



1st exceed Conference Summary

Forced Migration – environmental and socioeconomic dimensions – *Perspectives of higher education institutions in development cooperation*



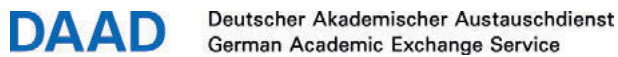
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About Exceed

The program “Higher Education Excellence in Development Cooperation – Exceed” is composed of five higher education institutions in Germany (Technical University Braunschweig, University of Hohenheim, University of Kassel, Cologne University of Applied Sciences and Ludwig-Maximilians-University München) along with their partners in developing countries. Exceed was established by the German Academic Exchange Service (DAAD) in 2009. Since its inauguration, it has been funded by the Federal Ministry for Economic Cooperation and Development (BMZ).



The main objectives of the program are:

1. Bringing together research and training at higher education institutions in Germany and developing countries with a direct link to the post-2015 development agenda.
2. Deepening and expanding education and research on issues of relevance to the topic of development cooperation.
3. Establishing competence centers for development cooperation at higher education institutions that can serve as “beacons of excellence” by conducting research that are internationally attractive and competitive.
4. Strengthening North-South as well as South-South cooperation in higher education and research.
5. Expanding policy analysis and consultancy on issues of development cooperation in developing countries and Germany.

Each of the five Exceed centers concentrates on different topics relevant for the post-2015 development agenda. The centers, along with cooperation with their partners in developing countries, have established Masters and Doctoral degrees, initiated joint research projects, exchanged researchers, published papers and carried out international conferences. Since the 2nd funding phase, the individual centers have started joint activities to further enhance the contribution of Exceed to development cooperation.

Sustainable Water Management in Developing Countries - SWINDON

The primary goal of the Braunschweig Competence Centre and its international cooperation partners is to promote capacity building, knowledge transfer, and to develop core proposals for sustainable water management. The latter includes technologies for manifold use and reuse of water. For instance, two thirds of fresh water worldwide is currently used in agriculture that literally drains away into the ground. Here, treated wastewater could be recycled and reused for further application, e.g. in agriculture. The water utilized in the industrial sector could also be recycled and reused.

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The Food Security Center - FSC

The Food Security Center's mission is to provide innovative and effective scientific findings to reduce hunger and achieve food security, contributing towards the major goals of the United Nations Sustainable Development Goals (UN SDGs).

FSC utilizes a multidisciplinary approach through teaching, conducting research, and providing policy advice in cooperation with national and international development organizations and partner institutions.

The target groups of FSC include people affected by hunger and/ or malnutrition, people at risk of food insecurity, decision-makers in development-oriented organizations involved in the formation and implementation of food and agricultural related development policies, as well as scientists and graduate students at partner institutions.

FSC is partner of the BMZ special initiative „ONE WORLD – No Hunger“. The center provides accompanying research for this program.

Food Security Center
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The International Center for Development and Decent Work - ICDD

The ICDD is making a committed contribution to the attainment of Target 2 “Full and Productive Employment and Decent Work for All” of Millennium Development Goal 1 “Eradicate Extreme Poverty & Hunger” through research and education. The ICDD creates and transfers knowledge on improving work and income opportunities in rural and urban regions in developing countries against the background of globalisation, climate change and urbanisation. Apart from creating and transferring knowledge, the ICDD is active in the field of development and decent work. Furthermore ICDD activities include Research - Teaching - Transfer & Cooperation.

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Center for Natural Resources and Development - CNRD

The Centers for Natural Resources and Development (CNRD) connects universities worldwide by promoting academic exchange and cooperation in the field of natural resource management, particularly with regards to water, land, ecosystems and renewable energy. It fosters interdisciplinary approaches to natural resource management related to the post-2015 Development Agenda and the sustainable development goals (SDGs) envisioned therein.

TH Köln (University of Applied Sciences)
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Center for International Health – CIH

The aim of CIH^{LMU} is to empower partner universities in developing countries to set their own higher education and research agendas based upon the local problems. These agendas should be integrated by the partner universities into a network of knowledge management. Finally, research results will be translated by the partners into policy to provide crucial information to stakeholders.

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Conference Program Day 1

Wednesday, 19th October 2016
Exceed conference – open to the public
09:00 – 20:00



- 09:00 – 09:15** Opening
Prof. Dr. Katja Radon, *Conference Chair*
Stefan Bienefeld, *Head of Division Development Cooperation and Transregional Programs at DAAD*
Dr. Stefan Lauterbach, *Head of the International Office at Ludwig-Maximilians-Universität München*
- 09:15 - 10:00** **Globalization as a cause for forced migration**
Thomas Gebauer, *Executive Director of Medico International*
- 10:00 - 10:30** Coffee break
- 10:30 - 11:30** **Case Studies: Globalization as cause for forced migration**
- 11:30 - 12:15** **Poster Session I**
- 12:15 - 13:30** Lunch
- 13:30 - 14:15** **Environment as cause for forced migration**
Dr. Benjamin Schraven, *Researcher at German Development Institute (DIE)*
- 14:15 - 15:15** **Case Studies: Environment as cause for forced migration**
- 15:15 - 15:45** Coffee break
- 15:45 - 16:45** **Case Studies: How to supply refugee camps**
- 16:45 - 17:15** **Poster presentation II**
- 17:15 - 17:30** Summary of the day
- 17:30 - 18:00** Break
- 18:00 - 20:00** **Panel discussion: “Beyond war and internal conflicts - contribution of environmental factors and socioeconomic conditions on migration”**

Globalization as a cause for forced migration

Thomas Gebauer, *Executive Director of Medico International*



Psychologist and Executive Director of the aid and human rights organization Medico International.

He started this role at Medico International in 1979, first on public relations work and later becoming head of the project department. Gebauer concerns himself with issues such as international peace and security policies, human rights and social conditions for global health. He is cofounder of the International Campaign to Ban Landmines (ICBL), which was awarded with the Nobel Peace Prize in 1997 in Oslo.

The targets you have been setting for yourselves at this conference are of enormous significance. It is, indeed, high time to focus more systematically on the structural causes of forced migration. We need to further politics and action that no longer distract our attention from the actual causes of flight and migration.

I. Causes of flight

Today, many civil society actors, media-people, and politicians on all sides emphasise the necessity to eliminate the causes of flight. However, if we take a closer look at what is meant with “causes of flight” the concept become vague. It is understood in a very different way by the different actors. Northern politicians e.g. may distract from their own responsibility by locating the “causes” in the “South”. Others are confronting us with strategies that do not care about the reasons why people flee their countries at all, but simply serve national security interests. I cannot go into detail here, but it is important to emphasise that many currently adopted political measures are rather aiming at preventing or controlling the movement of migrants than at tackling the causes of forced migration.

Take e.g. the Khartoum Process that has been established between the EU and states in Northeast Africa. In my view it is bizarre to fight the structural causes of forced migration together with state actors that systematically violate human rights and are part of the very reason why people are fleeing their countries. Cooperating with those in power in Eritrea or Sudan is – of course - a moral problem; but it is a practical one, too. As we know by experience, fortress policies and measures such as the training of local security forces will not stop flight and migration.

Have a look at the Valetta process: Much of the so-called “fight against the causes of flight” is financed by ODA money, but has nothing to do with development cooperation. NGOs such as Bread for the World, Misereor, Pro Asyl and also my own organisation, medico international, have repeatedly criticised the flagrant misuse of development aid for own national interests.

It is wonderful that the EU has recently enlarged its cooperation with African countries by half a billion Euros, but it turns out to be outrageous if beneficiary countries are ones that participate in walling-off Europe. Just two weeks ago we had to learn that further cooperation with Afghanistan will be conditioned to the return of 80.000 refugees. War-torn Afghanistan really needs support, but it is by no way a safe place.

Thus, quite a few of the current programmes that are presented under the badge of “fighting the causes of flight” are motivated by the simple goal to get rid of refugees and migrants again, to externalise border control und thus making the crisis of the world that became visible with millions of refugees and migrants invisible again. A consistent and long-term strategy to fight structural causes of forced migration is still missing.

II. “Refugee crisis”?

And that is all the more regrettable, because the so-called “refugee crisis”, as we sometimes call it, isn’t just an individual issue that could be dealt with separately. The millions of migrants and refugees of today refer to a far more profound and encompassing crisis. Like the climate change, like the escalating violence, like the destruction of dignified living conditions forced migration is a product of global circumstances in which economic and power interests are prevailing over the needs and rights of people.

Of course, refugees try to escape from particular events: the war in Syria e.g. or a regional famine but nevertheless, the problems coming with these events cannot be resolved with measures that just tackle the particular event. Even the best planned and performed project will not make a difference as long as there is no overall and coherent strategy.

And precisely the target of correcting the structural causes of forced migration has no option but to concentrate on the general context, and thus, on hegemonic power structures. Sustainable solutions require an interdisciplinary focus that connects critical economics with political, social and legal disciplines.

A good starting point to develop such a strategy is to understand forced migration as both a consequence and an expression of globalisation. I am deeply convinced that responses to all the major challenges of our time require such an approach.

III. Forced migration arises from the global unleashing of capitalism

If we examine countries people are fleeing from, we find similarities - despite all differences. Whether Iraq, Afghanistan, Sudan or Guatemala, all these countries have experienced two trends that reinforce each other: on the one hand, sometimes rapidly progressing “state failure” and, on the other hand, dramatically increasing “social inequality”. If we look closer, it becomes clear that both trends have escalated in the course of globalisation, or - to be even more precise - in the course of the global unleashing of capitalism. This is certainly a far more accurate description.

Indeed, if we put aside fashionable euphemistic terms like “global village,” globalisation – as we know it – turns out to be primarily an economic strategy. The objective has never been to create equal international relationships, but rather to stimulate the realisation of capital that began to falter in the 1970s.

By then, limits to growth seemed to be approaching, and increased profits appeared possible only by cutting production costs. This was achieved, among other things, by introducing new technologies, but also by internationalising production processes. Consequently, investors concentrated on countries that offered favourable subsidies and tax exemptions, and created few obstacles such as environmental regulations and occupational safety requirements. Workplaces were outsourced to low wage countries in the South, and companies themselves trans-nationalised.

Precondition for the economic globalisation was the liberalisation of the international flow of goods and capital. Free movement of people was never part of the globalisation agenda, but rather free movement of goods and capital.

The promise that the poor would also benefit from globalisation has proved illusory. Instead of a trickle-down effect, there has been a bottom-up effect. The gap between rich and poor became wider. Today, just one percent of the world population controls half of the world’s wealth. 62 rich people own as much as 3.5 billion poor.

In the meantime the situation has become so precarious that even the Davos “World Economic Forum” had to admit in one of its latest “Global Risks Report” that in the course of globalisation the danger of social insecurity has increased dramatically.

IV. Social Inequality

In an interesting study recently published by the Bertelsmann Foundation, the German social scientist Heinz Bude stated: "In terms of global society, the mega-topic of the next 30 years will no longer be ecology or sustainable development, but inequality."

Social inequality – this means a life increasingly characterised by meaninglessness, by lack of prospects, by hunger, displacement and the deprivation of rights, by environmental destruction and war. All this has become a grim reality for an increasing share of the world's population, and this is what people tell us when we ask about their reasons for flight and migration.

Crucial part of social insecurity is the growing erosion of public services, the cuts in livelihood support, which also did not appear from nowhere. In order to get integrated into the world economy the sometimes highly indebted Southern countries had to suffer so-called Structural Adjustments Programs that – besides other requirements - forced them to make drastic cuts in their national social systems. Subsidised basic services were abolished and public services such as healthcare, energy provision, clean water, etc. widely privatised.

Frequently, these adjustment programmes resulted in the total erosion of public welfare provisions. To give you just one example for the negative effects: today a hundred million people fall into poverty every year because they must cover the costs of healthcare out of their own pockets.

V. Fragility

It should not come as a surprise that states that lose their ability to respond to the needs of their populations become fragile.

Where democratic participation is replaced by social exclusion; where politicians no longer aim at creating an inclusive economy but on safeguarding existing privileged elites and their power structures; where legal security disappears over corruption, nepotism and arbitrariness state entities lose their legitimacy.

Thus, not democratic societies develop, but rather authoritarian systems of governance. In quite a few countries state structures have entirely shifted to repressive machineries of power protecting ruling elites and their privileges. The result is increasing violence and – at the end – war.

Those in power may promote enemy stereotypes and even accept the complete collapse of their state to stay in power.

All this has happened in Syria. To understand the conflict we have to look at what happened in the years before the war started, when inequality increased, when a small elite accumulated wealth and broad segments of the population were reduced to poverty. The growing popular discontent became evident when the Syrian state then cut subsidies for rents and education, and the impact of a nationwide drought was felt.

According to the US Fund for Peace, the number of states showing alarming signs of fragility increased from 7 to 16 over the course of the last ten years. However, situations in many other countries are also a cause for concern. In its 2015 "States of Fragility" Report, the OECD identified 50 countries as fragile states, thus more than a quarter of all states worldwide.

In the course of neoliberal transformation of the globe, frequently accompanied by war economies, state systems in many countries have sometimes eroded beyond recognition or been reduced to repressive power structures. Under such conditions, we do not see democratically legitimate institutions providing for the well-being and security of people, but rather traditional clan and family structures, warlords, private armies or criminal networks.

The global unleashing of market forces has made the world an extremely precarious place – steadily forcing the migration of more people.

VI. Figures and Trends

But let me make one thing clear: Only a few refugees reach or respectively will reach Europe. Most people move into urban slums at home or escape to neighbouring countries. Flight and migration are in the first place regional phenomena. And those who come here are not necessarily the poorest of the poor. In general, the most marginalised do not even succeed in leaving their villages. Famine has claimed the lives of over 300 million persons since the end of the East-West conflict, more than died in all the wars of the 20th century combined.

We don't need to be pessimistic to predict that this silent death wave will continue if we do not change the prevailing economic paradigm that fuels the destructive process.

