The Impact of Recurring Natural Disasters on Chronic Poverty

Anwar

Follow this and additional works at: https://scholarlycommons.law.case.edu/swb
Part of the Human Rights Law Commons, and the Social and Behavioral Sciences Commons

Recommended Citation
Available at: https://scholarlycommons.law.case.edu/swb/vol3/iss2/5

This Article is brought to you for free and open access by the Cross Disciplinary Publications at Case Western Reserve University School of Law Scholarly Commons. It has been accepted for inclusion in Societies Without Borders by an authorized administrator of Case Western Reserve University School of Law Scholarly Commons.
The Impact of Recurring Natural Disasters on Chronic Poverty*

Hossen M. Anwar
Carleton University, Ottawa and University of Dhaka, Bangladesh

Abstract
Natural disasters disorder the existing everyday normative practices. The magnitude of any disaster creates risk and vulnerability in different ways that apply to different groups. The consequences of material and non-material risk and vulnerability downgrade the existing social structure and social order of the society, which reflects in the process of the cultural system, demographic scenario, social process, socialization, good governance and women empowerment. I use the concept “chronic poverty” as a condition created by intergenerational socio-economic and cultural processes. My analysis encompasses the interrelationship and interdependency between unequal access to resources and recovery process on the context of disaster vulnerability, which could otherwise create persistent poverty.

Keywords
chronic poverty, natural disasters, indigenous knowledge, women empowerment, development and underdevelopment, and poverty reduction

Introduction
Disaster incorporates the multidimensional socioeconomic and political issues including the physical characteristics, social structure with socioeconomic capability, and political perception.1 The magnitude of any disaster creates the risks of disaster vulnerability in different ways that apply to different groups. When people face the risks of disaster vulnerability, they face the decrease of capability, which creates the multi-dimensional socioeconomic and political crises.2 Materially, this involves damage/loss of physical assets, infrastructure, domestic assets, and agricultural output. Non-materially, social relations, status-role linkages, norms, values, crime,

1) Oliver-Smith in Oliver-Smith and Hoffman 1999, p. 29.
2) Oliver-Smith in Oliver-Smith and Hoffman 1999, p. 30.
grievance, conflicts and the rhythm of everyday organized social and cultural life are disturbed. The major victims are usually those who are marginalized people: the poor and the destitute, women, and children, who have the lack of capability on the context of unequal access to resources.3 The effects will be felt in increases in malnutrition, violence, exclusion, illiteracy, and various forms of exploitation. The risks of disaster vulnerabilities differ on the context of family, community, and society, which influenced by education, ethnicity, class position, gender, caste, disability, and age structure.4 Vulnerability downgrades the existing social structure5 and social order,6 which reflects in the process of the cultural system,7 demographic scenario, social process, socialization, good governance and women empowerment. The repeated nature of certain natural disasters; e.g. flooding in a country such as Bangladesh or region, can result in a form of chronic poverty. As a case of a disaster vulnerable country, I will use Bangladesh, which experiences annual flooding that covers a large part of the country. My analysis will be guided by the schematic diagram reflecting the socio-economic and cultural dynamics of the experiences and their consequences on the process of development.

Natural disasters are increasing alarmingly because of global warming.8 There are many types of natural disasters e.g., earthquake, tsunami, volcanic eruption, cyclones, tornadoes, river-bank erosion, floods, drought. Third World countries are the most frequent victims of natural disasters, many of which have a major negative impact on the society.9 In addition to injuries and the loss of lives, the next point of negative impact is the economy, which is reflected in the Gross Domestic Product. Again, in such instances, marginalized people will bear most of the burden, and for whom there is usually no publicly funded social safety net. An added dimension of the negative impact is the significant costs of repairing and replacing the damaged infrastructural facilities like transportations, communications, bridges, culverts, and buildings. These crises undermine the overall operations of government, the private sector, and civil society. Depending on the domain of responsibility, there are different institutions and organizations; Govern-

---

7) Sorokin 1942.
8) Few 2003, p. 43.
ment, NGOs, international agencies, whose efforts will contribute to mitigate the overall negative impact. At present, the development discourse is emphasizing the local knowledge for development of local people.10

