

Migration and environmental change: examining the relationship

Land and security

TODAY 30 September

- **High Level Side Event 70th Session of the United Nations General Assembly**

Strengthening cooperation on migration and refugee movements in the perspective of the new development agenda

30 September 2015, 3 to 5 p.m., Conference Room 4

The United Nations Secretary-General will convene a side event on migration during the High-Level segment of the 70th Session of the United Nations General Assembly. The aim is to encourage enhanced cooperation and collective action in dealing with the problems and challenges of migration and human mobility, including mixed movements involving migrants, asylum-seekers and refugees. Facilitating safe, orderly and responsible mobility is also a key component of the post 2015 development agenda, which requires coordinated action not only among States, but also at all levels of Government, and with a series of non-governmental stakeholders, to ensure no one is left behind.

Convinced of the need for collective approaches, underpinned by universal principles of international humanitarian, human rights and refugee law, and based on the eight point agenda for action presented to the General Assembly's 2013 High-Level Dialogue on International Migration and Development (A/68/190), the Secretary-General will share his views on the key elements of such a global partnership and comprehensive approach to migration and refugee flows.

The High Level Side Event will also provide an important opportunity for member States to bring together different policy areas related to migration and refugee flows, and discuss enhanced cooperation across these areas. This includes the implementation of migration and integration policies, and the creation of adequate channels for orderly, safe, and regular migration with full respect for human rights, as well as the humanitarian admission of refugees, whilst improving cooperation and effectiveness in law enforcement operations aimed at combatting transnational organized crime.

<http://www.un.org/en/development/desa/population/migration/events/ga/2015/index.html>

Information materials

<http://www.un.org/en/development/desa/population/migration/events/ga/2015/index.html>

the programme

http://www.un.org/en/development/desa/population/migration/events/ga/2015/docs/GA2015_Programme2809.pdf

concept paper

http://www.un.org/en/development/desa/population/migration/events/ga/2015/docs/GA2015_ConceptNote.pdf

DID YOU KNOW?

- The EU is currently funding the study, [Migration, Environment and Climate Change: Evidence for Policy \(MECLEP\)](#)⁵. This research from [The International Organisation for Migration](#), aims to increase knowledge on the relationship between migration and environmental change, including climate change – and on how migration could benefit adaptation strategies for societies

Duration: Three years (January 2014 – December 2016)

Estimated budget: 2.4 million Euros

“Migration, Environment and Climate Change: Evidence for Policy” aims to contribute to the global knowledge base on the relationship between migration and environmental change, including climate change. The innovative research will aim to formulate policy options on how migration can benefit adaptation strategies to environmental and climate change. Project Location. The 6 project countries are Dominican Republic, Haiti, Kenya, Mauritius, Papua New Guinea and Viet Nam. <https://www.iom.int/meclep>

The leaflet

https://www.iom.int/sites/default/files/our_work/ICP/MECLEP/MECLEP_leaflet_EN.pdf

Environmental Migration Portal

Knowledge Platform on People on the Move in a Changing Climate

The Environmental Migration Portal: Knowledge Platform on People on the Move in a Changing Climate seeks to provide a one-stop service website to promote new research, information exchange and dialogue, intended to fill the existing data, research and knowledge gaps on the migration-environment nexus.

The Environmental Migration Portal has been created as part of the "Migration, Environment and Climate Change: Evidence for Policy (MECLEP)" project funded by the European Union

<http://www.environmentalmigration.iom.int/>

1. (2013) EU COMMISSION STAFF WORKING DOCUMENT Climate change, environmental degradation, and migration

Accompanying the document

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

An EU Strategy on adaptation to climate change

Environmental factors have always acted as a driver of human mobility. However, with emerging awareness of the rate and magnitude of climate change, interest in the question of how environmental change is likely to affect population movements in the future has grown significantly over the last decade. And though debate between researchers and within the policy world is continuing, there is growing evidence that climate change, climate-induced events and environmental disruptions are likely to assume greater importance in influencing migration, particularly within the developing world.

