

Cities, Disasters and Livelihoods

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Recent natural disasters show that it is almost always the poorest who are worst affected. The rapidly urbanizing cities of Asia, Africa and Latin America present unprecedented concentrations of poverty, and in so doing mark new levels of vulnerability.

Increasing urbanization brings new challenges to reducing the threat of disaster. Yet disasters are often ignored until they strike, when the damage has been done and relief is the only response. The situation is compounded by the separation of urban programming from disaster management. In a future context of increased urban growth, however, marked by an inevitable increase in urban disasters, new approaches that 'mainstream' disaster mitigation into urban development interventions at all levels are needed.

Livelihood methodologies being practised by an increasing number of developmental organizations take account of the threat of disaster as intrinsic to developmental strategies. Livelihoods offer one approach that unifies understandings of both disaster management with development planning. Such an approach has major policy implications for decision makers aiming to make cities truly sustainable.

Key Words: Disasters; cities; livelihoods; poverty; development

Introduction

Shortly after the floods in Venezuela that killed 30,000 people in December 1999, the country's President Chávez publicly blamed his predecessors for allowing shelters to be built on dangerous land in the capital city, Caracas. He was right: building in these places led to unnecessary death and destruction from mudslides and flooding. But was he about to stop such developments himself? It seems unlikely. And had anyone been that worried before the floods? Probably not, since those worst affected were amongst the city's poorest.

If disasters are the consequence of a natural hazard such as floods affecting a vulnerable group such as Caracas's urban poor, then the rapidly urbanizing cities and towns of Africa, Asia and Latin America represent the greatest concentration of vulnerable people there has ever been. Urbanization today is extraordinary. The facts are often stated but mean little in their enormity: currently half of the world's population — or 2.5 billion people — live in cities. By 2025 this will probably double, to five billion. This represents phenomenal growth of an urban environment where 'up to half the populations of the largest cities of the developing world are in unplanned and often illegal squatter colonies'.²

For newly arriving poor migrants from the countryside, and increasingly those born into poverty, cities are dangerous places. Poor urban dwellers live on the worst quality land: on

the edges of ravines, on flood-prone embankments, on slopes liable to mudslide or collapse, in densely packed areas where fires start easily, on roundabouts at busy intersections. The Red Cross describes this unwanted demarcation as 'the social geography' of many towns and cities which 'reflects the vulnerability of different zones to natural hazards — often with disastrous consequences for the poor'.³

The scale of the problem

The large-scale disasters which occurred between June 1999 and March 2000 alone highlight the terrible convergence of urbanization and natural hazards. These disasters include two earthquakes in Turkey's heavily urbanized north-eastern region, in August and November 1999; the official death toll of the first, larger earthquake was over 17,000, with some 44,000 people injured and nearly 300,000 homes either destroyed or damaged.⁴ Venezuela's floods destroyed over 23,000 houses and damaged a further 64,000.⁵ The two cyclones that hit the Indian state of Orissa in October killed well over 10,000 people and made eight million homeless.⁶ The second cyclone devastated the state's administrative capital, Bhubaneswar, the commercial capital, Cuttack, and the port town of Paradip before moving off to smaller towns and villages.

February and March's heavy rains and cyclones in Mozambique led to the worst flooding in fifty years, and brought widespread devastation to the capital city, Maputo, as well as to Matola city. Upwards of one million were directly affected.⁷ Water and sanitation services were disrupted, causing outbreaks of dysentery and cholera. Newspaper reports described the disaster as destroying the rehabilitation efforts of what had been only recently the world's poorest country.

These instances are the headlines from the last few months alone. They all caused large-scale loss and catastrophic damage to cities, towns and villages. But it is no surprise that increasing urbanization correlates with increased risk, as unplanned growth rarely takes account of physical hazards. Of the world's fastest-growing cities, 40 out of 50 are in earthquake zones.⁸ Yet disasters come in different sizes and over longer time periods. For millions of poor urban dwellers, managing disaster is an everyday occurrence, less noticed by outsiders but just as insidious. Such less noticeable disasters may include the fires that wipe out squatter neighbourhoods, the effects of organized crime, the cumulative health problems resulting from poorly ventilated shelters, or the long-term effects of pollution on children. They erode livelihoods and cost lives: Bangladesh's 1991 infant mortality rate amongst slum and squatter settlements was over twice rural rates.⁹

Urban poverty and disaster — two separate issues?