**Local Knowledge and Development Strategy**

The immediate challenge for local knowledge is that there is a lack of agency and power to represent it in the local-global power dynamics, which can give shape to its epistemological foundation.11 Because of the lack of epistemological legacy the use of local knowledge as an asset is undermined in poor countries.12 The crisis creates a gap between local and scientific knowledge. Instead coordination between local and scientific knowledge can enrich our stock of knowledge for improving the capability of the local people. The flood vulnerable rural people of Bangladesh used their local mode of everyday survivals and development anthropologists can play a significant role in exploring, shaping and representing local knowledge.13 “Development anthropologists constitute themselves, in general, as “cultural brokers” or translators working on behalf of the poor”.14 The anthropologists can link local knowledge with the global development discourse when “… most anthropologists reorient themselves to … a small scale level and find… their sense of intellectual direction”.15 Alternatively, the role of development anthropologists can be undermined by the “hegemonic character of contemporary development discourse,”16 which is dominated by the major funding agencies like USAID (United State Agency for International Development), IMF (International Monetary Fund), DFID (Department for International Development) of the United Kingdom and the World Bank (WB).17 However, the repeated nature of many types of natural disasters is such that for every small gain that result from policy and private initiatives there are many larger losses. I will concentrate on poverty as the multidimensional every day issue related to the people of Bangladesh. The significance of natural disasters in that context is that flooding, can be so

---

significant on any single occasion that effective response will not be com-
pleted before the next flooding season arrives.

I will use the schematic diagram (Figure 1) to set out my perception of
how natural disasters link with my concept of chronic poverty. Here, I need
to provide a short background of Bangladesh as a country within the larger
context of Asia. This will help to understand the different dimensions of
poverty indicating the extra pressure of natural disasters. Bangladesh was,
up until 1944, the State of East Bengal and a part of pre-independence
India along with what is now Pakistan. In 1944, the “East Bengals” became
the Federal Republic of Pakistan that is separated by India that has a popu-
lation more than twice that of the “new” country.

Figure 1. The repeated nature of natural disasters creates chronic
poverty in Bangladesh
In 1971, East Bengal withdrew from the federation to become the independent Republic of Bangladesh. Bangladesh is in the path that facilitates the convergence of the world's three major rivers: the Ganges, the Brahmaputra, and the Meghna. Recurrent flooding in the major path and tributaries is an annual occurrence. Most floods in the area are classified as either “major” or “severe” and at any time would affect more than 60 percent of the geographic region that surrounds the merged area of the tributary. After the flood of 2004, a joint mission of the Asian Development Bank and the World Bank estimated that the damage would require $2.2 billion US dollars. An annual allocation of that magnitude is unfathomable.

Poverty does not have a linear meaning, which must be recognized in the context of poverty reduction, participation and empowerment. Poverty reflects multidimensional interdependencies and interrelationships between economic, political, social and cultural structures. Unfortunately, the existing nature of policy initiatives directed at poverty reduction indicates that “…what is actually being done in the name of poverty reduction, participation, and empowerment… is… business as usual” which results in persistent poverty being embedded in the everyday lives of poor people. Historically, in the different forms of world order, i.e. colonialism, imperialism; “development” is part of a broader and longer political agenda that is “…essentially a political process… that reflects… unequal global power relations”. In this process, alternative theories of development can offer a direction for poverty reduction in the context of disaster vulnerability; for example, Beckford’s notion of, and remedial actions to combat, persistent poverty in developing countries.

Poverty reduction can be a well-planned process of promoting capability on the grounds of social, economic and political well being of a vulnerable community. In this context, development is conceived as a planned transmission of society from traditional to modern, from informal to formal and from irrational to rational society by incorporating the notion of

---

knowledge and power.\textsuperscript{27} To explain this notion of development,\textsuperscript{28} which encompasses the ‘classical political economy of Smith and Ricardo’, the ‘historical materialism’ of Marx and Engels, and the ‘Origins of Species’ of Darwin, development policy incorporates the power dynamics of the global politics, and highlights the risks of disaster vulnerability in the context of local inequality created by unequal access to resources.\textsuperscript{29} This condition exacerbates when, “…dominant discourses often co-opt threatening alternatives” with a plea for an approach that is “… more theoretically sophisticated and empirically accurate”.\textsuperscript{30} In this process of promoting the ideas or concepts, different actors with their domain of power play their roles as; “… struggles over meanings, representations and images… are central to understanding development institutions, policies and outcomes”.\textsuperscript{31} Language, too, and “language representation”\textsuperscript{32} can exacerbate poverty conditions in the context of recurrent natural disasters.