If we continue to change the climate by devastating patterns of production and consumption, the number of climate refugees, already estimated at 50 million, will continue to grow, too. If we allow the persistence of economic conditions that systematically exclude and render people redundant, there will also be increases in numbers of migrants leaving their countries just to survive.

The livelihood of more than 100 million African small farmers could be threatened if, for example, the "New Alliance for Food Security and Nutrition in Africa," (NAFSN), a Public-Private Partnership (PPP) between G8 governments and transnational agricultural groups, succeeds in restructuring African agriculture on the basis of industrialized European models – ostensibly to fight famines but actually much more in the interests of the international agribusiness.

It is great that the German Federal Ministry for Economic Cooperation and Development (BMZ) promotes a "world without hunger" and intends to provide 195 million € for building up "green innovation centres". But it will fail if the funds will not focus on small farmers and will simply expand the privileges of powerful agricultural interest groups – as Oxfam feared.

As long as the modernisation of agriculture does not include the creation of decent jobs for all those who will lose their traditional base of life, such projects will miss to find an answer to the structural causes of migration. On the contrary: they will fuel migration.

VII. Structural causes

Today, all over Africa, but also in Latin America and Asia, small farmers are losing their livelihoods. Besides others one reason is a notorious land-grabbing. Petrol companies, hedge funds, financially strong Gulf States and the transnational agro-business are buying up the most productive farmland around the world; while small farmers are left without a substantial alternative.

The UN-promoted "Voluntary Guidelines on the Responsible Governance of Tenure" of land, fisheries and forests have proved to be rather ineffective. They should have been replaced long ago by binding agreements that place the best common agricultural land under special protection.

Also the "free trade agreements" should be revised as being part of the problem. Precisely in Africa we can see that today's free trade agreements are helping to solidify existing unjust global structures.

Poorly developed industrial production is one of the gravest problems of many African countries. Africa primarily exports raw materials, but hardly any finished goods. Its share of total exports is alarmingly small at currently 0.8 percent – with a downward trend.

If Africa seriously wanted to establish its own industrial production, it would have to safeguard its producers through protective measures such as tariffs or subsidies. In the context of catch-up development this is entirely normal. At the end of the 19th century, even Germany could only catch up with England by protecting its economy.

Most African governments, however, are not allowed to impose this kind of protectionism. The “Economic Partnership Agreements” between the EU and African, Caribbean and Pacific countries prohibit protectionism and thus contractually establish conditions that promote forced migration. Europe, for instance, pays hardly any taxes for access to important raw materials and moreover is allowed to export goods to Africa without import taxes, while Africa has to pay various license fees, for seeds, drugs and communication technologies e.g.

By the way: The destructive potential of “Economic Partnership Agreements” is well known - even by those who negotiate these agreements. In a discussion with NGOs, high-ranking officials of the German government admitted: Yes, we should be careful to keep the negative effects on Southern countries from becoming too large – a rare admission.

To ensure employment opportunities for all the young people entering the labour market in Africa it would be necessary to create 18 million jobs a year. But how can we reach this goal with trade agreements that exclusively privilege the Northern countries? And will the “jobs” that experts see at the interface between agriculture and food processing be really better than the lamentably precarious working conditions we today see in international textile production?

Special attention deserve the EU fishery agreements, for example those with countries along the West African coast. These agreements are about financial compensation for fishing rights, which is not necessarily a bad idea. Such agreements could even involve sustainability criteria, if solely unexploited surplus fish stocks were sold to foreign trawlers. Yet, in fact there is no functional monitoring system for African fish stocks. West African politicians sell fishing rights without any restrictions in order to enrich themselves, to finance their election campaigns and support the patronage system.

Factory ships from both Europe and Asia have destroyed the livelihoods of small-scale West African fishermen and negatively changed nutritional patterns for West African populations. When people were no longer able to meet their protein requirements with fish, they started hunting, which exposed them to new pathogens. It is clear by now that the spread of the Ebola virus is linked with overfishing.

I could easily go on citing more structural problems that contribute to destroying the livelihoods of people in the South, such as arms trade or the global financial system that provides numerous opportunities for tax avoidance and tax evasion. Globally 3 trillion \$, in Africa 79 billion \$ get lost every year: money that committed governments would provide the space to strengthen economic and social development.

VIII. Globalisation from below

Before I will briefly outline what policies should be adopted if we don't want to be part of the problem, but rather of the solution let me emphasise an important aspect. We must bear in mind that people who are forced to migrate are not simply victims. Their migration is a way to counter the dominant economic “top-down globalisation” with what I call: “globalisation from below”. I don't want to idealise this kind of globalisation. It is far from being a conscious political movement. However, it is a form of globalisation driven by claims to participation.

One thing is clear to many people in the South: There are global conditions that at any time can determine, whether directly or indirectly, the destruction of their livelihood. It is thus more than reasonable to try to avoid this by migration. The chances for Asian families or African village communities to secure their own survival are, of course, higher if individual members succeed in establishing an existence in the prospering countries of the global North. Since long the remittances by migrants to their families in their home country have exceeded the total of international development aid.

Thus, upon closer inspection, globalisation and migration turn out to be two sides of the same coin. Accepting this fact, accepting that globalisation does not occur without migration, is probably the greatest challenge that national states have to face today.

IX. Rights, Regulation and Redistribution

If we take this challenge seriously, we must adopt policies fundamentally different from current practice.

First, we need a radical correction of the dominant security concept. We must stop responding to the risks of globalisation by building walls and the strengthening of the security apparatus, but rather by developing policies that aim at social balance. We do not need a further “securitisation” of policy, but instead what I would like to call “Weltsozialpolitik”, Global Social Policy.

Actually, there are indicators that such a paradigm shift might succeed, not least the Sustainable Development Goals (SDG) agenda, agreed on last year, through which the international state community committed itself to internationally coordinated socio-political action.

Evidently, globalisation has also increased willingness to adopt transnational approaches. Gradually, the idea of global social policy is beginning to gain ground, with its primary objectives of fighting social inequality, advocating legal global status and promoting mutual solidarity. These three dimensions need development if policy is to move beyond pure crisis management.

Already in 2005, a team from the Finnish “National Research and Development Centre for Welfare and Health” presented an interesting proposal for redirecting international economic and social policy. The bases of the proposal are the so-called three Rs, which stand for: Rights, Regulation and Redistribution. This means in detail:

- First: a political concept of human rights that understands that human rights are enforceable legal rights and thus governmental obligations;
- Second: effective supranational regulation in order to ensure that the global economy fulfils its social obligations;
- Third: systematic redistribution of resources between and within countries as a prerequisite for realising universal social rights.

If we are prepared to seek solutions within this framework, I am convinced there is a real chance to change forced migration into freedom of movement, as it is required in the Universal Declaration of the Human Rights.

Yet, to do so we will need more than just technical adjustments. We don't need patchwork solutions, but instead coherent interaction in development cooperation, regulative control of economies, further development of international law, intercultural understanding and not least the establishing of international institutions that guarantee access to livelihood and social services for all people across all borders.

Such a commitment may seem utopian, but has long been required by the Universal Declaration of Human Rights, which states in Article 28: “Everyone is entitled to a social and international order in which the rights and freedoms set forth in this Declaration can be fully realized.” Please note: this is about an “international order” that does not leave responsibility for the realisation of human rights to individual states.

For national contexts we perfectly know the importance of democratic participation, public welfare-oriented economies, legal certainty and efficient and transparent public institutions. What we still need to know is how we can create such norms and institutions on a global scale. The question is how to establish a global social infrastructure, completely contrary to the

prevailing neo-liberal trend, one that secures a decent life for everyone everywhere and thus supports the transnational existence of human beings – not of capital.

The objective is the right to free movement, anchored in human rights, which can only be realised if people are no longer forced to migrate because of wars, persecution and the loss of livelihood.

X. Sustainable action starts at home

To conclude, let me briefly outline a concrete sequence of actions that can be developed from such considerations.

If it is true that migration has become normal in our globalised world, it would be essential to establish an international migration law that meets contemporary global requirements.

As important and worthy the Geneva Refugee Convention and European asylum laws are they should be complemented by international standards that also regulate migration motivated by factors other than war and political persecution.

In this context, we will need to consider, for example, the legal status of climate refugees, as well as opportunities in “temporary migration.” Many migrants we talked to do not intend to emigrate permanently or to abandon their relationship with their home countries. They are forced to ask for asylum, because there is no legal way to migrate.

In this context also the effects of the so-called brain drain could be regulated, namely compensation for countries of the South that for decades now have been contributing to reducing the skill shortage in the North. In my view, it is inadmissible that countries such as Great Britain save more money on education by importing healthcare staff from Africa and Asia than they spend on medical development aid.

Therefore, sustainable action to counter causes of flight will have to consider alternatives to the dominant economy based on profit and growth. The fight against the causes of flight must start at home. As long as Germany continues to use an estimated 80 million hectares of farmland abroad, five times of its own farmland in order to meet its nutritional needs, we contribute to worldwide famine. As long as our consumption depends on foreign working conditions reminiscent of slave labour, as long as we gloss over known grievances in international textile production by calling them “value chains,” we are solidifying inequality and thus poverty.

This is why fighting the causes of flight means not only improving local conditions through development projects, but also regulating global economic, social and political conditions.

What we need are internationally binding labour and social standards that, for example, require decent wages and working conditions as a prerequisite for textile imports.

In order to work against climate change, there must be effective restrictions on many different environmentally harmful production processes.

In order to improve fiscal possibilities, particularly for poorer countries, a just tax system must be established that includes, besides national regulation, also international agreements on the fight against tax evasion and tax avoidance. A good opportunity to make such agreements was missed last year in Addis Ababa at the UN conference on financing for development. I still feel it is a scandal how much energy policymakers invest in expanding protection measures for investors and how little they do, for example, to create conditions for realising rights to healthcare.

XI. Global social infrastructure

Yet, given the level of globalisation we have already reached, it is high time to think about establishing international social protection systems that provide all people everywhere with

access to public services. In this context, medico supports the creation of a jointly financed International Fund for Health that, similar to the German fiscal equalisation payment scheme, obliges richer countries to contribute to the healthcare budgets of poorer countries. We know that today at least 30 countries are unable to provide their populations with sufficient healthcare without outside assistance.

Admittedly, the implementation of such cross-border redistribution schemes is a major challenge, but it is truly indispensable, at least if the goal is a sustainable fight against forced migration.

XII. Time for complex action

You see: If we take seriously the structural causes of forced migration, complex action will be needed that will eventually no longer deal with individual crises such as the so-called refugee crisis, climate change and famine crisis, but instead with the fundamental crises of the underlying economic and power structures. We have long known how foolish it is to uproot people, to destroy the environment or promote inequality, but this is exactly what happens. I am sure that all of you can tell us a thing or two about the fact that well-intended development programs financed e.g. by the BMZ fail just because of conflicting interests promoted e.g. by the Ministry for Agriculture.

On the one hand, changes require good projects that improve the situation on the ground, but, on the other hand, they require political action on the international level to create the right frame.

The core challenge will be to find the right balance. The balance between programs supporting small farmers, strengthening local markets, helping to generate decent jobs or improving education on the one side and regulatory political measures on the other.

Case Studies: Globalization as a cause for forced migration

1. Central American Forced Migration: Expelled Populations and Policy Containment.

Prof. Carlos Sandoval-García, *University of Costa Rica, Costa Rica*

2. Inadequate health systems in humanitarian and fragile settings: The impact on women and girls.

Dr. Gerd Eppel, *German Society for International Cooperation (GIZ), Germany*

3. Interplay between migration, poverty and climate change:

Case study in tidal flood affected area in Demak Regency, Central Java Province, Indonesia.

Dr. Sukamdi, *Universitas Gadjah Mada, Yogyakarta*

4. The Impact of conflicts on human livelihood and natural resources - Case study: Elfasher locality, North Darfur State.

Dr. Maha Ismail, *University of Medical Sciences and Technology, Sudan*

Central American Forced Migration: Expelled Populations and Policy Containment

Prof. Carlos Sandoval-García^{1,*}

Keywords: Central America, migration, policies, rights

International forced migration from Central America is between about 12 and 14% of the total population. Lack of job opportunities and violence are among the most prominent reasons to leave their countries. The research upon which this presentation is based explored three sites of inquiry, combining qualitative techniques and analysis of migration policies.

First, it looked at the economic policies that has dismantled local economies that has left millions, especially young generations, without possibilities of getting paid jobs. Extractivist industries, mega tourism, hydroelectric projects, and monoculture plantations (e.g. palm oil) decreased job opportunities in rural areas. Violence also expels people out of their countries. Firearms and traffic of illicit substances increase violence. Men are most of victims and perpetrators. Consequences of climate change drive people out of their communities too. Hurricanes Mitch (1998) and Matthew (2016) are actually very sad examples.

It also explored migration policies that seeks to stop migrations even before the arrival to the Mexico-United States border, what is usually termed externalization of borders. Between 2013 and 2014, the number of Central Americans deported from Mexico increased 69.72% (72 692 to 104 253). Last, it also addressed networks of solidarity throughout the crossing the Mexican territory, which provide foods, lodging and juridical adviser. Overall, the main result states that millions of Central Americans are obliged to emigrate, but they cannot immigrate, a situation made more complex because of organized crime activity in regions where migrants try to go, especially to the United States.

As a guise of conclusion, these dynamics of exclusion and control reveal the difficulties capitalism experiences in containing contradictions generated by its own policies. That is, the dismantling of local and regional economies aims at expanding businesses and increasing possibilities of accumulation but it triggers migrations which are considered unacceptable. What the consequences of these contradictions could be is, without doubt, a huge question.

A right not to emigrate is urgently needed. It implies linking migration and development. It does not seem to be an easy task since migration has become a keyword for far right wing politics. Framing progressive approaches regarding migration is a pressing challenge.

