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Risk-sensitive development

Disability-inclusive disaster risk reduction

Note by the secretariat

Summary

The present information paper illustrates the close link between disaster and disability and the importance of incorporating disability perspectives in all phases of disaster risk reduction. The paper outlines the challenges persons with disabilities face in the wake of disasters and describes the benefits to all members of society using a disability-inclusive disaster risk reduction approach. The paper also highlights the links between disaster and disability as identified in the Sendai Framework for Disaster Risk Reduction 2015-2030, the sustainable development goals, the Convention on the Rights of Persons with Disabilities and the Incheon Strategy to "Make the Right Real" for Persons with Disabilities in Asia and the Pacific.

Contents

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I. Overview

1. Asia and the Pacific is home to approximately 650 million persons with disabilities, or 15 per cent of the overall population in the region.[1] The number of persons with disabilities is expected to rise in the next decades due to range of factors including the increase in natural and human induced disasters.[2] As such, the inseparable relationship between disability and disasters warrants greater policy action by Governments and relevant stakeholders towards achieving Disability-inclusive Disaster Risk Reduction (DiDRR) and incorporating disability perspectives in all phases of Disaster Risk Reduction.

2. This information paper illustrates the strong link between disaster and disability, and considers the relevance of DiDRR in the light of the Sendai Framework for Disaster Risk Reduction 2015-2030, along with other international and regional policy instruments on disability and development.

II. Persons with disabilities

3. Disability is an evolving concept, capturing the interaction between those with a long-term physical, mental, intellectual or sensory impairments and societal barriers hindering their full and effective participation.[3] The number of persons with disabilities in Asia Pacific is projected to increase over the next decades due to the unprecedented pace of population ageing and rising chronic health conditions in addition to the factor mentioned at the onset. [4] In East and North-East Asia alone, one in four persons will be aged 60 and over by 2030, and one in three persons will be aged 60 and over by 2050. It is estimated that in some fast-ageing countries, such as China and the Republic of Korea, 80 per cent of persons with disabilities will be aged over 60 years by 2050.[5]

III. Negative effects of disasters on persons with disabilities

4. Disasters create a new generation of survivors with physical, sensory and psychosocial impairments. For every one person killed in a disaster, another three are injured or left with a long-lasting impairment.[6] Haiti's earthquake in 2010 serves as a haunting reminder where an estimated

[1] World Health Organization, *World Report on Disability* (Geneva, 2011). Available from www.who.int/disabilities/world_report/2011/report.pdf, p. 27.

[2] United Nations, Department of Economic and Social Affairs, Population Division, *World Population Prospects: The 2015 Revision* (New York, 2015). Available from http://esa.un.org/unpd/wpp/Publications/Files/Key_Findings_WPP_2015.pdf.

[3] United Nations, General Assembly Resolution *61/106 Convention on the Rights of Persons with Disabilities.* Article 1 – Purpose, (New York, 2006). Available from www.un-documents.net/a61r106.htm.

[4] United Nations ESCAP, *Disability at a Glance: Strengthening the Evidence Base in Asia and the Pacific* (Bangkok, 2012), p. 17-20.

[5] United Nations, Department of Economic and Social Affairs, Population Division, *World Population Prospects: The 2010 Revision* (New York, 2011). Available from http://esa.un.org/unpd/wpp/.

[6] CBM International, *Technical brief for the post-2015 consultation process*. Available from www.who.int/violence_injury_prevention/other_injury/en/disaster_disability.pdf.

