

The State of Children in Asian Cities





ABOUT THIS ISSUE

The year 2015 has been momentous for the global humanitarian community. This is because this year, important frameworks/ three commitments were promulgated which will guide the trajectory of global humanitarianism in the foreseeable future. These are the Sendai Framework for Disaster Risk Reduction (SFDRR), the Sustainable Development Goals (SDGs) and the Conference of Parties 21 (COP 21). There are several areas of overlap and cross-cutting themes among these frameworks/commitments.

The well-being of children and sustainable cities are two such recurring themes in all these frameworks. This issue of Southasiadisasters.net focuses is titled 'The State of Children in Asian Cities'. It highlights several risks to which children are exposed to in various Asian cities. Given that Asia is highly vulnerable to multiple hazards, a greater focus has been accorded to disaster risks. In addition to this, climate change is also worsening the frequency and severity of disasters in these cities. Therefore, climate and disaster risks greatly amplify the vulnerability of children to a various forms of abuse and exploitation in these cities.

This issue explores the extent of children's vulnerability and resilience to such risks in several Asian cities. Specific institutional arrangements, programmes and projects that aim to promote children's welfare in these cities are examined. The COP21 has rightly recognized many cities to be indispensable partners to achieving climate justice. Since climate change also enhances the risk profile children, this issue also explores the theme of child centered climate change adaptation. **– Kshitij Gupta,** AIDMI

INTRODUCTION

Children and Youth are Agents of Change

The Sendai Framework for Disaster Risk Reduction 2015-2030 sums it up perfectly: "Children and youth are agents of change and should be given the space and



modalities to contribute to disaster risk reduction."

The message - and the challenge - could not be clearer. The young people of Asia and the world are a vital partner in our collective efforts to build a more resilient and sustainable future. Children often face specific risks in relation to disasters in terms of their health, psychosocial well-being, protection, access to education as well as nutrition. This means they can provide unique perspectives based on real-life experience.

Unfortunately, young people are often viewed as passive and/or victims rather than individuals and communities with capacity and insight. Such attitudes mean we miss a wonderful opportunity to engage with a community that possesses a wealth of innovation and energy. Take just one instance: social media. The outreach and engagement of young people in the Road to Sendai campaign was an outstanding a success.

Children and youth formed a vibrant presence at the Third UN World Conference on Disaster Risk Reduction in Sendai. They contributed significantly to its successful outcome: a global blueprint that for the first time sets specific and measurable targets to reduce disaster risk and losses.

And in 2016 and beyond, the youth movement is keen to build on its success in Sendai where its 'Include us' was heard and acted upon. Tam Viet Hoang is a 'veteran' leader in Asia in promoting the perspectives of young people on DRR through his various roles of Deputy Chair of Youth Beyond Disasters, Global DRR Focal Point for the UN Major Group for Children and Youth as well as a jurist for the Sasakawa Award for DRR.



AIDMI conducts an exercise to localize SFDRR with 115 youths in Muzaffarpur Town with DDMA, January 9, 2016, Bihar.

"You can go to 100 forums and hear about 'youth empowerment'. What was unique about the World Conference was that we talked about how our group can contribute to the Sendai Framework," Tam says.

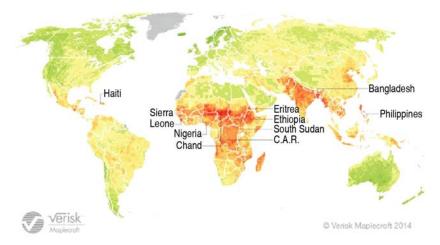
Now the task – as with all stakeholders – is to implement the Sendai Framework. Tam relishes the challenge. "We can't continue to just do capacity building at a base level. It is great to have basic emergency training – such as 'Drop, Cover, Hold' – but now we have to look at what is the next stage for the youth movement as well as the DRR community in general."

And children and youth of the region have already begun to do just that. Their 'Statement of Voluntary Commitment' at the 6th Asian Ministerial Conference for Disaster Risk Reduction' in Thailand 18 months ago identifies five key areas.

- Equity and accountability: Sendai Framework targets are achieved for all girls and boys of different age groups, ethnicity and abilities
- Access to basic social services and productive assets: More quality social services, including education; health; water, sanitation and hygiene; and protection for risk-prone households
- Education: No child dies due to disaster in a school built or modified after 2015; and the number of school days missed as a result of shocks or stresses is reduced by 50%.
- **Child protection:** The number of children living outside family care as a result of shocks and stresses is reduced by 50%.
- Child Participation: Children are supported to meaningfully participate in local level DRR and development planning processes.

It is an ambitious undertaking but our children and youth partners are brimming with optimism and opportunity. We should follow their lead. **– Feng Min Kan,** Head, UNISDR Asia-Pacific Office, UNESCAP

Urban Resilience and Children's Rights in Dhaka



A ccording to Stanford University, Dhaka, the capital of Bangladesh belongs to a group of 20 cities most vulnerable in the world, in terms of seismic risk management¹. Moreover, Bangladesh tops the list of 32 'extreme risk countries' in *Maplecroft's* Climate Change and Environmental Risk Atlas 2015, followed by Sierra Leone, South Sudan, Nigeria, Chad, Haiti, Ethiopia, Philippines, Central African Republic and Eritrea².