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Inadequate health systems in humanitarian and fragile settings: The impact on women and girls

Gerd Eppel^{1,*}, Martin Brechter¹

Keywords: humanitarian action, refugees, internally displaced persons, sexual and reproductive health and rights, gender-based violence

Everyone has the right to the enjoyment of the highest attainable standard of physical and mental health. Still, many people do not have access to adequate health services. The situation is particularly serious in fragile states and humanitarian settings – especially for women and girls.

Crises and conflicts weaken or disrupt national health systems. As a result, many births take place without skilled birth attendance, newborns do not receive necessary health services, and women and girls have no access to contraceptive information or services. A very high proportion of women and girls in crisis situations are exposed to sexual and gender-based violence.

Sexual and reproductive health and rights are part of universally recognised human rights, and their recognition and promotion is a central element of German development cooperation in the health sector. This has special relevance for fragile states and humanitarian settings. In Afghanistan, for example, the German development cooperation supports the Afghan government in setting up the competence centre for mother and child health in Abu Ali Sina Balkhi regional teaching hospital in Mazar-e Sharif. Since the project start in 2015, more than 4,400 women have benefitted from professional birth attendance at the teaching hospital, mainly addressing complicated deliveries requiring emergency obstetric care.

In Northern-Iraq, as another example, the German development cooperation improves the health care delivery system for internally displaced persons (IDPs), refugees and host communities in the Duhok Governorate. The project strengthens Primary Health Care Centres (including obstetric care), improves emergency care at the Azadi Central Hospital and enhances the quantity and quality of psychosocial support activities and services in the region, especially for refugees and IDPs.

The current crises and conflicts are a tremendous challenge and it is critical that the international community steps up its efforts to tackle the health situation. To provide sexual and reproductive health services for women and girls and psychosocial services for sexual and gender-based violence survivors in crisis situations is not just an additional service package but a fundamental human rights obligation.

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Interplay between migration, poverty and climate change: Case study in tidal flood affected area in Demak Regency, Central Java Province, Indonesia

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Keywords: migration, poverty, tidal flood

Background: Interrelationship between poverty and migration has already been discussed in many studies. One of important findings consider migration as an important strategy to survive for poor household. However, it is not always the case, since factors pushing people to migrate work differently for different people. When we refer to the case of disaster area such as Semarang City, there is plenty of evidence showing that the population does not want to move/migrate, even though the area is inundated by the tidal flood regularly every year. The capacity to adapt to the environment, valuation to the social economic condition and also government intervention might explain the case.

At macro level, overall migratory flows in Indonesia, in term of recent migration, declined within the period of 2000-2015. Java has remained attractive for migrants as the number of in-recent migrants from other islands was the largest of all island despite a decrease in numbers. At the same time, the number of out-migration from Java was also the highest of all and is increasing in number. This shows that Java acted both as sending and receiving area. The Province of Central Java has been one among five provinces experiencing the highest in and out recent migration. During the two periods (1995-2000 and 2005-2010) Java experienced net out-migration and the numbers doubled. Interestingly, at provincial level, it has nothing to do with economic performance and also poverty rate. In addition, migration does not have any correlation with disaster incidences. Unfortunately, study at micro level is hardly found. Thus, this study tries to fill the need of micro study in understanding the relationship between migration, poverty, and climate change.

This study is developed based on the foregoing issues. The main objective is to examine the links between poverty, migration and tidal flood as an impact of climate change. The study was conducted in the Sub-district Sayung, Demak Regency, Central Java, Indonesia. The impact might be more severe due to the fact that the affected area is area of agriculture and fisheries which become the main livelihood of the population, especially for poor people. The question is whether mobility is an alternative way or a way to survive. If so, what form of population mobility is chosen by the people? If it is not, why?

Demak regency is one of the areas have been affected by the tidal flood since the 1980s and Sub-district of Sayung has been the most severe. There are three of the most severely affected villages in the Sub-district of Sayung that are the Village of Bedono, Timbulsloko, and Sriwulan. This research was conducted in the village of Timbulsloko. The village was selected purposively, because the village has been hit the hardest by the tidal flood. The purpose of this study is to explain the relationship between the tidal flood as a result of climate change, with food security, migration and poverty.

Methods: The research was done using sequential explanatory design, combining both survey and field research. The survey was done to interview 100 households from 1,122 households in the survey locations which were chosen randomly. Meanwhile, in depth interviews were implemented to sub sample of the survey sample. In addition, in depth interviews were also carried out with formal and informal leaders. Analysis was done through two steps, first is analysis of survey data which then the results is followed up with in depth interviews to gain more understanding on the important issues derived from survey.

Findings: As well as in coastal areas, the Village Timbulsloko relatively poor areas with low pendudukng education. The population is categorized as poor (per capita expenditure below the

poverty line) reached 22 percent and the population with primary education or less, achieve more than 70 percent. One important thing to note is that the population in this village is no longer dependent on the agricultural sector. This is due to the fact that this village seems to have lost its agricultural potential due to tidal flood that occurs regularly every year.

The results of this study show that the impact of the tidal flood on the economy of the community is very significant. The tidal flood has affected most of their livelihood from agriculture. Losses experienced by households due to flooding are estimated 7.767 million rupiah during the past year. Indeed, it is a very significant amount of money for households which are relatively poor. In addition, because of the loss of the lifeblood of the agricultural sector, the majority of members of the household do non-permanent mobility.

Not only poor, but for the fulfillment of basic needs of food, such as rice, the people is highly dependent supply of the surrounding area, because the village did not produce rice. This shows that their dependence on surrounding area, become very imminent, namely employment and food needs. About 87 percent of households having at least one member involve in non-permanent mobility. Most of them go to areas in Sayung sub-district and 35.7 percent go to Semarang. Most of them working as laborer in factory.

It is interesting to see that only about 41 percent of household which are interested to migrate (move permanently) to other areas. There are three explanation can be put in place to answer why people tend don't want to migrate. First they have felt comfortable with the situation now that involving in non-permanent mobility has overcome their economic problems. In addition, government intervention as well as help from NGOs, has provide them a better live. They have already adapted the condition in origin area because they get jobs in reachable area. Semarang city is the most preferable location to go. Second, some of them want to move permanently to other areas, but they don't have enough money to migrate.

In short, it seems that tidal flood has affect people's economy life through the lost of agricultural livelihood. Non-permanent population mobility has become solution for household to survive. Nearby areas surrounding Sayung Sub-district are the most preferable for the household to work in factory. It is unlikely for household to migrate (permanently) to other areas since they have already adapted the condition in the village and they face problems related to migration cost.

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The Impacts of conflicts on the human livelihoods and natural resources – Case study: Elfasher locality, North Darfur State

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Keywords: Darfur State, livelihoods, displaced people, resources, environmental degradation, conflicts

This research was conducted in Alfasher locality of South Darfur State. The State is located in the western part of Sudan covering an area of 296,420 km² and administratively divided into 16 localities with the total population of 2,517,133. The majority of the state population are considered as rural and nomads (2,165,539) while 351,594 of the population live in urban centres. North Darfur State lies on the edge of a desert, in an area that suffers from scarcity and a high degree of variability in the availability of resources, population growth, climate change, poor governance and ethnic conflicts. These problems resulted in immense environmental and human challenges such large scale environmental degradation, massive displacement of population from their origin place to the IDPs established at towns peripheries that undermined all aspects of the population livelihoods.

This research aimed at critically examining the impacts of Darfur ongoing conflicts on the natural resources and the livelihoods of the population. In addition to that the effect of displacement in the quality of services delivery for IDPs and host communities has been considered thoroughly inspected. The civil war in Darfur region resulted in displacement of more than two million people from their origin place and wide spread damage of personal assets and public infrastructure. In general the research process was built on a participatory approach engaging mixed techniques and combining both quantitative and qualitative aspects.

It was found that there was an increase in the numbers of displaced people in the camps at Elfasher locality that has put pressure on both sedentary and pastoralist livelihood systems. This had intensified both cropping and grazing leading to shorter fallow periods for fields and overgrazing. In addition to that herders and farmers compete for access to resources, leading to conflicts. These long-term processes are also evident in the loss of forest in the last three decades where the proportion of land covered by forest fell from 51% to 36% according to the forestry department estimates. The high reliance on wood fuel and charcoal to satisfy energy needs for households and the fired brick industry, contributes to rapid deforestation. This is in addition of cutting forest and trees by fighting groups for fighting tactic purposes. As a result of this the two big forests located in western and eastern parts of Elfasher town has been degraded and depleted completely because of the escalating war in North Darfur.

The available water resources in the state are very much constrained by wide seasonal and annual variations, poor accessibility, limited capacities of water storages facilities and infrastructures. These factors result into localized water abundances, but spatially (in time and space), scarcity and vulnerability to climatic fluctuations. Therefore it was recommended to analyze humanitarian programs in Darfur to make stronger linkages between conflict, protection, livelihoods and environment in addition to Impact assessments in each area. Women as most affected by conflict and environmental degradation; should be integrated and mainstream in all environmental protection work.

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Environment as cause for forced migration

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The issue of what links exist between environmental change and migration has been attracting increasing attention both in the media and in the scientific community in recent years. There is still a lot of uncertainty about how exactly environmentally induced migration and its effects should be defined. Nonetheless, the results of several large international research projects allow some conclusions to be drawn as regards the link between environmental change and migration:

- Migration is rarely caused by ecological factors alone. In the vast majority of cases, it is the result of a complex interplay between political, social, economic and ecological factors.
- In areas facing creeping or rapidly occurring environmental changes, migration is an adaptation rather than a survival strategy.
- Migration that takes place in the context of environmental change largely occurs within national borders or sub-regions but not between continents.

For some time now, many discussions have been held about the possibility of improving the protection under (public international) law of persons who consider themselves as having been forced to migrate in the context of ecological changes. But neither the option to extend the Geneva Convention relating to the Status of Refugees by an ecological component nor the possibility to create an autonomous legal instrument for this group of forced migrants appears to be especially promising in this regard.

There is a problem of coherence at the international cooperation level: while some international organisations are very actively addressing the issue of environmental change and migration, others are virtually completely ignoring it. Even during the international climate negotiations, the issue was first taken up only starting in 2010 in Cancún. However, the link between environmental change and migration has so far only represented a marginal aspect of the climate negotiations. In many countries affected by environmental change, there is a clearly recognisable tendency to consider internal migration as a phenomenon that is important to prevent, or at least mitigate against. Thus, for example, many (planned) measures for adapting to climate change are understood to stem migration.

Based on the findings on the link between environmental change and migration, the appreciation of the problem at the international and national levels and the international legal situation, six areas in which action should be taken may be identified:

- Instead of extending the Geneva Convention relating to the Status of Refugees or creating a separate convention for “environmental migrants”, existing legal instruments should be strengthened.

- The relevant UN and non-UN organisations from the areas of development, environment, climate, migration and humanitarian aid should create an international coordination unit for migration.
- “Migration management” (e.g. by providing relevant information for migrants) instead of migration prevention should be pursued.
- Both urban as well as rural living conditions should be improved.
- Migrants and population groups affected by environmental change – many live in marginal situations - should be involved in decision-making and planning processes.

What do we know about the link between environmental change and migration?

Due to the increasingly important issue of the effects of climate change, international attention has also become increasingly focussed on the potential consequences of environmental changes for human migration. In recent years, a whole series of research projects and initiatives on the link between environmental change and migration have been set up. These include Environmental Change and Forced Migration Scenarios (EACH-FOR) or the Migration and Global Environmental Change project.

Their results have surely contributed to the creation of a consensus, according to which, in the vast majority of cases, it is not only environmental change in the form of directly occurring events (tidal waves, storms, etc.) or gradual processes (soil erosion, rising sea levels, etc.) that cause people to migrate. Complex interrelated economic, social and political factors likewise have an impact on migration decisions.

This also gives rise to a problem of definition: there have so far not been any uniform criteria or indicators to show when the effects of environmental factors may be deemed to be so strong that associated human migration is actually considered to be environmentally induced. The great complexity of the problem of environmental change and migration therefore makes it necessary to develop generally accepted definitions and categories. In addition, the interaction between environmental change, migration and its potential consequences must be better understood. Keywords are among other things intensified slum formation and housing sprawl in the cities, emergence and/or intensification of conflicts in regions with high levels of immigration. Nevertheless, some global tendencies regarding the link between environmental changes and migration may be derived from the current research results:

- **Migration as a reaction to environmental change is also an important adaptation or coping strategy:** in the areas particularly affected by environmental degradation and/or by great climatic variation such as the Sahel region, especially small farming households often resort to migration strategies. When some members of the household migrate and support the remaining members by sending money and/or materials, the latter can better cope with the effects of droughts or tidal waves. This migration must be described as voluntary, if anything, and mainly takes place for a limited period.
- **Migration as a mere survival strategy has played a rather subordinate role in this regard to date.** Thus, according to estimates by the International Displacement Monitoring Centre, in recent years merely between 15 and 20 per cent of the total populations affected by suddenly occurring natural disasters worldwide were temporarily or permanently “displaced” by these.
- **Persons who cannot migrate** – because they are physically unable (e.g. children, old people, sick people) or who do not have the financial means for this – **mostly live and survive under harsher conditions than do migrants.**

- **Not only emigration from ecologically vulnerable areas is problematic, but also the immigration to these areas.** This is especially the case for slums and urban areas affected by flooding.
- **Persons who migrate in the context of ecological change mainly move within their own national borders or sub-regions.** There are hardly any indications that international migration (e.g. from Africa to Europe) is influenced by environmental factors.

Legal protection

The importance of legal protection for migrants who consider themselves forced to leave their homes due to environmental changes is frequently emphasised. As mentioned, not many migration flows are *solely* attributable to environmental events. Nevertheless, there is undoubtedly forced migration that environmental events have significantly contributed to. There are “loopholes in the protection” and an improvement of the legal protection is worth striving for. So far, no international legal instrument has been developed from which conclusive property rights for these migrant groups might be derived. A series of legal opinions draw the conclusion that there are points of contact for the protection of forced migrants in the context of environmental changes in various areas of the law (human rights, refugee law, environmental law, etc.). But taken alone, these areas of the law do not offer any sufficient legal protection.

