Empirical evidence and policy responses regarding climate change and migration
– What role for migration in local adaptation?

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Day 1: March 13th 2014

Part 1: Empirical evidence
Session 1: Overview on migration as adaptation research

1.30 – 2.00 Dr. Benjamin Schraven (DIE, Bonn) & Dr. Christina Rademacher-Schulz (UNU-EHS, Bonn)
Title: Migration as an adaptation strategy: Basic considerations and challenges

Meanwhile, migration is increasingly being perceived as an adaptation strategy to climate change and environmental degradation. This presentation wants to both reflect the empirical state of the art concerning how migration can be defined as an adaptation strategy and which challenges can be identified in this regard.
The presentation gives an introductory overview of the debate, the definitions, the history and the policy arena of the migration and environment topic.

In contrast to the “alarmist” view, which is still dominant in the medias and in some researches, this introduction aims to bring some inputs on how migration can be seen more positively; migration as a potentially important adaptation strategy.

The current adaptation discourse is criticized for being too static. As a response, scholars bring the concept of “social resilience”. The latter is composed of coping/adaptive/transformative capacities. Thus the question that is emerging is “how may migration enhance social resilience?” It might be through remittances, knowledge/skills/technology transfer, and knowledge acquisition, reduction of consumption and optimal temporal distribution of labor. But important challenges remain and some of the following questions can be taken as starting points for the workshop discussions:

- Under which circumstances can migration be an adaptation strategy?
- What are the limits of adaptation?
- How can the adaptive potential of migration be fostered in a political environment, which still considers migration as a failure to adaptation?

**Discussion:**

- The issue of going beyond of the binaries couples “urban vs. rural” migration and the alternative presented as “to migrate vs. to stay”.
- The case of the Pacific Islands: do the exposed populations really want to migrate? Situations vary greatly depending on the contexts (New Zealand, Maldives, etc.). In some places the resistance to migration is strong and in others the mobility patterns are already deeply rooted in traditional livelihoods (Tuvalu). Distinction between fleeing (forced) and voluntary migration (which is actually another word to talk about labor migration) is also emphasized.

**2.00 – 2.20 Dr. Patrick Sakdapolrak (Geography Department, Uni Bonn)**

*Title: Building resilience through translocality. Climate change, migration and social resilience of rural communities in Thailand*

*Much attention in the research on the climate change-migration nexus has been given to climate change as a push factor contributing to migration. The TransRe-Project offers a fresh perspective on the climate change-migration nexus. It starts from the assumption that, regardless of the accuracy of the projections of future environmental changes, migration is already occurring and will continue to be a major dynamic of global change. The project seeks to understand how this intensifying migration-induced connectedness influences the ability of households and communities to respond to climatic risks and sustain their livelihoods and well-being – that is, their social resilience. The presentation will outline the rationale of the TransRe project and present its conceptual and methodological approach.*

3 types of literature on the conceptualization of the feedbacks effects are distinguished:

1. Livelihood literature: migration is one dimension of livelihoods. Migration is considered as a coping and adaptation strategy of households. Feedbacks are concretized mainly through remittances.
This overview leads to the emerging concept of “translocality” (build on the insights of transnationalism, beyond national scale, and origin/destination perspective being embedded). This conceptual approach allows focusing on a variety of aspects in migration considering the connectedness between origin and destination places.

The recently started TransRe project named “Building resilience through translocality: Climate change, migration and social resilience of rural communities in Thailand“ aims at understanding the relationship between migration/translocality and social resilience to climatic risks in rural sending areas. One goal is to transfer knowledge to practice through the implementation of pilot projects and the development of a tool-kit. The project which is lead by the author is structured in four sub-projects (Vulnerability and Resilience to climatic risks; Migration networks and social resilience; Social practices of translocality; Governing translocal resilience). UNU-EHS and DIE are among the academic partners.

As a conclusion, the author brings the following propositions: To move from migration as adaptation to migration for social resilience; to bring more consideration for the feedbacks effects; the concept of translocality is necessary to tackle these issues.

Discussion:
- The effect of migration on origin areas, even in the same countries may be characterized by significant differences.
- Emigration from rural areas can, in certain contexts, be a chance for the environment; migration releases pressure on environment. For instance, in remote areas of Bolivia.

