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Inclusive risk management: a comprehensive approach towards a safer world for everyone

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Abstract – In this paper the need for inclusive risk management taking into account disability is identified. First, it is shown how disability can become a part of disaster risk management. Namely, barriers need to be reduced or eliminated and the participation of people with disabilities in risk management has to be fostered. Moreover, the International Classification of Functioning, Disability and Health is presented as a standard language and framework which is useful to design coherent disability-related social policy. In a second step, the Inclusive Index Calculation Matrix is presented as a useful tool to identify the inclusivity of an environment. Lastly, the need of inclusive emergency management standards is illustrated. It is concluded that an explicit inclusion of disability into risk management plans, laws and agreements such as the Post-2015 Framework for Risk Reduction is needed.

Keywords – *inclusion, disabilities, risk reduction, risk management*

1. Introduction

The Hyogo Framework for Action 2005-2015 (HFA) will expire at the end of 2015. Therefore, great efforts are made in order to adopt a Post-2015 Framework for Risk Reduction at the World Conference on Disaster Reduction in 2015 in Japan (cp. UNISDR, 2012). The development of a Post-2015 Framework allows for improvements of the current risk reduction targets and standards. This opportunity has to be realized.

One of the issues that has to be addressed is the inclusiveness of risk management, particularly with regard to people with disabilities. When disasters hit it is of vital importance that „the evacuation measures drawn up by emergency response planning are effective and actually reach all the people at risk" (Munich Re Foundation, 2014, p. 24). But according to CBM persons with disabilities are often overlooked throughout disaster risk management (CBM, 2013, p. 6). They are traditionally neither asked to help nor included when addressing emergencies and disasters. However, those persons are often more exposed during conflict and displacement (cp. Women's Refugee Commission, 2008). Therefore, they belong to the most vulnerable that are "at the greatest risk" (Munich Re Foundation, 2014, p. 24). Nevertheless, depending on the severity of their impairment, they have a large number of skills and talents to offer to their community that are often neglected (Women's Refugee Commission, 2008, p. 7). According to the World Health Organization about 15 per cent of all people worldwide have disabilities (WHO, 2011, p. 27). As a consequence, if disability is not accounted for in disaster risk management (DRM), a major factor is omitted.

The information presented in this paper is based on existing research and, most importantly, the author's own experiences gained during his work for ONG Inclusiva, an organization based in the Chilean town Peñaflor. The organization's project "Peñaflor Inclusive Safe Community: Resilience for Everyone" aims at improving the inclusion of people with disability in DRM by reducing and eliminating barriers in the town (Barthelt, 2014). Experience shows that people with disabilities must not only be addressed as beneficiaries, but also be trusted as valuable contributors and allies when facing risk situations. Moreover, in order for inclusive risk management to be successive, a holistic approach, as well as a vision shared by all people involved is necessary.

2. Taking into Account Disability as Part of Disaster Risk Management

2.1. Disability as an important factor determining the outcomes of risk situations

Disasters happen in very different contexts. Due to various variables, the severity of the outcomes of similar disasters of the same magnitude may vary strongly. Among the key variables are geography, culture, demography, architecture, administrative borders and political system. Since about 15 per cent of the population is estimated to have disabilities, the inclusiveness of DRM with regard to persons with disabilities is an important variable too, that is often omitted. Therefore, disability has to be taken into account as part of DRM in order to reduce the severity of the outcomes of disasters.

Next to its significance with regard to the outcomes of disasters, dealing with disability as part of DRM can also be seen as a moral duty. Moreover, in Article 11 of the Convention on the Rights of Persons with Disability, an obligation for inclusive risk management is stated: "States shall take, in accordance with their obligations under international law, including international humanitarian law and international human rights 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" (UN, 2006, p. 10).

The challenge is to reduce and eliminate barriers that people with disabilities face in risk situations, taking into account local specifics (BMZ, 2013, p. 9). The barriers faced concern the environment of an individual. There are, for instance, architectonical, cultural and technological barriers. Policy-making modifies the environment and, therefore, may lower the barriers. The idea is, ideally, to reach inclusivity by not only to eliminating barriers, but also creating facilitators that make the participation of people with disabilities possible (BMZ, 2013, p. 5–6).