The Relationship between Natural Disasters and Different Forms of Chronic Poverty

Water – floods and droughts – cause most of the world’s natural disasters.\textsuperscript{33} There are about ten billion US dollars flood losses all over the world every year.\textsuperscript{34} This vulnerability turns into poverty when the poor people do not have access to resources. Due to recurrent natural disasters in Bangladesh, this lack of resources produced other vulnerabilities like food insecurity, unequal resource distribution between different socioeconomic groups, gender gap, violence against children and women, downgraded social mobility, and decrease income generating employment opportunities.\textsuperscript{35} Therefore, the vulnerability occupies the lack of capability, which reproduces the multi-dimensional poverty conditions. The multidimensional characteristics of poverty indicate the lack of economic, human, political, socio-

\begin{thebibliography}{1}
\bibitem{27} Gardner and Lewis 1996, p. 7.
\bibitem{28} Gardner and Lewis 1996, p. 9.
\bibitem{29} Gardner and Lewis 1996, p. 17.
\bibitem{30} Gardner and Lewis 1996, pp. 16–19.
\bibitem{31} Arce 2000, p. 32.
\bibitem{32} Cornwall and Brock 2005.
\bibitem{33} Kundzewicz et al. 2002, p. 270.
\bibitem{34} Kundzewicz et al. 2002, p. 263.
\bibitem{35} Enarson 2000, p. viii.
\end{thebibliography}
cultural and protective capabilities,\textsuperscript{36} which create other problems of equity, property right, and the lack of good governance.\textsuperscript{37} Recurrent natural disasters are the major causes of these major poverty conditions. These problems incorporate the social, cultural, political, economic and environmental dimensions. For example, when people do not have economic opportunities, they exploit forest resources.\textsuperscript{38} Poverty vulnerabilities vary with location, age, gender, class, ethnic and racial identity, community strength, and the nature of power structure.\textsuperscript{39} There are about 2.8 billion people with less than $2 a day and 1.2 billion people live with less than $1 a day among the 6 billion people of the world,\textsuperscript{40} a significant percentage of which live in Bangladesh, India and China. There are about 50 percent of the Bangladeshi populations who are poor and about 30 percent live in extreme poverty.\textsuperscript{41} In Bangladesh, there are about 1 out of 7 children not able to go to school due to poverty vulnerability. About 1 out of 3 children do not able to complete the primary education because of the same problem.\textsuperscript{42}

Both extreme flood and drought affect the same place at different times.\textsuperscript{43} The lack of capabilities due to unequal access to resources exacerbates for the already vulnerable poor people, which forced them to live in the insecure and polluted location. In Bangladesh, access to land is not equitable, and about 50 percent of the rural population is landless,\textsuperscript{44} and the landless population will increase due to recurrent natural disasters,\textsuperscript{45} also increasing urban unemployment.\textsuperscript{46} Under the circumstances, the present urban population growth rate of Bangladesh is the consequences of poverty conditions, which are created both by lack of access to land 37 percent and by natural disasters 25.7 percent.\textsuperscript{47}

As a process of flood coping strategy, the affected people are forced to rearrange their economic priorities, shifting a portion of their budget to

\begin{thebibliography}{99}
\bibitem{SEI2004} SEI 2004, p. 1.
\bibitem{Amin2007} Amin Zulfuier, 2007.
\bibitem{PhilipRayhan2004} Philip and Rayhan 2004, p. ii.
\bibitem{PhilipRayhan2004b} Philip and Rayhan 2004, p. 1.
\bibitem{BensonClay2004} Benson and Clay 2004, p. 79.
\bibitem{Khan2007} Khan Alamgir 2007.
\bibitem{Blaikie1994} Blaikie et al., 1994, p. 125.
\bibitem{Beck2005} Beck 2005, p. 3.
\bibitem{Blaikie1994b} Blaikie et al. 1994, p. 35.
\bibitem{Blaikie1994c} Blaikie et al. 1994, p. 37.
\bibitem{Blaikie1994d} Blaikie et al. 1994, p. 38.
\end{thebibliography}
flood coping will lead to a situation where the poor people face difficulties in many aspects of their daily life styles. Crops, the backbone of rural society are washed away within a few minutes in spite of the preventive measures. The damage of crops exacerbates the poverty scenario of rural society, which influences norms, values, self-esteem, honesty, dignity, social relation and social interaction etc. non-material culture, which Toner and Franks\(^\text{48}\) termed as “intangible assets”. This vulnerability of intangible assets reflect in different forms of social, economic and cultural standpoint of every day lives of grass root people like violence, widow, divorce, illiteracy, exclusion, etc., which creates downward social mobility for generations. The repeated natural disasters create vulnerability on material cultures i.e. crops, animals, fisheries, seeds, seedlings, food, fodder, fertilizer, livestock which Toner and Franks\(^\text{49}\) term “tangible assets” that reflects through malnutrition, food crises, poor health, illness, trauma etc. These vulnerabilities of material and non-material cultures are embedded with everyday social, economic and cultural lives and transmit from one generation to another, which create chronic poverty. These socio-economic impacts of natural disasters reflect in different process of social system like culture, social process, socialization, and good governance.

