

URBAN VULNERABILITY AND MARGINALIZATION: THE IMPLICATIONS OF THE KNOWLEDGE SOCIETY IN THE URBAN SPACE IN INDIA.

Sanjay Jothe

M.S.W. (I.S.S.W., Indore M.P. India),

M.A. Development Studies, I.D.S., University of Sussex U.K.

PhD. Scholar Dept. Of Habitat Studies TISS Mumbai, India

Abstract

Knowledge Vulnerability in urban space has many dimensions and urban poor experience similar risks and threats in many different ways; this difference is created by their different capabilities and respective social and cultural capitals. These differential vulnerabilities need a holistic approach not only in order to better understand the vulnerabilities but also to create a knowledge society which may create better resilience against urban disasters. In India, the climate change induced urban disasters is often seen through a lens of 'Environmental Determinism', which for a society like India cannot be said to be a wise way of understanding or addressing the issue. Further, if the social vulnerabilities are less understood in any society, this 'environmental determinism' may become an easy escape from the social and cultural aspect of the urban disaster and eventually deprive the large section of vulnerable and marginalized people in a society. This deprivation, on one hand, makes this section more vulnerable to urban disasters and on the other hand, it prevents them from contributing to and use of the knowledge created by the elites of society. India, to become a functional knowledge society needs to emphasize the social and cultural aspects of human vulnerability, especially in the urban areas where the expansion of knowledge has become a challenge.

Keywords : *Knowledge Society, Knowledge, Urban Vulnerability, Climate Change, Urban Disaster, Social Vulnerability, Environmental Determinism, India, City, Urban management*

"Nothing is more certain than that, the degree of economic progress of mankind will still, in future epochs, be commensurate with the degree of progress of human knowledge."— Carl Menger ([1871] 1981, p. 76)

INTRODUCTION

The term knowledge society or K-Society refers to a society where the creation, dissemination, and utilization of information and knowledge have become the most important factor of human life. "The knowledge society, according to the UN, is to recognize both categories of knowledge as one is available 'to do' while the other is available 'to be'" (2005). Here the knowledge assets or intellectual capital becomes the most powerful producer of wealth, in its developed state the intellectual capital sidelines the importance of the other factors such as land, labour, and physical or financial capital. In this society, 'knowledge' has emerged to occupy the centre stage in the same way what coal and iron were to the industrial revolution and the plough was to the birth of agriculture 10,000 years ago (Toffler, 1980). In our times the knowledge society and its functions are becoming more vital for the development and empowerment of societies. Knowledge creation and the effective use of knowledge in a democratic manner is the key to the knowledge society. Here the development of the human capital is also seen as an integral part of the knowledge society. "Generally speaking, human capital refers to investments that workers or firms make in any skills (through education or job training, for example) that might enhance their productivity (Becker 1962: 9). Further, social capital is another important dimension which is not assessed properly by the policymakers and researchers in Indian society. Social exclusion and marginalization clubbed with a complex social structure play a negative role in making a city more vulnerable to urban disasters. "Communities that lack social capital have more limited capacity to respond to climate change and disasters." (Baker 2013:76).

With reference to the knowledge society and the problems of urban poor, it is important to note that not only for the economic pursuits but for the overall empowerment and for the effective adaptation coping and resilience against disasters, the human capital and knowledge society plays an important role. This connects to the present day problems and tension between the notion of development and the vulnerabilities created by climate change induced urban disasters. A wide range of researches, from scientific and development community, shows that climate change-induced extreme weather events are affecting the socio-economic development in developing countries. On the other hand, the development process itself has, in many ways made the society an easy target for natural and anthropogenic disasters. The popular notion of development emphasizes on the urbanization and migration towards cities, together they lead to many risks and threats for the urban poor in urban space. As noted by Wisner, (2003) 'Development has increased people's exposure to hazard via the creation of unsafe urban hill slopes, coastal fringes or other marginal areas. Privatization, public sector retrenchment and liberalization have pushed many people into poverty, while simultaneously reducing the state's capacity to provide social safety nets, thus increasing vulnerability to disaster'.