These figures explain plainly why Bangladesh is a leading country when it comes to preparedness and disaster response; this effort was thus sparked following two devastating cyclones in the years 1970 and 1991³. Just to present some of the various initiatives developed in Bangladesh to address urban resilience, one can name, for instance "The Urban Partnerships for Poverty Reduction (UPPR)"program, which is targeted for 3 million slum dwellers in 30 cities including Dhaka. Due to strong community demand the UPPR, has been involved in raising and strengthening the floors of slum houses to resist floods and waterlogging⁴. Another interesting opportunity towards urban resilience in Dhaka, arises from "Habitat from Humanity", which initiated a pilot project in 2012 on Building Resilience of Urban Slum Settlements: A Multi-Sectoral Approach to Capacity Building in a Dhaka slum. The pilot activities, involved, i.e. extensive training and capacity building activities to facilitate resilience⁵.

- 1 Forni, M. (2014, August 4). Is Dhaka Ready? Towards Urban Resilience in Bangladesh. Retrieved September 23, 2015, from http://blogs.worldbank.org/ endpovertyinsouthasia/dhaka-ready-towards-urban-resilience-bangladesh.
- 2 Latest products and reports. (n.d.). Retrieved September 23, 2015, from http://maplecroft.com/portfolio/new-analysis/2014/10/29/climate-change-and-lack-food-security-multiply-risks-conflict-and-civil-unrest-32-countries-maplecroft/.
- Forni, M. (2014, August 4). Is Dhaka Ready? Towards Urban Resilience in Bangladesh. Retrieved September 23, 2015, from http://blogs.worldbank.org/ endpovertyinsouthasia/dhaka-ready-towards-urban-resilience-bangladesh.
 Ahmed 2014: 749.
- 5 Ahmed 2014: 751.

As far as the governmental level is concerned, in March 2015, the World Bank initiated the Bangladesh Urban Resilience Project (closing date is the 30th June 2020). The project aims to improve the capacity of the Government of Bangladesh regarding its response to emergencies and the reduction of vulnerability of future building construction in Dhaka⁶.

Also affected by disasters and climate change, in a more severe way, are children. The enhanced vulnerability of children to the adverse impacts of disasters and climate change arises from their high exposure to disaster and climate risks in urban spaces.⁷ Although few existing projects mainly focus on areas, such as preparedness, early warning and response, a study undertaken by Plan

International and the International Institute for Environment and Development (IIED) identifies information gaps in issues, such as the capacity building of children on the topic of resilience⁸. Albeit not obvious from the first approach to the topic, there's a link between urban resilience and the rights of children. Namely, according to the above mentioned study in order to promote children's rights to an adequate standard of living and working environment, local NGOs should expand advocacy also in these direction involving the engagement of the government, the civil society and the private sector. The protection of such rights could be guaranteed through various ways. For example, through legal instruments (regulations on children's safety) as

well as by practical changes, such as the initiative to build safer buildings, children can be protected against earthquakes and extreme weather events9. Last but not the least, Bangladesh should also guarantee the child's right to life, as foreseen in Art. 6 of the UN Convention of the Rights of the Child. There's definitely still a long way to go, taking into consideration, that other basic children's rights (i.e. the right to education) are not granted for poor children in Bangladesh, but this should not hold back NGOs in Dhaka in their planning of new initiatives to improve resilience of children in the Bangladeshi capital.

– Eleni - Styliani Galani, Georg-August-Universität Göttingen, Germany

- 6 Projects & Operations. (n.d.) Retrieved September 23, 2015, from http://www.worldbank.org/projects/.
- 7 Bond. (2015, August 19). European Year for Development. Retrieved September 23, 2015, fromhttps://europa.eu/ eyd2015/en/bond/posts/state-worlds-emergencies-urban-response.
- 8 IIED Briefing (2013, December). Reducing disaster risks for urban children: insights from four Asian Cities. Retrieved September 23, 2015, from http://pubs.iied.org/pdfs/17190IIED.pdf.

9 ibid.

CHILDREN'S RIGHTS AND RESILIENCE

Urban Resilience and Children's Rights in Yangon

In the last couple of years, significant impacts of climate change have been registered in Myanmar. The extreme weather, with evidence of rising sea levels caused by a rising temperature, an increase in rainfall variability, pollution and an extensive population, have had disturbing impacts on the country's development trajectory.

To meet the population's demands, the country has engaged in several reforms to address the effects and costs of climate change adaptation. But given the country's capacity restraints and the fact that it's mainly an agricultural and natural resourcebased economy, the environmental degradation has had significant financial consequences in some sectors of the economy.

Behaviours towards adjustment to the impacts of climate change as a whole are also taking place. The action plan had to be developed in conjunction with civil society, public-private sectors and academic institutions to understand the complexity of these impacts and define an urban resilience strategy that will better adapt to the country's needs. Based on the information from UN Habitat, the policy frameworks and intervention in the urban sector have been limited, but since 2013 the government has planned resilient strategies in different parts of Myanmar to establish improvements which allow a better adaptation to these changes.

One important initiative was the "Myanmar Climate Change Alliance" implemented by UN-Habitat and UNEP, which proposes a first approximation to a national climate change strategy and aims to strengthen institutional and human capacity to address the climate change repercussions, particularly in areas such as urban sector development.