This Staff Working Paper aims to provide an overview of the research and data currently available on the inter-linkages between migration, environmental degradation and climate change. It also provides an overview of the many initiatives of relevance for the topic which are already being taken by the EU in various policy fields, and analyses on-going debates on policy responses at EU and international level. The paper is produced as a response to a request made by the European Council to the Commission in the Stockholm Programme for *'an analysis of the effects of climate change on international migration, including its potential effects on immigration to the European Union'*¹. However, given the strong evidence that most migration which is primarily driven by environmental change is likely to occur within the Global South, much of the analysis of the paper and many of its recommendations are of specific relevance for EU policies with an external focus, including on development, foreign policy and humanitarian aid.

The specific focus of this paper is on human mobility due to climate related disasters and environmental degradation, including such caused by climate change (**e.g. land degradation, drought, desertification**, rising sea level or climate induced disasters such as drought, floods, extreme weather events, winter storms and heat waves)

http://ec.europa.eu/clima/policies/adaptation/what/docs/swd_2013_138_en.pdf

2. (2015) The Humanitarian Crisis in the Mediterranean: How to Fix the EU's Failed Approach to Irregular Migration?

So far Europe has not acted in unity to find a solution for what has to be considered a humanitarian crisis and rather than on the safeguard of the rights of migrants the focus has mainly been on security. How will Member States now practically commit to the action plan and conclusions? Will the European Agenda on Migration tackle new territory and what else is needed to solve the ongoing humanitarian crisis in the Mediterranean (**Heinrich-Böll-Stiftung**)

https://eu.boell.org/sites/default/files/migration_event_report.pdf

3. (2015) The EU Migration Dilemma. Jelena von Helldorff

The topic of migration is probably one of the most contentious issues in contemporary politics. Europe, in particular is facing an unprecedented crisis over an alarming rise of migrant arrivals. The issue is causing strong tensions among and within European Member States on how to deal with the continuous flow of refugees, asylum seekers and economic migrants who see the European Union as the Promised Land for them and their children. Their fierce persistence, determination and conviction that the future will be better once they reach the European borders reflect the degree of despair and precariousness of life in their own countries.

The latest Frontex figures which show a 149% increase of migrant arrivals this year compared with the same period in 2014 are telling. According to the International Organisation for Migration the number of deaths in the Mediterranean stood at 1865 by 10 June 2015, a massive surge with no signs of relenting. In addition to the strong pressure point in the Mediterranean, new points of arrival are emerging at the Greek border in the Aegean Sea, the Hungarian border with Serbia and the port of Calais between France and the UK. Migrants are coming by overloaded boats, packed on tiny dinghies, by train through the Balkans, on foot across the Sahara or hidden inside vehicles crossing the English Channel, but they keep coming. **(Heinrich-Böll-Stiftung)**
http://eu.boell.org/sites/default/files/uploads/2015/09/the_eu_migration_dilemma.pdf

4. (2015) The benefits of migration are questionable(OPINION) Martin Wolf

Cosmopolitanism is incompatible with our organisation into territorial jurisdictions

<http://www.ft.com/cms/s/0/509c8f5a-65c3-11e5-a28b-50226830d644.html#axzz3nChYdc4f>

5. And more from Heinrich-Böll-Stiftung (<https://www.boell.de/en>)

The year 2015 did not start well for Europe. The eurozone crisis reared its ugly head and so did Islamist terrorism. Again hundreds of migrants and refugees drowned in the Mediterranean Sea. The Ukrainian conflict escalated. Many challenges which emerged last year (or before) still need to be dealt with: the horrendous conflict in Syria and the brutalities of the "Islamic State", the rise of unemployment and poverty in many Member States, economic stagnation, the increase of right-wing populism and extremism and the general loss of faith in the European project and the European institutions. The pressure is on and Europe needs to act. The eurozone leaders will have to re-think their austerity policy after the Greek election results and with two more elections to come this year in other southern eurozone member states: Portugal and Spain. The election in the UK will give an indication where the UK stands in Europe and whether in the future Europe will be able to count on one of its most important members or not. And with the recent terrorist attacks in Paris and Copenhagen Europe has to find a delicate balance between security and civil liberties, between openness and vigilance. Europe has to decide what role it wants to play in the world, but most of all it needs to decide what it wants to be and for that it needs its

citizens. 2015 could well be the year of make or break for Europe.(source : The EU migration dilemma Source: <https://eu.boell.org/en/2015/09/03/eu-migration-dilemma>)