Session 2: Migration as adaptation in Asia/the Pacific region

3.10 – 3.40 Dr. Andrea C. Simonelli (International Network on Climate Change, Uni Dresden, Germany)
Title: Good fishing in Rising Seas: Kandholhudhoo, Dhuvafaaru, and the need for a Development-based Island Migration Policy

The study is based upon a recent fieldtrip to some small atolls of the Maldives, where 16 interviews (semi-directive) have been conducted on the perception of the population about their exposure to environmental degradation and the issues related to migration.

Isolated and close to sea level, Kandholhudhoo is a case study at the limits of adaptive capacity. For many years, rising seas battered this small and over-crowded island, flooding homes and damaging buildings again and again. Its specific geographical context does not lend itself well to unaided migration, which resulted in coping rather than positive adaptation. When its inhabitants were eventually relocated to Dhuvafaaru, it was because of a natural disaster rather than because of its growing inability to sustain its inhabitants.

Critiques on the idea of the « sinking island » are addressed, because the salinization of drinking water and the lack of water for agriculture are identified as more problematic issues. High tides are also provoking a lot of destruction (trees, buildings and infrastructures). In 2004, one the studied islands has been completely destroyed. The Maldives government asked the population to migrate to another inhabited island (Dhuvafaaru). But few people had the resources to move on their own.

The author brings some recommendations like the need to build better sea walls, stilted homes and to improve services. However, it is mostly the need for better public assistance in transportation and relocation that is underlined. It is the specific vulnerabilities of isolated islands to climate change which necessitate a policy response to allow for agency to be more freely used. Development policy can assist
those seeking to utilize internal migration as adaptation, but only if it reflects current imperatives such as overpopulation, structural integrity, a limited economic resource base, and the possibility of temporality.

**Discussion:**

- The interviewed people were more preoccupied by the tsunami of 2004 than the sea level rise issues. This implies to do careful distinctions between global warming related events and other environmental disruptions.
- Participants debated about the effectiveness of investments on infrastructural measures. The short-termed perspectives of these kinds of measures were discussed.

### 2.40 – 3.10 Dr. Giovana Gioli (Climate Campus, Uni Hamburg, Germany)

*Title: Understanding migration as an adaptation strategy to climatic and environmental change: a case study from the upper Indus basin*

Project GEM (Gender – environment – migration): the study is carried out in Pakistan (Karakorum region) in two very remote and arid valleys affected by two major environmental disasters in 2010: an important landslide that gives birth to a lake and a big floods episode that affected the whole country. Research questions: How migration helped people to cope or to adapt?

Method: mixed research method combining qualitative and quantitative approaches: Primary data were collected at community and household level through in-depth interviews, focus group discussions, and quantitative questionnaires covering 210 households in six villages of the West Karakorum. Climate changes in the area should not be automatically linked to global warming (monsoon, and different local characteristics).

Though not a new phenomenon, migration - which is predominantly short in distance, temporary and circular - has emerged as a key livelihood source over the last decade and our findings suggest that it is adopted as a core response to environmental pressure, both as an ex ante form of household risk mitigation strategy against the decreased and uncertain agricultural production, as well as an ex post coping mechanism in the wake of environmental shocks. Migration is a highly gendered phenomenon in the study area: due to gendered power relations, cultural norms and values, only men migrate for labor, while women are left behind to take care of the agricultural work, of the household, and to deal with in situ adaptation.

Proportion of the households that migrate: 39% ex-ante adaptation strategy (before the events), 25% as ex-post adaptation strategy (after the events), and 36% of the households could not migrate and are identified as “trapped population”. This last group is the most vulnerable. In general, the later the population does migrate the more vulnerable they are.

In conclusion, migration is successful in enhancing the household’s capacity to absorb shocks when it is undertaken proactively. In contrast, ex-post migration and the trapped population are the poorer.

**Discussion:**

- How defining a successful migration? Authors: to live beyond survival. In this case, remittances are crucial even if the amounts are very small.
- Discussion about the gender inequalities concerning the distribution of the remittances.
Title: Considering local adaptation strategies and customary land tenure in planning for sustainable relocation as an adaptive response to climate change in the Pacific Region

Research question: To what extend is customary land tenure key to forming sustainable adaptive response to Climate Change through migration in the Pacific region?