Urban development is a particularly challenging area. In the last couple of years, Myanmar has been growing extensively. Yangon's population has increased in 2015 to over six million. This continuous population growth does not go hand in hand with the country's sustainable capacity, due to limited financial resources and consequently, the lack of precise urban planning. Therefore, as an aspect of the climate change threats, urbanization is creating new types of vulnerabilities in the country. One of the most devastating impacts is the increasing economic crisis and resultant poverty, currently affecting children the most; "Over 10 million children in Myanmar live under the poverty line of US\$2 per day."1 "These children live in places which are vulnerable to floods, or water shortages caused by prolonged periods of drought."2 In Yangon and other cities of Myanmar, children are exposed to miserable health, sanitation and hygiene conditions, no access to clean water or toilets. At a young age, their basic human rights are not being guaranteed and for that reason, many of them are driven to look for jobs in hostile and insecure environments. This has to be called into question; child rights and basic humanitarian needs must be secured to take the country to a healing stage

in order to promote its growth. **—** – Isabella Johnston, AIDMI

 Save the Children &UNICEF -Yangon, Myanmar - As 60 per cent of children in Myanmar continue to live in poverty, their needs must be prioritised in political campaigns, say UNICEF and Save the Children – Available in: http://www.unicef.org

2 Palavra, Mariana – UNICEF Myanmar. Providing access to clean water for children in Myanmar's Rakhine State - Available in: http:// unicefmyanmar.blogspot.com.ar/

Understanding of Disaster and Development

A disaster is defined as a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources (UNISDR secretariat report 2009, p.9). A disaster in the context of development is considered to be a severe disruption to human survival and security that overwhelms people's capacity to cope(Collins, 2009).

In his book, Development As Freedom (2001), Amartya Sen argued that development is not only determined by the growth of Gross National Product (GNP) but also by the improvement of the quality of life, including health, education and living standard. Increasingly, disasters are being understood and managed within a broader- even integrated- approach to development that holds the potential to transform how we live on the planet, interact with each other and the environment around us. This opens up the possibility for an occupational perspective on disaster and development to emerge and take shape(Thomas, 2015).

Poverty is one of the greatest drivers of vulnerability and exposure of people to disasters. Thus, alleviating poverty and helping people towards economic self-reliance should be the top strategies for dealing with both chronic and intermittent disasters which are political and economic in origin(Neil Middleton, 1997). Therefore, holistic development strategies that focus on poverty alleviation also help in managing the risk of disasters.

India is also infamous for one of the worst industrial disasters ever witnessed. In 1969 the US-based multinational company, Union Carbide Corporation (UCC) came to Bhopal. On December 2, 1984 there was an accident at the company's factory in Bhopal, which released 30 tonnes of highly toxic gas called methyl isocyanate (MIC) as well as other poisonous gases. Almost 600,000 thousand people were exposed to this deadly gas cloud which blinded and killed many. Official estimates now peg the figure of casualties from this disaster at 15,000, but the number of people who have suffered severe health threats such as cancer is much higher. The disaster occurred thirty year back but still invites great debates on poverty, health, education, unemployed and environment issue in India.

Ultimately, it can argued that there are real development choices to be made in terms of disaster prevention, including the chance to shape human behavior and the institution that regulate it. There are options to pursue a combined disaster reduction and sustainable development agenda, such that those with this understanding gain the required optimism concerning what could be achieved (Collins, 2009). It is clear that understanding the relation between 'disaster and development' is critical in the pursuit of social and economic justice.

> - Meikhiambung Abung, Ambedkar University, Delhi

CHILDREN'S RIGHTS AND RESILIENCE

Urban Resilience and Children's Rights in Thimphu

The impacts of climate change, including floods and landslides, have been affecting the entire world, but have had a disproportionally high impact upon Asia Pacific cities.¹ These countries have massive populations and are witnessing a disorderly process of urbanization that does not consider everyone. The urban population continues to grow as the rural population decreases, but the cities are not adapting as fast as the growth in urban population. As a result, a large part of the population is reduced to living on marginal lands and in poverty. The children in such communities are most affected by this deprivation, suffering from hunger, lack of education, diseases and consequently premature death due to their more vulnerable position in society.²

One of the cities, which is witnessing high mortality of children, is Thimphu, the capital of Bhutan. This is due to the fast urban growth of the city and the poor development of urban resilience in the country that does not take in account the needs of the most vulnerable parts of its population. These urban spaces are more likely to suffer from environmental hazards and they need proper public policies to care for those in need. However, there is still little research on how this affects boys and girls living in a context of vulnerability and urban poverty. Nevertheless, it is safe to say climate change affects the children's right to life, survival and a proper context required for their biological development.³

Over the coming decades, our cities will have to adapt to external shocks such as the consequences of a natural disaster caused by climate change. A city's capacity to adapt to a disaster is known as urban resilience.⁴ Climate change is being felt around the world as a major challenge to urban resilience as well as the increasing poverty stricken part of the population who are most susceptible to disasters.

The Thimphu City Development Strategy highlighted the challenges caused by rapid urbanization in Bhutan and suggested a cohesive strategy to overcome this problem. However, it failed to recognize the impacts of climate change on urbanization and the importance of disaster risk management.⁵ The urbanization process has to mitigate the vulnerability in order to minimize the risks of a natural disaster.⁶ Since part of the population is more vulnerable than the other, the urbanization must overcome this gap to allow all parts to have the same advantages and opportunities of living in the city.

The government should work in partnership with the local population to guarantee effective governmental action⁷, in order to evolve a more urban resilient city through public policies that promote community based initiatives. Moreover, it is necessary to see children as agents of resilience building, promoting their participation through educational activities and considering their opinion in the decision-making process so they can build a more 'child-friendly' city.⁸ ■