200,000 people acquired new forms of impairment out of the 3 million who were impacted.[7]

5. Alongside the risk of acquiring a disability, persons with existing disabilities are more vulnerable and exposed to the destructive impact that disasters bear in terms of mortality, injury and adverse long-term health effects. Evidence gathered after the Great East Japan Earthquake in March 2011 indicates that mortality rates of persons with disabilities were two to four times higher than those without disabilities.[8]

6. The stark and often life-threatening impact of disasters on persons with disabilities is attributed, in part, to the absence of disability perspectives in all phases of DRR. While "risk-informed decisions"[9] are often promoted in improving DRR, the experiences of persons with disabilities leave much to be desired. The first-ever "Survey on Living with Disabilities and Disasters" revealed that 86 per cent of the 5,717 respondents from 137 countries had not participated in community disaster management and risk reduction processes currently in place in their communities. Moreover, 72 per cent of the respondents stated that they had not had a personal preparedness plan in the event of a disaster. Only 20 per cent of persons surveyed responded that they would be able to evacuate immediately and without difficulty in the event of a disaster.[10]

7. The lack of accessible environments, information and services is a critical factor. Deaf persons are often unable to receive early warning signals and any information that influences a life or death situation, as they are often transmitted only through audible means. Sign language interpreters are often not provided at emergency shelters. Wheelchair users are often unable to access evacuation routes, emergency shelters, temporarily housing units and bathrooms. Persons with intellectual disabilities and psychosocial disabilities are often not provided with effective communication and emotional support and are therefore often left in isolation.

8. Furthermore, although persons with disabilities are among the most at-risk groups during natural disasters, actors in the Asia-Pacific region depend on scarce evidence for their interventions due to the dearth of disaster data disaggregated by the status of disability.

IV. Disability-inclusive disaster risk reduction to enhance resilience for all

9. The destruction wrought by disasters often leaves survivors with physical, sensory and psychosocial impairments. Involvement of persons with disabilities and accessibility experts in the disaster risk assessment and

[7] Global Partnership for Disability and Development, *Haiti: Reconstruction for All* (2010). Available from http://capacity4dev.ec.europa.eu/disability-and-development-network/document/haiti-toolkit-long-term-recovery-introduction.

[8] Japan Disability Forum, *What is behind the higher death rate of persons with disabilities?* (Tokyo, 2013). Available from www.dinf.ne.jp/doc/english/twg/escap_121031/fujii.html.

[9] United Nations. *Sendai Framework for Disaster Risk Reduction* (Sendai, 2015). Available from www.un.org/disabilities/documents/desa/3WCDRR/Sendai_2015-2030.pdf.

[10] UNISDR. Key Findings: UNISDR 2013 Survey on Living with Disabilities and Disasters. Executive Summary. (Geneva, 2014). Available from www.unisdr.org/2014/iddr/documents/2013DisabilitySurveryReport_030714.pdf.

planning at the community level is the first crucial step. Once there is proactive engagement, specific solutions on accessible environments, information and services should be identified. By planning in advance, organizations of persons with disabilities and local governments can effectively address critical issues and coordinate with partners outside of the locality in the wake of disasters.

10. DiDRR can help reduce the loss of lives of and build the resilience of all people, not only those with disabilities. This is reflected in the Sendai Framework for Disaster Risk Reduction.[11] DiDRR is underpinned by the concept of "universal design" wherein environments, services and information are designed to be as accessible and usable by all persons to the maximum extent. Universal design recognizes the common needs of persons with and without disabilities. For example, public buildings designed with ramps at entrance ways allow for easy mobility for persons with relatively permanent mobility disabilities, persons with temporary injuries, persons with heavy luggage, families with strollers and young children, pregnant women and older persons. Similarly, easy-to-understand language catering for persons with intellectual disabilities may also be helpful for persons who are not fluent in the native language in attending to warnings and important messages concerning their safety and well-being.

11. Universal design aligns itself with the concept of "Build Back Better", which is integrated in the discourse of DRR. It emphasizes the need for Governments and other stakeholders to systematically rebuild communities in accordance with principles of resilience. This model provides a distinct opportunity to create universally-designed accessible infrastructure and information in communities, which could benefit all. Concerns about the financial cost of universal design are proving to be unfounded. Evidence indicates that applying a universal design approach is not as costly as is often presumed, especially if it is considered at the planning stage rather than via retrofitting. For instance, some studies have concluded that costs for accommodating accessibility regulations are small in relation to a country's gross domestic product (as low as 0.01 per cent) and providing accessible facilities increases building costs by as little as 0.5 per cent to 2.0 per cent, if designed and implemented from the outset.[12]