Europe's climate leadership is the key for leveraging political traction with others and securing outcomes at the international climate negotiations. However, Europe has become more divided on climate and energy policy, which undermines its credibility as a global climate frontrunner. The EU should boost its climate diplomacy to strengthen alliances with a wider range of countries and communities. At the same time, it is crucial to build support within the EU and its Member States for a European energy transition. An energy transition based on renewable energy and energy efficiency can not only drastically reduce emissions and other environmental and social burdens; it also reduces energy import dependency and hence increases energy security, strengthens local economies, and creates jobs. The Heinrich-Böll-Stiftung European Union aims to contribute to the development of sustainable and ambitious European climate and energy policies by means of publications, capacity buildings, expert meetings, and lunch debates (**Heinrich-Böll-Stiftung**) <https://eu.boell.org/en/2015/07/15/how-eu-can-lead-climate-change-and-migration-time-translate-research-findings-policies>

Related Content

- [Joint Declaration on the current state of refugee policy](#)
- [What Can the European Union Do in Syria?](#)
- [The Situation of Syrian Refugees in the Neighbouring Countries: What Role Should the European Union Play?](#)
- [The Conflict in Syria and the Responsibility of the European Union](#)

6. (2014) TIME TO ACT - How the EU Can Lead on Climate Change and Migration

The inter-linkages between climate change and migration are complex and at times hard to grasp. Addressing migration in the context of climate change presents new challenges for policy makers at both international and national levels.

However, the complexity of the challenge should not be used as an excuse for not addressing the issue. There is already ample evidence that environment-related migration and displacement is occurring and that it will increase in the future. Research projects have provided a better understanding of the phenomenon and of corresponding legal and policy gaps.

The time has come to translate research evidence and recommendations into policy practice. The European Union (EU) could act as a leading political force and should begin to develop a holistic policy approach that addresses climate change and migration.

This report debunks some common myths and provides an understanding of key characteristics of migration in the context of climate change. With a focus on EU policies and legal frameworks in the area of migration and asylum, the report presents a series of recommendations in order to proceed towards a coherent EU approach on climate change and migration. **(Heinrich-Böll-Stiftung)**

https://eu.boell.org/sites/default/files/hbs_time_to_act.pdf

<http://eu.boell.org/en/2014/06/12/time-act-how-eu-can-lead-climate-change-and-migration>

7. (2014)Integrating Human Mobility Issues within National Adaptation Plans. Policy Brief No. 9 | June 2014

Through research and in practice, climate change and the associated pressures have been linked to different forms of human mobility including migration, displacement and planned relocation. Some countries have begun asking how they may address the needs of individuals on the move for reasons related in part to climate change. Because individuals' needs and challenges vary across types of human mobility, it is necessary to determine how to improve the resilience of affected countries, communities and individuals. Different policies are needed for different types of human mobility, which is the central theme of the first UNU-Nansen Initiative joint policy brief (Warner et al. 2013). The purpose of this second collaborative policy brief is to apply a continually improving understanding to meaningful planning and operations. Hence, this document explores how NAPs can address human mobility and help strengthen the adaptive capacity of countries. This will allow for better and more informed responses and policies around adaptation and human mobility.

