

**Action Approaches for
Environmentally Induced Migration
(a State of the Art Report)**

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1 Introduction

Both sudden and slow onset ecological events have always had an impact on the movements of human populations. However, in the last decade and a half, in particular, the issue of environmentally induced migration has received a high degree of public attention, which must be perceived and analysed in the context of rising awareness and fear regarding the possible consequences of global climate change. As early as 1990, the IPCC was concerned that the most severe single impact of climate change could be 'climigration' (Bronen 2009), that is, environmental, or in particular, climate induced migration² 'with millions of people displaced by shoreline erosion, coastal flooding and severe drought' (IPCC 1990, 20; as cited in Warner and Laczko 2008, 235). The potential numbers of environmental migrants in the future, which have been widely accepted in academic and non-academic literature, but are still under increasing debate in the media (e.g. Bojanowski 2011), will range up to several hundreds of millions by 2050 (Myers 1997; Myers 2005), and even one billion by 2060 (IOM 2009, 9). Are these estimations simply a consequence of the securitization of climate change and migration (e.g. Huysmans 2000; WBGU 2007; Brzoska 2009), or must the world really expect a 'human tsunami' (Boncour 2009) of millions of environmental migrants politically destabilising their home countries/regions and attempting to enter 'Fortress Europe' or other wealthier or less climate-change affected regions in order to escape their flooded, drought-stricken, or desertificated homes? Further, what policy measures can be implemented to mitigate the need for environmental migration or its possible negative consequences?

This paper addresses some key points regarding this issue; first, it reflects on some of the most recent arguments in the international debate on environmentally induced migration. By doing so, several questions shall be answered: how severe is the problem of (expected) environmentally induced migration from a global perspective, and what do we know about

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² In this paper, all kinds of human movements being solely or additionally caused by environmental factors (including non-voluntary movements) shall be described using the term 'environmental migration' or 'environmentally induced migration' (see also chapter 2 on definitions and terms).

the complex linkages between environmental factors and migration? Furthermore, how can environmental migration be classified according to the different environmental factors that are impacting human livelihoods and what are its implications? Reflecting on the current literature in different disciplines dealing with this issue, this paper finally comes up with some policy recommendations on how to face and govern environmentally induced migration on several levels.

2 Trends in Environmental Migration

2.1 A Classification of Environmentally Induced Migrants

To overcome several desiderata and finally bridge the gap between different academic fractions, several research initiatives addressing the topic of environmentally induced migration have been developed in the 2000s. For instance, in 2007, the European Commission initiated the project 'Environmental Change and Forced Migration Scenarios' (EACH-FOR), the framework of which includes case studies on 24 countries from Latin America, Africa, Europe, and Asia regarding the environmental factors and their impacts on (forced) migration.