Turner et al. (2003) define the term vulnerability; according to him, vulnerability is a measure or a degree to which a system is likely to experience damage from the exposure to any hazard or stressor. Here a hazard may be a single event and/or this stressor can continue over time. In many studies scholars established that the poverty and vulnerability are intimately related, and recently there has been a remarkable shift in the global development discourse, in result the discourse on vulnerability as opposed to poverty, with a much deeper and broader understanding which indicates that the poverty is not an independent factor but it is a component of vulnerability. (Wratten 1995, Moser 1998, Beall and Fox 2009).

VULNERABILITY DISASTER AND URBAN SPACE:

Recent studies emphasize the need to look into the social and cultural aspects of vulnerability. There seems to be a shift from the environmental determinism to the socio-cultural factors associated with vulnerability and disasters (Adger 2006). Vulnerability in a holistic sense is now understood in terms of social and physical factors (Blaikie et al, 1994B). Now the growing understanding indicates that the physical and social characteristics along with the demographic and health factors define the extent of vulnerability of any place in a city. This also explains the direct relationship between the variation and differential nature of vulnerability which follows the variation in the physical space in a city. Here the Hazards-of-Place Model of Vulnerability as proposed by says that the place or space and its characteristics play a pivotal role in determining the extent of vulnerability (Cutter et al. 2003). This new and holistic view of vulnerability tries to integrate the biological, physical, temporal, social, and spatial facets of vulnerability creating a new model or framework for better understanding of the complex and dynamic nature of urban space in developing countries (Jankowska et al 2011). There is no doubt about the significance of nature of place or settlement and in causing risks and threats and the extent of vulnerability varies significantly depending on the scale and location (Turner et al. 2003).

A careful study of urban disasters reveals that such disasters are the results of several factors playing together in any a city. The nature of any disaster raises the question about possible factors, and as a fact, not all factors are equally contributing in any disaster. However, all factors add differently. A city with poor infrastructure and the poorly integrated population is more likely to face natural disasters. On the occurrence of any disaster, it is noticed that social and cultural factors play an important role. Especially in urban settlements like slums, we see multiple threats like a pluvial flood, water scarcity; vector-borne diseases, pollution, communicable diseases etc. Such threats create multiple vulnerabilities for the slum dwellers. This also accounts for the lack of access to basic facilities and poor urban management, which is again related to the social and cultural characteristics of any society. The analysis of multiple aspects of the vulnerability of slums in developing countries has not been completed yet. Unfortunately, the mapping of vulnerability is limited to the global, national, or regional scale, ignoring the local factors of social and cultural nature (Brooks et al. 2005). This has serious implications for the adaptation and mitigation initiatives in any city. This type of over-emphasis on the environmental and physical factors or this 'environmental determinism' negatively influences the policy recommendation in disaster

management. Without a careful assessment of the social component, the practical interventions remain poor and inappropriate and often mislead the actors and agencies of development. (Pelling, Mark. 2003).

VULNERABILITY AND MARGINALIZATION

Vulnerability and marginalization are deeply associated with each other and they have similar origins in a society. The marginalized sections, often being the most hated against people, face multiple forms of discrimination and oppression. This creates a different social effect and their participation in the social economic and political process in urban space in India. Marginalized sections often come from the economically weaker and socially excluded sections of society. This has implications not only in their possible participation in any adaptation or mitigation process but also in knowledge creation as well. Often these sections are not seen as important actors of change and development and they remain on the peripheries. Most of the government agencies and NGOs while analyzing the situation for disaster preparedness or resilience building often ignore the voices of this section. Here this problem connects with another classical problem of Indian society and culture which is caste and Varna based discrimination. Most of these marginalized sections and socio-economically backward sections come from backward castes, scheduled castes, scheduled tribes and minorities. With their different identities and social status, they have very limited say in their respective localities and settlements, and their concerns regarding risks, threats and vulnerabilities are often not heard by the authorities.

The central insight brought by social scientists to the process of adaptation is that vulnerability is socially differentiated. The origins of the term can be traced through analysis of famine, hazards and entitlements, where the term has been applied in describing the state of individuals and societies coping with variability and stress, (for applications and history of the concept see Ribot, Najam and Watson, 1996; Watts and Bohle, 1993). (Cited in Adger, 1999, 247).

“Vulnerability has a historical and time dimension; it is related to economic aspects of livelihood and land use; power and political dimensions are important in contextualizing vulnerability, and individuals and groups exhibit differential vulnerability. In addition, extreme events are the key climate change context. Thus, vulnerability for individuals or groups can change over time; it is differentiated between and within groups through their institutional and economic position, and is affected by environmental change.”