- Louise Alves, AIDMI

- 1 IIEDI (London). International Institute For Environment And Development. Climate Change and the Urban Poor: Risk and Resilience in 15 of the World's most vulnerable cities. Disponível em: http://pubs.iied.org/pdfs/G02597.pdf>. Acesso em: 25 set. 2015.
- 2 BROWN, Donald; DODMAN, David. Understanding children's risk and agency in urban areas and their implications for child-centred urban disaster risk reduction in Asia: Insights from Dhaka, Kathmandu, Manila and Jakarta. 2014. Disponível em: http://www.plan-uk.org/resources/documents/iied-understanding-childrens-risk-agency-urban-areas/ Acesso em: 25 set. 2015.
- 3 SAVE THE CHILDREN (Vietnan). Climate Change Risks and Resilience in Urban Children. 2014. Disponível em: https://vietnam.savethechildren.net/news/climate-change-risks-and-resilience-urban-children. Acesso em: 25 set. 2015.
- 4 RESILIENCE CITY. Resilience. Disponível em:<http://www.resilientcity.org/index.cfm?id=11449>. Acesso em: 25 set. 2015.
- 5 BHUTAN. Ministry Of Works And Human Settlement. Thimphu City Development Strategy. 2008. Disponível em: http://www.mowhs.gov.bt/wp-content/uploads/2010/11/Thimphu_City_Development_Strategy_2008.pdf>. Acesso em: 25 set. 2015.
- 6 WORLD VISION (Asia Pacific). Asian Pacific Disaster Report: Reducing Vulnerabilities for the Urban Poor. 2013. Disponível em: http://www.preventionweb.net/files/42643_42643citiesprepare1.pdf>. Acesso em: 25 set. 2015.
- 7 GELEYNORBU. Intelligent Urbanism: A case in Thimphu, Bhutan. 2012. Disponível em: https://
- geleynorbu.wordpress.com/2012/11/21/intelligent-urbanism-a-case-in-thimphu-bhutan/>. Acesso em: 25 set. 2015.
 8 WORLD VISION (Asia Pacific). Asian Pacific Disaster Report: Reducing Vulnerabilities for the Urban Poor. 2013. Disponível em: http://www.preventionweb.net/files/42643_42643citiesprepare1.pdf>. Acesso em: 25 set. 2015.
 - //www.preventionweb.iter/ines/42045_42045etitesprepare1.put-.reess

Urban Resilience and Children's Rights in Phnom Penh

This article's main objective is to present a historical background to Phnom Penh, the capital of Cambodia, highlighting the major urban risks, the several floods. It depicts the children's right in the city and young people as one of the most vulnerable group during an emergency. This article aims to briefly present the disaster risk reduction (DRR) system and features in order to mitigate the hazards and impacts of an emergency.

1. Children's Right

The Declaration of the Rights of the Child, adopted by the United Nations in 1959, declares that "the child is recognized, universally, as a human being who must be able to develop physically, mentally, socially, morally, and spiritually, with freedom and dignity". In 1992 Cambodia has signed and ratified the Convention on the Rights of the Child (CRC) (OHCHR, n.d.).

1.1 Cambodia overview

According to UNICEF 2015 Report, Andong is one of the 516 urban poor communities in Phnom Penh and has over 3,500 people, according for about 25% of the capital's population. The village has several issues such as sanitation and hygiene, high rates of diarrhea, malnutrition, garbage disposal and lack of toilets.

As a lack of recreation for the children, they mostly play in front of their homes piled with garbage or sitting on the ground with contaminated water. Children usually play with water contaminated by floods, resulting in several diseases as skin infections, diarrhea or dengue fever in case of stagnant water. The state of sanitation is particularly abysmal during the raining season, when floods are recurrent (UNICEF, 2015a).

2. Disaster Risk Reduction

Natural disasters such as floods are widespread especially through middle-income countries, causing great loss of life and destruction to several communities, destroying infrastructure and disrupting local economies.

In order to minimize the impact of potential disasters there are specific actions and measures that can be taken to prepare communities before a disaster strikes, generally related to issuing warnings, taking precautions and facilitating a rapid response (Twigg, 2004).

2.1 Urban resilience

According to a Cambodian urban non-governmental organization -Sahmakum Teang Tnaut - an increasing amount of people that left the rural area for economic and education opportunities are now settling in the cities. However, many of these people live on marginal lands in the cities. The city development does not follow an overview plan for flooding risks and regulations and as a result many of these new residents are left vulnerable.

In order to maximize the benefits for the most disadvantaged children and help them to gain access to services and opportunities, we need new products and processes, new partners and models of partnership. The major cause of flooding in Phnom Penh is that big development companies are filling up lakes around the city with sand, such as the Boeung Kak Lake. Such companies are violating human and environmental rights, as filling up the lake completely has blocked the waterways. (Doyle, 2012)

Although flooding is rarely a direct cause of death in the cities, environmental hazards are the main cause of ill-health, injury and often damage people's business, which they depend on their basis living. (Twigg, 2004)

3. Conclusion

Marginalized and vulnerable people are more likely to suffer bigger consequences from urban hazards. Such groups are frequently the ones that most suffer injury or lose their lives. Although it highly depends on their age, skills or maturity, children and young people can help in reducing their own vulnerability to potential disasters (Twigg, 2004).

In order to maximize the benefits for the most disadvantaged children and help them to gain access to services and opportunities, we need new products and processes, new partners and models of partnership. Bring actions and research towards an emergency risk mitigation project based on improving quality and accountability, where beneficiaries achieve their real needs and are also an influence in the procedures, enabling inclusion and opportunity (UNICEF, 2015b).

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CHILDREN'S RIGHTS AND RESILIENCE

Urban Resilience and Children's Rights in Mumbai – The Case of NGO Schools in Mumbai

Popular and widespread attention to child rights and protection (or lack of thereof) in Mumbai was brought to light with the hit movie Slumdog Millionaire in 2008. The movie particularly brought up the topic of the "informal children", aka the children living in informal settlements and in vulnerable situations (sex workers, beggars, child workers...). In the movie, the main heroes vulnerable situations came as a direct consequence of a man-made disaster; the Bombay Riots of 1992-1993.

As Paris welcomed the COP21, which saw 1000 mayors sign an agreement for climate change one can wonder; maybe now is the time for a new movie, a Slumdog Millionaire of sorts that would set children vulnerabilities to new disasters borne out of the consequences of climate change in the Maximum City. If such a movie were to be made; would Mumbai provide efficient enough mechanisms of resilience to protect children and their rights in the face of climate change?