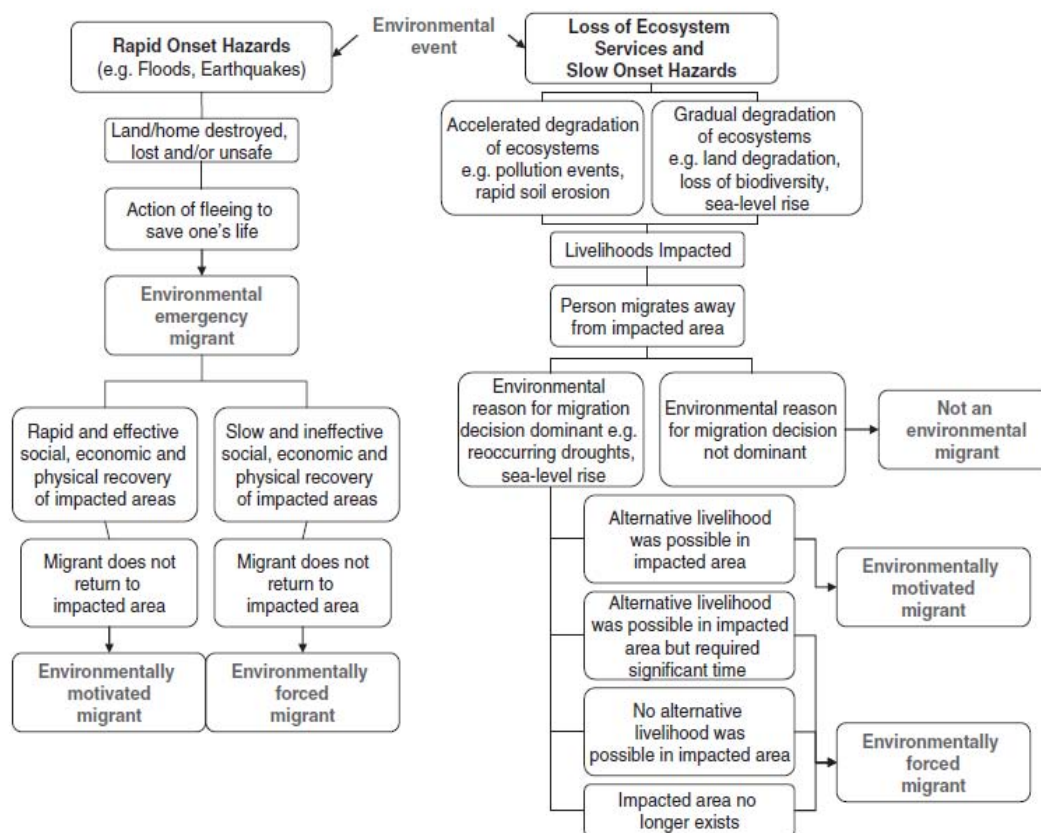
The classification of environmental migration, which was introduced as one of the 'products' of EACH-FOR by Renaud et al. (2011), has three categories: environmental emergency migration, environmentally forced migration, and environmentally motivated migration. Environmental emergency migrants are those who leave their homes in order to save their own lives, whereas environmental forced migrants leave their homes to avoid 'the worst of environmental deterioration' in cases of rapid onset hazards (Renaud 2010, 1). In the case of slow onset hazards, environmental forced migrants do not face the same urgency for fleeing as environmental emergency migrants. The third category, environmentally motivated migrants, consists of people who *may* respond to environmental degradation with migration, but in this category, migration is neither a last resort nor an emergency action. The distinction between forced and motivated migrants is based on the question of whether an alternative livelihood under the occurrence of a slow onset hazard is possible. An environmental emergency migrant can turn into a motivated migrant if her impacted area faces a rapid and effective social, economic, and physical recovery, but she does not return. If an environmental emergency migrant does not return after a slow and ineffective overall recovery, then he can be classified as an environmental forced migrant (see figure 1). This categorization adds another category to older classification attempts such as the one by

WBGU (2007), which suggests that a distinction should be made between planned environmental migration due to gradual environmental migration and sudden environmental

migration as a response to extreme events such as floods or volcanic eruptions; the major constraint of the WBGU distinction is that it did not come up with a rigid classification. Renaud et al. (2011) have developed a decision-making framework for their classification in order to make the identification of sole categories easier and clearer. The classification also adds a vulnerability-resilience continuum in the context of a coupled social-ecological system (SES). An SES combines the human-societal sphere with the biophysical one into one system, in which both spheres are mutually interdependent and interact with each other. The understanding of an SES is crucial in the context of environmental migration, since it deals not only with ecological change but 'also how socially mediated factors interact with those environmental factors [that] affect the [migration] outcome' (Warner 2010, 412). Accordingly, the introduced framework takes into consideration the opportunities for alternative livelihoods in the case of slow onset hazards. However, this framework surely needs greater precision and further discussion on the question of how to determine whether environmental factors are dominant, and what classifies someone as an environmental or non-environmental migrant remains, in the end, unanswered. Nevertheless, due to the absence of a more precise classification, the EACH-FOR classification has been adopted in this paper.

The question of how to achieve further precision in classification, as well as the severity of environmental migration – in terms of the quantities within the categories introduced by Renaud et al. – is very hard to answer, because not only is there a huge amount of uncertainty remaining on the future impacts of climate change, there is also the fact that scientific isolation, or a singling out of the specific impact of ecological factors on migration decisions as well as on other livelihood-related decisions, is up to the present day still in its infancy (Castles 2002; McLeman and Smit 2006; Boano, Zetter et al. 2008; Nielsen and Reenberg 2010; etc.). Migration decisions are extraordinarily complex; thus, the question of how environmental factors, particularly those that are climate change related, will impact human population movements will, according to Kniveton et al. (2008), depend on a profound analysis of all SES-related factors: the biophysical, social, political, cultural, and economic environments that potential migration-affected communities live in; the cognitive processes of people living in communities experiencing environmental change; the attitudes toward migration in terms of the surrounding social environment of potential migrants; and the type of ecological stimulus that migration might be a response to.

