1. Introduction

A growing interest in the migration-development nexus has led to an increase in research on the subject. Expanded efforts to collect and analyze data have resulted in significant progress in the understanding of migration aspirations (economic, risk diversification and environmental factors etc.). The consequences of movement on receiving and sending countries (remittances, social effects, and transnational networks) and the role of development in fueling migration are also better grasped. But understanding of the highly complex system of demographic, economic, social and environmental factors remains incomplete.
Migration has significant economic, social and environmental dimensions. It is thus closely related to sustainable development, with its overarching objective of poverty eradication, changing consumption and production patterns and protecting and managing the natural resource base for economic and social development³.

The recent Rio+20 conference on 20-22 June 2012 highlighted the importance of migration (paras 144 and 157). But it also pointed to the need to better understand the links between migration and sustainable development.

The present note serves as a background for a side event on “Migration and Sustainable Development” held during the 46th session of the Commission on Population and Development. It highlights a few aspects of the relationship between migration and sustainable development. Given that the interaction between economic and social dimensions of migration is increasingly well documented, it focuses more on environmental dimensions of migration while making the link with economic and social dimensions.

2. Migration and changes in land use

2.1. Patterns

2.1.1. Agricultural development

Migration has been a traditional coping strategy in response to periodic, seasonal environmental events⁴. However, as climate change aggravates changes in the environment such as soil degradation, erosion and desertification, migration has become a survival strategy. For example, in the late 1980s and early 1990s, around 100,000 people moved out of the Karakalpakstan region of Uzbekistan, partially motivated by reduced livelihoods related to desiccation of the Aral Sea⁵. Sub-Saharan Africa and Central and Western Asia are facing significant changes to their traditional agricultural societies. Further, 43% of dry land in Africa is affected by or prone to

³ Johannesburg Declaration on Sustainable Development, paragraph 11, United Nations, 2003
⁴ UNDESA/DSD and UNU-EHS (2011) “Environmentally Induced Migration and Sustainable Development”
⁵ Foresight (2011) “Migration and Global Environmental Change: Future Challenges and Opportunities”
desertification, predicted to increase from 2 per cent to 10 per cent by 2050; 65% of West Asia’s dry lands and more than 50% of those in Central Asia are vulnerable to land degradation and desertification as areas suffering extreme drought is predicted to increase from 1 per cent to 30 per cent by the end of the 21st century. These changes will affect crop yields and reduce livelihood opportunities, leaving people malnourished and potentially trapped in inhospitable environments if they do not have the resources to leave.

Myers predicts that climate change will cause the displacement of 200 million people by 2050; however, establishing statistical support for this claim remains difficult. While accurate predictions about the timing and trends of displacement are difficult to make, climate changes have affected rural areas and the livelihoods linked most closely to climate-sensitive resources. Different stages of environmental degradation have different outcomes for migration; initially, environmental degradation often induces temporary migration, whilst later this can become permanent.

2.1.2. New or growing urban settlements

Approximately 10 million people are involuntarily resettled each year in developing countries due to large-scale development projects, war, natural disasters, or climate change, leading to poverty, psychological trauma and severing of cultural ties. Populations are most often resettled in urban spaces due to a lack of available rural land, placing serious strain on the host population and urban infrastructure. In order to address these issues, a Resettlement with Development framework was initiated by the World Bank, but has yet to be adopted. Further, data on involuntary resettlement is difficult to find, as internal migration is not tracked. Planning for resilience to accommodate growing urbanization is only now emerging. Thus, the majority of people remains vulnerable to impoverishment induced by forced relocation.

Temporary labor migration, international migration, internally displaced and refugee movements have created an increasing movement towards urban agglomerations. While traditional economic theories state that urbanization is accompanied by social and economic development, rapid and unexpected urban growth overwhelms the capacity of governments and labor markets to provide basic services and labor market access.