12. A model for DiDRR practice is observed in the Sitakunda District of Chittagong, a city in southern Bangladesh. The major coastal city is prone to devastating tropical cyclones. A particularly striking case is the 1970 Bhola cyclone[13] which claimed more than 500,000 lives. Since 1970, the Ministry of Disaster Management and Relief has constructed 2,500 shelters which were not accessible for persons with disabilities. In 2011, the Cyclone Shelter Management Committee was formed in the Sitakunda District. Ten per cent of the Committee members are made of persons with disabilities, who are active in the decision-making process. This practice of inclusion in DRR decision-making has fostered the provision of accessible shelters, raised

[11] Ibid, p. 19-23.

[12] Robert L Metts, "Disability Issues, Trends and Recommendations for the World Bank", Social Protection Discussion Paper no.0007 (Washington D.C., 2000); Ronald Wiman and Jim Sandhu, "Integrating Appropriate Measures for Persons with Disabilities in the Infrastructure Sector" (Eschborn, 2004); Eric Plantier-Royon, "How to design and promote an environment accessible to all?", Policy Paper Accessibility, Handicap International (Lyon, 2009).

[13] United Nations Habitat, *Manual on Floods* (Yangon, 2014). Available from www.themimu.info/sites/themimu.info/files/documents/Guideline_Flood%20Manual_UN-Habitat.pdf.

awareness in communities and led to the training of volunteers who are able to help evacuation processes and the stockpiling of equipment needed in times of disasters. As a result of this disability-inclusive approach to disaster risk reduction, the community proved substantially better able to assist persons with disabilities when Cyclone Mahasen hit in 2013.

13. Another example is an initiative taken by Bethel House,[14] a group home for more than 100 persons with psychosocial disabilities in Urakawa, Japan, a town with a population of 14,000. Bethel House established productive partnerships with local government and residents to bridge gaps in existing DRR programmes.

14. Advancing inclusive participation in their approach to DRR, residents and staff of Bethel House have been trained in disaster risk assessment and effective evacuation methods using Digital Accessible Information System (DAISY), which allows written materials to be available in an audible format, viewed in large print or with easy-to-read colour contrast on digital devices.[15] In addition, they have produced personalized evacuation manuals with simple language and interactive visual materials. The local government of Urakawa recognized the value of Bethel House's work for the wider community. As such, representatives of Bethel House serve as members of the committee on DRR. Committee members often conduct field visits in various cities throughout Japan to learn about compelling, innovative DiDRR practices. To disseminate the knowledge, the house organizes public seminars on how DiDRR help resilience for all individuals in the city. Local communities are regularly invited to join evacuation drills to promote safety for all. As a result, all residents of Bethel House were evacuated within four minutes during the 2011 Great East Japan Earthquake and Tsunami.

V. Global and regional policy frameworks supporting disability-inclusive disaster risk reduction

15. Governments in the Asian and Pacific region have recognized the importance of DiDRR, and initial steps are being taken in line with international and regional standards. DRR policymakers are equipped with policy instruments on disaster and disability, which can help develop their national disaster risk policy strategies.

Sendai Framework for Disaster Risk Reduction

16. The Sendai Disaster Risk Reduction Framework,[16] unlike its predecessor the Hyogo Framework for Action, supports DiDRR. There are explicit references to persons with disabilities, accessibility and universal design throughout the document. Preamble 7 recognizes persons with disabilities as one of the major stakeholders and encourages Member States to engage them in decision making processes on DRR. Guiding principle 19d recognizes that persons with disabilities are disproportionately affected by disasters. It promotes accessibility as an important factor for the participation of persons with disabilities in the engagement of DRR. While Priority 1 clearly states the standards for information accessibility, Priority 3

[14] Bethel House. Available from www.urakawa-bethel.or.jp/bousai/HOME.html.

[15] Yoshiko Miwa, *With the slogan "10 meters within 4 minutes": Successful Evacuation by Persons with Disabilities in Hokkaid*. Available from http://diamond.jp/articles/-/14888.