Local relocation in the Pacific can be either within or beyond the land tenure boundaries of the affected community, relocating within the land tenure or customary land which simplifies the relocation process. Indeed, relocation of communities to local areas having the same social structure facilitates the adaptation process and gives better alternative for sustainable resettlement.

The author underlines the particular vulnerability of Small Islands Developing States within the region as the effect of climate change is likely to exacerbate extreme events and disasters, SLR and coastal erosion; many villages are located at sea level in the Pacific and coastal erosion will be increasingly threatening sustainable livelihoods leading to migration as an adaptation strategy to cope with the adverse effects of climate change in the coming decades. Besides, the issue of urbanization is highlighted because most movements will be towards urban areas. However, the infrastructures are inadequate due to an increase in squatter settlements and insufficiently resistant as they are mainly located on low-lying flood-prone lands. An overview of the distribution of customary land tenure within the region is then presented underlining the great majority of customary land systems in most countries of the region and the minority of public and freehold land. The author emphasis on the importance of considering customary land in the context of community relocation in the region as it dictates the conditions of use of the land as well as the cultural and spiritual identity of the Pacific Islanders, key to preserving the community cohesion and the social structure.

The key scholarly debates are presented (internal vs. international migration, partial vs. cohesive relocation (entire community should be relocated) and finally on collective vs. individual land rights. Based on those debates, the author critically engages with the definition of sustainable development in the context of the study and observes two main tendencies within those debates; on one hand, a “sociological” approach to relocation with arguments around the preservation of social structure and community cohesion, and, on the other hand, an approach focusing on more logistical approach with more focus on economic growth and individual land rights with less consideration of community cohesion, and traditional patterns around land management.

Case study: Migration is not a new phenomenon in the Pacific region, and in this perspective, it can be a positive adaptive strategy if the lessons learnt from the past are taken into account.

3 cases studies: Papua New Guinea, Fiji and Vanuatu. They are historical examples of relocations taking place under the same environmental conditions that are likely to occur in future climate change scenarios, under Colonial administration or as independent state and within the same land tenure or not. Results on the successfulness and sustainability of these relocations mainly depend on the insertion of the leadership (the community leader), hosting communities and relocatees’ local knowledge in the decision-making process. Negotiation at early stages of the relocation process including governments, local leaders and both relocatees and hosting communities should be considered in future relocation planning. It is also depending on whether the relocation is taking place within or beyond customary land tenure as the distance of the relocation may imply important costs.

Conclusions:
The diversity of customary land rights and the debate over replacing collective land rights by individual land rights (including the aspirations of the younger generations questioning customary systems) in the
Pacific Island region, makes relocation a particularly complex process. At the same time, customary systems offers flexible opportunities in managing environmentally-induced migration in the region as decisions concerning land are adaptable to the social needs. Understanding local adaptation strategies and customary land tenure is crucial, it needs to be integrated in planning and addressed in regional governance of climate-induced migration within the Pacific. Without deep comprehension of ancestral adaptation strategies and planning around land management, the relocation process is likely to be unsustainable as it will fail to include the essential link between Islanders and their land; an extension of their identity for millenaries.

Discussion:

- The role of land tenure is often underestimated in questions focusing on the migration-environment nexus and it helps to bridge the topic to policy implications.
- Relocations are a tool used by those who have the power, and particularly in a colonial context. It would be necessary to investigate more deeply the existing power relations that are undermining the relocation processes.
- The issue between voluntarily and forced relocation. Forced migration is not necessarily negative because in some cases it can save the population from a disaster.
- In the context of environmentally-induced migration in the Pacific, it is crucial to distinguish whether we are referring to community relocation or individual migration as it has important implications associated with the management of land.

Session 3: Migration as adaptation in Arica/ Europe

4.10 – 4.40 Kathleen Neumann (Wageningen University, the Netherlands)

Title: What drives human migration in the Sahelian countries? A meta-analysis

Background research on this topic is characterized by contradictory findings regarding the nature, the volume and the interactions of the different drivers of migration. And this literature is composed by fragmented empirical studies.

Research questions: What are the drivers of migration in the Sahelian countries? In this research, the role of environmental drivers—next to non-environmental factors—is studied.