2.1.3. Displacements caused by sea-level rising and saline intrusions

Climate change combined with anthropogenic activities, such as over pumping and excess paving in urbanized areas, are causing the mixing zone between fresh and saltwater to move further inland. In Italy, the mixing zone has encroached about 800 m further inland by a 0.475m per century of sea-level rise. As sea levels rise and groundwater levels are reduced by overexploitation, saline intrusion affects the coastal freshwater aquifers, which is one of the

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6 International Organization for Migration (2009) "Migration, Environment and Climate Change: Assessing the Evidence"
7 Ibid
8 Ibid
9 Dickenson and Weber (2007) "Environmental Resettlement and Development, on the steppes of Inner Mongolia"
10 World Bank (2012) Involuntary Resettlement
11 Dickenson and Weber (2007) "Environmental Resettlement and Development, on the steppes of Inner Mongolia"
13 Chang et al. (2011) "Does sea-level rise have an impact on saltwater intrusion?"
factors contributing to trends potentially leaving 80% of the world’s population with inadequate drinking water. These changes affect agricultural production and access to fresh water, rendering local populations unsustainable. For example, if the sea-water continues to affect the Nile, as Egypt’s irrigated lands support virtually the whole of its agriculture, this could create food shortages for the region.

Sea level rising also threatens roughly 600 million people living in communities of low elevation of 0–10 meters above sea level. As sea levels rise, coastal people will be forced to move. Small Island Developing States are particularly vulnerable in this regard. The international conference to be held in 2014 on these countries will allow to reflect further on the necessary response to sea level rise and other factors specific to this vulnerable category of countries.

2.2. Development issues

2.2.1. Land grabbing and development policy conflicts

Land-based investment has increased over the last decade. Land concessions granted for investment purposes are estimated at nearly 200 million hectares, 130 of which are in Africa. Unless carefully designed, these deals can exploit the natural resources without redistributing economic gains. When carefully planned and properly implemented, investment in agriculture development of rural areas can help eradicate poverty and hunger and address underdevelopment. However, many of these land deals involve private sector businesses in contexts where legal frameworks are weak and monitoring efforts are scarce.

2.2.2. Livelihood diversification quest in urban settlements

New immigrants settling in large urban slums are the most vulnerable to environmental disasters. They also face severe challenges in securing jobs, social networks and transitioning from informal to formal work. Sustainable urban planners have developed some methods that offer such vulnerable migrants ways to cope with their new environment. Adapting “roof-crops”, recycling methods, and supporting micro development programs for building community resilience in urban areas can help alleviate pressure of increased populations in cities. When all levels of municipality governments are involved in these planning projects, their implementation is more successful. In Mumbai, a well-organized housing project used a participatory approach to resettle slum dwellers while simultaneously building in educational training opportunities for capacity building.

However, available research states some that host governments are not supportive of local Integration in the case of refugees and Internally Displaced Persons.

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14 Ibid
16 Oliver-Smith, Anthony (2009) “Sea Level Rise and the Vulnerability of Coastal Peoples”
17 BMZ (2012) “Investments in Land and the Phenomenon of Land Grabbing: Challenges for Development Policy”. This number is only an estimate as many land concession deals remain secret.
18 Cotula et al. (2009) “Land grab or development opportunity? Agricultural investment and international land deals in Africa”
2.3. Policy implications

2.3.1. Complexity of preparing for “changes in land use”
Increasingly, governments are moving toward proactive disaster and resiliency planning in order to tackle the social and economic impact of environmental change\(^20\). A major focus of this planning process is building resiliency within rural communities, which involves adaptation strategies such as temporary and circular labor migration schemes for environmentally vulnerable communities or economic diversification in areas reliant on agriculture and threatened by soil erosion, land degradation or desertification\(^21\). A greater focus on benefit sharing, insurance and basic social welfare systems are being offered to vulnerable populations\(^22\). Such sustainable development planning can reduce the rate of environmental degradation, support adaptation to climate change, and improve food security and water availability. With the development of early warning systems and risk management strategies, the vulnerability of displaced people will be greatly reduced\(^23\).