How could an improvement be achieved? A frequently discussed option is to extend the Geneva Convention relating to the Status of Refugees of 1951 by explicitly mentioning environmental factors. In the current form of the Convention, environmental factors do not legitimise recognition as a refugee. Another possibility discussed is to create a separate international legal convention for environmental migrants. But neither option appears to be very promising. In the first option, the status of refugees, who are currently still protected by the Convention, could be weakened. The immigration and asylum policies of many industrialised countries have become increasingly more restrictive in recent decades. In addition, migrants in the context of environmental changes are often internally displaced persons to whom the Convention does not apply. While there are the Guiding Principles on Internal Displacement, these are merely “soft law”. Accordingly, they do not have any internationally binding legal validity. In the option to create a convention for environmental migrants, the result of a foreseeably lengthy negotiation and ratification process would be extremely uncertain.

Awareness of problems at the international level

The complexity of the phenomenon of environmental change and migration suggests that not only the international UN (United Nations High Commissioner for Refugees, UNHCR) and non-UN institutions (International Organization for Migration, IOM) that are established in the area of migration and asylum should deal with the emerging problems. Rather, (UN and non-UN) organisations that work in the areas of sustainable development, environmental and climate protection as well as humanitarian aid should also be involved.

There is a problem of coherence here: although the improvement of the protection and the living conditions of people who migrate in the context of environmental changes is highly relevant to some organisations such as IOM, UNHCR, the United Nations Development Programme and also the United Nations Environment Programme, the problem plays a rather subordinate role in other international organisations and committees. Various organisations also have differing approaches and courses of action in relation to the topic of environmental change and migration.

It was nevertheless an important signal that the issue of migration was taken up during the international climate negotiations in 2010 in Cancún. In the Cancún Agreement, the international community undertook the obligation in principle, but rather vaguely, to take measures to increase the knowledge, coordination and the international cooperation for the environmental change and migration complex. Whether the issue will soon be more than a marginal aspect in international climate negotiations remains unclear however. It is also uncertain what international organization or instance could create more coherence with regard to the matter of migration in the context of ecological change in the international arena.

Awareness of problems in countries affected

Regional and especially national actors undoubtedly have a key role to play in coping with the problem of environmental change and migration. However, not only have many industrialised countries clearly strengthened their migration and asylum policies in recent years, the governments of many developing countries are also backing a policy of stemming migration. Whereas the positive links between migration and development are certainly recognised in many countries of the southern hemisphere, the political focus is largely restricted to the role of international migration in relation to financial remittances to the home country. Internal and intra-regional migration is mainly seen negatively. Internal migrants often live in socially and economically marginal situations with correspondingly limited possibilities of political participation – this also applies to the rural smallholder population mainly affected by environmental change. The likewise mainly internal migration due to environmental change does not form any exception here.

Analyses of national programmes for adapting to climate change in least-developed countries show that in the majority of these programmes, migration in the context of environmental and climate change is mostly considered as a phenomenon that is important to prevent or contain. Only a few least-developed countries underline migration's positive potential for adaptation in their strategies.

Moreover, only a minority of developing countries contemplate resettling persons from areas that are affected by extensive ecological degradation. The majority of these are small Pacific island states, which is not very surprising considering the direct threat to their existence from rising sea levels.

Recommendations

Due to the complex links between environmental factors, human mobility and their consequences, recommendations that only emphasise environmental change and migration do not make any sense at all. Against the background of the stated international legal instruments and the increased awareness of the problem at the international level, the following policy recommendations can therefore be formulated:

- **Strengthen existing legal instruments:** instead of reflecting on the creation of a separate environmental migration convention or the extension of the Geneva Convention relating to the status of refugees, efforts that strengthen and draw closer together the existing legal instruments in the areas of human rights, environmental and refugee law for the benefit of the forced migrants affected by ecological change are more promising.
- **Institutionalise international cooperation for migration:** to create more coherence and establish international policy standards in the areas of environmental change and migration (and other migration issues), an international coordination unit for migration should be set up. This would have to build bridges between governments, the UN as well as non-UN organisations that work in the areas of migration, development and humanitarian-aid.

- **Not only prevent migration, but support migrants:** migration can be an important form of adaptation. But instead of only focussing on stemming migration, a supporting management of migration that considers the positive effects of migration would be desirable. Thus, for example, the infrastructure for financial remittances can be improved and information portals that inform migrants about jobs can be created.
- **Improve the rural and urban living conditions:** on the one hand, it is a good idea to provide greater support for adaptation-oriented rural /smallholder-oriented development and thereby reduce migration pressure. On the other hand, not only migrants, but also the family members left behind also benefit from an improvement in public services, infrastructure and working conditions in the cities through (potentially) higher remittances.
- **Involve migrants and population groups affected by environmental change:** measures regarding the last-named points can only be successful if migrants, their networks and the population groups affected by environmental change can be (better) involved in political decision-making and planning processes.

Case Studies: Environment as a cause for forced migration

1. Assessing employment, sanitation and local capacity in hosting households displaced by Super Typhoon Yolanda (Haiyan): The case of Rosario, Cavite, Philippines.

Christine Joyce Betia-Mendoza, *University of the Philippines Los Banos and University of the Philippines Open University, Philippines*

2. Effects of climate change on natural resources, migration and conflict among the pastoralist communities in Africa: The case of Northern Kenya.

Prof. Dr. James Biu Kung'u, *School of Environmental Studies, Kenyatta University, Kenya*

3. Water scarcity as migration driving force in MENA Region.

Bülent Topkaya, *Akdeniz University, Turkey*

**Assessing employment, sanitation and local capacity in hosting households
displaced by super typhoon Yolanda (Haiyan):
The case of Rosario, Cavite, Philippines**

Christine Joyce Betia-Mendoza^{1,*}, Christirose Jireh Betia²

Keywords: disaster-displaced people, environmental risks, local capacity

Super Typhoon Haiyan displaced one million Filipino people from disaster-wrought provinces in 2013 [1]. About 80 families from these communities fled to the coastal area in Isla Bonita, Rosario, Cavite as the local government offered shelter and assistance. Temporary housing, health, water and sanitation facilities are provided by the municipality alongside with other relief and recovery assistance from non-government institutions.

The study aims to identify Rosario's interventions in hosting the Haiyan-displaced households by looking into its socio-economic context in terms of extending employment, environmental, and other local services.

Results showed that three years after, 75% of the displaced households remained in Isla Bonita and became integrated to the locality accessing all social services and livelihood training, and participating in national and local election. Access to livelihood opportunities, household income and sanitary facilities have improved. Waste management needs work as wastewater facilities are still lacking and the area serves as one of the garbage catch areas from other municipalities.

Despite of these, Isla Bonita continued to attract other informal settlers in Rosario, posing greater sanitation and waste problems for human health, for the state of the sea and ground water source. A well-established framework and policy on hosting displaced communities have to be in place to guide local governments in the future. Further, appropriate work and livelihood opportunities and sanitation services can be assured with stronger government institutions, multisectoral cooperation and participatory approach, alongside with evaluation and monitoring mechanisms towards sustainable communities.

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Effects of Climate Change on Natural Resources, Migration and Conflict Among the Pastoralist Communities in Africa: The Case of Northern Kenya

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Keywords: Climate change, Natural resources, Pastoralists, Conflicts, Migration

Climate change is one of the greatest and defining challenges facing Africa continent. Pastoralists, who inhabit the Arid and Semi-Arid Lands (ASALs) in the continent, are among the people mostly affected because of their high sensitivity and vulnerability, low adaptive capacities and resistance to change. Over the years, pastoralists have been traditionally managing the challenges of climate variability mostly through migration among others. However population growth and the unprecedented rate and scale climate change is impacting especially droughts and floods are posing bigger and more challenges to their livelihood sustainability. These impacts are affecting men, women and children differently due to different household roles; use of natural resources; differential access to resources, technology and education. This paper reports on case studies that were carried out in northern Kenya, to assess the impacts of climate change on natural resources, migration and conflicts.

The study focused on identifying the key natural resources in the area, assessing impacts of climatic hazards (drought and flood) on the key natural resources, the subsequent effects on different gender and determination of gender specific coping strategies. Semi structured questionnaires were administered to selected households (Manyattas) that were randomly selected from Samburu community group.

Key informant interviews, focus group discussions and specified transect walks were undertaken. In Samburu case study, the community associated climate change with prolonged droughts (93.9%), loss of pasture (98.8%), increase in livestock diseases (81.1%), and drying of water sources (78.9%). The community identified their key natural resources in order of importance as water, pasture, mountains and hills, medicinal plants, forests and wild animals. There were significant differences between livestock numbers owned in year 2010 and those owned in year 2005 and year 2000 at $p < 0.05$. A general trend of increasing malaria, typhoid, common cold and diarrhea were observed and emergence and re-emergence of new livestock diseases. All these challenges are forcing communities to migrate and in the process cause conflicts with other pastoralists and agriculturalists.

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Water scarcity as migration driving force in MENA Region

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Keywords: Agriculture, MENA region, migration, water footprint, water scarcity

The Middle East and North Africa (MENA) region is the most food import-dependent, at the same time the most water scarce region in the world. Home to 6.3 percent of the world's population, the region contains only 1.4 percent of the world's renewable fresh water. One half of MENA's population lives under conditions of water stress. Moreover, with the population expected to grow from around 300 million today to around 500 million in 2025, per capita availability of water is expected to halve by 2050.

An average of 88 percent of MENA's water resources are allocated to the agriculture sector, with only seven percent going toward domestic consumption. The contribution of agriculture to overall GDP of the MENA countries is generally less than 15%. Water scarcity increases the competition for water from households and industry continues to reduce the share available to agriculture which will influence the domestic food production.

Migration is another main problem in the region with very close links to water scarcity. Nearly 60 percent of MENA's population lives in urban areas. Cities are growing faster than the countries as a whole, as population growth in rural areas feeds a pool of potential rural-to-urban migrants.

In this presentation, the agricultural production, water demand & supply and existing migration potential in selected MENA countries will be evaluated. The necessary data will be obtained from existing databases of FAO, World Bank and related institutions. Agricultural water demand and supply will be expressed in terms of agricultural water footprint. Taking the projections of population growth, agricultural production and food demand as well as economic indicators of the countries into account, the overall potential migration in the region will be derived.

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Case Studies: How to supply refugee camps

1. Capacity Building in Za'atari Refugee Camp - Implementing a sustainable waste and water management system.

Manal Ali, *Technische Universität Braunschweig, Germany*

2. Forced migration-Environmental and Socioeconomic Dimensions Case study of "Refugees" food supply in Kenya.

Joseph W. Matofari, *Egerton University, Kenya*

3. Emergency response to the impact forced migration brought on mental health in refugee camps in Southern Ethiopia: lessons learned.

Sisay Mulugeta (MSc), *Dollo Ado refugee Camps, Ethiopia*

4. Assessing the Impact of a School-Based Nutrition Intervention on Food Security of Refugee Children in Lebanon: Findings from a Pilot Study.

Nahla Hwalla, PhD, RD, FAND, *American University of Beirut, Lebanon*

Capacity Building in Za'atari Refugee Camp by Implementing a Sustainable Waste and Water Management System

Manal Ali¹, Klaus Fricke¹

Keywords: Capacity building, sustainable waste management, training and education

Za'atari is the biggest refugee camp in Jordan; it hosts about 80,000 Syrian refugees and provides them with basic needs. This prescribes high financial support. Bad impacts on the environment are resulting from the current rudimentary management of drinking water supply, wastewater and solid waste disposal. Besides, wage dumping, increase in unemployment and social tension are observed among the local population due to the competition on jobs. The proposed project responds to these challenges and aims at improving the economic, environmental and social conditions in the camp by implementing a sustainable management of supply and disposal systems. Furthermore, it aims to mitigate the social tension by generating job opportunities. It consists of two main elements; implementing a sustainable management system and capacity building. The sustainable management is based on the separate collection of organic biodegradable waste and dry residuals. Organic waste together with the sludge from the wastewater treatment plant is to be processed in a composting plant with an optional digestion step. Compost and possibly biogas can be produced. The dry fraction of waste is to be directed to a sorting plant to collect and trade recyclables. Besides, agricultural activities are planned for food production, making use of the produced compost as soil improver and treated wastewater as a source for irrigation water. The work on the proposed plants is to be manual and labour intensive creating job opportunities for refugees. Capacity building measures are proposed to assure success and sustainability of the technical measures. This includes: 1) train the trainer seminars to prepare trainers, 2) qualification seminars to prepare a qualified staff capable of undertaking the work on the plants, and 3) awareness promoting seminars that target the whole camp community. Project idea can be transferred to similar conditions e.g. other refugee camps in Jordan as in other countries. Providing refugees with qualifications that are urgently required for the reconstruction in their homeland is expected to enhance integration and repatriation chances.

With regard to capacity building, TU Braunschweig in cooperation with Exceed-Swindon and funded by DBU has started a project to develop a multilingual multimedia e-learning platform for education in waste management. It aims to generate a comprehensive teaching material targeting a wide spectrum of users and adopting different applications. The open-source software Moodle is used to implement the online platform. A modular structure that enables direct access to the different topics is applied. Text, animation, film and other modern technologies are used to present information. It will be available in three languages (English, German and Portuguese).

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Forced migration-Environmental and Socioeconomic Dimensions

Case study of “Refugees” Food supply in Kenya

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Keywords: Forced migration, Refugees, IDPs, Food supply, Malnutrition

Background: Forced migration comes as a result of conflicts, terrorism, war, weather, environmental degradation, overpopulation, faulty policies, corruption etc. It can be within the country leading to internally displaced people (IDPs) or outside the country leading to refugees. About 1.2 million forced migrants live in Kenya as refugees and/or internal displaced persons (IDPs) and they need food. There are many organizations working under UNHCR-WFP that provide relief food and build resilience among the most vulnerable populations including Kenyans themselves, especially in northern Kenya. The relief food supplied mostly includes cereals, pulses, oil and sugar. This is energy adequate and micronutrient deficient ration that has created a challenge in fulfilling the food security deficit in refugee camps in Kenya as the household food consumption and dietary diversity is not met.