Disasters turn back the development clock, destroying years of effort and labour and perpetuating poverty for those already poor. On a city and national level, they destroy investments and infrastructure, and drain national budgets and international development funds. Yet disasters are rarely, if ever, included within urban development strategies. Governments of urbanizing countries may have entirely different ministries responsible for emergency management and urban development, each with little knowledge of the other's activities. The Indian Ministry of Urban Affairs' 1999 Draft National Slum Policy makes no reference at all to the vulnerability of slum dwellers to natural disaster. Yet an estimated one per cent of India's total housing stock is destroyed by natural disaster each year.¹⁰

Similarly, national disaster management strategies often omit urban settlements. In many parts of Africa, disaster management is synonymous with rural food security needs. Ghana's National Disaster Management Office (NADMO) and Ethiopia's Disaster Prevention and Preparedness Centre (DPPC) are almost exclusively rural in focus. India's National Centre for Disaster Management (NCDM) and all national disaster response activities — including those in cities — are the responsibility of the Ministry of Agriculture. A further, underlying problem is that many official disaster management organizations remain seriously under-resourced, with little political or legislative support and almost no funds. In his study of national early-warning systems, Andrew Maskrey concludes that:

Even when national disaster management systems have been formally created, good coordination between different government and other organisations does not necessarily exist, leading to confusion, contradictions, overlapping functions, and gaps in responsibility.¹¹

Whilst the separation between city and disaster management continues, and the latter remains weak, valuable opportunities for reducing urban risk will be lost. The inevitable consequences of authorities allowing building on unsafe hillsides or in flood-prone areas will remain largely ignored until disaster strikes.

However, some recent initiatives by intergovernmental agencies and donors are beginning to address the problem. A UN agency has described the need for measures to reduce vulnerability in urban settlements.¹² The World Bank's Disaster Management Facility, formed in 1998, aims to 'mainstream' mitigation of natural disaster. Donor projects include the 'Megacities' initiative, funded by the UK's Department for International Development (DFID) and the Asian Disaster Preparedness Centre's Asian Urban Disaster Management Programme (AUDMP). And while India's draft National Slum Policy does not describe natural disaster, other statements indicate the need for action:

The time has come that the elements of disaster mitigation and prevention should be included in the Government policies and strategies developed for implementation of disaster prevention and mitigation.¹³

The livelihoods approach

In programming terms, sustainable livelihoods thinking provides a valuable opportunity for combining disaster reduction and development interventions in one unifying approach. Several agencies and donors are currently developing livelihood-based methodologies as bases for policy and practice formulation. These include DFID, the United Nations Development Programme (UNDP), non-governmental organisations (NGOs) including Oxfam and CARE, and research institutes such as the Institute of Development Studies (IDS).¹⁴ A common understanding of livelihoods is given by Chambers and Conway:

A livelihood comprises the capabilities, assets (both natural and social) and activities required for a means of living; a livelihood is sustainable which can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets, both now and in the future, while not undermining the natural resource base.¹⁵

The key element of a livelihoods approach is that people are the starting point. It describes how people obtain 'assets', what they do with them, what gets in their way in obtaining them, and who controls the resources on which assets are based. Importantly, it includes the concept

that assets 'buffer' households against disasters (shocks) as well as stresses (eg ill health). Assets are not only physical (eg land), but also social (eg good relations with neighbours), human (eg good entrepreneurial skills), financial (eg savings) and, arguably, political, (eg having a say in democratic processes).