[16] United Nations. *Sendai Framework for Disaster Risk Reduction* (Sendai, 2015). Available from www.un.org/disabilities/documents/desa/3WCDRR/Sendai_2015-2030.pdf.

recommends durable solutions in livelihood programmes, health care, education services and housing in the post-disaster phase to empower those who are disproportionately affected by disasters.

Sustainable Development Goals

17. The interconnectivity of disability and DRR is evident in the recently endorsed Sustainable Development Goals (SDGs).[17] Goals 11 and 13 position that no issue can be viewed in complete isolation, certainly not disaster prevention and relief. The SDGs also distinguish persons with disabilities to be represented within the poorest and most neglected part of the community. Goal 9 concerning building sound infrastructure, values perspectives of persons with disabilities particularly in areas affected by disasters. Furthermore, the SDGs confirm the United Nations' commitment to promoting inclusive societies that take active measures to ensure the safety of everyone when natural disasters strike.

Convention on the Rights of Persons with Disabilities

18. The Convention on the Rights of Persons with Disabilities (CRPD) is the first international human rights treaty that specifically addresses the rights and freedoms of persons with disabilities. The CRPD was adopted by the United Nations General Assembly in 2006. The CRPD promotes the idea of universal design and accessibility. Importantly, CRPD Article 11 on DiDRR states:

> States Parties shall take, in accordance with their obligations under international law, all necessary measures to ensure the protection and safety of persons with disabilities in situations of risk, including situations of armed conflict, humanitarian emergencies and the occurrence of natural disasters. [18]

Incheon Strategy to "Make the Right Real" for Persons with Disabilities in Asia and the Pacific, 2013-2022

19. Governments of the ESCAP region adopted the Incheon Strategy in 2012, which provides the Asian and Pacific region, and the world, with the first set of regionally-agreed disability-inclusive development goals. The Incheon Strategy comprises 10 goals, 27 targets and 62 indicators, which support member States in tracking progress in implementing the Strategy.[19]

20. Goal 7 of the Incheon Strategy addresses DiDRR. Governments are encouraged to develop DiDRR plans, provide DiDRR training for disaster organizations to ensure accessible facilities and information, and collect, analyse and disseminate disability-aggregated disaster statistics. Central to the Incheon Strategy is the establishment of reliable and comparable disability baseline data for the core indicators by the midpoint of the Asian and Pacific Decade of Persons with Disabilities (2013-2022), as source

[17] United Nations. *Transforming Our World: The 2030 Agenda for Sustainable Development (*Consensus reached in New York, 2015). Available from https://sustainabledevelopment.un.org/content/documents/7891Transforming%20Our%20World.pdf.

[18] United Nations. General Assembly resolution 61/106 *Convention on the Rights of Persons with Disabilities. Article 11 – Situations of Risk and Humanitarian Emergencies.* 2006. http://www.un-documents.net/a61r106.htm, p. 3.

[19] UNESCAP, *Incheon Strategy to "Make the Right Real" for Persons with Disabilities in Asia and the Pacific*. United Nations ESCAP (Bangkok. 2012).

critical means of tracking progress towards the achievement of the goals and targets.

21. In line with all of the instruments described above, the ESCAP secretariat will support member States to promote engagement of persons with disabilities and disability-related organizations in all phases of DRR including community level committee on disaster risk reduction, and to promote application of universal design in design of infrastructure, information and services necessary to implement DiDRR.

VI. Conclusion

22. In follow-up to the United Nations World Conference on Disaster Risk Reduction in Sendai in 2015, it is envisaged that the ESCAP secretariat will continue to support mainstreaming disability inclusion in any policy endeavour on disaster risk reduction. The secretariat, in cooperation with its partners, will seek to harness opportunities presented in the coming years to make a distinct difference to the survival and quality of life of the 650 million persons with disabilities who reside in the most disaster prone region of the world. Disaster risk reduction aims to save all lives and for disaster resilience, everyone must be part of the solution.