Natural disasters are related to the risks of economic vulnerability, which reflects in the everyday lives of local people. Here, everyday living by people indicates “culture” for which I used the definition of Tylor\(^\text{50}\) as “… that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society”. At the societal level, culture is foundational, in that it is critical to the history and integrity of the society. Depending on the foundational character, culture is divided into two broader dimensions: “material culture and non-material culture”.\(^\text{51}\) Material culture is used here to refer to physical or technological aspects of daily lives of flood vulnerable people, including food items, crops, animals, transport, building, computer, medicine, and raw materials etc., which Johnson identified as assets.\(^\text{52}\)

There are many vulnerabilities and risks formulated and shaped by social system. The context of gender based vulnerabilities and risks vary between

---

\(^{48}\) Toner and Franks 2006, p. 81.
\(^{49}\) Toner and Franks 2006, p. 81.
\(^{50}\) Tylor 1958.
\(^{51}\) Ogburn and Nimkoff 1964.
The other causes of risks and vulnerabilities on the context of natural disasters are age, professions, physical capabilities, citizenship status, racial and ethnic status, migration, and patriarchy. The unequal access to resources and the patriarchal social structure force poor women into the risks of disaster vulnerability in Bangladesh. They are not able to perform their traditional duty like cooking as their cooking places inundated during disaster. They face difficulty of collecting firewood for cooking. They also need to go far distance place for collecting their drinking water. The lower class men frequently migrated to urban areas or non-flooded areas for employment opportunities, while the women are responsible for their children and older people of the household. Sometimes, the young female family members are not able to marry because of their lack of capability created by natural disasters. Sometimes, the married men abandoned their female partners because their families are not able to provide the consented dowry. Sometimes the wealthy powerful people take this opportunity to take a second or third wife. On the other hand, the divorced and destitute women are sometimes forced into prostitution or other vulnerable jobs.

Each of these types of cultural oriented poverty is indicative of dysfunctional social, political and cultural structures over which is super imposed a capitalist market-driven economic system that lacks the sensitivity and subtlety to cope with its non-market foundation. Socially driven correcives include: (1) promotion of development programs to address cultural poverty experiences and to recognize that these are among the real causes of material poverty. In addition, (2) encourage strategies that are relevant to a each operational stage of anti-poverty programs; alleviation, reduction, and eradication; (3) engage the stratification of all levels of poverty that exists within any broad constituency of the poor; and (4) provide programs that “fit” the needs of stratified group. The social dimensions of vulnerabilities incorporate the notion that the lower socioeconomic capability is more vulnerable than that of the rich people. In this process, the
capability varies depending on their other standpoints like ethnicity, gender, education, employment, and occupation. Additionally, flood vulnerable people use their social capital to migrate, especially to urban settings. This unexpected pressure in the area of destination exacerbates the economic, social, cultural, political, environmental problems that lead to the receiving location being labeled as “over urbanization”.