Methods: Meta-analysis through a systemic literature search. Through a selection process with specific eligibility criteria’s (i.e. only studies which focus on the drivers of migration) the authors came to a set of 53 studies in 8 different countries.

Results: Only two families of environmental factors are mentioned in this literature: drought and land degradation/desertification. Drivers underlined in the set of literature are primarily economic (e.g. search for employment) and social factors (e.g. marriage or education). Those two categories cover 82% of all drivers mentioned.

There are only 11 studies that incorporate drought episodes as direct drivers of migration and 4 that include land degradation. A couple of other studies revealed that the environmental drivers rather play an indirect role (primarily within the context of agricultural production).

Conclusion: It seems impossible to come up with a complete, distinct list of causes for such a big region. But it is possible to reveal the overall processes that lead to migration.
Discussion:

- There will be soon a database online referencing all the publications related to environment and migration → CLIMIG (available from: http://www.proclim.ch/4dcgi/proclim/en/news?2711).
- Discussion about the methodology and the selection of the database (consisting of articles)

4.40 – 5.10 Robert Stojanov (Charles University, Prague, Czech Republic)  
Title: Household adaptation strategies to climate extreme and commuting patterns of households exposed to flood risk from the Bečva river basin, the Czech Republic

Different episodes of floods affected the Czech Republic (CR) during the last 15 years, even in the capital of Prague that was originally absolutely not prepared for such events, however currently the situation is better in greater cities.  
Environmental context: Increasing frequency and intensity of floods and costs of damages in Central Europe.

The main research questions are: In response to weather extremes impacts (mainly floods, droughts), what adaptation strategies have households undertaken? What is the relationship between the floods experienced and migration or commuting for work?  
Methods: mixed qualitative and quantitative in 21 small towns and villages (rural areas).  
The study focuses on the local adaptation strategies such as (re)construction of old houses and the newcomers in this flood affected area. How do they build their house? Where? How the inhabitants do take into account that this area is very exposed when they move in?  
Results show some strategies undertaken by the inhabitants to adapt the construction of their houses: such as terraces and elevated ground floor constructions or complex hydro-isolation arrangements of the houses.  
Another part of the study also emphasizes the role of the natural catastrophes insurance. Commuters for work on average have higher earnings than non-commuters. Individuals affected by one flood commute by 11.2% more than unaffected individuals. Authors conjecture that this increase is linked to intentions to cover flood-related losses and decrease households’ vulnerability to flood risk. But surprisingly, individuals affected by at least 2 floods are by 20.2% less likely to commute relative to those unaffected. For the authors, this is related to a demographic effect among the studied population: men in productive age 30-50 years are more likely to move away from these vulnerable areas after the first flood to get better economic conditions outside the region.

In conclusion, authors put forward that the commuting for work as an adaptation strategy is non linear (linked to demographic effects with the employment opportunities).  
Discussion:

- At what point does the population commute for environmental reasons or for economic ones? Those reasons are closely related. People need more financial resources to repair and protect their own houses; authors consider this kind of mobility as a way to adapt to the floods. Insurances do only cover a maximum of 50-60% of the losses due to floods.
Day 2: March 14th 2014
Session 4: Migration as adaptation in Latin America

9.15 – 9.45 Regine Brandt (International Network on Climate Change, TU Dresden, Germany)
Title: Migration as adaptation in Latin America

During the session, the author presented a case study conducted in the Bolivian Andes. Her field work describes the high vulnerability of Andean rural livelihoods to the effects of climate change. They include: warming trends that likely accelerate glacier retreats, water shortages, shifting precipitation and increasing weather extremes. At the same time, the research revealed that the capacity of Andean peasants to adapt to these climate change events and other stressors is extremely low.

The analysis of the implications for rural development and of the activities that are taken by the rural communities showed the following: 1) Diversification of labor and income is an increasingly important livelihood strategy of peasant households. This means that mostly men migrate temporarily in order to dedicate to non-farming work, while women stay and dedicate to agriculture and other local occupations. 2) Due to multiple stressors, including climate change, there is a transformation of traditional rural activities. Agriculture, for instance, is still important for the food security of households, but its importance for economic income is low. Livestock rearing is decreasing in the Northern Bolivian Altiplano due to diseases (fascioliasis) that are possibly related to climate change. 3) Migration: internal temporary migration is a traditional livelihood strategy in the Bolivian Andes. However, today especially young people tend to migrate permanently. There is also a trend of international migration to Argentina and Brazil, since there are already established migrant networks. 4) The author’s field work has also revealed that gaining knowledge (e.g. endogenous learning, institutional capacity building, university) is the main contribution to increasing the resilience of households. In general, human capital is a crucial asset (i.e. motivation for learning).