Objective: To assess the food security situation in the Kenyan refugees camps and highlight challenges in fulfilling the food security concept (The availability, accessibility, the quality and acceptability). How the nutrition of migrants is taken care of through food supplies, food quality and micro-nutrients and the feeding programmes and related problems of supplementation.

Methods: Desktop survey of data and reports from FAO, WFP and NGOs on prevalence of malnutrition in refugee camps in Kenya, the coping mechanisms including coping strategy index in households, BSFP and WASH. How the UNHCR-WFP are planning to promote livelihoods, support context-specific livelihood activities such as agriculture and ensure food security and nutrition well-being in camps.

Results: The refugee populations often suffer from multiple micro-nutrient deficiencies. Iron deficiency anaemia and vitamin A deficiency are among the most visible forms of micro-nutrient deficiencies in refugee populations. Anaemia has reached more than 20% in adults and 42% prevalence in children under five years. In women of reproductive age, it ranges between 6-27% prevalence.

Conclusion: Food relief aids do not recognize the critical socio-economic aspects that entail food security, thus consumption patterns, diet diversification and malnutrition. There is need to investigate the causes of these challenges from a socioeconomic and natural sciences view on how food is produced, accessed and consumed.

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Emergency response to the impact forced migration brought on mental health in refugee camps in Southern Ethiopia: Lessons learned

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Introduction: Worldwide displacement is at the highest level ever recorded, 59.5 million individuals were forcibly displaced worldwide as a result of persecution, conflict, generalized violence, or human rights violations at the end of 2014. This is 8.3 million persons more than the year before (51.2 million) and the highest annual increase in a single year. The number of individuals forced to leave their homes per day due to conflict and persecution increased four-fold in four years from 10,900 in 2010 to an average of 42,500 in 2014. [1]

Developing regions hosted 86 per cent of the world's refugees. On the other hand, Ethiopia has overtaken Kenya to become the largest refugee-hosting country in Africa and 5th from the world. [1] Currently, Ethiopia is a home for more than 821,700 refugees and asylum-seekers allocating land for more than 23 camps around Assosa, Dollo Ado, Gambella, Jijiga, Semera and Shire. [2] In response to an increasing influx of refugees fleeing from ongoing political and civil unrest and famine in Central and Southern Somalia UNHCR and ARRA established five refugee camps in Dollo Ado corridor since February 2009. As of 31 of December 2015, 210,924 registered Somali refugee population are settled in five refugee camps and one reception center. [3] Migrants commonly experience very stressful events and adverse conditions that may lead to psychological problems. [4-7] There are also other factors that are going to impact refugees' psychological wellbeing such as multiple losses (home, culture, relationships), and the stressors associated with having to adapt to a new culture and environment, lack of employment and educational opportunities. [8] Even if not all people who are exposed to those factor develop mental illness; the rates of common mental disorders double in the context of humanitarian emergencies from a baseline of about 10% to 20%. [9]

Result: The article will discuss the lessons learnt on the way of comprehensive clinical, counseling and community based mental health services in three refugee camps in southern Ethiopia as an emergency response to the impact forced migration brought on mental health of migrants.

Conclusion: With short term training and close supportive supervision primary health workers (Health officers, Nurses and Midwives) can effectively manage most people with mental, neurological and substance use disorders. Additionally, if given the chance, refugee themselves can identify and refer patients with mental, neurological and substance use disorders, conduct advocacy and awareness creation events, facilitate social and recreational sessions, do home visit to patients and facilitate discussion between community with simple training and very close supervision. Generally, it is possible to establish clinical mental health and psychosocial support service within the health centers and outreach activities in refugee camps with locally available resources.

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Assessing the Impact of a School-Based Nutrition Intervention on Food Security of Refugee Children in Lebanon: Findings from a Pilot Study

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Keywords: nutrition, Syrian refugees, children, Lebanon

Background: Food insecurity is one of the main challenges faced by Syrian refugees, particularly children, residing in host countries, including Lebanon. Schools are important venues for the provision of nutrition education and feeding to children, however limited studies have explored the role of schools in improving dietary knowledge and intake of refugee children, who suffer from food insecurity and malnutrition.

Objective: This study aimed to evaluate the impact of a 6-months nutrition intervention on change in dietary intake and knowledge of Syrian refugee children (aged 10-14 years) in a rural region in Lebanon.

Methods: A pilot study was conducted using the non-randomized controlled before-after (CBA) design in three elementary informal schools serving Syrian refugee children in the region of Bekaa, East of Lebanon. A total of 16 teachers from these schools were trained by a team of nutrition experts to deliver nutrition education sessions that are interactive as well as age- and culturally-appropriate. In addition, the intervention included the refurbishment of school kitchens and training of community workers to help prepare and distribute nutritionally-adequate snacks to children during the school day. A total of 180 children and their mothers were recruited to take part in the study (120 in intervention schools and 60 in the control school). Baseline household food security status was assessed by a previously locally validated household food insecurity access scale and the nutrition knowledge, dietary intake, and nutritional status of children were assessed pre- and post- intervention using a tailored questionnaire.

Results: Results from baseline assessment of 173 children showed that the majority were severely food insecure (83.2%). Several coping strategies were reported by their households, such as reducing the number of meals consumed/day, limiting portion sizes and borrowing money to buy food. Approximately 12% of Syrian refugee children were found to be overweight at baseline and their dietary intake reflected low protein, high fat, and inadequate micronutrient intakes (calcium, potassium, and vitamins A, C, D, and B12). Post intervention, prevalence of overweight increased to 16% in total sample, and significant increases in total caloric, fat, calcium, iron and vitamin A intakes were observed among children in intervention schools as compared to the control schools ($P < 0.01$). Protein intake increased among intervention group but did not reach statistical significance.

Conclusion: Findings from this study highlight the need for expanding this pilot intervention to larger-scale, school-based nutrition programs that combine nutrition educational sessions with school feeding programs and promote evidence-based practice through evaluating the impact of school interventions on the nutrition security of children.

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Poster Session I + II

The following study results were presented during the poster sessions:

1. Migration in Egypt: Socioeconomic Dimensions
2. Policies for a sustainable biomass energy sector in Malawi: Overcoming pressures from population and economic growth
3. Employment and social protection of different kinds of migrant workers in Chile, 2006-2015
4. Temporal migration: Number of days away from home and work-family interaction in Ecuadorian petroleum workers-A cross-sectional study
5. Temporary migration in the healthcare sector: psychosocial risks, family interference and psychological distress in the Peruvian mining sector
6. Spanish refugees in France and Mexico. A comparative study on the impact of political asylum in the integration processes
7. Working below skill level as risk factor for distress among Latin American migrants living in Germany – cross-sectional study
8. Working conditions among migrant construction workers in Mar del Plata, Argentina
9. Working conditions of migrant domestic workers without Argentinian residency in Buenos Aires
10. Teaching and Training: The future of mental health care in Ethiopia. The MSc course integrated clinical and community mental health at Jimma University
11. Forced to Migrate: Forced displacements in Nepal by Natural Disasters
12. Overview of Coastal Hazard and local migration in Semarang, Indonesia
13. Temporal migration due to Harmful Algal Bloom among artisanal fishermen in Southern Chile
14. Environmental Degradation as a Cause of Migration: Current Debates, Gaps and Recommendations
15. Decades after resettlement: Livelihood of displaced Karen at the frontier of Thailand
16. Importance of micro-planning in the context of environmental degradation triggered displacement in Bangladesh
17. Penned cattle gained less weight during the rainy season than grazing cattle in eastern Cambodia
18. Flood integrated management in the Huong River Basin
19. Point of use water purification by Bio-Fence System in Lake Victoria, Kenya
20. Treatment of filtrate from dewatering of thermal-hydrolyzed sewage sludge using anaerobic membrane bioreactor

Migration in Egypt: Socioeconomic Dimensions

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Keywords: Inward, outward, internal and international migration, history, water related

Migration in Egypt is strongly influenced by poverty, economic difficulties, and improper socioeconomic policies. Until the mid-1950s, foreigners came to Egypt but Egyptians rarely migrated abroad. Egyptian emigration was not only a reflection of the oil boom in the Arab Gulf countries and the need for manpower in neighboring countries, but also of economic problems and high rates of population growth in Egypt. Internal migration was a natural response to poverty and the uneven distribution of economic activities, and played a major role as a balancing mechanism, as Egyptian migration flows to the Gulf and elsewhere began. [1]

In terms of immigration, Egypt is host to limited flows of migrant workers, but rising numbers of refugees and asylum seekers. In addition to some 70,000 Palestinian refugees whose families arrived in the wake of the 1948 war, tens of thousands of refugees from Sudan, Ethiopia, Eritrea and Somalia, as well as Iraq, are now stranded in Egypt. During the 2011 Libyan Civil war, large numbers of migrants fleeing Libya reached Egypt. A majority were, however, Egyptian nationals.

Since the mid-2000s, Egypt has developed into a main transit country for irregular migrants, either to Libya or to Israel. Now, as the traditional paths have largely been closed, many migrants and refugees are blocked in Cairo and along Egypt's Mediterranean coast. Boarding a boat towards Europe is for many the only option to escape negligence, detention and abuse [2].

The objective of the study is to review the history of migration in Egypt showing socio-economic dimensions and introducing current trends as seen by the author.

In addition to the main objectives, the poster presentation explains the relation between migration and the Egyptian revolution, shows how migration can be triggered by water related issues, and reviews the old and current history of migration of the Jews in Egypt.

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Policies for a sustainable biomass energy sector in Malawi: Overcoming pressures from population and economic growth

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Keywords: Sustainable Development, Population Growth, Sub-Saharan Africa

Biomass energy in the form of firewood and charcoal remains the main cooking energy source in rural and urban areas of Sub Saharan Africa, making it vital for livelihood, food security, and survival. Yet, population and GDP growth are exacerbating already existing supply-demand imbalances in highly populated countries such as Malawi. These trends will increase demand but also reduce supply indirectly through deforestation as a consequence of growing demand for agricultural land. As people are eventually forced to migrate in order to survive, it is imperative to find policy interventions that promote sustainable biomass energy while simultaneously considering linkages with other sectors. We use new data on demand and supply for biomass energy in Malawi and develop a model that estimates fuelwood demand based on actual diets and project demand in future years. We simulate how demand side interventions in the form of improved cookstoves affect biomass demand and built a behavioral model to analyze the potential of agroforestry for promoting a sustainable biomass energy sector in Malawi.

Our findings show that policy measures aimed at increasing cooking efficiency are not enough to decrease demand for cooking energy due to high population growth. Supply side interventions like agroforestry on the other hand will not only increase sustainable supply, but can also enhance food security and protect the environment. We find that biomass energy can be inherently sustainable and use of traditional energy source must not be a reason for forced migration.

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Employment and social protection of different kinds of migrant workers in Chile, 2006 – 2015

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Keywords: Health status, Social determinants of health, Human migration, Chile

Background: Immigrants are a small percent of Chilean population, but they increase in a slow wave in last decades, mainly from Latin America. Their living and working conditions are of concern for social policies [1]. A "healthy migrant effect" has been observed, but this outcome is lost when adjusted by socio-economic position [2].

Objectives: To describe changes in employment, social protection, and living conditions of foreign immigrants (18 or more years old) in Chile, between 2006 and 2015, and their association with health status, comparing with resident population.

Methods: Cross sectional Socio-economic National Household Surveys 2006, 2009, 2011, 2013, 2015 [3]; subset: people of 18 or more years old. Variables: Migration status (Non-Migrant [NM] / Resident Immigrant [RI, 5 or more years in Chile] / New Immigrant [NI, < 5 years in Chile]); Employment status (Employed / Unemployed / Inactive); Health Coverage (Yes/No); Social Security (Yes/No); House Sanitation (Acceptable/Deficient); House Overcrowding (>2.49 people per bedroom); Poverty (Yes/Not); Health Index (Any health problem last 3 months or Self-declared bad health last month = Good/Bad); Age (18-39 / 40 or more years); Sex (Male / Female). Variables were obtained for all years, except Health Index for year 2006. Prevalence and Odds Ratios (OR[95%CI]) were estimated (SPSS 20.0 and R).

Results: Percentage of immigrants: 2006= NI, 0.3%; RI, 0.8% / 2015= NI, 1.2%; RI, 1.8%. Median age: 2006= NI, 28.0; RI, 36.0; NM, 41.0 / 2015= 30.0, 37.0, 44.0. Inactivity rate 2015= NI, 16.3%; RI, 22.9%; NM, 39.0%. Unemployment rate is variable. House overcrowding 2015= 27.6%; 28.6%; 8.0%. Sanitation has improved. Lack of health coverage 2015= NI, 33.8%; RI, 8.8%; NM, 5.4%. Lack of social security 2015= NI, 38.5%; RI, 24.6%; NM, 26.6%. Poverty rate 2015= NI, 7.3%; RM, 8.8%; NM, 9.6%. Crude OR of bad Health Index 2015= NI, 0.53 [0.53-0.54]; RI, 0.64 [0.63-0.64]). Adjusted OR 2015 <1 for both, but not in 2013 for RI (crude OR = 0.83 [0.82-0.84]; adjusted OR= 1.03 [1.02-1.04]), nor in years 2011 and 2009 for NI (2011= crude OR 0.70 [0.68-0.71] vs adjusted OR 1.19 [1.16-1.21]; 2009= crude OR 0.59 [0.58-0.61] vs adjusted OR 1.00 [1.00-1.02]).

Conclusions: Immigrants ≥ 18 y.o. show good health and low poverty rates when arriving to Chile. They live in overcrowded houses, with acceptable sanitation. Access to health insurance and social security are low. The healthy migrant effect is not always kept after adjusting by demographic, socio-economic and living conditions variables. Follow-ups could clarify the determinants of declining in immigrants' health status.