- (Adger, 1999, 251)

In this complexity, the urban space in Indian society becomes a much more challenging space to deal with. Indian cities, being more complex and heterogeneous system along with the baggage of religious prescription of caste-based discrimination, demand a more qualitative and in-depth understanding of the interaction between the physical and social vulnerabilities. One of the most important reasons for this is Indian society unlike western society is more heterogeneous and has divisions upon divisions. Such divisions are based on the language, ethnicity, origin, religion, income groups and most importantly – the caste. This complex division further complicates the process of migration to and from the cities. The seasonal migration and permanent migration in search of educational opportunity or livelihood are as much as driven by the social factors as they are driven by the economic factors. Suffering the issues of identity politics in urban space and its implications in access to basic amenities and services, the marginalized sections become the most vulnerable group in case of any disaster. "When a disaster hits, impacts can include the loss of basic services, damage or destruction to homes, reduction or loss of livelihoods, threats to food security, and the rapid spread of malnutrition and water and vector-borne diseases (Baker 2013:30). The issues of urban management and issues about access and availability of services are greatly affected by the social and cultural identities of the marginalized people. For various reasons the issues related to sociological factors and processes relating to better integration of urban poor in urban planning is not adequately explored so far, this has been recorded by the UN as well.

Of all basic services, water, sanitation, and drainage have received more attention because of their direct impact on human health. Other gaps in the literature include limited empirical evidence on the impacts of climate change and disasters on the urban poor and little documentation of how risks for the urban poor have been addressed and how cities can integrate policies for improving resiliency among the urban poor into urban planning. While this study does not purport to fully fill this void, it attempts to contribute to improving our understanding of the issues.

- (Baker 2013:32)

There have been studies about the effects of natural disasters on the physical spaces, infrastructure and services but it is interesting to note that there is relatively less published research available on the relationship between the impacts of climate change and natural hazards on the access to basic services (Baker 2013).

Here the sociological inquiry into this observation shows that in such situations the social and cultural capital plays an important role. The social capital defines the nature and span of the social networks the marginalized people can access in need. People with poor social capital lack a strong social network and they often find themselves in a helpless situation when they need support from society or government. Poor social capital also plays a crucial role in disaster preparedness and disaster relief operations as well. The very planning and framing of policies are also misled by the poor data and biased view of society, this, unfortunately, results in further marginalization of the urban poor who are often OBCs, SCs, STs and minorities.

"At the most basic level, social networks and social capital are critical aspects of emergency response. In moments of extreme events, local community members support one another by providing information and by working together to address impacts."

- (Baker 2013:73)

Along with social and cultural factors and religious or ethnic identities, there are other factors as well which affect the creation of the social network. The pull and push factors of migration operate differently in different cities depending upon the historical evolution of any society in a certain place. In today's cities, migration and seasonal migration-related issues complicate the social capital of any group of people. As noted by Moser and Satterthwaite et al (2010), the level of social capital depends on many complex factors like the length of tenure or settlement and pattern of occupation of an area.

"Marginalization is a complex process of relegating specific group(s) of people to the lower or the outer edge of the society operates as a function, as cause and also as a social product. In the context of globalization, it has been widely used to describe the social categories, which have remained only partly integrated or remain excluded from the 'mainstream' of society (UNDP, 1995, 1996).

VULNERABILITY AND IMPLICATIONS OF THE KNOWLEDGE SOCIETY

Though knowledge is supposed to be one of the most important factors in human evolution, at a social level it has not been regarded as the defining factor. Especially when it comes to define and characterize society knowledge has hardly been registered as a key factor (United Nations, 2005). At the global level throughout history, knowledge has played a central role in defining the power and power equations in all the possible dimensions of human life. Gradually the mind is replacing the muscle power and knowledge economies are influencing the other vital dimensions of human society. Here the question of creation and sharing of knowledge among different sections of human society becomes important. The creation and sharing of knowledge by different communities are always influenced and guided by their respective social status and mutual relations. Any society divided and fragmented in many conflicting sections and subsections cannot create a common pool of knowledge and

decisions based on this knowledge. This is a typical characteristic of Indian society where different Varnas and castes have limited opportunities to come together for a creative dialogue for common good. In any given village or community different caste groups have different stakes on a similar resource or facility. The power dynamics guided by different caste status play differently and create a complex situation where marginalized communities do not have much say in defining their problems and possible solutions. This is observed in many studies that the caste-based social categories are differently vulnerable to environmental disasters because the livelihoods of backward and scheduled castes are largely dependent on natural resources (Amita, 2013).