2.3.2. Urban infrastructure investment planning
Migration to urban regions, whether voluntary or involuntary, places a significant strain on urban areas if strategic planning is lacking. Areas of concern include adequate housing to prevent the development of slums, access to water and sanitation facilities to maintain healthy populations and employment opportunities to sustain basic standards of living\(^24\). Further, considerations related to the human security of the local population might also arise when planning urban resettlement\(^25\).

3. Migration and natural disasters

3.1. Patterns and issues

3.1.1. Environmental refugees and sustainable development strategies
Environmental refugees are broadly defined as ‘People who have to leave their habitats, immediately or in the near future, because of sudden or gradual alterations in their natural environment related to at least one of three impacts of climate change: sea-level rise, extreme weather events, and drought and water scarcity.’\(^26\) As livelihood options are threatened by environmental changes (mainly related to agriculture) people are more likely to migrate in response to such changes. However, if livelihoods are reduced to the extent that people have insufficient resources to migrate, they are likely to be trapped in inhospitable environments\(^27\).

3.1.2. Environmental migration fuels urbanisation
Environmental migrants prefer to relocate to urban centers when possible. An increasing number of people are moving to urban zones with environmental risk. Migration negatively impacts the rate of disaster aid responses and emergency interventions, especially in informal settlements of

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\(^20\) UNDESA/DSD and UNU-EHS (2011) “Environmentally Induced Migration and Sustainable Development”
\(^21\) Ibid
\(^22\) Ibid
\(^23\) Ibid
\(^24\) Majale (2008) Employment creation through participatory urban planning and slum upgrading: The case of Kitale, Kenya
\(^25\) Ibid
\(^27\) Foresight (2011) “Migration and Global Environmental Change: Future Challenges and Opportunities”
cities. Trapped areas prone to environmental hazard and plagued by poverty such as in sub-Saharan African dry land, more people are moving to vulnerable urban areas with weak environmental management.

Displaced victims of extreme weather predominantly move to slums. While 15 years ago, land use was widely available in Mexico City, intense competition and land pressure led to the privatization of squatting, a common practice in most urban slums. As a result, people built their houses on hazardous hill slides near polluted rivers and flood plains, leading to the Caracas flashfloods in 1999 causing 32,000 deaths.

Informal land occupation is unlikely to decrease given more than 50% of the world is urbanized. Therefore migration to slums must be acknowledged as structural and integrated into policy processes. Cooperation of public, private actors and slum communities should be integrated within urban planning programs among other dimensions.

3.1.3. Pre-existing problems exacerbate the effects of natural disasters for migrants
Environmental migrants suffer from varying degrees of vulnerability, as defined by socio-economic and cultural norms. During the 1991 cyclone in Bangladesh, women were reportedly five times more likely to die than men. According to certain donors, these inequalities require ‘building capacity and integrating local development visions into longer-term strategies for disaster risk reduction and adaptation to climate change.

Natural disasters impact those migrating for other reasons. For example, in December 2012, UNHCR estimated that, among the more than 163,000 refugees registered or waiting for registration in Lebanon, 35,000 displaced Syrian children live in the North and Beeka (Lebanon) in extreme weather conditions.

3.1.4. Building resilience
Only a few major cities such as London, New York and Mumbai have developed plans for incorporating future climate change impacts by making provisions for water availability and quality, potential land loss, and more frequent hazards such as heat waves, waste, mobility and congestion. Building resilient systems with the capacity to anticipate, respond to and recover from external disruptions should be prioritized as long term goal if the international community is to avoid ‘learning by shock’.