Figure 1 Environmental processes and migration: Rapid and slow onset events



Source: Renaud et al. (2011, 16)

3 State of the Art on Characteristics of Environmental Migration

Although the empirical basis of environmental migration is still rather weak, and the need to collect more data and sharpen the relevant concepts in this regard is imminent, based mainly on the results of the EACH-FOR project (2009) and new monitoring systems, it is possible to at least carefully identify certain trends concerning the current characteristics of environmental migrants on a global level.

The following can be said about the global trends in environmental migration:

- Although not covering the total amount of **environmental emergency and forced migrants** (see above), the number of people being displaced due to rapid onset hazards gives at least some indication of the two environmental migrant categories mentioned above. Based on data from the recently established International Disaster Database (EM-DAT), the United Nations Office for the Coordination of Humanitarian

Affairs and the Internal Displacement Monitoring Centre of the Norwegian Refugee Council (OHCA-IDMC 2009) have stated that about 36 million people out of the roughly 207.5 million people being affected by rapid onset hazards in 2008 can be classified as internally or internationally displaced – or 17% of the total global population affected by floods, storms, or earthquakes. The number of displaced people due to sudden onset hazards dropped to 17 million in 2009 (15% of the total affected population worldwide), but rose again to 42 million in 2010 (20%) (IDMC 2011).³

- An important finding is that environmental migration is widely occurring in an **environmentally motivated** form and cannot be perceived as a new trend; it is rather a **traditional (peasant) coping or adaptation strategy**. Although other socioeconomic groups are also affected, many (agro-pastoral) smallholders, who are the vast majority of environmental migrants in many regions of the world, use migration to cope with certain, but mainly temporarily appearing, ecological events such as droughts/dry seasons or floods threatening their livelihoods. A preferred migration pattern in this context is seasonal migration, where in times of temporary environmental stress, members of a household leave to other rural or urban areas to earn money, and return after a certain period of time.
- Environmental migration rarely includes the migration of entire households; some members (mainly women due to their traditional family responsibilities, or household
- members with alternative income earning strategies) stay behind. **The migration of complete households is usually only the very last resort**, if agro-pastoral livelihoods at the place of origin can no longer be maintained. In the sedentarisation of nomadic people in several countries, there is a certain trend toward a change of traditional patterns of temporary/seasonal migration, which is to a lesser degree caused by ecological factors rather than socioeconomic or political factors.
- Current trends underline Kniveton et al.'s (2008) assumption that there is **no simple linear link between environmental change and migration**. Affected people can only leave if they have adequate financial means for information and travelling costs; however, in addition to socioeconomic or political factors, environmental degradation may have a severe effect on one's livelihood opportunities, and thus one's chances of earning a certain amount of money.

³ The percentages for 2009 and 2010 are based on calculations accordant with EM-DAT data (www.emdat.be).

- Directly related to this issue is also the fact that **environmental migrants are mainly migrating within their own countries or regions**. It is rare that such affected people migrate internationally, but when they do so, they usually go to directly neighbouring

countries, or to countries within the region that share a certain link, such as a common colonial past or the same spoken language (see also Afifi and Warner 2008). International migration on a large scale (South-North) is not affected by environmental factors since environmental migrants are, as already mentioned, mainly smallholders with very different social backgrounds and networks compared to migrants in the US or Europe, who usually have much better financial means, greater education, and networks within their destination regions.

- Possible **socio-economic or socio-political implications** of environmentally induced migrations such as conflicts or rapid urbanisation seem to be obvious but certainly need to be researched in a much more intensive way.