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Temporal migration: Number of days away from home and work-family interaction in Ecuadorian petroleum workers - A cross-sectional study –

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Keywords: family relations, SWING, petroleum workers, temporal migration, work-family conflict

Background: In Ecuador, almost all petroleum industry is located in remote area in the Amazon region. Work is done 24-7 and workers need to stay far away from home for several workdays. The aim of this study was to identify the association between number of days away from home and work-family interaction in workers employed in the oil fields of the Amazon region of Ecuador compared with petroleum workers working in the city.

Methods: A total of 350 workers (response 88%) from five oil companies were invited to participate in a self-administered cross-sectional questionnaires survey between October 2015 and January 2016. Outcome was assessed by the Work-Home Interaction-Nijmegen» (SWING) questionnaire, taking the median of each variable as cut-off point. Exposure included number of days away from home, socio-demographics, working conditions and mental distress (GHQ-12 cut-off ≥ 5). Descriptive analyses were followed by multiple logistic regression models.

Results: Number of days away from home was a risk factor for negative home to work interference: compared to those working in the city, adjusted Odds Ratio for workers with up to 14 days absence from home was 1.86 (95% Confidence Interval: 1.08-3.20) and 2.91 (1.41-6.02) for those with longer than 14 days absence. Other statistically significant risk factors for home to work interference were being divorced (3.67; 1.13-11.85) and mental distress (1.95; 1.07-3.52).

Discussion: Temporal migration for work is a risk factor for negative interference from family to work. Domestic roles and problems with spouse/family/friends could affect job performance and colleague relationships.

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Temporary migration in the healthcare sector: Psychosocial risks, family interference and psychological distress in the Peruvian mining sector

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Keywords: Working away from home, Psychosocial risk, Mining, Healthcare workers

Background: Mining activity in the Peruvian Andes use to be located in remote zones, demanding temporary periodical migration for specialized jobs, such as healthcare. Some of them live transiently in worksite camps, leaving their families at home. This periodical and transient moving from homes to worksite camps has been studied as a cause of interference with family life in other countries [1].

Objectives: The aim of the study was to estimate the association between working in remote zone and psychosocial distress in these workers.

Methods: Between October 2013 and January 2014, 248 healthcare workers answered a questionnaire (response 80%). 126 of them worked in remote zones, 122 worked in their city of residence. Exposure variables were: zone (remote/urban) and psychosocial risk (psychological demands, active job-development, social support, compensation; cut-off p75) and interference of work with social and family life. Psychological distress was assessed through the 12 item General Health Questionnaire (cut-off 4/5). Descriptive and bivariate analyses were followed by multiple logistic regression.

Results: The prevalence of distress was 37% among temporary migrants as compared to 26% in those not migrating for work ($p=0.06$). After adjustment, the Odds Ratio for distress was 2.00 (95% Confidence Interval, 1.09-3.69) in temporary migrants compared to those in urban zones. Among psychosocial factors, only low level of reward was found to be associated with distress (adjusted OR 2.07; 95%CI 1.09-3.92).

Conclusions: Temporary migration might result in higher level of psychosocial distress which cannot be explained by psychosocial working conditions or work-family interference.

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Spanish Refugees in France and Mexico - A Comparative Study on the Impact of Political Asylum in the Integration Processes

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Keywords: Spanish Refugees, France, Mexico, Reception, Experiences

In 1939, by the end of the Spanish Civil War, many Spaniards ran away looking for asylum abroad. France and Mexico were the two main countries that took in this group. They first crossed the border to France, a country with a worldwide reputation of granting political asylum. Nevertheless, they soon discovered the ambiguity of a country in a complicated situation: Outwardly, France wanted to preserve the image created during the revolution in favor of human rights, but it was also struggling with xenophobia due to an economic and political crisis. France was forced to accept the biggest migration wave the country had ever received.

To the contrary, México was in the middle of a process of political and economic stabilization. General Lázaro Cárdenas's government acted as an arbitrator and regulator agent for the defense of national interests. The government had always been reluctant to receive refugees in its territory, but with the Spanish republicans, it showed itself as the most enthusiastic receptor, as it was looking to position itself as one of the most important of the developing nations in the Latin-American subcontinent. The refugees' arrival was an opportunity to import a qualified workforce. One which could be used in the national industrialization processes, as well as revitalizing the intellectual elite.

One of the main differences of the arrival experience relates to the nature of a forced "reception" that the French government was not able to avoid. The crowd of unwanted refugees was put in concentration camps. In contrast, the Mexican government worked with the Spanish republican organizations to select those who would be authorized to immigrate to the country, organizing their relocation as well as their placement in Mexico.

Living in exile involves not only involuntarily leaving one's country, but also having to face the reception of a foreign country. In this case Spanish refugees faced the exile from their home country, but also the "Tyranny of the nation", where administrative practices and methods of state control determined their fate

Spanish refugees found both barriers and facilities in France and Mexico that were the result of well-defined objectives by both governments. However, in both countries, they managed to move on with their lives, settling where they found a job, bought a house, adopted a new nationality and raised a family.

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Working below skill level as risk factor for distress among Latin American migrants living in Germany – cross-sectional study

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Keywords: migrants, distress, skill level

Introduction: About 84.710 Latin Americans currently live in Germany [1]. Knowledge about their work situation in relation to their skill level and its association with mental health is limited - mainly due to the difficult access to the population. Therefore, the aims of this study were to assess the frequency of working below skill level and the prevalence of distress in Latin American migrants living in Germany.

Methodology: This study included a convenience sample of 282 Latin American migrants living in Germany. Participants were recruited by a short online (Facebook, personal contacts) or interview-based questionnaire from November 2015 to April 2016. Questions included skill level, job category (categorized by ISCO 2008 code) [2], socio-demographics, violence at the workplace and distress assessed by Goldberg's General Health Questionnaire using a cut-off of 4/5 [3]. Descriptive statistics were followed by logistic regression analyses adjusting for potential confounders.

Results: About half of the study population reported symptoms of distress (45%). 12-months prevalence of violence at the workplace was 14%. 62% of the population worked below skill level. After adjustment, working below skill level was a statistically significant risk factor for distress (Odds Ratio 2.80; 95% Confidence Interval: 1.58 – 4.95). Conclusion: Working below skill level is common in Latin American migrants in Germany and may result in poor psychosocial well-being.

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Working conditions among migrant construction workers in Mar del Plata, Argentina

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Keywords: Migrants, employment, working conditions

Background: In search of employment and security, about 150 million workers leave their country. Construction is one sector where many migrants are employed. Information about their working conditions are lacking. The objective of this study was to assess these aspects in migrant and local construction workers in Mar del Plata, Argentina.

Methods: In 2013/14, a cross-sectional questionnaire study was carried out among 150 migrant construction workers (response 94%) and 150 local construction workers (response 89%). The questionnaire instrument was taken from Latin American National Surveys on Working Conditions and Health. Results of migrant and local workers were compared using Chi2-tests and multiple logistic regression models.

Results: About 57% of the migrants as compared to 8% of the local workers worked without contract ($p<0.001$). Working time of more than 44 hours per week were reported by 99% of the migrants and 41% of the locals ($p<0.001$). The median of effort-reward-ratio, a measure of psychosocial working conditions, was 1.4. Migrants compared to locals (adjusted Odds Ratio 6.3; 2.8-13.6), those working without contract (5.6; 2.6-12.4), and those working more than 44 hours per week (2.8; 1.2-7.0) were more likely to have an effort-reward ratio above the median.

Conclusions: Migrant workers in construction work under precarious conditions associated with poor psychosocial working conditions.

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Working conditions of migrant domestic workers without Argentinian residency in Buenos Aires

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Keywords: residence status, labor migration, informal employment, mental health, violence

Background: Domestic workers form an important group of migrant workers throughout the world. They offer vital services to the receiving countries.

Objective: The aim of this study was to compare working and employment conditions of migrant domestic workers without residency to domestic workers with Argentinian passport or residency. Additionally, risk factors for poor health should be identified.

Methods: In this cross-sectional study, 201 female workers (response 94%) answered a written questionnaire. The Spanish version of the European Working Condition Survey was adapted to the specific work situation. The General Health Questionnaire (GHQ-12) and one general health item were employed to assess health.

Results: Countries of origin included Paraguay (87%), Peru (8%) and Bolivia (5%). Migrant workers without residency (35%) were more likely than the comparison group to work without a formal contract (94% vs. 65%; $p<0.001$), more than 48 hours / week (58% vs. 37%; $p=0.02$), to be exposed to violence or bullying at the workplace (27% vs. 15%; $p=0.05$). and to take care of the elderly (67% vs. 30%; $p<0.001$). Controlling for age and education, differences remained. Violence or mobbing the main predictor for poor mental health (prevalence 12%; OR 4.6; 95% CI 1.5-13.5) and poor/fair general health (23%; 6.0; 2.5-14.6).

Conclusions: Our study confirms for domestic workers that work as an important pull factor in international migration may result in precarious employment conditions that might adversely affect health.

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Teaching and Training: The future of mental health care in Ethiopia. The MSc course integrated clinical and community mental health at Jimma University

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Introduction: In Low Income Countries where the focus is primarily on communicable and infectious disease prevention and treatment, mental health problems remain neglected. The scarcity of mental health professionals in those countries adds to the lack in awareness of mental ill health and its treatment.

In cooperation with Jimma University (JU) in Ethiopia and the Center for International Health (LMU) in Munich, Germany, we developed a Master's program to educate qualified clinical officers in mental health, who are able to provide comprehensive mental health care that utilizes local resources, to train other mental health professionals and to advocate for mental health. We trained an average number of 12 graduates annually.

Program Profile: The Master Program in integrated clinical and community mental health consists of courses on basic sciences pertaining to psychiatry, courses on clinical psychiatry, supervised clinical skills training, community based education and research over a period of two years.

Evaluation of the Program: After a five year period we evaluated our master program in November 2015 during the first network meeting in Addis Ababa.

Results: We invited 36 graduates to attend the network meeting - 87.5 % (n=32) participated. Among the study participants 17.9 % (n=5) were female and 82.1 % (n=23) were male. The majority of the graduates 64.3% (n=18) were working in Universities followed by health institutions (17.9%, n=5). The remaining 14.3% (n=4) and 2.8% (n=1) were working in government colleges and non-governmental organizations. Graduates were working in the Amhara region (32.1%, n=9), in the Oromia region (25%, n=7), in Tigray (17.9%, n=5), in Addis Ababa (14.3%, n=4), (7%, n=2) and in the Somali region (3.6%, n=1). The majority of the graduates (60.7%, n=17) were bachelor of nursing followed by health officers (35.7%, n=10) before joining the program. The majority of the graduates (82.1%, n=23) reported that they felt confident to conduct comprehensive psychiatry assessment of children and adolescents. All of the graduates (100%, n=28) reported that they felt confident enough in identifying and managing severe mental illnesses. The majority 75% (n=21) of the graduates were involved in clinical activities, nearly three fourth of the graduates (67.9%, n=19) in research activities and 78.6%, (n=22) of them were involved in teaching activities as well. 39.3% (n=11) of the graduates were working as a leader in different positions.

Summary: Health officers and nurses are ideal candidates to be trained in mental health and provide mental health care. They help to improve the clinical care not only in the center but also in peripheral regions of Ethiopia.

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Forced to migrate - Forced displacements in Nepal by natural disasters

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Keywords: Forced-migration, Floods, Earthquakes, Landslides, Avalanche, Nepal

Nepal is highly vulnerable to natural disasters such as earthquake, avalanche, floods, landslides as well as drought. Dixit (2016) estimated that 10,814 Nepali people were killed by natural disasters during the period 1971-2013 in Nepal.

One of the examples of such disasters is Gorkha Earthquake of 2015 April and its aftershocks. It shook Nepal, China and India but largely impacted on Nepal. The death toll from this single earthquake is 8,892. According to government data 22,302 persons were injured. The number of houses fully damaged by the earthquake is 602,567 (MOH, 2015). The earthquake triggers avalanche in places like Everest and Langtang. The most devastating effect of the earthquake-triggered avalanche was on Langtang valley in central Nepal.

Flood is another major natural disaster in Nepal. It causes human deaths and displacement. Drought in Nepal is not a new phenomenon. However, with the climate change its severity and frequency are increasing. Natural disasters cause loss of vital sources of livelihood such as land, water and forests forcing people to displace. Such displacements are causing more natural hazards as the displaced people are forced to take shelter in places vulnerable to natural disasters such as flood, landslides. Displaced people are forced to stay in forests areas. Natural disasters in countries like Nepal are ever increasing with climate change. Human activities of infrastructure development such as road building in haphazard ways trigger more natural disasters.

The problem is further compounded by the fact that there is no comprehensive study on the problem. Natural disasters do not occur in isolation. It is interrelated to number of other factors. There is a need to look into such factors while studying the natural disasters and their impact. Knowledge, information gained from such studies should be disseminated widely to the policy makers and as well as the vulnerable communities so that they can take action before the natural disasters hit.

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Overview of coastal Hazard and local migration in Semarang, Indonesia

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Keywords: Local Migration, Tidal flood, Hazard, Inundation, Adaptation

Semarang city in Indonesia facing inundation frequently. The tidal flood occurs during the high tides. It is exacerbated by reclamation, industrial development in coastal area, the increasing of settlement, and decreasing of mangrove forest as natural protection from coastal erosion. Groundwater extraction due to industrial uses cause permanent reduction of groundwater water level (Marfai and King, 2008a)[1]. During high tides, the settlements can be inundated up to 6 kilometers from the coastline. The coastal community in Semarang has been adapt to that situation as an effort to protect their neighborhood from flooding and doing local migration to other places. This research aims to give an overview of the local migration phenomena in Semarang coastal area. Further research is needed in order to investigate mode detail on cause impact and decisions made related to the migration's destinations area. Around 15% of the coastal area in Semarang experiences tidal inundation and more than 50% of the coastal area suffers from both river flooding and coastal inundation. A number of people migrating to higher areas, while several people remain in the hazard area. In general, people in hazard area has been adapt to the situation by increasing floor level in their house, built dyke and ditch in front of their house, put their belonging in higher place in their house, or move or migrate in higher areas in Semarang City (Marfai and King, 2008b [2], Hillmann and Ziegelmayer, 2016 [3]). The people migrate to different area, such as Demak Kendal, Ungaran and hilly area in Southern part of Semarang, to avoid inundation. In general, several factor influence, the local migration in the coastal area of Semarang, among other are: (1)Permanent inundation in their neighbourhood area, (2) Lack of capital to rebuilt or renovate their house, (3) No occurs to infrastructure in their neighbourhood or the area is being isolated due to inundation, (4) There is no hope and no future in their perspective.