Conclusion: Migration can be a driver for development. Women need to receive more attention and support in issues of agricultural adaptation, since they are the ones who mainly stay.

Discussion:
- Why are women becoming central figures in adaptation? Women are taking care of agriculture to insure food security. However, so far local women are often not sufficiently included in local agricultural development projects.
- Can migration really increase resilience? Most of the migration movements are internal. This can create negative effects in the areas of origin and destination of migrants. Is migration then sustainable?
- Questions about the role of external support (e.g. non-governmental institutions)? Can aid and intervention be considered as an increase in household or community resilience?
A close connection between rural and urban areas makes a big difference, since it enables people to commute. As higher the remoteness of rural areas, migration tends to be more permanent.

9.45 – 10.15 Andrea Milan (UNU-EHS, Bonn, and PhD student at UNU-MERIT, the Netherlands)
Title: Local Adaptation in the community of Las Palomas (Mexico) what role for migration?

The author first presented the inductive approach of his PhD thesis. Building upon two case studies which were initiated and conducted in 2011 during the UNU Rainfalls project (in Peru and Guatemala)
the author intends to build up a conceptual framework which can be applied to migration in rural mountain areas of Latin America. The case of Mexico (2013) was used to explore the following question which rose in Guatemala and Peru: How can migration become a positive part of adaptation?

The case study in Mexico focuses on the indigenous community of Las Palomas (Xichú) in the Fat Mountains of Guanajuato. The most important sources of livelihood for this vulnerable and poor community are governmental support and remittances. However, several interviewees highlighted that financial support from the government has made people less active (‘lazy’, in the words of an interviewee). This means that financial support might have prevented people from improving their adaptation options independently.

While there are people who have implemented creative and successful livelihood diversification strategies with low, other people do not follow these successful examples. Reasons for that have to be further researched and understood. The leading and/or political role of the heads of household makes those who practice these successful strategies outcasts: other households were reluctant to follow their example.

With regard to migration the following findings were presented: the top destinations for an international migration are the US (temporary migration to the South of the US, especially Florida, to pick oranges), and internal migration in Mexico (however, the opportunities are no longer so good). The recently established legal labor migration program to the US presents an interesting example. This program has led to many positive outcomes: increased incomes, increased security (since it is legal - it is free of risk), and also a feeling of certainty (since people can plan in advance).

**Conclusions:** There are risks related to this state of affairs. Namely, people are not developing locally; adaptation options and increasing their resilience: they depend on external sources of support (remittances and governmental support). But what would happen in case the US stops its program, or if the governance stops financing social security programs?

**Discussion:**

- The issue of people who do not want to follow positive examples. Cultural aspects are always hard to understand. Perhaps anthropological research is needed.
- The program that is launched by the US is also creating trapped populations in Las Palomas. It is those people who do not get the jobs in the US.
- The collective remittance-matching fund (3 por 1) can be also tricky. People can pretend they are receiving remittances even if they are not so that the government matches them. Furthermore, household remittances can make the existing inequality between households deeper.
Session 5: Remittances for adaptation?

10.45 – 11.15 Dr. Barbara Benari (Ca’Foscari University, Venice, Italy) and Peter Pauw (DIE, Bonn)

Title: The other side of the coin: remittances for adaptation

The research question of the study is whether remittances can be the source of adaptation funding. In the nutshell the project looks at how adaptation finance is describes in Copenhagen and under which circumstances remittances fit in this definition. The facts that are emphasized are: the estimates of the costs of adaptation are largely incomprehensive, so precise numbers are still unavailable. Yet, there has been a commitment under the UNFCCC to assist developing countries in adaptation. Copenhagen accord: non-binding, yet, first international political recognition that substantially greater financial resources are needed to support adaptation. Critique: there is too much room inside of the agreement for the deviation, concepts are not defined.