Apart from the different social status and stakeholder ship, there is another angle of spatial distribution based on caste lines, where we see that the backward castes are forced to reside in unsafe areas in cities and villages. Often these places are more vulnerable to flooding, pollution, communicable diseases and other anthropogenic disasters. This is because that the ages-old discrimination and segregation of population based on the caste lines is still observed in Indian cities. This type of 'spatial arrangements of caste groups in urban space has become the typical characteristic of Indian cities and most of the SCs and OBCs live on the peripheries and slums in any city (Kamble, 2002). This segregation has serious implications on the backward castes and SC's abilities for adaptation and mitigation in reference to an urban disaster. The poor cohesion and discrimination reduce their ability to decide and define their collective goal; they often fail to design a common strategy for prevention or mitigation of any disaster in their locality. In spite of the best efforts for participatory planning from governments, "it is seen that caste blind laws/authorities in India have fallen short of recognizing Dalit communities as contributors and conservers of nature. Moreover, non-recognition of the peculiar caste induced vulnerabilities of Dalits has resulted in discrimination in disaster response and risk reduction programmes." (NCDHR, 2012 as quoted in Amita 2013:10).

The segregation of population and the discrimination based on the ages-old prescription of purity and pollution has other implications too. Historically it has prevented a large part of the Indian population from the creation and sharing of knowledge.

Though India is traditionally a knowledge-based society, it is also a society based on traditional caste, class, ethnicity, gender and rural and urban divides. Within its preexisting social framework, the process of accumulation and production of knowledge was largely confined only to a limited section of the population for cognitive function than to be mass produced for the application. The traditional social hierarchy has restricted the process of acquiring of knowledge to a limited few, compelling the majority to remain illiterate, ignorant, poor and powerless.

- (SinghaRoy 2014:75)

There seem different aptitude and sense of welcome for collective creation of knowledge in western countries and in India. In Europe and America where the society has undergone a deep transformation in the last few centuries, unfortunately, the Indian society, on the other hand, is still following the ages-old prescriptions of caste and Varna. In developed countries where the society is comparatively better able to follow the principles of equality which enables them to define an inclusive vision for a common goal. This is because of the fact that the segregation of communities is not based on social and cultural status but it is largely on the basis of economic achievements (Be'teille 1969). Though the social and cultural achievements of various communities and ethnic groups in western society vary significantly it does not necessarily prevent the cooperation, inter dining and intermarrying between different communities. On the other hand in India, the inter dining and intermarrying is strictly prohibited and it prevents the cooperation and cohesion in Indian society (Ahuja 1992). Whereas in Indian cities the various castes groups show a serious lack of communication mostly because they reside in different places in the same city and they face the risks and threats in a different manner. One section of society living around the city centre faces a lesser risk of pluvial flood or water scarcity in comparison to other sections living in the peripheral areas of the same city. This makes them differently vulnerable and since these different castes and Varna's do not

share social ties with each other there concerns for the same threat are also different. For any knowledge society, this has negative implications and the possibility of inclusive knowledge creation for better adaptation and mitigation does not become a reality. A society can produce and share the knowledge only when it is integrated and cohesive in its nature and approach.

With regard to the better use of technical knowledge and technology as well, this discrimination plays a significant role in Indian society. Different sections of societies have different types of access to modern equipment and information in a given time and place in Indian cities. Majority of the socially and economically backward castes, who are predominantly SCs and OBCs have comparatively very poor access to advanced technology and information. On the other hand, the indigenous people in rural areas or one who migrated to the urban areas also face similar problems. It is important to note here that this situation not only prevents the integration of society but also prevents the integration of different knowledge systems and or indigenous knowledge of these populations.

"...While access to advanced technology remained restricted only within a limited few, indigenous technology and practices also remained devaluated and unrecognized widely from the public parlance. The economic and social development initiatives in general and the educational program in particular of post-independent India has altered too little to make a majority of the people living at the bottom of the social hierarchy to acquire required resource, knowledge and skill to get integrated with the mainstream of the society. Rather these have sustained many facets of preexisting marginalization and subjugated identity of the vast majority of the population across the space."