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Temporal migration due to Harmful Algal Bloom among artisanal fishermen in Southern Chile

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Keywords: work migration, climate change, qualitative study, Latin America, divers

Background: Red tide or Harmful Algal Blooms (HAB) are events caused by high levels of micro algae in the sea which toxins are dangerous for human health if contaminated shellfish are consumed. Since April 2016 a long and aggressive HAB has occurred along the coast of southern Chile with the subsequent extraction ban of seafood, economically affecting mainly independent workers and families engaged in artisanal fishing and diving. Therefore, in traditional communities of fishermen affected by the first time of HAB, some workers have had to migrate looking for a new source of employment. The objective of this study therefore was to describe the experience of community members related to the recent HAB crisis.

Methods: Exploratory study through individual qualitative interviews with two women who migrated and five key informants from the community, including a diver, migrant worker's family and community leaders. They were asked about positive aspects and challenges related to the environmental cause of migration. The analysis of interviews included transcription of the voice recording, coding and grouping of the main concepts.

Results: Positive aspects mentioned by those who migrated included access to social security system, fixed monthly salary (although in some cases it is a temporary job), access to training and building of new capacities as well as strengthening the family support network. Negative effects described were difficulties in school performance of the children, change in children's behavior, loss of autonomy and permanent jobs, and perceived health effects by different working hours. They hope for being able to return to their previous jobs as they enjoy the high quality of life they had in the village. Nevertheless, they are concerned that the situation might not improve due to climate change and pollution of the sea by the nearby salmon farms. Those who remained in the community reported unemployment, lower income, and higher level of occupational risks such as diving deeper for extraction of non-contaminated products.

Conclusions: In the South of Chile, the crisis caused by HAB has caused temporary migration and worse occupational safety among artisanal fishermen and their families. Their future and perspectives depend on the development of the local environment and the rise in temperature. They hope for being better informed by the government.

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Environmental degradation as a cause of migration: current debates, gaps and recommendations

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Keywords: environmental change, ecological systems, environmental hazards

When ecosystem services are degraded, global environmental change phenomenon have negative reinforced impacts on the human population, increases their exposure to environmental hazards and influences migration pattern. One main objective of the performed investigations within this paper is to examine the current scientific debate, policy issues, strategies and gaps. One key finding is that there exists just little knowledge about the interaction between environmental change and degradation on ecological systems, effects on socio-economic vulnerability and its effect migration patterns. In addition, gender has different impacts on the urgency of migrations, destination choices, job prospects, and socio-cultural structures. However, people who migrate are mostly considered as homogeneous regarding gender which distorts research results. Another main gap is that, there exists no binding definition for environmental induced migration. Therefore, no legal regulations are implemented and environmental migration aid on an international government level is not or just marginal existent. Based on the findings, recommendations are given for improving the practical implementation on scientific and political level. A further part of the present paper deals with a meta-analysis, based on the evaluation of all in all nine countries their special grade of vulnerability, their policy strategies and gaps.

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Decades after resettlement: Livelihood of displaced Karen at the frontier of Thailand

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Keywords: Deforestation, Dam, Resettlement, Karen, Thailand

Thailand's mountains are home of the Karen, Hmong, Lahu and other ethnically hill tribes. Traditionally, these hill tribe farmers have practiced shifting cultivation. In the 1980s, Karen people in the Western Forest Complex of Thailand were forced to migrate from their lands by relocation scheme. This scheme was operated by Electric Generating Authority of Thailand (EGAT), who reclaimed the forest areas for building the dam to generate electricity providing to industrial development in Bangkok. This research project aimed at investigating livelihood transitions of these displaced Karen. Specifically, it examines the dynamics of access to and control over natural resources of displaced people at new place. The study was carried out in Huai Kob village of Kanchanaburi province, where is located to the border area between Thailand and Myanmar. Data was collected in May and July, 2015. A combination of purposive and snowball sampling techniques were employed to help select more than 10 key informants, consisting of community and traditional leaders, school teachers, state governmental officers and forest product collectors. Direct observation and life narratives were also conducted to collect data.

The study found that the relocation scheme offered displaced Karen with land about 2.4 ha per household with land title and introduced basic infrastructures such as school, road and temple to resettled area. Although family's land holding were decreased, people in studied area felt more secure about of their land. At the old village, most of Karen were settled in state claimed forests so they had no legal rights to access to lands. At resettled area, Karen people were found with both opportunities and challenges to sustain their livelihood. They use the land for cultivation of paddy field, rubber trees, vegetables and other seasonal cash crops. Some villagers go to work with the Watershed Management Unit, the governmental project located nearby the village, as a daily worker. The study also found that Karen villagers collected many different non-timber forest products such as bamboo shoots and bamboo grass. They collected these forest products for both household and selling to the market. The products are supplement to farm production. However, people's access to forest products were limited and constrained by existing forestry laws which tend to favor biodiversity conservation. Some villagers expressed fear of the uncertainty in their future for gaining access to forest products for sustaining their livelihood. The study concluded by suggesting that there is a need to rethink conventional view of resettlement program to promote people's participation and access to resources.

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Importance of micro-planning in the context of environmental degradation triggered displacement in Bangladesh

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Keywords: Micro-planning, displacement, environmental degradation, Bangladesh

This study aims at exploring micro-planning between a host and a migrant in the context of environmental degradation triggered displacement in the Bhola slum area of Dhaka. Coastal Bangladesh is prone to both rapid (e.g. cyclones, tidal flooding) and slow (e.g. salinity intrusion, droughts) on-set natural disasters¹. These natural disasters, together with land use changes (e.g. increase in shrimp farming, construction of dams on rivers) eventually lead to environmental degradation which in-turn affect lives and livelihood of people. Migration and mobility are among common responses to climate and environmental stressors to adapt with the circumstance. However, in recent years an expedited process of environmental degradation as manifested by climate change impacts (such as sea level rise, increase in tidal storm surges and cyclone, decrease in upstream fresh water flows due to rainfall variability) has been forcing local vulnerable people to migrate to urban in search for income generating opportunities. The Bhola slum has been receiving displaced people from the coastal regions since the disastrous cyclone in 1970, as a case study. The current study is conducted through focus group discussions and individual interviews within the slum to explore whether the displaced population is benefited by migration or if they are confronting challenges. Based on the findings 42 percent of respondents reported migrating due to severe riverbank erosion and 25 percent due to cyclone. In general both the host and migrants expressed that they are facing challenges as new migrants continuously arriving at the slum while the available facilities have remained unchanged. Frequent conflicts regarding job and housing between the newcomers and the existing dwellers in the slum were reported. Not having prior planning or communication with the host was identified as a challenge. However, some respondents reported that they had planned earlier, and communicated with their host prior to their move, and as such settling down was considerably smoother since the host had time to arrange jobs and housing for them. Evident from this study shows, unplanned migration may be unable to achieve the desired outcome and may even result in negative consequences. Policy makers and advocates of migration should have a better understanding of the relationship between the host community and migrants in supporting and accommodating mobility.

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Penned cattle gained less weight during the rainy season than grazing cattle in Eastern Cambodia

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Keywords: Cambodian smallholders, cattle productivity, cut-and-carry, improved forages

Smallholders in Ratanakiri Province, Eastern Cambodia, face the challenge that grazing land is becoming scarcer though current cattle productivity is too low for effective commercialisation. Planting forages on small land parcels for cattle-based cut-and-carry systems can considerably increase animal productivity and associated income. This research aimed at evaluating whether such systems could be established on Cambodian smallholdings, where an increasing beef demand offers cattle-keeping and resource-poor smallholders an opportunity to enhance their livelihoods.

From June to September 2015, live weights of 37 local cattle (~2 years; 126 ± 34 kg initial live weight) were recorded biweekly on five smallholdings in Pruok (E 106°96', N 13°57'), Lumphat district. Of these, 17 cattle were penned and fed a mix of farm-grown forages (*Brachiaria* hybrid Mulato II, *Brachiaria ruziziensis*, *Panicum maximum* cv. Mombasa, *Paspalum atratum* cv. Ubon, *Stylosanthes guianensis* var. *vulgaris* var. *pauciflora*), whereas the remaining 20 cattle grazed the surrounding pastures. Above-ground biomass yields of farm-grown forages were determined monthly by destructive sampling on 20 smallholdings, then forage samples were collected and analysed for their nutrient and energy concentrations. Furthermore, 20 forage-growing and 20 non-forage growing cattle-keeping smallholders were interviewed about their production systems and priorities.

Dry matter (DM) yield of the above-ground biomass of forages amounted to about 3 t DM ha⁻¹ with crude protein and metabolizable energy concentrations of 84 g kg⁻¹ DM and 7.3 MJ kg⁻¹ DM, respectively. Average daily live weight gain of penned cattle (~68 g/day) was lower than those of grazing cattle (~208 g/day; $P < 0.001$). This can be explained by the sub-optimal management of forage stands by smallholders, resulting in decreases over time in both palatability and nutritional quality, while the quality of natural pasture was relatively high. Therefore, smallholders were feeding their penned cattle insufficient crude protein, while the grazed cattle consumed more palatable and larger amounts of biomass. To improve cattle productivity through forages, smallholders need to individually set priorities considering the market pull and dwindling natural and human resources to grow and adequately feed quality and quantity forages to the cattle. For instance, further studies could elucidate how conservation of forages can improve dry-season feeding of cattle.

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Flood integrated management in the Huong river basin

Thi Thanh Van Ngo^{1,*}, Dang Giap Nguyen², Duc Vinh Hoang²

Keywords: frequency, flood damage, flood prevention measures, damage to property, inundation maps

The World Cultural Heritage in Thua Thien Hue province located at downstream of Huong River, central region of Vietnam hosting many special cultural features of Vietnam. It is also that where frequent floods and widespread flooding happen with immediate impacts of flooding include loss of lives, damage to property, destruction of crops, loss of livestock, non-functioning of infrastructure facilities, temples and deterioration of health condition owing to waterborne diseases. Frequent flooding, resulting in loss of livelihoods, production and other prolonged economic impacts and types of suffering can trigger mass migration or population displacement. Forced migration to developed urban areas creates overcrowding in the cities. The huge psychosocial effects on flood victims and their families can traumatize them for long periods of time.

The study developed a relationship between probability of flood event, discharge, stage and damage of Huong river basin in Vietnam. The stage-probability function can be transformed through that function to yield the required inundation maps-probability and damage-probability function. Finally, to compute the expected damage based on the inundation maps, the resulting damage-probability function is integrated. In addition, the study focus on estimating flood damage or loss to have measures forecasting and warning for the affected communities as well as support the decision making in water resources planning.

This study presents the theoretical basis for building inundation maps of different stage level and relationships of probability and flood damage, and flood damage analysis corresponding flood alarm levels and frequency on the Huong river basin. The inundation maps will support to estimate flood damage quickly and to offer solutions to minimize the damage and support the flood integrated management solutions and flood prevention measures in the Huong river basin.

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Point of use water purification by bio-fence system in Lake Victoria, Kenya

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and Akira Morikawa²

Keywords: Bio-fence, heavy metals and Microcystis

Many African countries are struggling with various water environmental issues such as shortage of water, contamination of water sources and deterioration of water environment. Several researchers have reported on the deteriorating water quality including the occurrence of toxigenic cyanobacteria such as *Microcystis* sp. in supposedly fresh waters such as Lake Victoria. The water quality monitoring such as for cyanobacteria and the evaluation of the risk of microcystin for inhabitants are important. Such reduced availability of drinking waters lead to inter-community conflicts which fuel migrations to other lands.

Since most water treatment technologies are out of reach of large populations in third world, a low cost on-site water purification system made of natural local materials is desired. Bio-fence; a concept where a natural water-purifier-barrier is erected between the dirty water mass and the water user collection points is a new concept gaining popularity. Here, a charcoal barrier was put between greenish algae filled lake Viictoria water and the village water collection point. With the flow rate of ca. 5L/min, the Bio-fence showed 97% removal of cyanobacteria in the experiment. The removal of total suspended solid (TSS) was 93% in average. The removal of Chl-a was 97%. Chl-a normally correlates the total phytoplankton biomass. The average concentration of microcystin in the treated water was 0.92µg/L as microcystin-LR equivalent (by PP2A enzyme assay) which was less than 1 µg/L microcystin-LR which is the guideline value of drinking water by WHO. The concentrations of Lead, Copper, and Manganese all reduced by over 80%.

Thus bio-fence is an appropriate system in developing countries due to low cost, is a system to provide clean and safe water by removing heavy metals, nutrients and cyanotoxinmicrocystin in eutrophicated lake water. With improved water treatments, the inter-community water related conflicts would be reduced and hence migrations to other lands impeded.

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Treatment of filtrate from dewatering of thermal-hydrolyzed sewage sludge using anaerobic membrane bioreactor

Bing WU^{1,*}, Lin TIAN¹, Xiaohu DAI¹

With rapid urbanization and gradually increasing sewage treatment facilities in China, the amount of wasted activated sludge increases rapidly and becomes a new challenge in city area. "The plan of water pollution control action" promulgated by the government recently indicates that the sludge treatment is an urgent problem to be solved in wastewater treatment. Conventional anaerobic digestion is a popular sludge stabilization treatment. However, the sludge in china generally has the properties of low organic content and high sediment concentration. Meanwhile, conventional anaerobic digestion cannot separate the solids retention time (SRT) and the hydraulic retention time (HRT). As a result, anaerobic treatment has the shortcoming of low efficiency, large footprint and high rate of equipment failure.