Livelihoods thinking emerges mostly from rural natural resources and food security methodologies, the latter relating in particular to drought-induced famine in Africa. Yet such thinking finds remarkable resonance in understanding the complexities of urban poverty and in linking poverty with disasters, in particular:

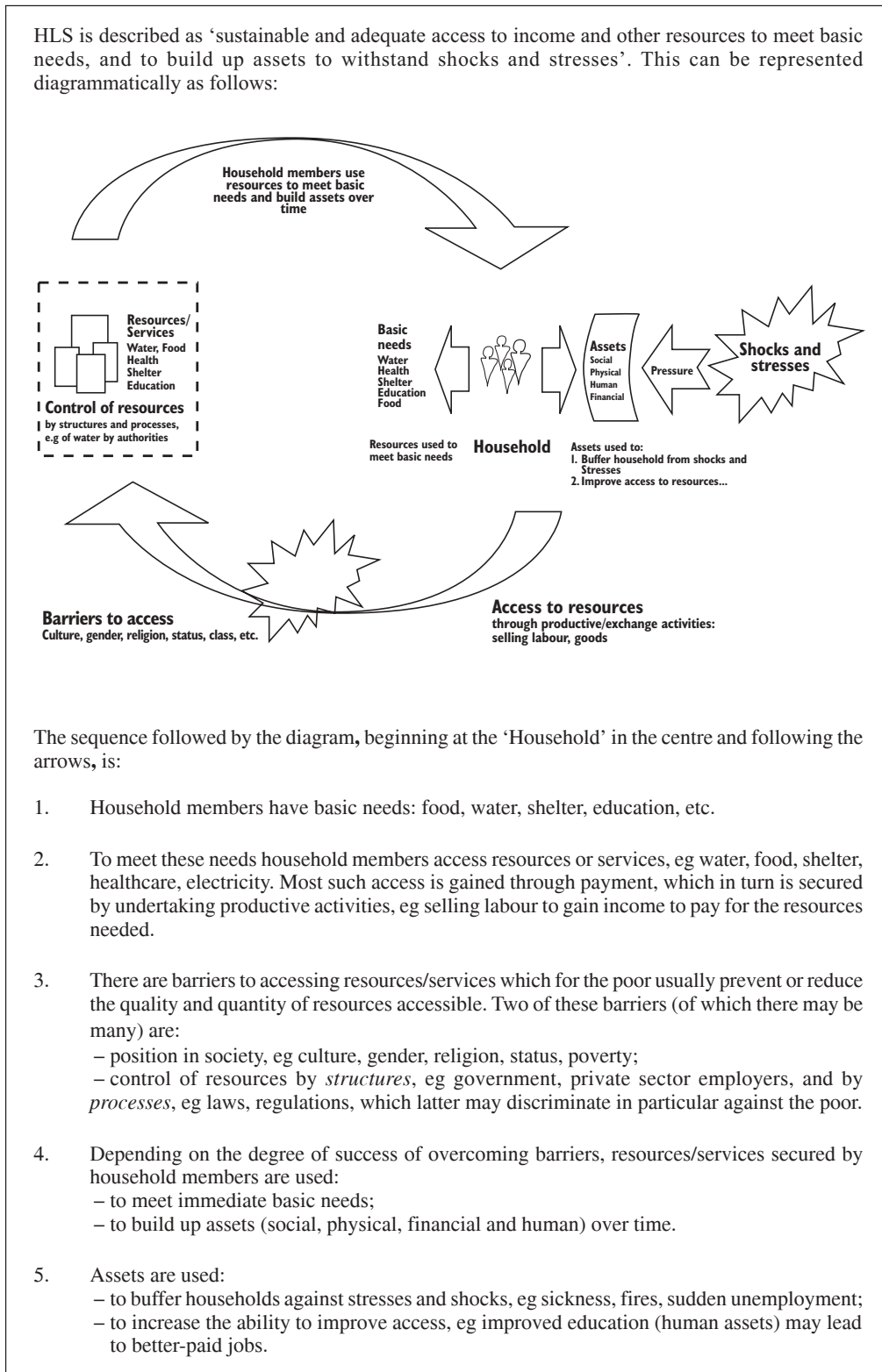
- by linking micro to macro issues; livelihoods does not advocate community-level or municipal interventions — rather it describes the links between all levels that affect poor urban dwellers, from how households secure a means of living to the policies that control them;
- by highlighting the layering and complexity of those institutional controls and regulations which affect the poor's access to resources (and while some controls on the poor may be legal, eg exercised by municipalities, others may be the result of illegal activity, eg drug gangs that control neighbourhoods);
- by indicating access to resources as a key concept, including the ability of poor urban dwellers to access health care, food, employment, shelter and/or political power;
- by stating the importance of income as a means of accessing many of those resources, eg food, clothing, building materials and education;
- by emphasizing the importance of household-level assets, social as well as physical.