4 Policy Responses to Environmental Migration

4.1 Policy Responses to Environmental Migration

Although some fundamental research has already been conducted and further projects are on the way (see chapter 2), the need to further strengthen our understanding of the complexity of environmentally induced migration and increase the related stock of knowledge has been widely emphasized in the literature. Boano et al. (2008) see a crucial task for national governments as well as the international community, which includes donors; national governments; NGOs; the World Bank; and in particular the UN organisations UNHCR, UNEP, UNDP, and IOM in promoting the implementation of a range of research-related policies. These initially include a fostering of an (international) dialogue aiming at developing and harmonizing a mutual understanding on the multidimensional character of environmental migration processes and their potential socioeconomic impacts. One aspect of this is surely the fostering of further interdisciplinary collaboration among economists, environmental scientists, and social scientists for the sake of defining and sharpening joint definitions, methods, indicators, and data resources. The establishment of databases such as EM-DAT is certainly a step in the right direction, but a number of requirements still remain, not only with regard to data collection and monitoring but also with regard to methodological issues and further precision in defining the types of environmentally induced migration (see chapter 2). In addition, international dialogue on environmental migration also requires a close affiliation of scientists and practitioners in the still largely separated areas of development planning, disaster relief, and environment and climate changes. This means that practitioners

will need to obtain a better understanding of the crucial concepts in the area of environmentally induced migration, which range from livelihood resilience to coupled social-ecological systems. This collaboration will have to work concretely on different types of early warning systems for identifying hotspots of environmental change that, considering the socio-political and socio-economic environments and natural resource availability, bare the danger of becoming large-scale sending areas of environmental migrants. Furthermore, the dimension of this problem needs to be addressed in order to gain a deeper understanding of the complex interlinkages between environmental factors, migration, and conflicts. Finally, research on potential governance mechanisms for areas prone to the processes of environmental degradation, and thus increased migration rates, needs to be promoted.

5 International Governance Mechanisms for Environmental Migration –leading and Prospective solutions

5.1 Legal Aspects

Although the importance of a rights-based approach particularly for protecting environmental emergency and forced migrants has often been stressed (e.g. Zetter 2009), there are currently no international legal instruments that explicitly address the issue of environmental migration, which, in the viewpoint of international law and discussion circles, is usually restricted to environmental forced or emergency migration. Some authors such as McAdam (2009) or Ammer (2009) have examined several existing international legal frameworks in the areas of international refugee laws, human rights regulations, and environmental and labour laws concerning their (potential) appropriateness for regulating environmental displacement or offering protective mechanisms. Although legal instruments and frameworks, which will be described in further detail below, generally have potential, they are thus far largely inadequate for offering effective protection for environmental emergency and forced migrants.

The adaptability of other legal frameworks for offering environmentally emergency and forced migrant protection besides areas of refuge, human rights, or environmental laws is basically conceivable, but the respective instruments are even weaker than those in the law sectors previously mentioned. The 'International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families', which was ratified in 1990 and can even fit into the context of environmentally motivated migration, has some potential to be applied as a protective mechanism; however, this convention has less than 40 signatory states and has received little international support thus far.⁴

⁴ In this regard, Zetter (2008; 2009) mentions further potential protection instruments such as the 1966 Covenant on Economic, Social and Cultural Rights, the 1996 International Convention on Civil and

However, what would be a way ahead concerning the foundation of legal mechanisms that really address the issue of international environmental emergency and forced migration? The prospects in international law with regard to this issue are controversial. Angenendt (2011) has basically identified three options in such a discussion: a widening of the Geneva Protocol and international refugee laws; the establishment of a new environmental migration regime; or enhancing the debate on strengthening, widening, and/or interconnecting the existing international law instruments and norms for the protection of human security described above. Although this debate is still far from having reached a final conclusion, there is certainly a tendency toward a general opinion that a widening of the Geneva Protocol will not be favourable due to the danger of diluting or weakening the Protocol in general, which in the past decades has already experienced a certain degree of erosion due to the increasingly restrictive refugee and asylum policies of many industrial countries. Furthermore, UNHCR refuses to open up the Protocol for people displaced by environmental factors since it is in their eyes already difficult enough to maintain the existing protection standards – not to mention the difficulties of an acceptance/validation process for environmental forced/emergency refugees. Likewise, the establishment of a special international environmental migration regime as proposed by Biermann and Boas (2010)⁵ is increasingly being perceived as non-effective, since it is expected that negotiations aiming at establishing an effective regime for environmental forced/emergency migrants would last for years if not decades given the experience of long negotiations in other international conventions and long and hard implementation processes (Bauer 2010; Angenendt 2011). Enhancing the debate on the effective strengthening of existing legal frameworks and bringing forward a rights-based protection approach seem to be more promising in this regard. According to Angenendt (2011) or Zetter (2009), such debate can create a significant amount of genuine potential, although it will not offer concrete instruments of action. However, it can show the way forward for concrete policies and strategies for environmentally induced migrants.