<http://collections.unu.edu/eserv/UNU:1838/pdf11800.pdf>

8. (2014) People on the Move in a Changing Climate. The Regional Impact of Environmental Change on Migration. Editors: **Piguet**, Etienne, **Laczko**, Frank (Eds.) **SPRINGER**

- Compares how each of the major regions of the world is likely to be affected by changes in the environment and migration
- Provides regional policy perspectives
- Each chapter is written by leading experts of the region, on the basis of a unified framework

Policymakers around the world are increasingly concerned about the likely impact of climate change and environmental degradation on the movement of people. This book takes a hard look at the existing evidence available to policymakers in different regions of the world. How much do we really know about the impact of environmental change on migration? How will different regions of the world be affected in the future? Is there evidence to show that migration can help countries adapt to environmental change? What types of research have been conducted, how reliable is the evidence? These are some of the questions considered

in this book, which presents, for the first time, a synthesis of relevant research findings for each major region of the world.

Written by regional experts, the book provides a comprehensive overview of the key findings of existing studies on the linkages between environmental change and the movement of people. More and more reports on migration and the environment are being published, but the information is often scattered between countries and within regions, and it is not always clear how much of this information is based on solid research. This book brings this evidence together for the first time, highlighting innovative studies and research gaps. In doing this, the book seeks to help decision-makers draw lessons from existing studies and to identify priorities for further research.

Table of contents (10 chapter)

- Regional Perspectives on Migration, the Environment and Climate Change. Laczko, Frank (et al.)
- Migration and Environmental Change in Asia. Hugo, Graeme (et al.)
- Environmental Change and Migration Between Europe and Its Neighbours. Mulligan, Mark (et al.)
- Environmental Change and Human Migration in Sub-Saharan Africa. Morrissey, James
- Climate Change, Extreme Weather Events, and Migration: Review of the Literature for Five Arab Countries. Wodon, Quentin (et al.)
- Migration and Environmental Change in North America (USA and Canada). Adamo, Susana B. (et al.)
- Migration and Climate Change in Latin America and the Caribbean. Kaenzig, Raoul (et al.)
- Migration and Climate Change in Oceania. Campbell, John (et al.)
- The Changing Hindu Kush Himalayas: Environmental Change and Migration. Banerjee, Soumyadeep (et al.)
- Regional Policy Perspectives. Popp, Karoline

<http://www.springer.com/us/book/9789400769847>

9. (2014) MIGRATION AND THE ENVIRONMENT

Today there are an estimated 230 million international migrants, a number that is projected to double to over 400 million by 2050. Beyond the people who cross international borders, probably more than two to three times as many are internal migrants, people who have moved within their own countries.

<http://www.prb.org/pdf14/migration-and-environment.pdf>

10.(2014) Where the rain falls : climate change, food and livelihood security, and migration

KOKO WARNER, TAMER AFIFI, KEVIN HENRY, TONYA RAWE, CHRISTOPHER SMITH, ALEX DE SHERBININ

The «Where the Rain Falls» («Rainfalls») research explores the interrelationships among rainfall variability, food and livelihood security, and human mobility in a diverse set of research sites in eight countries in Asia, Africa and Latin America. While climate change affects nearly all aspects of food security – from production and availability, to the stability of food supplies, access to food, and food utilization– the Rainfalls research focused on linkages between shifting rainfall patterns and food production and the stability of food supplies. The central focus of the «Where the Rain Falls» initiative was to explore the circumstances under which households in eight case study sites in Latin America, Africa, and Asia use migration as a risk management strategy when faced with rainfall variability and food and livelihood insecurity

http://wheretherainfalls.org/wp-content/uploads/2014/01/2755WTRF_report_lowres.pdf

11. (2013) What Can the European Union Do in Syria? A Joint Policy Paper (Heinrich-Böll-Stiftung)

See chapter Chapter III: Recommendations for EU measures:

http://eu.boell.org/sites/default/files/uploads/2013/04/syria_policy_paper.pdf

12.(2013) Changing climates, moving people: framing migration, displacement and planned relocation. Policy Brief No. 8 | June 2013