In urban settlements the livelihood strategies of the poor are complex. Contexts are changeable and uncertain, with accelerating urban growth, increasing crime, an ill-equipped public sector and intense competition for limited resources. Household members employ varied living strategies, often living on credit, surviving and competing in markets, undertaking seasonal work and earning incomes in the informal economy. As Hugh Stretton stated over twenty years ago:

The life of a modern city is very complicated. The citizens have intricate patterns of common and conflicting interests and tastes and beliefs, and individually and collectively they have very unequal capacities to get what they want for themselves or from one another. From that tangle of powers and purposes comes a social life so complicated and partly unpredictable that any understanding of it has to be incomplete.¹⁶

Figure 1 presents CARE's Household Livelihood Security (HLS) approach. HLS presents a tool for understanding how urban households live. However, it is not prescriptive in advocating interventions, but rather is a 'route-map' on which the main elements that concern living are marked, from micro-level household activities to macro-level control of resources. A key aspect of HLS and other livelihoods approaches is the role that assets play in strengthening households. Descriptions of assets vary, but the following are common to various interpretations.

Figure 1. CARE’s Household Livelihood Security (HLS) model applied to urban settlements



Financial assets

Most resource access in urban areas results from cash exchanges. For the urban poor, as with other city dwellers, the building of financial assets is almost always a key activity for greater livelihood security. Financial assets are often fragile; many urban poor live by arranging complex systems of loans and debt servicing, borrowing small amounts and calling in debts from others to pay bills as they arise. A large proportion of the urban poor are forced to work in the informal sector, earning low incomes for long hours of work. Competition for work is intense, usually making incomes very low. For such workers, insurance, health care or sick pay do not exist. Working in poor conditions serves to increase long-term vulnerability to disease and ill health. This is increasingly the case with child labour, where many life-long health problems can begin.

The informal economy allows for a diversity of ways of earning income to acquire resources. However, those resources can come at a high price, where the poorest often pay more than their better-off neighbours for basic services. Research in Lusaka, Zambia, found water purchased by low-income groups to be nearly ten times more expensive than a subsequently installed water supply system.¹⁷ Food can also come at a high cost, despite the existence in some countries of 'urban agriculture': 'Food expenditures can make up as much as 60% to 80% of total expenditure amongst low income households'.¹⁸ Yet recent studies in Ghana point to increasing malnutrition amongst the urban poor.¹⁹

Physical assets

Tenure is a key physical asset to acquire. Squatters and slum dwellers will endure dangerous conditions to be close to sources of income, while in the rental sector many families may share crowded, poor-quality and illegally divided tenements. In central Delhi, for instance, a large and notorious squatter settlement has existed within the designated flood plane of the Yemuna River for over 25 years. The settlement dwellers are forced to evacuate at least once a year to the busy roadside while their shelters are flooded for upwards of a month. Yet the settlement is thriving, with small businesses, a school and a vibrant property market; the regular flooding is seen as the price to be paid for living in the centre of the city at low cost.²⁰ Having a degree of ownership of land therefore is often the beginning point for households to consolidate shelters. A better-constructed building reduces vulnerability to sudden-impact disasters such as earthquakes, and to fire.