Political Rights or the 1989 Convention on the Rights of the Child 1989, the 1981 Convention on the Elimination of All Forms of Discrimination against Women, and the 1991 ILO Convention on the Rights of Indigenous People, as well as regional instruments such as the Organization of African Unity Convention Governing the Specific Aspects of Refugees Problems in Africa. Concerning the issue of statelessness, which might become a critical issue as the territories of some small island states may completely disappear, Zetter (2008) furthermore mentions the 1954 Convention Relating to Stateless Persons, the 1991 Convention on the Reduction of Statelessness, and the protection mandate of UNHCR for stateless people.

⁵ The authors suggest that a Protocol on Recognition, Protection, and Resettlement of Climate Refugees be added to the UNFCCC.

5. 2 Institutionalised international cooperation

While there is little doubt in the literature that states will be the main actors in finding policy responses toward environmentally induced migration, the role of institutionalised international cooperation may be a realistic and adequate way toward the monitoring, agenda setting, awareness, and implementation issues regarding environmentally induced migration (and in particular also environmentally motivated migration). At the level of international bodies – and, as shown below, at the regional and national levels – the issue of environmentally induced migration was for a long time a widely neglected issue and only in recent years has raised some eyebrows. The question is, how to come up with a solution toward more international coherence, and which organisation can take the lead?

McAdam (2009) has identified four international spheres of governance and the corresponding institutions, which in some cases have a degree of responsibility in two or more of the other areas mentioned. These spheres include the following:

- Migration and asylum (UNHCR, IOM, OHCHR, The Hague Process on Refugees and Migration, International Displacement Monitoring Centre (IDMC), etc.)
- Environment (UNFCCC, UNEP, IPCC, UNCCD, etc.)
- Development (UNDP, UNFPA, IISD, ILO, etc.)
- Humanitarian rights and aid agencies (OHCHR, UNFPA, etc.)

None of these organisations provides a comprehensive international framework toward state regulations of environmentally induced migration, and some institutions even have conflicting

mandates or such a 'limited/partial perspective that the phenomenon as a whole remains beyond their scope' (McAdam 2009, 168). McAdam (2009) therefore proposes the establishment of an inter-agency and a multi-sector oriented group with one coordinating institution or focal point as a pragmatic and efficient strategy for creating an effective body capable of providing institutional leadership and guidance. This agency will need to be an agglomeration of relevant UN organisations and non-UN-related agencies (such as the IOM) that can make use of all the particular expertise of the institutions involved. The major duties of such an inter-agency group would be a constant and intensified risk assessment (i.e. the identification of areas that are or will be facing environmental migration); information provisioning and consultation of affected states, regions, and communities, which would include concrete recommendations for place-specific adaptation measures; providing the means for humanitarian aid; raising global awareness; pushing the process toward adequate

international legislation (see above); and improving our scientific knowledge on the issue (see above; Renaud, Bogardi et al. 2007; Boano, Zetter et al. 2008; McAdam 2009).

But in addition to the thus far unanswered question of which organisation could take a leadership role, or how such an institutionalised international cooperation body, including the entire range of its work, can be funded, a major problem is that the United Nations and its subsidiary organisations are currently struggling with the issue of environmentally induced migration, and obviously have quite different perceptions concerning the severity of the issue. Although the issue of environmentally induced migration is a crucial topic for some UN sub-organisations such as UNHCR, UNDP, or UNEP, and the topic is explicitly mentioned in Article 17.1 of the United Nations Convention to Combat Desertification Experiencing Serious Drought and/or Desertification, Particularly in Africa (UNCCD), which requests national governments to take action, there have been no practical implications toward greater coherence and cooperation in the area of environmental migration thus far. It can at least be assumed that the integration of the environment-migration nexus into the UNCCD has contributed to putting the issue on the UN agenda. Even though it has remained a side issue, the topic of environmentally induced migration has at least entered international climate negotiations.