Social process consists, sustains, and develops with cultural assimilation, cooperation, competition, status-role coordination, social interaction, and social relationship etc. Here cultural assimilation indicates the relationships of two or more different groups that connect, interrelate, and converge on each other and which leads to a healthy social process. This process happens in different heterogenous phenomena of societies: like socio-economic groups i.e. upper class, middle class, and lower class, locality i.e. urban and rural to maximize the collective goals. The other elements of social process like cooperation, participation, social interaction, help as supporting factors. However, the vulnerabilities of material and non-material cultural elements that originate from the recurring natural disasters lead to the vulnerability of the social process. The historical legacies, like colonialism, imperialism, also dominate the social process. For example, the rules and regulations created in the colonial India for disciplining everyday lives of local people are still operating as part of the present day social process. This link between historical legacy, development policy and social process reflect in the statement by Asad who noted that it is “…essential to turn to the historical power relationship between the West and Third World and to examine the ways… dialectically linked to practical conditions…” In this case, the social process takes the form of hegemonic character, which forced the disaster vulnerable people to accept the dominant development project neglecting the situated knowledge for development. This hegemonic character of social process creates disorder, unrest, frustration, etc. in the disaster vulnerable of Bangladesh. The elite people of local area mostly benefited from this process of development discourse: “…. project benefits would go to the friends and relations of the village head… the project continued to be regarded officially as a

60) Mohan and Stokke 2000, p. 255.
63) Asad 1973, pp. 18–19.
success”, which indicates the exacerbating condition of poverty in the social process of local people.

The vulnerability is deeply rooted in the social process, which occupies the unequal positionalties of power and resources. The root causes of disaster vulnerability are social inequality, discrimination, exploitation, exclusion, segregation, and heterogeneity by which social and political process distributed power, resources, and wealth. As an inevitable part, conflict, competition, domination, and disequilibrium formed and shaped in the process of accessing and controlling the interests between and within society, family and community. The risks of disaster vulnerability distributed unequally in this process depending on the times and location specific ways. The United Nations Human Development Report showed that the richest 20 percent people of the world in the developed countries consume 86 percent resources, whereas the poorest 20 percent consumes only 1.3 percent resources. The Government of Bangladesh (GoB) statistics showed that the richest 5 percent families enjoyed the 18.85 percent national income in 1991–1992, which increases 23.62 percent in 1995–96 and 30.66 percent in 2000. The same statistical data showed the opposite direction for the growth rate of poor people. The poorest 5 percent families enjoy only 1.03 percent, 0.88 percent and 0.67 percent consecutively at the same time. Socialization is a process which provides for adaptation to a new environment. Those who are in the upper socio-economic strata are in positions to absorb the benefits of the socialization process; their children attend better schools, they make full use of the socio-cultural environment, and their parents are beneficiaries of better ways of living. The lower socio-economic position holder is likely to be worse off as a result of this socialization process. Because of the economic vulnerability imposed by natural disasters, a large portion of the people of Bangladesh face exclusion, agency crises, poor health, malnutrition, illness, debt, illiteracy, unemployment, and food crises; all of which in varying degrees will be trapped in that process. This socialization process is an essential part of everyday

64) Van Ufford 1993, pp. 136–7.
67) HDR 1998.
social relationships and social interactions, which caused Green and Hulme to raise the question, “… why do some society tolerate poverty as an outcome, and for whom, and how does this toleration becomes embedded within institutional norms and systems”. The continuous disaster vulnerabilities embedded with the socialization process through norms, values, attitudes, status, roles etc. non-material culture, land, food, cash, cows etc. becomes a ‘closed circuit’ for those who are in and serves also as an instrument of exclusion for those who are outside. The lack of resources because of poverty and natural disasters in Bangladesh leads to vulnerabilities that result from the social process: i.e. between girl and boy children, between male and female adults, exploitation i.e. dowry, and discrimination i.e. calorie intake, educational access. The lacking of socialization creates exploitative relationships between men and women and help to maintain patriarchal domination.

Good governance is one of the preconditions of development management. The building and maintaining of good governance is affected by natural disasters and poverty condition. When the GDP decrease due to disaster vulnerabilities, all sectors of the economy suffer, those that are connected to the center less so, and those at the periphery, more so. This crisis inhibits improvements in educational services for an educated generation. During the disaster, the major public educational institutions temporarily close their main activities so that the educational institutions can be used as temporary shelters for the homeless. The loss of this period for the students is never recoverable. The private schools at all levels may experience only nominal disruptions, which differentiate the quality level from the public educational institutions. Again, the lack of coordination between NGOs and government is usually disrupted by natural disasters, which create vulnerabilities of socialization process. The problem of coordination can lead to competition between the two parties. “… NGOs become competitors with their governments for development funding”. The dominant development discourses initiated by international actors like IMF, WB could lead to strict financial controls on government expenditures including salary reduction for the civil servants, closing of government owned corporations, which directly and indirectly creates process in