Human assets

Cities provide a variety of opportunities for earning incomes. The benefits of different household members entering into a range of activities based on skills, knowledge and ability increases the chances of sustaining the household. However, some strategies serve to increase vulnerability, threatening household sustainability: young children working in factories may miss out on an adequate education — indeed, on their childhood — and their health may be damaged.

Social assets

Low-income urban settlements are often characterized as having limited social assets, ie lack of extended family structures, established networks of contacts or strong relationships of trust. However, for many newly urbanizing groups, which rely on mutual help and support, social assets can be strong, and many livelihood project interventions concern the building of such assets. Focusing on the threat of disaster can be a key resource in developing sustainable risk reduction measures. In work carried out in Lima, Peru, amongst low-income market traders²¹ mutual distrust between the voluntary fire services and the market traders was cited as a major problem. Fire services were never called by traders when fire broke out (the fire equipment was

old and often broken), whilst the fire services, largely comprised of volunteers, were frustrated at being neglected. Through the organization of meetings and joint training events, however, misunderstandings between both parties were addressed. The fire services personnel became accepted by traders as professionals performing a useful job in protecting the livelihoods. In time, as trust was built, the local fire service organized mock evacuations of the traders, and advised on fire reduction measures which the traders put in place. The fire station was also repainted with donations from the traders, and became a forum for neighbourhood meetings.

Assets and more sustainable livelihoods

A livelihood is sustainable when it:

... can cope with and recover from stresses and shocks, maintain its capability and assets, and provide sustainable livelihood opportunities for the next generation.²²

Within the livelihoods approach, the threat of disaster is implicit in everyday life. At household level, assets buffer households against shocks and stresses. Conversely, a disaster occurs when assets are 'swept away', directly affecting a household. Livelihood strategies concern the building of assets over time, and in so doing disaster reduction at community level becomes a development activity.

Building social assets in particular can increase the chances of greater self-reliance amongst households and neighbourhoods. A recent example is provided by the floods in Catuche, a neighbourhood of Caracas, Venezuela. According to Manuel Larreal from the organisation Ecumenical Action-ACT 'the organization of the neighbourhood and the solidarity of the people saved hundreds of lives'. He states that on the night of December 15:

As the flooding progressed, community members mobilised to assist one another. Neighbours who knew each other and had worked together for years communicated swiftly the news of the rising water. Older residents were helped from their homes by younger neighbours. When a few were reluctant to leave because they didn't believe the threat or because they were afraid their few possessions could be stolen, neighbours broke down doors and carried people forcibly to safety.

In one incident where we were trying unsuccessfully to kick down the heavy door of a woman who refused to leave her house, a young gang member came along, pulled out a pistol and fired into the lock, allowing the door to be opened. The gang member then pointed his gun at the woman and ordered her out of her house. Seconds after she left the dwelling, the house fell into the raging current.²³

In Catuche:

Perhaps as few as 15 people died, a very small figure compared to other similar neighbourhoods where hundreds lost their lives.²⁴

These life-saving actions only resulted after several years of community activities addressing development issues concerning shelter and sanitation. From a livelihoods perspective, the social assets built up over time resulted in preparedness actions that saved many lives.

Achieving such neighbourhood-level self-reliance lies at the heart of many livelihood-focused programmes. CARE's 'programme of support for poverty elimination and community

transformation' (PROSPECT) in Zambia seeks to achieve this through forming community groups around infrastructure delivery. Funded by DFID and working in 14 urban settlements since 1998, the purpose of the programme is for community-led or area-based organizations (ABOs) to develop, manage and maintain basic infrastructure and services. To achieve this the project combines the formation of ABOs with infrastructure delivery, and the making available of savings and loan programmes with skills training. While the programme concerns delivering services with community support, services are in fact the vehicle for the building of social assets. This is being approached in several ways:

- through the promotion of income-generating activities and the development of savings and loan programmes to improve financial status (financial assets);
- through personal empowerment and livelihood improvement training, to increase knowledge and skills (human assets);
- through community participation in ABOs, which builds community relationships for better group-based activities (social assets).