However, this is just the beginning, and it is totally unclear at this point whether the topic will soon be more than a marginal note in climate or other international environmental regimes under the UN umbrella. Many other UN organisations or bodies such as the Global Forum for Migration and Development or the General Assembly have still failed to (adequately) address environmental migration, which certainly exacerbates attempts of creating cooperation and coherence (Bauer 2010). Maybe the official recognition of the UN Security Council of July 2011 that climate change may be a threat to peace can provide a new impetus for pushing

the issue of environmental migration forward. However, even more significant in this context, there is still a huge reluctance of industrialized states to engage in finding international solutions for the issue of environmental migration, which is certainly related to financial concerns and the fact that migration oftentimes is perceived as a security issue.

In addition to the issues of achieving more international cooperation in the area of environmental migration, however, it is certain that a successful global limitation of greenhouse gas emissions within a Post-Kyoto regime, curbing the worst effects of climate change as well as the removal of unfair barriers in world trade, which have the potential to open up new income opportunities for millions of smallholders, could lastingly mitigate the need for environmentally induced migration.

6 Policy Recommendations for Regional and National Levels

For the bilateral or regional level, it is highly recommended in the literature that policies and governance mechanisms aiming at regulating (environmentally induced) migration be established in order to offer reliable protection in the absence of an internationally accepted legal framework, and to improve the portability of social benefits across borders (Black, Kniveton et al. 2008). Thus far, environmentally induced migration is hardly an issue. Only a few countries have for instance established special schemes allowing persons to immigrate and remain (at least) temporarily when their home country has experienced a severe natural disaster.

On the national level, the major and rather general recommendation for addressing environmental migration is surely its integration into the areas of environmental policies, disaster relief, and in particular, sustainable and inclusive development and a strengthening of the areas mentioned, which focuses not only on (potential) migrants but also on those who are usually left behind, as such people – the very young, elderly, or sick – are generally the most vulnerable of rural populations (Warner 2010). An entry point is widely perceived as integrating the issue of environmental migration into environmental politics, in particular into National Adaptation Plans of Action (NAPAs), which under the UNFCCC specifically address the specific adaptation needs of the Least Developed Countries (LDC), or accordant adaptation action plans for non-LDCs (Martin 2009; 2010).

However, although the literature is usually not very concrete concerning practical measures, smallholder oriented rural development is certainly a key factor – taking into consideration that smallholders are the large majority of (potential) environmentally induced migrants. After decades of neglect by national states and the international donor community beginning with the period of structural adjustment programmes in the 1980s, the issue of peasant agriculture and rural development has re-entered the international policy arena; the Comprehensive

Africa Agriculture Development Programme (CAADP) process is a prominent example. Furthermore, the world food crisis of 2007/2008 has given a further push in that direction, as the G8 in 2009 has promised to allocate 20 billion dollars for rural/smallholder development for a three-year period. However, the issue of rural and smallholder development has to be more than just a short-dated agenda item in international development discourse considering the assumption of the International Fund for Agricultural Development (2010), in which the share of populations living in rural areas of the developing world is still growing and will not reach its peak until 2020 to 2025. To generate sustainable agricultural growth, which is of course also necessary to feed a growing world population, requires more than the facilitation of the (further) market integration of smallholders. In light of massive climatic changes, it is

certainly no less important to promote a whole range of adaptation and mitigation strategies in the agricultural sector ranging from green/organic farming, mixed cropping, harvest failure insurances and other risk management tools, green manure techniques, and soil conservation measures to water storage facilities or improved crop varieties according to the locally specific conditions and potentials. However, the facilitation of alternative non-agricultural livelihood strategies and non-farm-related insurances and risk management instruments is also a crucial point, since non-farming opportunities have gained a great importance for many smallholders in developing countries within the last decades (Bryceson 1996). However, adaptive rural development should not be understood as a pure migration-reduction tool – although many national governments are still rather focusing on how to curb migration - migration is still a necessary coping or adaptation strategy in times of need, or when the economic prospects are promising.