Urban resilience can be defined as "the capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt and grow no matter what kind of chronic stresses and acute shocks they experience¹" and therefore understood as "how the city changes to face climate change".

We will tackle safety at school, enlarging the scope of the "safe school" concept, that has been mostly understood as anti-terrorism and anti-



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violence measures in the aftermath of the 26/11 events. Indeed school safety echoes the Maharashtra Commission for Child Rights² that states as one of its functions as per the 2005 Child Right Act is to "promote the incorporation of child rights into the school curriculum, teachers training and training of personnel dealing with children."

Informality has been a defining identity to the Maximum city; it is estimated that 41% of its 20.5 millions dwellers live in urban informal settlements (50-60% of 12 millions inhabitants according to a 1996 estimate of the population). 68% of Mumbaikars are working for the informal sector. The predominance of

Maharashtra Commission for Child Rights that states as one of its functions as per the 2005 Child Right Act is to "promote the incorporation of child rights into the school curriculum, teachers training and training of personnel dealing with children." informality also translates in the governance of a city.

In such a context the action of the legion of nongovernmental organizations (NGOs) operating in informal Mumbai could be defined as "formalizers" as most of them are trying to tie it back to the formal part of the city. One of the "popular" activities of child rights' NGOs in informal settlements is to promote education and to set up schools for the "informal" children.

While it is difficult to assess the number of NGO-set schools it seems essential to integrate informality as one of the pillars of action for the Safer Schools Campaign, initiated in 2001 by the All India Disaster Mitigation Institute (AIDMI). Indeed informal dwellers are the prime victims of climate-led disasters such as the 2005 Mumbai Floods. A focus on the protection of children attending NGO run schools is also a new step towards the enforcement of child rights in a vulnerable and informal environment.

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¹ Source: Resilientcity.org, working definition

² Citizen's Charter, Maharashtra State Commission for Protection of Child Rights

Urban Resilience and Children's Rights in Kathmandu

A lthough Nepal is the least urbanized country in South Asia, the rate of urbanization in Kathmandu, its capital city in recent years has been astonishing and much faster than in other cities of the subcontinent. Kathmandu has become a metropolis with more than 2.5 million people and an annual growth rate of about four per cent.¹

Although it seems that people in urbanized areas live much easier than others who live in the country side, social, medical and demography risks are too high for those who live in Kathmandu. Urbanized areas are changing rapidly in order to fulfill all needs of a growing population. However, this growth is also exposing the minors of the city to a host of disaster and climate risks.

Parts of the city with lack of infrastructure are more exposed to risk of flooding and storms due to the lack of proper urban planning. Floods, fueled by climate change, are the harbingers of several diseases. Kathmandu is the under threat of gastro - enteritis, cholera, encephalitis, meningitis, dysentery and diarrhea, which cause more than 50% of death in resulting cases.²

Considering the fact that almost half of population in Kathmandu are minors focus should be on children's rights.

Occasional disasters have become regular after earthquake hit Nepal last year. This situation has become an every day trend for those children. Children are more exposed to diseases than adults and they are more likely to be physically endangered.

On average, minors from the urban areas are safer than those from the countryside. Still, this urban advantage is cancelled when one considers the many children who live in urban areas of poverty such as slums, or the one's who are forced to live on streets. Children in such locations suffer as they are unable to access the most basic civic amenities and civil rights. The recent earthquakes have only highlighted this enhanced vulnerability.

The enhanced vulnerability of children to abuse and exploitation is further exacerbated by a lack of knowledge about their rights. Most minors are completely unaware of the basic rights to protection and safety which they are entitled to. Nepal has signed and ratified the United Nations Convention on the Rights of the Child (UNCRC). According to the UNCRC, all children are entitled to survival, protection, development and participation rights. However, lack of awareness among children about their rights often leads them to tacitly acquiesce to their abysmal living conditions. This also impedes their participation in resilience building projects/ programmes as well.

Nepal is committed to improve children's rights through education and training under international protocols. This country is a partner of the international commitment to provide education for all under the umbrella of Education For All (EFA).

Taking a children centric approach to disaster risk reduction is the way ahead for Kathmandu. Proper implementation of these projects and programmes under this approach is the key to protecting children. Championing the rights of children will definitely help in raising their overall level of resilience in Kathmandu.

- Marija Jankovic, University of Belgrade, Serbia



www.worldbank.org

1 http://www.worldbank.org/en/news/feature/2013/04/01/managing-nepals-urban-transition

2 The Swedish International Development Cooperation Agency.

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CHILDREN'S RIGHTS AND RESILIENCE

Urban Resilience and Children's Rights in Northeast India

Photo: india.ashoka.org

Northeast India comprises of seven states, viz. Manipur, Nagaland, Assam, Arunachal Pradesh, Meghalaya, Mizoram and Tripura commonly known as the seven sisters in India. It has international borders with Bangladesh, Bhutan, China, Tibet and Myanmar. The region has a good range of different communities, geographical features and ecological diversity which makes it favorable for human development and tourism.

Agriculture is the main livelihood activity for most of the region, which has a high concentration of tribal population and the people practice Jooming cultivation as an occupation. The region has hilly terrain and India's largest river, the Brahmaputra runs from Assam to the Bay of Bengal passing through Bangladesh. As a result, most of the region often suffers from landslides and floods which lead to great losses in terms of life and property.