Different policies are required for different types of human mobility related to climatic changes. Hence, it is necessary to distinguish between migration, displacement and planned relocation in climate policy and operations. The purpose of this Policy Brief is to help distinguish between human migration, displacement and planned relocation and present state-of-the-art thinking about some of the key issues related to addressing these in the context of climate policy

<https://collections.unu.edu/eserv/UNU:1837/pdf11213.pdf>

13.(2013) Helping Pacific Island Countries Manage the Impacts of Climate Change on Migration (EU project)

The overall objective of the proposed project is to develop the capacity of Pacific Island countries to address the impacts of climate change on migration through well-managed, rights-based migration schemes and policy frameworks, supported by comprehensive research and

knowledge building. The action will assist both at a regional level, as well as providing more intensive assistance to the countries in the region most vulnerable to the effects of climate change.

http://eeas.europa.eu/delegations/fiji/press_corner/all_news/news/2013/20131113_01_en.pdf

14.(2012) Migration within a changing climate.

https://www.ids.ac.uk/files/dmfile/LHcasestudy07_Migration.pdf

(2011) Migration and Global Environmental Change: Future Challenges and Opportunities

Foresight: Migration and Global Environmental Change

Final Project Report, The Government Office for Science, London

This report considers migration in the context of environmental change over the next 50 years. The scope of this report is international: it examines global migration trends, but also internal migration trends particularly within low-income countries, which are often more important in this context.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/287717/11-1116-migration-and-global-environmental-change.pdf

15.(2009) Migration, Environment and Climate Change: Assessing the Evidence

The consequences of climate change on migration present humanity with an unprecedented challenge. The numbers of storms, droughts and floods have increased threefold over the last 30 years with devastating affects on vulnerable communities, particularly in the developing world. In 2008, 20 million persons have been displaced by extreme weather events, compared to 4.6 million internally displaced by conflict and violence over the same period. How many people will be affected by climate change by 2050? Forecasts vary from 25 million to 1 billion people with a figure of 200 million being the most widely cited estimate. Extreme environmental events such as cyclones, hurricanes, tsunamis and tornadoes tend to capture the media headlines, but it is gradual changes in the environment that are likely to have a much greater impact on the movement people in the future. For example, over the last 30 years, twice as many people have been affected by droughts as by storms (1.6 billion compared with approximately 718 million). It is important, however, not to view migration as simply the failure of communities to adapt to climate change.

http://publications.iom.int/bookstore/free/migration_and_environment.pdf

16.(2009) Environmental Change and Forced Migration Scenarios (EACH-FOR)

EACH-FOR was a two year long research project within the frames of FP6 (Priority 8.1 - Policy-oriented research) of the European Commission.

'Forced migration' is a movement in which an element of coercion exists, including threats to life and livelihood, whether arising from natural or man-made causes (e.g. movements of refugees and internally displaced persons). The changes of natural and human-made environment will probably be the most significant factors among the causes of forced migration. It is essential to get accurate information about the current and future triggers of forced migration in each country of origin and within Europe itself.

For more information visit: www.each-for.eu.

Synthesis report

- Jäger, J., Frühmann, J., Günberger, S., Vag, A. (2009). [Environmental Change and Forced Migration Scenarios Project Synthesis Report](#).

Case studies

The studied cases are selected from the following regions:

Africa

- Afifi, T. (2009). [Niger: Case Study Report for the EACH-FOR Project](#). EACH-FOR. Bonn, United Nations University Institute for Environment and Human Security (UNU-EHS).
- Afifi, T. (2009). [The Impact of Environmental Factors on Migration in Egypt: Case Study Report for the EACH-FOR Project](#). Bonn, United Nations University Institute for Environment and Human Security (UNU-EHS).
- Ait Hamza, M., B. El Faskaoui, et al. (2009). [Morocco](#): Case Study Report for the EACH-FOR Project.
- Bleibaum, F. (2009). [Senegal](#): Case Study Report for the EACH-FOR Project.
- Gila, O. A., de Maturana Giequez, V. L., Zaratiegui, A. U. (2009). [Western Sahara](#): Case Study Report for the EACH-FOR Project.
- Stal, M. (2009). [Mozambique](#): Case Study Report for the EACH-FOR Project.
- van der Geest, K. (2009). [Ghana](#): Case Study Report for the EACH-FOR Project.