In practice, livelihoods programming belongs to the same family as Action Planning²⁵ and Participatory Rapid Appraisal (PRA). The tools for putting livelihoods approaches into effect are based on participatory approaches that empower communities to identify, prioritize and act on problems and opportunities. CARE's project 'promoting linkages for urban sustainability' (PLUS), is seeking to use these tools within a livelihoods approach. Funded by DFID, PLUS will use an iterative process of 'action-oriented learning' (AOL) amongst vulnerable communities in Delhi. Through community prioritization of vulnerabilities, as well as of capacities, the AOL process seeks to enable communities to identify and seek solutions to their own problems, and in so doing mobilize action towards self-reliance. To achieve consensus leading to the implementation of risk reduction measures, a series of neighbourhood action planning workshops are to be mounted. The project aims to reduce the vulnerability of 35,000 participating slum dwellers over six years.

Making cities sustainable for the poor

The examples above describe what are primarily community-level interventions. At a city management and policy level, actions leading to reduced risk need to be taken. In livelihoods parlance, the structures and processes that control the poor's access to income and resources need to be take account of the risks that poor urban dwellers face, and take steps to reduce them. To these ends most of CARE's urban programming works at both neighbourhood and policy formulation levels. However, much urban legislation still results, if sometimes unintentionally, in the increased vulnerability of the poor: the barring of permanent services for illegal settlements can increase ill-health, while the withholding of tenure inhibits the consolidation of buildings, resulting in turn in poorly built shelters that easily collapse, catch fire or become a breeding ground for disease.

If the poor's increasing vulnerability to disasters is not addressed by policy, management or implementation, then, simply put, urban living for them cannot be sustainable. At policy level, gaps between disasters and urban planning need to be closed. Proactive measures to reduce the threat of disaster need to be an integral aspect of urban planning. Maskrey concludes that:

The overall emphasis of national disaster management agencies needs to shift from one of emergency response towards an emphasis on risk reduction.²⁶

Yet many efforts continue to be misguided:

In most countries it is extremely rare to find risk analysis to take account of the social, economic, institutional and cultural aspects of vulnerability.²⁷

The development of building regulations in earthquake-prone cities provides a good example of integrating risk reduction considerations into mainstream city planning. Collapsing buildings followed by fire are the main causes of death in earthquakes.²⁸ Yet, as Turkey demonstrated, regulations can be ignored, leading to tragic consequences. After the earthquake builders of high-rise buildings were in hiding, fearing the revenge of angry mobs who blamed them for building inadequately. Reasons for a lack of enforcement may be corruption, a lack of political will, or a weak legislature; but for most of the growing number of urban poor in third world countries, who by definition live illegally, the enforcement of building regulations is a non-issue.

If formal controls therefore are outside the remit of those most vulnerable, new approaches need to be developed to reduce their vulnerability. Greater emphasis must be placed on proactive community-led risk reduction measures. At neighbourhood level the building of self-reliance and, crucially, 'ownership' of the problem, is critical. In CARE's experience, programmes which focus on the building of assets at household level leave families and neighbourhoods less vulnerable, ie better able to withstand shocks and stresses. It is this approach that is at the core of CARE's urban programmes currently being implemented in Angola, Mozambique, Zambia, India, Bangladesh, Bolivia and Madagascar.

In programming terms, risk reduction must become an indispensable component of urban development programmes. As the World Bank's Disaster Management Facility states,²⁹ disaster mitigation needs to be mainstreamed into development practice. Livelihoods approaches to urban poverty problems provide a way of seeing vulnerability to shocks and stresses as an integral part of the development picture. Whilst livelihoods programming is at a comparatively early stage in its development, and has a rurally focused origin, it appears that it has much to offer in understanding the dynamics of urban poverty, and the role that disasters play. Such approaches place the vulnerable at the centre, and in so doing aim to make city dwelling *by the poor* more sustainable.

Notes

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