running out by recruiting an agency to drill 24 bore-holes. While it was of great benefit that these holes were made so quickly, very little drilling data was left and pump test yields proved to be much higher than the actual yields. More disturbing was the fact that the wells were left unlined - in two months, three had collapsed, and there were fears that all the others may do the same. It was not possible, for a variety of reasons, to move the refugees to sites with more suitable water supplies. So additional bore-holes were drilled in the valleys between the hills, all tapping the same aquifer.

Early in 1995, there were signs that the water table was beginning to drop significantly and by mid 1995, a hydro-geologist employed by Oxfam was predicting that the aquifer would be exhausted by the end of the year. Oxfam is now conducting a more detailed study to try to quantify what rate of water abstraction the lake and the aquifer can sustain and make recommendations for settling some refugees elsewhere, or developing a scheme to pump water from the Ruvubu river. The problem now, in the current situation of great and growing pressure for the return of refugees to Rwanda, is that the Tanzanian government, UNHCR and donors are likely to be unwilling to start any major new investment such as alternative camps or the Ruvubu river scheme.

3.3. Goma 1994: resource depletion and local pollution

Nearly 1 million Rwandan refugees arrived in Goma in July 1994 and settled for over a year on the edges of one of the most important nature reserves in the world. The environmental impact of these settlements, particularly the destruction of forest for fuel-wood and construction timber by refugees has been widely discussed and well documented. Aid agency activities also contributed to the environmental degradation. Sanitation programmes have used hardwood planks cut from natural tropical forest to construct latrine slabs. Control of the origin of this timber is extremely difficult in this part of the world.

Construction of water systems and disinfection of defecation zones involved the use of quicklime, produced in the camps with local limestone and fuel-wood. Huge amounts of refuse were generated in the camps some of which was dumped in the national park, including medical and other dangerous wastes. The camps were sited on impermeable basalt lava flows, where latrines fill quickly. They had to be emptied and the contents dumped off the sites.

3.4. Drilling in Mutare, Northern Rwanda

Oxfam has been under considerable pressure from the Rwandan government to provide water in the Mutare area of Northern Rwanda for returnees who have been living in Uganda since 1959/60. Many of these returnees are cattle owners and the water supplies is as crucial for the survival of the animals as for their owners. The area concerned is adjacent to the Akagera national park, and could suffer major environmental degradation if large numbers of cattle were able to graze there because of the provision of new water supplies.

Oxfam is exploring water supply options to the resident population of the northern part of this region, where agriculture is traditionally dominant over livestock keeping and where relative large numbers of people live. Oxfam has initiated participatory research and project planning with staff, local NGOs, authorities and (new) residents. Local perceptions of humanitarian needs, environmental change and development potential were assessed, and activities which are both socially acceptable and environmentally responsible are being planned.

4. Practical Constraints

There are several reasons why achieving environmental related policy aims may be difficult to achieve in practice.

4.1. Conflicting priorities and limited resources

There is often a serious conflict between the need to respond to the immediate humanitarian crisis and the need to ensure that the response does not have a negative environmental impact. The first priority for donors, co-ordinating bodies and (international) implementing agencies is to save lives. This may mean depleting scarce natural resources and accepting sanitary conditions far below internationally accepted standards, especially in the early stages of crisis.

Host governments and other (local) organisations and groups will generally agree with that but must also consider several local interests, from political to social, economic and environmental

Emergency programmes that minimise negative impact on natural resources may cost more to implement and take more time. On the other hand, the funding crisis usually occurs several months after the onset of a refugee situation, so the first few weeks would be the best time to secure resources for mitigating environmental damage. Furthermore, some choices made in early stages of emergencies can minimise medium and long term costs and/or environmental degradation, which would imply financial savings.

4.2. Short term planning and programme inertia

Indeed, during the emergency phase, the priorities of all involved, most importantly the refugees and displaced people themselves, are short term. Even after the emergency passes, these situations usually remain politically unstable which makes governments, donors and implementing agencies cautious about longer term programmes and funding. Even where there is scope for longer term planning, it is hard to change the direction of large programmes, in which inertia quickly sets in. This is particularly true for decisions about relocating camps, which involves large financial investments, new energy and further disruption for the refugees and displaced people.

4.3. Political and security constraints

The situation of refugees and displaced people is a political issue at all levels. They have an impact on local politics, they may be used by host governments as a bargaining tool or for gaining revenue, they have political significance for the countries or areas they leave, and politics within settlements of refugees and displaced people is often crucial to the outcome of programmes. The security implications of significant numbers of displaced people and refugees are many and various, ranging from disputes with local people over water supplies to the creation of bases from which to launch attacks on the country that was fled. Security is also an issue for agencies working in camps, and may severely restrict the control they have over their programmes.

4.4. Unsuitable sites

Decisions on where to settle displaced people and refugees have critical significance for subsequent environmental quality and potential, and yet basic considerations such as having a sustainable water supply and terrain suitable for installing latrines are often ignored by political and security constraints or competition for better land. Refugees and displaced people are usually settled on land which, for example, may be available only because of lack of water.

Whether settlements are large and concentrated or small and scattered has particular significance for the local environment. But the agencies which are to be involved in service provision are often not able to influence decisions on settlement type and location, because of overriding political or financial constraints. Indeed, there is often a conflict between the costs of reaching a scattered population and the frequent health, livelihood and environmental benefits of avoiding large settlements. This tension may bring different agencies into conflict (see 4.5 below).