2.2. The ICF as a useful framework when dealing with inclusive risk management

The International Classification of Functioning, Disability and Health (ICF) provides a standard language and framework for the description of health and health-related states (WHO, 2002, p. 2). Therefore it is a "scientific tool for consistent, internationally comparable information about the experience of health and disability" (WHO, 2002, p. 5).

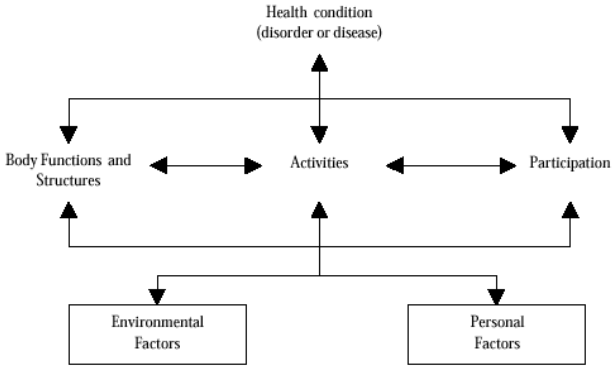

Figure 1: Model of disability that is the basis for the ICF (WHO, 2002, p. 9)

The model of disability that is the basis for ICF can be seen in figure 1. It can be called a biopsychosocial model since it provides a synthesis of the medical and the social model of disability. As a consequence, disability is seen both as a feature of a person (Personal Factors) and the features of the overall context the person lives in (Environmental Factors) (WHO, 2002, p. 8–10). Moreover the model provides a coherent view of three different perspectives on health: a biological perspective (Body, Functions and Structures), an individual perspective (Activities) and a social perspective (Participation) (WHO, 2002, p. 9).

In the context of inclusive DRM the ICF is very useful. Firstly, it provides a standard language and framework for the description of health and health-related states. Secondly, it can provide the framework for comprehensive and coherent disability-related social policy. Since it takes into account environmental factors, it makes the identification of environmental barriers and facilitators for both capacity and performance of actions and tasks possible. Therefore, with the help of the ICF "it may be possible to create instruments that assess environments in terms of their facilitation or barrier-creation for different kinds and levels of disabilities" (WHO, 2002, p. 8). This implies that the ICF may provide the basis for an effective reduction of the barriers faced by people with different forms of disabilities in risk situations.

3. Identifying the Inclusivity of an Environment - the Inclusive Index Calculation Matrix

3.1. Features of the Inclusive Index Calculation Matrix

At the core of the work of ONG Inclusiva is the design of a system of integrated territorial management (ITM), an approach to emergency management that takes into account all the needs of people with disability and the features of each area (Kaiser, Vásquez & Vásquez, 2013). The idea is to make all public goods and services available for people with disability, too. In this context, the Inclusive Index Calculation Matrix (IICM) is a method created by ONG Inclusiva and designed to measure the level of inclusivity of an environment, a technology or a system. As such it is useful when designing or evaluating emergency plans and can be used during the whole project cycle in

Table 1: The IICM using the example of the accessibility of the ONEMI (own design)

Inclusive Index Calculation Matrix								
Entity	National Emergency Office (ONEMI), Republic of Chile							
Division/Unit	Central office (National Level)							
Project	ONEMI- Inclusiva NGO							
Stage	First stage							
Territory	Chilean capital city, Santiago							
Users	Visitors							
Inclusion Indicators	**Dimension**	**Variables**	**Scale**					
			0	1	2	3	4	
	Dimension 1: accessibility of the building	Autonomy				X		
		Dignity		X				
		Security		X				
		reasonable time of usage				X		
	Average Score		**2 points**					
	Dimension 2: accessibility of the building during an emergency evacuation	Autonomy					X	
		Dignity			X			
		Security					X	
		reasonable time of usage					X	
	Average Score		**3,5 points**					
	Average Total Score		**2,75 points**					
Notes	The building has two entrances facing the same street – one has stairs that go down and the second one has a ramp that also goes down. Both entrances lead to a central hall. The ramp is well built consistent with correspondent regulations. However, the entrance with the ramp is usually closed and in order for it to open, a person with disabilities has to ring a bell and wait until someone answers from a phone and then sends assistance. On a normal day this procedure represents a moderate trouble, but in an emergency it can cost lives. Autonomy is heavily decreased because of the need of third parties intervention. The solution is as simple as to keep the entrance with the ramp open. This produces neither cost, nor side effects							

order to make inclusive emergency management possible. The overall goal is to adapt all the instruments and actions planned to the needs of persons with different disabilities.