Central and South Asia

- Bulesheva, D. and A. Joldasov (2009). [Kazakhstan](#): Case Study Report for the EACH-FOR Project.
- Nasritdinov, E., M. Ablezova, et al. (2009). [Kyrgyzstan](#): Case Study Report for the EACH-FOR Project.
- Kadirbeyoglu, Z. (2009). [Turkey](#): Case Study Report for the EACH-FOR Project.
- Khakimov, P. and M. Mahmadbekov (2009). [Tajikistan](#): Case Study Report for the EACH-FOR Project.
- Poncelet, A. (2009). [Bangladesh](#): Case Study Report for the EACH-FOR Project.

Asia and the Pacific

- CEDEM (2009). [China](#): Case Study Report for the EACH-FOR Project.
- Dun, O. (2009). [Linkages between flooding, migration and resettlement in the Mekong Delta, Vietnam](#). Case Study Report, for the EACH-FOR Project. Bonn, United Nations University, Institute for Environment and Human Security (UNU-EHS).

- Gemenne, F. and S. Shen (2009). [Tuvalu and New Zealand](#): Case Study Report for the EACH-FOR Project.
- Zhang, Q. (2009). [China \(Inner Mongolliia\)](#): Case Study Report for the EACH-FOR Project.
Europe
- Fermin, A. (2009). [Spain](#): Case Study Report for the EACH-FOR Project.
- Fermin, A. and I. Molodikova (2009). [Russian Federation Volga River Basin](#): Case Study Report for the EACH-FOR Project.
- Vag, A. (2009). [The Balkans](#): Case Study Report for the EACH-FOR Project.
Central and Latin America
- Alscher, S. (2009). [Hispaniola Island \(Dominican Republic and Haiti\)](#): Case Study Report for the EACH-FOR Project.
- Alscher, S. (2009). [Mexico](#): Case Study Report for the EACH-FOR Project.
- Alvarez Gila, O., V. López de Maturana Diéguez, et al. (2009). [Ecuador](#): Case Study Report for the EACH-FOR Project.
- Oscar Alvarez Gila, M. Irianni, et al. (2009). [Argentina](#): Case Study Report for the EACH-FOR Project.

SOURCE: <http://www.ccema-portal.org/article/read/each-for-project-publications>

From the thematic issue 51 (Science for environment policy)

Migration and environmental change: examining the relationship

- **Exploring interlinked drivers of human migration in the context of environmental change**

A framework on the effects of environmental change on human migration has been developed by researchers. It makes clear that environmental change can influence migration directly but also indirectly through impacts on economic, social and political factors. The framework can be used to guide further research, evaluate policy options, or develop predictions for migration under global change, say the researchers.

http://ec.europa.eu/environment/integration/research/newsalert/pdf/exploring_interlinked_drivers_of_human_migration_in_context_of_environmental_change_51si1_en.pdf

Source: Black, R., Adger, W. N., Arnell, W. N., Arnell, N. W., Dercon, S., Geddes, A. & Thomas, D. (2011). The effect of environmental change on human migration. *Global Environmental Change*. 21S: S3–S11. DOI: 10.1016/j.gloenvcha.2011.10.001.