4.5. Fragmented response

The growing tendency, when a mass displacement of people occurs, is for a large number of agencies to become involved, each with different responsibilities and objectives. The environmental impact of the programme as a whole is the responsibility of many different actors, creating difficulties for co-ordination and integration of activities.

4.6. Inadequate information for planning

The information usually available to agencies planning emergency environmental health interventions is extremely limited, partly because of the speed at which decisions have to be taken, but partly because information needed for incorporating environmental considerations into emergency work is not accessible, or readily available. Agencies may unwittingly create environmental hazards, or planners may create inappropriate settlements because they are not fully aware of the impact of their decisions. Baseline data may not exist, leading to problems later on, in measuring the environmental impact of programmes thus reducing learning opportunities.

4.7. Poorly developed environmental impact monitoring and assessment

When looking at the environmental impact of emergency water supply and sanitation projects, it is difficult to compare environmental costs with other project outcomes, particularly when human lives are part of the equation. As mentioned in 4.6, the baseline data for impact studies is usually lacking. The UNHCR have produced guidelines for environment-sensitive management of refugee programmes (UNHCR 1994) and for environmental surveys and studies; other agencies have produced guidelines as a result of specific studies (e.g. ERM, 1994). These still need developing to be more useful in emergency situations, and have yet to be widely adopted by implementing agencies. Oxfam is also in the process of updating its own guidelines, on water and sanitation and wider environmental issues. A major aspect for further consideration in assessment and monitoring systems is the level of consultation and participation of both displaced people and local residents, especially in early emergency stages.

4.8. Poor relationships with local authorities, private sector, CBOs and NGOs

UNHCR as the co-ordinating body in most situations has responsibility for co-ordination with local authorities, and relationships between implementing agencies and local authorities are often weak. Few international agencies will have contacts with local NGOs and CBO (Community Based Organisations). This may be due in part to a high "turnover" of international staff and a short-term outlook of the agencies. The poor relationships may explain partly the lack of local information and (political) difficulties in negotiations.

5. Suggested Ways Forward

5.1. Programme integration

In order to appreciate the overall impact of an emergency programme on the environment, planning, monitoring and evaluation of the various programme elements have to be brought together. This is achieved most effectively where there are few agencies implementing broad programmes, rather than where there are a multitude of agencies of different levels and areas of competence, with overlaps and gaps in programme cover. For this reason among others, Oxfam is moving towards a more integrated approach to refugee programmes. For instance, in the Ikafe settlements of Sudanese refugees in Northern Uganda, Oxfam is engaged in a broad programme of refugee assistance which covers distributions, water supply and sanitation, health and income generation. Where there are many different agencies involved in the same programme, effective consideration of environmental impact demands strong co-ordination and a willingness on the part of the agencies to accept the role of co-ordinating bodies.

5.2. Information, preparedness and consultation

Good information already exists in and about many places which are (potentially) subject to large population influxes, in the form of satellite images, aerial photographs, maps, ground surveys and Geographical Information Systems (GIS). The data are held by a variety of bodies, including government ministries, universities, local development projects, companies, NGOs and defence forces. It is often time consuming and difficult to access and assemble relevant data when emergencies occur.

Information related to water resources, land uses etc. should be made more readily available, in a form more convenient for planning interventions. Desk studies could be made on areas where population movements are likely to occur, so that a basic understanding is developed before the emergency occurs, and for short term decisions with better long term environmental consequences. This could be done by a co-ordinating body such as UNHCR or a consortium of agencies, which could then make the relevant information available to implementing bodies when needed.

Improved co-ordination between local organisations, including authorities and NGOs, is essential for this data collection and indeed it could have a local focus. It would in that case also offer possibilities for developing preparedness plans and structures in collaboration with these organisations.

5.3. Agreed procedures and minimum standards

Environmental impact mitigation measures need to be outlined in proposals to donors and co-ordinating bodies. This requires more practical and widely acceptable guidelines which recognise the outstanding operational difficulties faced by implementing agencies. Monitoring and evaluation of programmes should take into account their negative environmental impact. This requires the broadening of programme objectives and evaluation. Environmental monitoring should begin as close to the start of an emergency as is practical, and should be reported on regularly. More effective programme planning, monitoring and evaluation demands clearer criteria for measurement, and a commitment to provide the resources needed.

5.4. More realistic planning horizons

It is often true that temporary settlements of refugees and displaced people have lifetimes spanning years rather than months. This is known, even as we battle with fast moving events at the beginning of a crisis. Oxfam's response in water supply and environmental sanitation tends to use equipment which may last for many years and to engage the communities involved in a way which produces sustainable management of the infrastructure installed.

5.5. Better site selection

So much which affects the health and welfare of displaced people and refugees depends on the site in which they live. The environmental impact of such people depends crucially on the location and size of the settlements. The conditions for people in camps could be used as an argument for less environmentally damaging settlements. Dispersed settlements, while being more difficult to service in some cases, provide more healthy places for people to live in and have less negative impact on natural resources nearby.

Practical Constraints

1. Conflicting priorities and limited resources
2. Short-term planning and programme inertia
3. Political and security constraints
4. Unsuitable sites
5. Fragmented response
6. Inadequate information for planning
7. Poorly developed environmental impact monitoring and assessment
8. Poor relationships with local authorities, private sector, CBOs and NGOs.

Suggested Ways Forward

1. Programme integration
2. Information, preparedness and consultation
3. Agreed procedures and minimum standards
4. Realistic planning horizons
5. Better site selection

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