The need to find an alternative brings in the question whether remittances can be a source? The positive side of remittances in that regard is that they already play an important role in climate finance: their amount is of 500 billion. Secondly, the remittances go directly to the region in contract to adaptation funds. In many countries remittances already play a substantial part of the economy. Remittances are sensitive to crisis in the positive way, since they tend to increase during a crisis. However the transparency remains a big issue.

Preliminary conclusions:

- Provisions of the Copenhagen Accord have foundations in and are aimed at public finance
- Remittances could help to finance adaptation, if a number of requirements are met
- Remains political choice whether remittances are official sources of alternative adaptation finance

Discussion:

- How to distinguish between internal and external remittances, and does it matter? When remittances happen internally, the link with the climate fund is missing. There is a need to separate collective remittances from household remittances. Should we only consider North-to-South remittances? But then what about the Golf States?
- What are the costs of earning these remittances? Is it a sustainable way of adaptation? Taken that these people have work so hard and that it violates family life.

11.15 – 11.45 Jesus Marcos Gamero Rus (University Carlos III, Madrid, Spain)

Title: Green Jobs, Reverse Migration and Remittances for positively local adaptation under increasing climate migration

The research looks at the profile of the International Labor Organization (ILO) in the discourse on climate change. Though, the ILO is usually not considered as an important actor, the ILO’s ‘Just Transition Framework’ emphasizes that the shift towards a low carbon society needs to be equitable. The Cancun Agreement (2010) also talks about equality. Therefore, green jobs as a concept needs to be better understood and integrated. Green jobs are at the core of sustainable economy: A fundamental characteristic is to provide decent jobs with adequate wages, professional and personal growth
opportunities, and a decent and safe lifestyle (ILO, 2007). Their main contribution is that they have positive implications for the environment and also for working conditions. Green jobs can play a good role in adaptation. However, developing countries, which need to adapt the most, are limited in their capacity.

From the ILO approach, remittances are the main financial support for the household. The ILO conventions related to migration and labour conditions for migrants are therefore crucial. Furthermore, apart from financial remittances we should also not forget about the social remittances (knowledge, skills) which also have a positive influence on the adaptive capacity of people.

**Conclusions:** Since remittances plays such an important role in the sustainability of the household, the ILO has an important role of promoting the labor conditions for those people who in the end send these remittances. Nevertheless, it has to be acknowledged that even when this mission is achieved, one has to have in mind that the effects of remittances are complex and varied. Remittances can lead to increasing inequalities within the society.

**Discussion:**
- It is extremely hard to draw the borders between development, remittances and adaptation. How do green jobs fit into this complexity?
- The ILO can help to build in every country such a system which will build on the green jobs concept.

**Wrap up discussion**
On the one hand remittances can be understood as a huge, positive flow of money from the North to the South. At the same time, it is not clear how much equity and sustainability it brings to the developing countries. In the end this might be an unequal exchange. Furthermore, remittances shift the burden of adaptation to the vulnerable families. Even if the amounts of remittances are sufficient, there are several concerns to be raised. First, households do not equally have the same capacity for receiving remittances (families for instance without a man who can migrate for work). Secondly, prioritizing remittances as a source for adaptation is not ethically correct. It overlooks the fact that the responsibility to assist developing countries in adaptation rests on the shoulders of developed states.
Part 2: Mini-writeshop for joint publication

13.30 – 17.15  Moderation by Koen Kusters

Koen Kusters (Wereld in Woorden – Global Research and Reporting) conducted a writeshop in the afternoon of the second workshop day. The purpose of the writeshop was to revise the submitted abstracts of the workshop participants and to make them more coherent according to the overarching questions of the workshop. The revised abstracts will be the basis for the individual contributions of the joint workshop related publication. Basically, there are two options for publishing the contributions: a) a book edition in the Springer Publishing house series “Global Migration Issues” (co-edited by the International Organization for Migration and the head of its research department Frank Laczko, respectively) with the option to publish several chapters as open access publications or b) a special issue of a relevant journal (e.g. The Journal of Environment and Development). A decision on the final publication format will be made soon.

17.15 – 17.45  Workshop wrap-up and next steps for publication

The workshop ended with a final wrap up session and a short discussion concerning the next steps for the workshop related publication. The feedback concerning the organization and the results workshop by the participants was overly positive. Furthermore, a majority of participants expressed their preference to publish the workshop results as a special issue of a relevant journal.