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- **Extreme environmental events and human migration: no simple link**

While extreme environmental events — such as floods and tsunamis — may trigger migrations, the underlying drivers of migration are far more complex and diverse, says new research. The research reviewed the available evidence on population movements associated with extreme weather events and found that people could find themselves 'trapped' and vulnerable, whether they stayed at their homes or moved to new locations.

http://ec.europa.eu/environment/integration/research/newsalert/pdf/no_simple_link_between_extreme_environmental_events_and_human_migration_51si2_en.pdf

Source: Black, R., Arnell, N. W., Adger, W. N., Thomas, D. & Geddes, T. (2012). Migration, immobility and displacement outcomes following extreme events. *Environmental Science and Policy*, 27, S32–S43. DOI:10.1016/j.envsci.2012.09.001

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- **Human migration as a result of climate change: how should governments respond?**

Human migration as a result of climate change is now a reality. People across Africa, Asia and Latin America are moving in response to unpredictable rainfall patterns. The governments of Bangladesh, Papua New Guinea and small island states, such as the Solomon Islands, have already had to resettle people because of rising seas. A recent policy brief, published by the Institute for Environment and Human Security of the United Nations University, examines this issue and makes recommendations for policy

http://ec.europa.eu/environment/integration/research/newsalert/pdf/how_should_governments_respond_to_human_migration_as_a_result_of_climate_change_51si3_en.pdf

Source: Warner, K., Afifi, T., Kälin, W., Leckie, S., Ferris, B., Martin, S. F. & Wrathall, D. (2013). *Changing Climate, Moving People: Framing Migration, Displacement and Planned Relocation*. Policy Brief No. 8. Bonn: United Nations University Institute for Environment and Human Security (UNU-EHS). <https://collections.unu.edu/eserv/UNU:1837/pdf11213.pdf>

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- **Migration: an opportunity to integrate human mobility and climate change adaptation policies**

The migration, displacement and relocation of people needs to be properly addressed in climate change adaptation plans, says a UN report. Among the report's recommendations, National Adaptation Plans (NAPs) should ensure that communities affected by climate change-induced hazards, such as flooding and drought, become more resilient. Migration can also be seen as an adaptation strategy in itself

http://ec.europa.eu/environment/integration/research/newsalert/pdf/an_opportunity_to_integrate_human_mobility_and_climate_change_adaption_policies_51si4_en.pdf

Source: Warner, K., Kälin, W., Martin, S., Nassef, Y., Lee, S., Melde, S., Entwisle Chapuisat, H., Franck, M. & Afifi, T. (2014). *Integrating Human Mobility Issues within National Adaptation Plans*. Policy Brief No. 9. Bonn: United Nations University Institute for Environment and Human Security (UNU-EHS). Available from: <http://collections.unu.edu/eserv/UNU:1838/pdf11800.pdf>

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- **Environmental migrants need better human rights protection**

A human rights 'protection gap' exists for people forced to migrate by environmental stress and climate change, according to researchers. The lack of a legal framework and practices to protect 'environmental refugees' stems from the historic and political context of migration issues — and land access rights more broadly — the researchers say in a recently published paper

http://ec.europa.eu/environment/integration/research/newsalert/pdf/environmental_migrants_need_better_human_rights_protection_51si5_en.pdf

Source: Zetter, R. & Morrissey, J. (2014) Environmental Stress, Displacement and the Challenge of Rights Protection. In: Martin S., Weerasinghe, S. & Taylor, A. (eds) *Humanitarian Crises and Migration: Causes, Consequences and Responses*. London: Routledge. Ch. 9.

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- **Time to act on climate change induced migration**

A recent report presents a series of recommendations for how the EU could address the complex issue of climate change induced migration. There is now sufficient evidence to show that environment-related migration is occurring, and the time is right to put recommendations into practice, the report's authors argue

http://ec.europa.eu/environment/integration/research/newsalert/pdf/time_to_act_on_climate_change_induced_migration_51si6_en.pdf

Source: Ammer, M., Mayrhofer, M, Randall, A. & Salsbury, J. (2014) *TIME TO ACT - How the EU Can Lead on Climate Change and Migration*. Brussels: Heinrich-Böll-Stiftung. Available from: <http://eu.boell.org/en/2014/06/12/time-act-how-eu-can-lead-climate-change-and-migration>

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- **EU migration under environmental change: impact depends on current infrastructure**