An IICM using the example of the accessibility of the ONEMI can be seen in table 1. The indicators employed in an IICM are based on the environmental factors that influence the functionality of a person, suggested by the ICF. Therefore, the matrix measures the effect of barriers and facilitators on the level of inclusion of a person.

The level of inclusion of each dimension of a project is measured with the help of four variables:

1. Autonomy: the ability of a person to perform an action or activity without the need of third parties intervention
2. Dignity: the respect with which each person is approached and whether people are faced with situations that make them feel uncomfortable
3. Security: the presence of protective factors (physical and/or social) that prevent or decrease the risk of accidents and/or loss of functionality
4. Reasonable time of usage: reasonable time the execution and/or use of a space, service or technology needs

For each of the variables the level of inclusion is determined with a scale ranging from 0 to 4. The explanation of the scale can be seen in table 2.

Table 2: Explanation of the scale used in the IICM

Explanation of the scale used in the Inclusive Index Calculation Matrix	
0	No restriction
1	Little restriction
2	Restrictions that make people with disabilities need moderate help
3	Restrictions that make people with disabilities need heavy help
4	Heavy restrictions that make participation for people with disabilities (almost) impossible

3.2. ONG Inclusiva's field experiences with the Inclusive Index Calculation Matrix

ONG Inclusiva cooperates with the Chilean government authorities, foreign governments, local governments, NGOs and the private sector. Our experience combined with the results of the Inclusive Index Calculation Matrix shows that most problems detected are caused by three cultural issues. Firstly, people with disabilities are not truly considered as equals. As a consequence, authorities are aware of accessibility problems but these problems are not part of their top priorities. Secondly, in many places there would be accessible spaces, however, those are blocked. For instance, procedures may be made in

a fashion that reduces the access to services. The closed ramp in the central office of ONEMI is a very good example. Thirdly, the disability variable is not often taken into account during the designing stage of some technologies, procedures and spaces making future adaptations difficult and, therefore, often not accurate.

4. The Need of Inclusive Emergency Management Standards

On the basis of the definition of a standard by the International Organization for Standardization (ISO), a standard of inclusive emergency management can be defined as "a document that provides requirements, specifications, guidelines or characteristics that can be used consistently to ensure that materials, products, processes and services are fit for the purpose of generating a comprehensive inclusive emergency management system easy to duplicate" (cp. ISO, n.d.).

Standards for inclusive emergency management are needed in order to have a standardized language. Such a language would help to detect open tasks, as well as to create and improve protocols and procedures at the local, national and international level. For instance, the standards could function as a basis for the dialogue about the Post-2015 Framework for Risk Reduction. As a result, the quality of processes and outcomes of emergency management could be assured. Moreover, standards for inclusive emergency management defined should contemplate the four elements "autonomy", "dignity", "security" and "reasonable time of usage" as used in the Inclusive Index Calculation Matrix. This would ensure a high level of inclusivity set by the standard.

In order to make RDM more inclusive on an international level, standards for inclusive emergency management would have to be present as a key factor in every emergency management process at all five stages of the preparedness cycle (overview of the different stages in figure 2). Before being able to do so, the needs of people with disabilities living in risk zones have to be identified.

Figure 2: Preparedness cycle (FEMA, 2014)

5. Conclusion

Inclusive disaster risk management taking into account the needs of people with disabilities is needed in order to make the world a safer place for everyone. The barriers faced by people with disabilities in risk situations have to be decreased so that those people are less vulnerable in risk situations. This can only be reached if there are joint and coordinated actions at all levels and if there is a constructive dialogue between all the disciplines involved in DRM. Architects, electricians, politicians, teachers, just to name a few, have to work hand in hand. Also, people with disabilities have to be actively involved. Not only the output, but also the input and the process of DRM have to be inclusive.

Next to the constructive dialogue between the diverse disciplines a more systemized approach to processes in DRM is needed in order to reach a barrier-free risk management. The scientific framework provided by ICF offers a standard language which is needed to define clear standards of inclusive emergency management. Those would be necessary to achieve a truly inclusive Post 2015 framework for disaster risk reduction.

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