Building capacity in this context not only relates to infrastructure, water use and sanitation, but also to social aspects of migrant integration. Establishing educational programs, ensuring that employment opportunities match migrant skillsets and enabling the development of strong social

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29 Parnell and Walawege (2011) “Sub-Saharan African urbanisation and global environmental change”, Global Environmental
30 Davis M (2006) Planet of Slums,
32 Kram et al. (2012) “Global integrated assessment to support EU future environment policies”
33 Foresight (2011) “Migration and Global Environmental Change: Future Challenges and Opportunities”
34 Tschakert and Dietrich 2010: 17
networks are key to migrant integration and transition from the informal to the formal sectors. Capacity planning and urbanization poses an opportunity for the wider community to address issues of hazard and vulnerability in migrants caused by culturally entrenched discrimination.

Well-designed, forward-looking policies can transform migration into a shaper of sustainable development. Migration can help build social and political networks, help address skills shortages and provide sources of capital and knowledge transfer. Existing projects include ‘The Nile Basin Initiative’ - a framework that mediates risk and potential disputes before conflicts arise over resources and vested interest groups develop.

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35 UNDESA/DSD and UNU-EHS (2011) “Environmentally Induced Migration and Sustainable Development”
36 Kram et al. (2012) “Global integrated assessment to support EU future environment policies”
3.2. Comparison of environment-induced displacements and development-induced displacements: What are the lessons learned?

Lessons from past development-induced displacement and resettlement (DIDR) projects offer insight into strategic approaches for managing environmental displacements. The conditions of environment-induced resettlement match those of development-induced displacement when people are forcibly and permanently driven from their homes.

It is estimated that annually 10 million people are displaced by development projects. Development banks, governments and private business are now incorporating planning for sustainable development and integration into their resettlement planning in order to address this phenomenon. For example, China’s Three Gorges Project was one of the first to adopt development with resettlement, focusing on economic development in areas of resettlement rather than simple compensation plans. Challenges often arise in operationalizing sustainable development projects.

3.3. Changing migration patterns and the need for response.

Existing schemes allowing for seasonal migration are no longer sufficient as migrants who previously re-located for a short period of time due to either push factors, such as harsh winters or pull factors such as crop harvesting have increasingly chosen to stay at the host destination. The problem is compounded by the lack of cooperation between transnational systems and laws resulting in up to 10 million people per year being displaced by and worse off both socially and economically due to poorly adapted development projects. A large part of the issue lies in the lack of a unified, international agreement about what constitutes an ‘environmental refugee’ and in turn, what rights should be assigned to them. Whether a new universal system needs to be designed or if existing laws are sufficient, to cope with the changing migration trends, is a point of contention in itself.

4. Issues for discussion

The interactions between migration and sustainable development remain insufficiently analyzed and known. Socio-economic dimensions are increasingly well documented. But environmental dimensions are not sufficiently known, even though a growing body of evidence points to their importance. With the climate change crisis, this knowledge gap needs to be filled in order to develop appropriate policy responses and programmes. Policy responses clearly need to focus on the three dimensions of sustainable development: economic, social and environmental. The panel will focus on the following topics:

- Trends, challenges and opportunities on migration and sustainable development;
- Follow-up to the outcome of Rio+20 and positioning of migration in the post-2015 development agenda;
- International cooperation on migration and sustainable development;
- Strengthen national policies and regional cooperation on implementation of commitments on migration; and

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- Legal perspective of protection of people displaced by natural disasters

**Illustrating migration in the context of sustainable development**

- **Environmental**
  - Sea level rise
  - Land degradation
  - Drought
  - Anthropogenic activities

- **Economic**
  - Loss of livelihood
  - Resources to leave dangerous environment
  - Employment opportunities at destination
  - Remittance transfers

- **Social**
  - Vulnerability in migrants & host community integration
  - Social capital, skill transfer
  - Political and social networks

- **Policy**
  - Proactive disaster and resilience planning
  - Capacity building in urban areas
  - International agreements on migrant rights and resettlement

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**Inter-Governmental and Non-Governmental Organizations**

IMI, IOM, UNDESA, ICMPD, EU, AU, WB, OECD
MIPEX, HTA initiatives
Local Government and community initiatives