Environmental changes in the future, such as an increase in floods, land degradation and drought could result in changes in migration patterns in Europe, researchers write in a recent analysis. It is difficult to predict these exact migration patterns, however, as they are determined by a complex interplay of economic, political and social factors with environmental change, as well as adaptive capacity

http://ec.europa.eu/environment/integration/research/newsalert/pdf/EU_migration_under_environmental_change_impact_depends_on_current_infrastructure_51si7_en.pdf

Source: Mulligan, M., Burke, S. & Douglas, C. (2014). Environmental Change and Migration Between Europe and its Neighbours, in *People on the Move in a Changing Climate* (pp. 49–79). Springer; Netherlands.

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- **Mediterranean countries use more natural resources than their ecosystems provide** (September 2015)

In the Mediterranean region the demand for natural resources and ecological services is two and half times greater than ecosystems' capacity to provide them, recent research has found. To meet this demand, countries rely on imports, exposing themselves to price volatility and potential resource shortages. According to the authors, a 10% increase in global prices would particularly impact vulnerable countries such as Jordan, which would see its trade balance worsening by 2.4% of its gross domestic product.

http://ec.europa.eu/environment/integration/research/newsalert/pdf/mediterranean_countries_use_more_natural_resources_than_their_ecosystems_provide_426na1_en.pdf

Source: Galli, A., Halle, M. & Grunewald, N. (2015). Physical limits to resource access and utilisation and their economic implications in Mediterranean economies. *Environmental Science & Policy* 51: 125 – 136. DOI:10.1016/j.envsci.2015.04.002.

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- **Mediterranean land degradation threatens food security** (Oct 2014)

Climate change, tourism and population growth are all accelerating land degradation in the Mediterranean region, according to recent research. This can have severe impacts: the amount of available agricultural land per capita in the region could have dropped by half by 2020, compared with 1961, the study estimates.

http://ec.europa.eu/environment/integration/research/newsalert/pdf/mediterranean_land_degradation_threatens_food_security_391na6_en.pdf

Source: Zdruli, P. (2014). Land resources of the Mediterranean: status, pressures, trends and impacts on future regional development. *Land Degradation & Development*. 25(4): 373–384. DOI:10.1002/ldr.2150.

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- **El Niño Southern Oscillation can be used to predict global flood risk anomalies** (January 2015)

Unusually warm or cool Pacific sea surface temperatures, known as El Niño and La Niña, can be used to reliably predict anomalies in flood risk for river basins that cover 44% of the Earth's land surface, a new study has shown. The researchers also quantified overall flood damage by combining information on flood risk with estimates of damage to economies and numbers of people at risk. This could help improve flood disaster planning, they say.

http://ec.europa.eu/environment/integration/research/newsalert/pdf/El_Niño_southern_oscillation_used_to_predict_global_flood_anomalies_400na3_en.pdf

Source: Ward, P. J., Jongman, B., Kumm, M., *et al.* (2014). Strong influence of El Niño Southern Oscillation on flood risk around the world. *Proceedings of the National Academy of Sciences*, 111, 15659-15664. doi:10.1073/pnas.1409822111

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- **Climate change to shift global spread and quality of agricultural land** (February 2015)

New areas of land suitable for agriculture will open up under climate change's effects, new research predicts, particularly in far northern regions of the world. However, the overall quality of land for farming will decline and many regions, including Europe, could lose large areas of suitable land.

http://ec.europa.eu/environment/integration/research/newsalert/pdf/climate_change_to_shift_global_spread_quality_agricultural_land_403na1_en.pdf

Source: Zabel, F., Putzenlechner, B., Mauser, W. (2014) Global Agricultural Land Resources – A High Resolution Suitability Evaluation and its Perspectives until 2100 under Climate Change Conditions. PLoS ONE. 9(9): e107522. DOI:10.1371/journal.pone.0107522. This study is free to view at: <http://dx.plos.org/10.1371/journal.pone.0107522> Contact: f.zabel@lmu.d

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