To progress with regard to the policy options mentioned, new modes of governance might be required to increase the resilience of those who migrate as well as those who stay behind. In addition to increased harmonization efforts in practical implementation across different sectors, Warner (2010) highly recommends the establishment of national and sub-national policy dialogue platforms, which bring together all relevant actors and in particular the affected population in order to enhance the general understanding of how environmental/climate change is affecting local livelihoods and migration patterns and to better shape accordant policy responses. A crucial task will be the integration of migrant networks in such a policy dialogue, as well as in the related policy formulation process since migrant networks play an essential role in providing migrants with employment or accommodation. Generally, the protection of rights (in particular, land tenure security) and the provisioning of better public services for many (environmental) migrants, in addition to non-migrant population groups, are issues that need to be addressed by national governments. The danger of labour exploitation or poor living conditions, especially in urban

areas, does not exist only in the African context, but it is also a severe problem in South Asia, for instance. Migrant residents are not able to obtain adequate access to public services or claim their rights, since costly registration efforts are often required. Not only are such groups facing no support from organisations in civil society, they are also unable to form a unique lobby group, or are simply unaware of their rights (Tacoli 2009).

7 Conclusion

This paper analysed trends in the international debate on environmentally induced migration and addressed the issue of how to find a way forward concerning governing environmentally induced migration on different levels.

Some years ago, several research initiatives on the issue of environmentally induced migration such as the EACH-FOR project were initiated. Based on that, Renaud et al (2011) came up with the currently most convincing classification of environmentally induced migrants, which distinguishes between environmental emergency migrants, who flee in order to save their lives following an rapid onset ecological hazard, environmentally forced migrants and environmentally motivated migrants. The last two categories differ in the question whether an alternative livelihood is basically possible in the case of slow onset environmental hazards or not. An environmentally forced migrant can also be an original environmental emergency migrant who does not return to his home area although it may have been effectively recovered. However, this classification has the central weakness that environmental factors need to be dominant in migration decisions to classify migrants as environmentally induced migrants at all. The knowledge on how specifically ecological factors impact on migration and livelihood decisions in general is until today still very limited. That is why it is hardly possible to determine whether ecological factors are dominant in multi-dimensional migration decisions or not. In addition to that, predictions concerning future trends in environmental migration are almost impossible to make due to the uncertainty with regard to the impacts of climate change, which is definitively an additional aggravating factor in that regard.

Nevertheless, although the empirical basis is still rather weak, the international research efforts on the issue of environmentally induced migration, which have been established so far, support some conclusions on the state of the art. First of all, it seems that environmentally motivated migration is the (globally) dominant form of environmental migration. The temporary migration of one or more household members can be perceived as a traditional coping strategy in times of environmental stress; the migration of whole households is usually only a last resort. Environmentally induced migration is in the global

perspective predominantly happening within the borders of countries or within sub-regions but it is hardly related to large-scale international migration (e.g. from Africa to Europe). Generally, given the mostly very complex determinants of migration decisions, the socio-economic implications of environmental migration are not very well researched.

The question what policy recommendations can be formulated for the international level with regard to environmental migration is not easy to answer. First of all, there is a consensus in the literature that more knowledge on the issue needs to be created; that is why the international community is supposed to initiate more (integrated and comparative) research efforts on the issue. Furthermore, when it comes to the protection of particularly environmental emergency and forced migrants, existing instruments of international law are currently not sufficient. In the discussion on how to achieve more and better international legal protection mechanisms for these migrants, there is a certain tendency towards strengthening and harmonising existing legal frameworks instead of trying to establish a specific environmental migration regime. A possible solution for creating more coherence and a strengthening of legal instruments as well as for setting international policy standards would be the establishment of a institutionalised international cooperation on environmentally induced migration of both UN- and non-UN-affiliated organisations from the fields of migration, development, environment and humanitarian affairs. But it is still rather unclear which organisation potentially could take the lead in such a process and how to overcome the reluctance in that regard in particular of national states.

Likewise, recommendations given in the literature support a strengthening and harmonisation of the areas of migration, sustainable development, disaster relief and environmental politics for addressing environmentally induced migration in particular on the national and sub-national but also on regional levels. Given the fact that environmental migration is predominantly a smallholders' issue, a key function can definitively be seen in a promotion of peasant oriented rural development efforts. But it would be a mistake to perceive more rural development as a pure migration reduction tool taking into consideration the huge meaning of migration as coping strategy under extreme events. Therefore, addressing environmentally induced migration has also to include an improvement of public service and infrastructure provision for migrants, planned and voluntary resettlement schemes (in case that no other option is possible) and new modes of governance that include all relevant groups such as migrant networks or farmer associations in target-oriented (and locally specific) policy formulation and implementation processes.

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