For decades, the North East has been a blackhole for business and enterprise, the sustained conflict,

geographical isolation, militarization and migration have led to a drying up of investments and the lack of economic and social development in the region. This is despite the richness of natural resources in the region, presenting a huge opportunity for investment, and the growth of enterprise in the region¹. On the contrary, factors like oppressive social structures, terrorism, land conflict, political squabbles, human trafficking and unemployment have seen a steady rise of poverty and deprivation in the area.

Due to the above cited factors, the North East has not fared well in championing the human rights of the vulnerable sections of their population like women, youth and children. This has also led to a detrimental impact on the overall level of resilience of children in the North East. Defined in numerous ways, resilience generally refers to an individual's ability to bounce back from adverse experiences, to avoid long-term negative effects, or otherwise to overcome

developmental threats(Ungar, 2005). According to the Times of India published on 24 march 2014, there at least 500 child soldiers fighting in Northeast India, and the world hasn't noticed. The article further states, 'And the silence of the Indian government exacerbates the situation. New Delhi refuses to recognize the existence of child soldiers and insists there are legislative provisions that prevent involvement of children in armed conflict'. India's counterinsurgency operation in the Northeast have resulted in widespread human rights abuses including extra-judicial forced killing, torture, disappearances, mass rape detention without trial, and draconian restrictions on freedom of assembly, expression and movement(Hayes).

Within this context of the economic and political scenarios in the Northeast India, the rights of children stand jeopardised. The presence of such distressing factors have led to an environment which had adversely impacted the resilience of children. This is because, resilience is simultaneously a quality of the individual and the individual's environment. To the extent that a child accesses communal health resources and finds opportunities to express individual resources so too will resilience be experienced(Ungar, 2005).

Therefore, promoting children's rights in North East India may be challenging but it is indispensable to achieving true resilience in the cities of this region. ■

- Meikhiambung Abung, Ambedkar University, Delhi



^{1 &}quot;The changing face of north east India" india.ashok.org.

GENDER AND DISASTERS

Turning Disaster into Development: Community Learning Centers — A Way to Recover from Disasters

SEWA is a member based organisation which has over 2 million members from 14 states of India. For more than four decades, SEWA has been working for the poor and vulnerable people for the sustainability of their livelihood with the need based and demand driven approach. SEWA focuses on women and reaches through to their entire family, community and village. SEWA's approach is to turn disaster into an opportunity for development. For the poor households, survival is the coping strategy and they have to continuously innovate.

SEWA members have experienced many disasters. Drought in 1998–99, cyclone in 1999 in Kandla and in 2000 in Narayan Sarovar, earthquake in 2001 in Kutch, communal riots in 2003 and flooding in 2006 in Anand– Kheda districts and financial crisis in 2009–10. Earthquake was the worst among all and more than 80,000 members of SEWA were affected. Its challenges gradually turned into opportunities by organising strength.

On the 3rd day after the earthquake, in one meeting Sonibai a 36 year old artisan's first response was – "Didn't you bring work?" We have lost our homes, our belongings, but work will be the healer. This made SEWA realize – the poor and women do not want charity or relief – but want to rebuild their lives through livelihoods security. Work is their way to get back to normal."

"Bring work – we want work." Such disasters can wipe out everything – even our culture, tradition. There was need for data, need to document and preserve the traditional culture." These were the reactions of SEWA members in many villages. This informed SEWA's approach to earthquake rehabilitation – livelihood security and Community Learning Centers for decentralized, owner driven reconstruction. The villagers donated land to construct Community Leaning Centre (CLC). SEWA took special care of the structures and constructed a unique earthquake resistance infrastructure of CLCs. SEWA now has such 50 CLCs across Gujarat.

SEWA provided various trainings on disaster preparedness and mitigation, quick relief and rescue operation to the village community at CLC. Many a times, SEWA members requested SEWA to take their one day wage from their monthly income and suggested to create a 'Rojgar Sahayak Bhandol' for them, so they can get a loan from that fund during emergencies and not be dependent on others for help. On the basis of the success of some of the initial centers, there was demand to reach out to more villagers and farmers on cost effective mode and also bring in more technological support. This inspired SEWA to upgrade the Community Learning Centre to Community Learning and Business Resource Centre; the goals of a CLBRC are to increase outreach of its services within a community and to help increase users income through smart use of IT technology. SEWA and its members are preserving and reviving traditions, as well as building and strengthening partnerships, such as public private partnerships, institutional linkages and linkages to government schemes.

Heenaben, district coordinator of Surendranagar district shared, "Ican observe tremendous changes in our members; they are now not traditional farmers but also think about market, irrigation techniques, value addition and direct market tie up with big companies. No one can cheat them as we provide them day to day market rates on their mobiles. Earlier they were the blind followers of their neighbour, now they take their own decision since sowing to sell. They have become owner and manager of their own farm and business. Members' entrepreneur ship has been built by availing various managerial and traditional trainings and all these we could bring out through CLBRC."

"I must admit that IT has enabled my monthly RUDI sell from ten thousand to three lakh and I have become RUDI distributer from RUDI sisters. I have my RUDI inventory in my small mobile so I can easily manage my stock; sustain my RUDI customers and save my expenses. I am very thankful to my Dhrangadhra CLBRC that continuously thinks about our progress and up scales our capacities." These are the emotions of **Surya baa Jadeja**.

Some CLBRCs have achieved 100% sustainability and some are reaching towards it. This movement has great enthusiasm to push for moving on and on. Every struggle comes with opportunity to take on new development tasks; one who takes advantage of that opportunity, wins the game and can transform a disaster into an opportunity for development.

ECOSYSTEMS AND DRR

An Ecologist View of Challenges in Restoring Coastal Habitats

Resilience to disasters has often been seen through the lens of investment in infrastructure for disaster preparedness and "proofing". For coastal hazards, this translates into construction of hard coastal defences such as sea walls and groynes.