- (SinghaRoy 2014:75)

Thus, such exclusion, based on caste or Varna lines may deprive a large section of society and can seriously affect its ability contributes to the knowledge society. This, in long term results in a systematic marginalization of certain sections of society and their capabilities for realizing their potential in urban space, gets reduced. "Social exclusion can thus be constitutively a part of capacity deprivation as well as instrumentally a cause of diverse capacity failure (Sen, 2000)¹⁰. Extending this realization to the access to and availability of vital capitals as mentioned in the sustainable livelihood framework, we see that the social exclusion deprives the marginalized communities to create and enjoy these capitals. Most importantly the social and cultural capital, which form a social network and helps in creating better adaptation techniques, are suppressed in a great extent. This also limits their uses of the urban amenities to be provided by the governments and urban managers, not only the basic amenities but all types of public goods are restricted for these communities in urban space.

"For example, most natural and social capital assets are public goods. Making them private property does not work well. On the other hand, leaving them as open access resources (with no property rights) does not work well either. What is needed is a third way to properties these resources without privatizing them."

- (Bhaskar 2010:158)

CONCLUSION:

Vulnerability in urban space is a complex issue and it has implications of creations, customization and sharing of knowledge in any society. People are differently vulnerable to different risks and threats at any given time and place in any society. The extent of vulnerability should be seen with reference to the ease of creation and sharing of knowledge in any society. Societies with a better understanding of human equality and dignity exhibit better

¹⁰Sen, A. 2000. Social Exclusion: A Critical Assessment of the Concept and its Relevance. Asian Development Bank.

sharing and creation of knowledge. On the other hand, societies divided by ethnic, linguistic, religious or racial lines exhibit poor abilities of creation and sharing of knowledge.

The concept of the knowledge society is becoming increasingly important for India. Any country, economy or society cannot function without democratic creation and sharing of knowledge. The way human systems are getting complicated and sophisticated; there is a huge need for customized knowledge creation and sharing which can address the local needs. The global expansion of knowledge is helpful at one hand and it creates new challenges on the other hand. For example, the new technologies and industrialization have multiplied the pace of development several times, but it has also created problems with pollution, global warming and disasters. The global prescriptions of development and progress if taken directly without customizing them to the local situations and needs may lead to further disasters. These disasters are visible in Indian cities. Poor urban management and uncontrolled use of technologies, fossil fuel etc. are making the urban environment more vulnerable. This requires a new and customized set of know-how and knowledge which can address the problems of Indian cities.

Further, there is another and more important side of this problem, the objective knowledge and technological understanding are easy to adapt and use in objective situations. But the mere transfer of technology and knowledge does not work in this manner. We need to understand the nature of the society which is consuming reproducing and sharing this knowledge. Here on this point, unfortunately, the Indian society proves to be vulnerable in much sense. The historical evolution of Indian society has been haunted by the religious prescriptions of purity and pollution, dividing the whole society into four Varnas and more than 4000 castes. These castes and Verna's have been basically divided into the lines of traditional occupations and related expertise. Such segregation of expertise and artisans or workers/producers when get associated with the notion of purity and pollution it becomes impossible for exchange and sharing of knowledge. All types of manual workers and producers and their expertise in producing is seen as inferior in comparison to the priests and warriors work in India. The social status has been defined according to these notions and this has negatively affected the possibility of the emergence of a knowledge society in Indian history.

The similar is continued and can be observed in the urban space in India. The spatial orientation of colonies and the construct of the living space in Indian cities still follow the ancient prescription about caste and Verna based discrimination. In Indian cities not only there is discrimination in terms of different living areas of the castes, but there is also a serious disconnect among these populations. The traditional knowledge about coping and adapting with the certain threat in any space is not properly shared by the whole society, which creates a problem in synthesis and creation of knowledge. The indigenous or tribal people may have some know-how about best survival mechanism against flood or drought in an area but since they are not the part of the mainstream society in India, their knowledge is not used. This also negatively affects the efficiency and reach of the government schemes and programs designed for adaptation, mitigation or resilience building. If different communities in a given time and place are not in a harmony and if the different sections of society hate each other on caste or Varna lines, the possibility of creating a workable solution for such a population becomes a challenge. This must be seen as a challenge to the creation and strengthening of a knowledge society in India.

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