70) Green and Hulme 2005, p. 872.
socialization process. Quoting Hanlon,73 Pfeiffer74 noted that, “... by some estimates, 30 per cent of full-time Mozambican civil servants fell below the 'abject poverty' line in the early 1990”. Because of the public sector salary structure in Bangladesh, civil servants face economic hardships, which in many ways responsible for family crises. By targeting “non-tradable goods”,75 the World Bank's structural adjustment program (SAP) is sometimes a disruptive factor to whatever good governance program exist in Bangladesh. Because of the vacuum that exists in government employment, the young generation is turning to private sector jobs, which Pfeiffer76 termed as “brain-drain”; and many are migrating to developed countries as a means of survival.

The government structure of Bangladesh is highly centralized, which created the problem of good governance. The lack of good governance creates many problems like revenue collection and public expenditure, and other social, economic, political and cultural issues. For example, in 1990, there are about 97 percent revenue collection was under central government and 93 percent of them spent under the control of the central government.77 The standpoints of local people with their educational, economic, social, political, and cultural capabilities are negligible to shape, formulate and influence the development projects.78 The lack of well coordinated development plan incorporating the land use pattern, railway and road transportation, river channel, housing pattern create the risks of disaster vulnerability.79 The lacking of understanding the local scenario or poor understanding of social condition can lead the failure of organization, which produce the further vulnerability of the already vulnerable people.80 Because of the lack of better-decentralized good governance, the rural poor people still influenced by rural political elite locally called “village leader”. The local elite people control the rural political i.e. political culture, voting behavior, rural power structure, economic i.e. employment and income opportunities and social i.e. eid, puja, circus capabilities on the context of access to resources.

77) Benson and Clay 2004, p. 82.
78) UNICEF 2004, p. 5.
Conclusion

There are interrelationships and interdependency between the risks of recurrent disaster vulnerabilities and the issues of underdevelopment, which incorporates the unequal access to resources on the context of age, gender, education, race and ethnicity, disability, income, and employments. People experience hazard with various degree of risks and vulnerabilities depending on the culture, time and location specific way. This notion of disaster vulnerability occupies local-global development discourses on the issues of “...loss of life or injury, damage property, disrupt the economic processes or lead to environmental degradation”. Because of the lack of understanding, the development agendas of local-global development partners are not able to ensure the well-being of those who will be at the extreme risks of disaster vulnerability. This disaster vulnerability is embedded with the process of social relation, social interaction, culture, demographic behavior, social capital, social process, social order, and empowerment. This vulnerability reflects through the process of social mobility, progress, change, and development, which is manifested through chronic poverty. The gap between existing local knowledge and development policy excludes participation, empowerment and poverty reduction of grassroots people, which led to sufferings for many individuals and families in the form of chronic poverty. To reduce this gap, the anthropological study can help to understand how the impacts of natural disasters are incorporated in everyday living of those who are affected directly and indirectly, positively and negatively.

Incorporating all the issues in the development policy, Bangladesh needs a long-term comprehensive development policy without compromising short-term objectives. It is also essential to initiate the local-regional-global partnership for two basic reasons: i flooding in Bangladesh is a regional problem that originates from outside the country; and ii to reduce the disastrous consequences of floods. As a regional problem, the government of Bangladesh could seek participation of other governments of the region to make the required project that is truly international in scope. All of the policies should be developed through the participation of different groups of people like farmers, boatmen, fishermen, landowners, political leaders, academics, bureaucrats, engineers, etc from a range of technical and professional communities. The challenge of implementing this goal is influenced

by the local-global power dynamics of the different actors of a development process, “... power relationship between donors and recipients in the aid/intervention relationship prevents the full of sustainable livelihood approaches SLA principles”.84 This practice of empowering the local people can take the shape of buzzwords for the destined ‘stability, resilience, and change’.85

References

Blaikie, Piers; Terry Cannon; Ian Davis; and Ben Wisner 1994, As Risks; Natural Hazards, People’s Vulnerability, and Disasters, London and New York: Routledge.

84) Toner and Franks 2006, p. 82.
85) Torry et al. 1979, p. 522.


Copyright of Societies Without Borders is the property of Brill Academic Publishers and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.