In India, a major initiative led by the United Nations Team for Tsunami Recoverv Support (UNTRS) attempted an alternative approach to disaster preparedness and recovery restoration and conservation of coastal habitats. Similar initiatives were launched across tsunami affected regions in south east Asia. These were followed by numerous interventions, focussing particularly on restoration of mangroves with notable ones being the initiatives of various state forest departments and the Mangroves for the Future project.

The term coastal habitats usually refers to a mix of different yet usually interconnected ecosystems found in coastal regions. In tropical regions of Asia and south east Asia, these include coastal forests, sand dunes, beaches, mud flats, estuaries, backwaters, mangroves, sea–grass beds and corals reefs.

Evidence in support of natural coastal habitats providing equivalent or superior natural defences to coastal hazards such as storm surges and wave action has been accumulating, with a major spurt in literature post the 2004 Tsunami. Barring a few disagreements on the extent of defence against major events such as cyclones and tsunamis, there is consensus that coastal habitats offer at least two major advantages over hard defences. 1) They are self sustaining – as long as they are



Sea walls that have come along the coast of Pondicherry and Tamil Nadu have caused extensive erosion damaging property and infrastructure for many kilometres of the coast.

provided protection and maintenance of environmental conditions. 2) They provide a gamut of ecosystem services beyond physical protection which include livelihoods and sustenance of coastal communities both before but especially, immediately after disasters.

Coastal regions in India as also large areas in south east Asia are highly populated and associated anthropogenic pressure. This translates into two major challenges for initiatives focussing on coastal habitat protection and enhancement. Competition for space resulting in removal of natural habitats and higher levels of pollution and disruption of natural processes on the coastline which sustain these natural systems.

It is easy to visualise physical removal and conversion of natural

habitats to other land uses. More insidious is the large scale disruption of environmental processes which must be maintained if these habitats are to stand a chance. Extensive hydrologic modification of river systems have fundamentally altered the lifeline of fresh water, sediment and nutrients that sustain coastal habitats. The notion that water flowing to the sea or ocean is wasted could not be further from the truth. Without this flow, coastal ecosystems will and do suffocate. Added to this fundamental disruption of environmental flows, is large scale conversion of back waters to aquaculture and, in more industrialised regions, pollution of rivers and backwaters.

The consequent degradation of coastal habitats has a domino effect on the ecosystem services they provide. Not only are coastal communities more vulnerable to the physical threat of coastal hazards, they face fundamentally reduced options to recovery as provisioning services – fuel, fodder and fisheries – are affected.

To address this deteriorating situation requires an alteration of perceptions at the decision making levels. Coastal habitats do not exist in isolation of up-stream habitats and processes – conservation and restoration must go hand in hand with restoration of environmental flows in rivers. Furthermore, a renewed assessment of ecosystem services provided by coastal habitats is required as is an evaluation of the negative consequences of hard protection measures. This should by no means be limited to coastal protection, which alone may tip the balance in their favour, but must include other provisioning and regulatory services which are hugely underestimated. Finally, both local communities and policy makers need to recognise that coastal habitats are tightly linked entities and alteration of one component will affect the other and this will almost certainly have negative repercussions on the resilience of coastal communities. - R.S. Bhalla (PhD),

Sr. Fellow, Foundation for Ecological Research, Advocacy and Learning (FERAL)

SOCIAL INNOVATION FOR DRR

Household Water Filter Evaluation What Works?

Imagine you live on less than \$2 a day as nearly 2.7 billion people around the world do. You've heard that filtering your water is important for your family's health, but there are over 100 models of water filters on the market and you have little to no access to information about what works and what doesn't. Which product would you choose?

That's a reality for many of the families interviewed by MIT researchers as part of a product evaluation in Ahmedabad, India last summer. This week, those researchers released a new report evaluating household water filters on the market in Ahmedabad, where these filters have become ubiquitous in households of all income levels, but aren't properly meeting the needs of the poor.

The report, "Experimentation in Product Evaluation: Household

Water Filters in Ahmedabad, India," details the second experimental evaluation designed and implemented by the Comprehensive Initiative on Technology Evaluation (CITE), a program supported by the U.S. Agency for International Development (USAID) and led by a multidisciplinary team of faculty, staff, and students at MIT.

The following findings of that research are organized by the three categories of water filters that CITE found on the Ahmedabad market.

Conventional particle filters: These water filters remove particles in the size range of 5–1,000 microns from water. Particles in this size range include contaminants such as dirt, sand, pollen, and some bacteria. In Ahmedabad, CITE found widespread use of two types of conventional particle filters – cloth and *jali* mesh, both of which are commonly used by

Ahmedabad's poorest families, households living on less than \$4 a day.

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- Ahmedabad's poor know very little about their water quality as they have no means to test it. Most of Ahmedabad's poor use conventional particle filters such as cloth and *jali* mesh filters, and have little information about other, better performing water filters that might be affordable at their income level.
- Conventional particle water filters including cloth and *jali* mesh are extremely low-cost and widely available, but ineffective at removing turbidity and *E.coli*.

Gravity non-electric filters: These filters mainly operate in the microfiltration or ultrafiltration range, meaning they can remove particles much smaller than the cloth and *jali* mesh filters, including all bacteria, protozoa, and viruses.

- While the general effectiveness of gravity non-electric filters far surpasses that of cloth and *jali* mesh filters, the performance of gravity non-electric water filters varied widely by model when measuring flow rate, turbidity removal, lifetime, and *E.coliremoval*.
- Three of the gravity non-electric filters evaluated by CITE could be an effective, affordable option for Ahmedabad's poorer households, but would need better financing mechanisms to make their upfront cost feasible for the poorest.
- Gravity non-electric filters are often difficult to find in rural areas outside of Ahmedabad where they may be needed most.

Reverse osmosis water filters: These filters are a popular choice for middle and high-income consumers in Ahmedabad, offering major performance advantages over both conventional particle filters and gravity non-electric filters. Reverse osmosis filters remove all viruses, bacteria, metal ions, aqueous salts, and more.

 CITE's lab testing shows reverse osmosis filters are the only



MIT Senior Lecturer Susan Murcott demonstrates water sampling procedures to Assistant Team Coordinator Shrikant Brahmbhatt in Adalaj on the first day of field work.

category that can dramatically reduce total dissolved solids. Additionally, all of the reverse osmosis filters CITE tested greatly reduced turbidity and removed more than 99.99% *E.coli*.

Youth in Bihar: Discuss Smart City

District Administration of Muzaffarpur District of Bihar with All India Disaster Mitigation Institute (AIDMI) organised a consultation with 115 youths of Muzaffarpur city on January 9, 2016. How to make Smart City, A Safe City? This question was on the discussion agenda. The purpose of the consultation was to make youths aware of Sendai Framework for Disaster Risk Reduction (SFDRR) in order to localize SFDRR at city level.

Youth's perspectives on how to make Muzaffarpur "A Smart and Safe City" considering SFDRR priorities was considered. Youths suggested to make citizens of their city aware about safety aspects of disaster risk, climate risk and conflict risk. Youth wanted to include their views on disaster management planning in their city and district planning. A yearlong activities are being planned with the Government of Bihar and the city authorities to let youth lead Smart city concept in Muzaffarpur.

- Recently introduced locally assembled non-branded Dolphin filters are very popular in the Ahmedabad market. These Dolphin filters were just as effective as their branded counterparts at less than half the cost.
- Reverse osmosis systems waste 74 liters of water for every 26 liters they clean. This makes them unsustainable in water scarce regions like Ahmedabad and India more broadly.

CITE looks forward to sharing these results with government officials, donors, and consumers in Delhi and Ahmedabad, India this January 2016.

- Lauren McKown,

Communications Coordinator, MIT D-Lab, International Development Innovation Network, Comprehensive Initiative on Technology Evaluation, Cambridge, MA, United States

URBAN RESILIENCE

Urban Political Ecology and the Social Production of Urban Coastal Flooding

It is time for disaster scholars and practitioners who focus on urban coastal cities to operate with the understanding that disasters are socially produced and not 'acts of god'.

Urban deltas are among the fastest growing human settlement typologies on the planet. Increased global coastal investment for this ever growing and economically diverse population has increased the negative interaction of the urban coasts with coastal storms and more powerful upriver sourced flooding events. Both of these discrete weather activities are revealing a greater climate signal and can be assumed to increase in power and occurrence. The resulting and evermore costly disasters, of both life and property, are found wherever the cost is urbanizing. The resulting increased damages have gained attention both through humanitarian channels, recognizing loss of life, livelihood and property; and through the various institutions representing financial, insurance and real estate (or FIRE) who have begun to raise questions about the deployment of capital investment in these urban coasts.

This increased awareness of the expansion of coastal urban flooding risk has created a new space for disaster scholarship. Disaster scholarship for the most part has sought to better understand technical fixes to improve the resilience of these varied coastal communities with investigation into improved: zoning, building codes, warning and evacuation systems and of course dialogue on the importance of the reduction of global warming with regard to sea level change and extreme weather increases. Regardless to what degree these innovations reduce risk, they are all limited in their ultimate ability to do so because they are silent on the root cause of disaster. For the most part the underlying premise is the 'act of god' explanation. Instead time should be spent on understanding the who,



Dhaka flood plane shows informal energy production, garbage sorting and other informal economic activities that will likely not react well to regulation unless planners understand that informality and top down regulation will be in great conflict.

how and for what purpose do these various urban coasts become produced.

Disaster scholarship, focused on urban coastal flooding, needs to pick up the challenge of a new theoretical perspective that claims disasters are primarily socially produced. (Tierney, 2015). This requires scholars and practitioners involved in both pre-disaster resilience building and post disaster recovery to reconsider their approaches. The rejection of the 'act of god' explanation will result in improved understanding on how and why risk and resulting disasters exist. It will also drive disaster scholarship into the more complicated questions of power. For example, this general new theoretical concept was productively employed while examining the damages following Hurricane Katrina in the United States and were able to explain that these risks and damages were primarily the result of economic, cultural, social and political forces; and not neutral 'acts of god'. (Freudenburg et al, 2008).

I propose a further specific step in this expansion of disaster scholarship by employing Urban Political Ecology's theoretical framework to examine more fully the social production of the complex and reoccurring flooding disasters of the urban coast. UPE is an emerging transdisciplinary critical and normative theoretical framework that utilizes an integrated and relational approach so as to untangle and reveal the interconnected aspects of ecological, social, political and economic processes that together form highlyuneven urban socio-physical landscapes (Keil 2003). UPE is critical in that it "links the specific analysis of the urban environmental problems to larger socioecological solutions" (Keil 2003: 724). Finally, UPE's overt

political goals aim to make more democratic the systems and processes through which the environments that we inhabit become produced (Swyngedouw 2006). This improved democratic process will provide more effective equity in flood risk reduction.

UPE will not only help disaster scholars better reveal the 'power' manifested in the social, cultural, economic and political institutions that create and define any socio-physical scale; which in turn will help reduce the barriers to improved resilience for all the residents of a coastal city regardless if they live in the urban city proper or in the connected rural flood planes upriver.

- Bradford Powers, JD, LLM, Doctoral Fellow, Tulane University, USA

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