In this study, a combination of thermal hydrolysis and anaerobic membrane bioreactor is used to solve the problem of dewatered sludge treatment and resource utilization. Thermal hydrolysis has a great influence on solubilisation of organic matter and sludge dewatering properties. After thermal hydrolysis, sludge treatment problem is transformed into high strength wastewater treatment and stabilization of low organic content and dry sludge. Anaerobic membrane bioreactor can separate HRT and SRT efficiently, which leads to improvement of the efficiency of anaerobic digestion. The optimum conditions of thermal hydrolysis were determined first. Then the influence of organic load and seeding sludge on the filtrate from dewatering of sludge hydrothermal anaerobic digestion was investigated. After that, an anaerobic membrane bioreactor (AnMBR) was established to treat synthetic wastewater with similar properties of the sludge filtrate. The start-up characteristics and long run operating performance of the AnMBR was studied. At last, the real filtrate from dewatering of thermal hydrolyzed sludge was processed in AnMBR to verify the feasibility and evaluate system performance.

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Panel discussion

Beyond war and internal conflicts - contribution of environmental factors and socioeconomic conditions on migration



Stefan Bienefeld

Head of Division Development Cooperation and Transregional Programs at DAAD

Rex Osa

Refugee and activist – Refugees for Refugees

Dr. Franck Düvell

Migration researcher at the Oxford University

Prof. Dr. Christoph Scherrer

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Conference Program Day 2

Thursday, 20th October 2016
Open space Event for exceed partners
09:00 – 17:30

Cross-discipline research and training to end forced migration-Linking
Disciplines for Greater Impact



The 2nd day of the conference was designed as an open space event for 84 exceed partners from 30 countries. As the 1st day had given an up-to-date review of environmental and economic aspects of forced migration, the aim of the open-space was to identify gaps and opportunities in cross-discipline research and training in order to prevent forced migration. The targeted outcome of day 2 was to propose new research projects and events which can be collectively worked on by the partners in the upcoming months.

Method

An Open Space format was chosen as a participatory method to allow participants to have the largest possible effect on the results of day 2. Open space is open in the sense that ideas arise spontaneously during the day and are then worked on. It is a method used to maximize influence and participation in order to find solutions. This was felt to be important in order to ensure an exchange “auf Augenhöhe”. Its advantages include the possibility to work in new, spontaneously established teams across cultures and disciplines, to ensure that those who worked together were open to create new potential collaborations.¹ In order to meet the specific needs of the group the event was carefully planned by taking into account the specific requirements of the group listed in table 1. Additionally, an external moderator (D. Preuss) was invited to chair the day.

Requirement	Approach
Open Space requires active engagement	A specific invitation was sent, outlining the Open Space method, the aims and how participants would be interacting.
Challenge to participants to move beyond habitual and local partnerships	To emphasise the specific intention, we added “Linking Disciplines for Greater Impact” to the topic
Importance of producing tangible results	Second half of the day planned as “action” sessions, with “Initiative” forms to capture objective, cost estimate, funding sources, and plans for the next step.
Many non-native speakers of English	Written instructions and forms allow people to read at their own pace. Schedule was simplified and clearly posted. One hour sessions (instead of 45 min).
Many cultures, different habits	When planning plenary aspects: lunch, reporting, etc. simplicity, clarity were key.
Desire to maximize cross-partner dialogue	One large hall and the adjacent room were used to keep participants and sessions visible to all, to encourage movement and exchange. The unstructured space also allowed both smaller and larger groups to form.
Jet-lag, information overload, fatigue	We provided an all-day refreshment station with “butterfly” tables to invite rest and informal conversation. Participants were encouraged to take a break, a walk or a nap at any time, to increase their effectiveness.
Focus on face-to-face conversation	We intentionally did not encourage the use of computers or social media and kept all activities low-tech. Additionally, visitors could have very different internet access so we chose to ignore the internet for a day.

Table 1: Specific requirements for the open space event and how they were met (adapted from D. Preuss)

¹ Reich, K. (Hg.): Methodenpool. In: URL: <http://methodenpool.uni-koeln.de> 2008 ff

Results

1. Welcoming session and creation of the market place

The day started with a welcoming session during which the objective, principles and structure were explained to the participants. For this session, chairs were arranged in a big circle. In the centre of the circle, big sheets of paper and markers were arranged, on which participants could then suggest topics to be discussed in the following three exploration phases (10-11, 11-12, 1-2 pm). These 28 topics were then sorted by time in the market place (Figure 1) so that each exploration phase had a similar amount of topics to be discussed.



Figure 1: Setting at the start of the open space with Market Place

2. Exploration phase

During the three sessions of the exploration phase (Figure 2; 1 hour each, interrupted by a 1 hour lunch break), 23 of the 28 suggested topics were discussed and reported back (Table 2). Ten of them focused on prevention of migration while the remaining 13 focused on improvement of the situation for refugees. They covered flight related employment aspects ($n=4$), environmental concerns ($n=2$), health conditions and nutrition ($n=4$), social and socio-economic aspects ($n=5$) and political questions ($n=4$). Also discussed by two groups was the question of what Higher Education Institutions might contribute in terms of research, training and development aid. Topics were suggested by partners from thirteen different countries; 16 of the topics by partners outside Germany. All Exceed centers suggested different topics. Group size varied between 2 and 22 participants.

Figure 2: Group discussion during the exploration phase



Nr.	Convenor			Topic	Key words			Number of participants
	1 st Name	2 nd Name	Country		1	2	3	
1	Christoph	Scherrer	Germany	ICDD	Conditions for employment and job creation	Employment		Prevention of migration 15
2	John	Mburu	Kenya	FSC	Socioeconomic effects of migration on host communities	Employment	Research	Refugees 7
3	Katja	Radon	Germany	CIH	Decent work, occupational safety & health for small scale workers affected by environmental changes	Employment	Research	Prevention of migration 7
4	Astrid	Garrido	Chile	CIH	How to promote the participation of communities, enterprises and governments in order to protect employment	Employment	Capacity building	Prevention of migration 2
5	Igrar Anwar	Khan	Pakistan	CNRD	How refugee camps influence natural resources in host countries	Environmental aspects	Host countries	Refugees 15
6	Andreas	Haarstrick	Germany	SWINDON	Water security for health and livelihood of migrants and local people	Environmental aspects	Health	Refugees 22
7	Matthias	Siebeck	Germany	CIH	Migrant health in undergraduate medical education	Health	Capacity building	Refugees 6
8	Nahla	Hwalla	Lebanon	CNRD	How do we empower refugees to take care of their own community (health, education, living conditions)?	Health	Capacity building	Refugees 7
9	Sisay	Mulugeta	Ethiopia	CIH	Mental health and migrants productivity	Health	Capacity building	Refugees 7
10	Bernarda	Espinoza	Ecuador	CIH	Higher education programmes and research gaps regarding (forced) migration	Higher education	Research	Prevention of migration 6
11	Tsedeke	Alemu	Ethiopia	CIH	How higher education institutions increase their impact on policy making about migration	Higher education	Capacity building	Refugees 7
12	Tushune Godana	Kora	Ethiopia	CIH	North-South-South collaboration to address forced migration	Networking		Prevention of migration 5
13	Aly	El-Bahrawy	Egypt	CNRD	Compile local data about migration and translate to exchange best practice	Networking	Capacity building	Refugees 8

Nr.	Convenor			Topic	Key words			Number of participants	
	1 st Name	2 nd Name	Country		Center	1	2		3
14	Josef	Matofary	Kenya	ICDD	How to improve nutrition of refugees under consideration of gender sensitive strategies	Nutrition	Gender	Refugees	11
15	Aram	Ziai	Germany	ICDD	Development induced displacement and accountability in development aid	Politics		Prevention of migration	9
16	Josef	Matofary	Kenya	ICDD	Which information is required to prepare stakeholders to cope with natural disasters?	Politics	Capacity building	Prevention of migration	10
17	Zeinab	Abou Elnaga	Egypt	SWINDON	Role of media to promote sustainability of resources in refugee camps	Politics	Capacity building	Refugees	?
18	Sudeh	Dehnavi	Germany	CNRD	Poverty trap in rural area and role of the government	Politics	Research	Prevention of migration	6
19	Rachel	Bahn	Lebanon	FSC	How to support refugees/migrants in places where there is little desire of the host community to permanently integrate them?	Social aspects		Refugees	2
20	Afio	Zannou	Benin	ICDD	How to consider migrants as economic and environmental improvement opportunities in new places?	Social aspects		Refugees	6
21	Wolfgang	Krahl	Germany	CIH	What has to be done that the host communities welcome refugees?	Social aspects		Refugees	12
22	Angela	Espinoza	Colombia	CIH	Social participation to avoid more people having to leave their homes	Social aspects	Capacity building	Prevention of migration	4
23	Alakh	Sharma	India	CNRD	Understanding dynamic of internal and international migration patterns & conditions	Socioeconomic aspects	Enviroment	Prevention of migration	9

Table 2: Convenors, topics and keywords discussed during the exploration phase sorted by Key words

3. Action phase

After the exploration phase, the action phase started. At the beginning, participants were given the chance to review the notes of the exploration phase (Figure 3) and to brain-storm about which topics might be linked. After that, in a 2nd market place, the final projects were suggested to be worked on after the conference. These were then discussed during a 90 minute session during which project goals and next steps were defined on premade forms. Results were then presented to the whole group.



Figure 3: Notes of the exploratory sessions for review

Overall, participants decided to work on nine projects in the months following the conference (Table 3). Five of these projects focused on causes of migration, the remaining four on how to deal with the consequences of it. Projects involved between one and three exceed centers. Most projects should start with a first workshop, during which the state of the art should be reviewed and stakeholders be involved. Most of the projects realized the importance of including the community and taking into account gender aspects. While some projects were already discussed before the conference taking the advantage of the conference to recruit new partners (e.g., project 6), many others were developed from scratch. Students and experienced researchers alike were actively involved.

In summary, this 2nd day in an innovative form well completed the 1st, traditional day of the conference. It was an ideal start for future work across centers on topics of forced migration. It is currently discussed by the partners, whether it would be useful to combine at least some of these workshops in a 2nd exceed conference in 2017.

Suggested projects

1. Establish a network & collaboration between North-South-South higher education institutions with regard to migration

Convenor:	Kora Tushune Godana (CIH Ethiopia)
Participants:	Wolfgang Krah (CIH Germany), Andrea Kinigadner (CIH Germany), Matiws Soboka (CIH Ethiopia), Sisay Mulugeta (CIH Ethiopia), Tesedeke Alemu (CIH Ethiopia), Maha Ismail (CNRD Sudan)
Objective:	1) To involve HEI in training, research and service with regard to migration 2) To refine research priorities regarding migration, evaluation of programs 3) To establish a multidisciplinary approach in managing migration & preventing forced migration
Methods:	Workshop, Course, Research, Experiment, Publication
Time frame:	2017
Total costs:	
Possible sources of funding:	
Concrete next step:	Workshop in Ethiopia on this topic, one week partner meeting
Date / Time:	Decided after 1 week
Where:	Jimma University, Ethiopia
Convenor:	Jimma University, Kora Tushune Godana
Participants / who to invite:	HEI representatives from Ethiopia, Kenya, Sudan, South Sudan; German Universities (LMU/exceed centers/DAAD), University Medical Sciences & Technology (Sudan)
Success factors:	People: multidisciplinary stakeholders, politicians (Germany etc, Somaliland, Somalia, Kenya, Sudan, South Sudan) Organizations: HEI (North, South), NGOs working in refugee camps, Ministry of Labor & Social Affairs
Nr. exceed centers involved:	2

2. Development-induced Displacement: Accountability in Development Aid

Convenor:	Aram Ziai (ICDD Germany)
Participants:	Nadita Mondal (ICDD India), Akua Britwum (ICDD Ghana), Surin Onprom (FSC, Thailand), Wiboon Chongrattanameteekul (FSC Thailand)
Objective:	To explore accountability mechanisms related to development induced displacement
Methods:	Workshop, Research, Publication
Time frame:	End of 2017
Total costs:	10,000 €
Possible sources of funding:	DFG; Oxfam
Concrete next step:	Writing reports on the topic until March 2017; Mapping of cases and accountability mechanisms (situational analysis)
Date / Time:	
Where:	
Convenor:	
Participants / who to invite:	
Success factors:	
Nr. exceed centers involved:	2

3. Decent work and occupational safety and health in rural areas

Convenor:	Javier Becerril (ICDD México)
Participants:	Victor Jimenez (FSC Costa Rica), Astrid Garrido (CIH Chile), Bernarda Espinoza (CIH Ecuador), Ángela Espinoza (CIH Colombia), Nandita Mondal (ICDD India), Manuel Parra (CIH Chile), Lena Kurtz (CIH Germany), Josef Matofari (ICDD Kenya), Carlos Salas (ICDD Brasil), John Amoah (ICDD Ghana), Claudia Davila Valdes (ICDD México), Carlos Sandoval-Garcia (FSC Costa Rica), Christoph Scherrer (ICDD Germany), Katja Radon (CIH Germany)
Objective:	To review state of the art on decent work and occupational safety and health in rural areas
Methods:	Workshop
Time frame:	2 days in 2017
Total costs:	
Possible sources of funding:	Diverse, exceed projects, local funding, ICDD, DAAD, CONACYT
Concrete next step:	Develop projects
Date / Time:	July 2017
Where:	Mérida / México
Convenor:	Javier Becarril, Claudia Davila, Manuel Parra, Victor Jimenez
Participants / who to invite:	exceed partners, experts
Success factors:	Different countries and disciplines are present. Experienced groups are being involved
Nr. exceed centers involved:	3

4. Decent work and OSH in fishing communities and agriculture (Subproject of project 3)

Convenor:	Christoph Scherrer, Katja Radon (ICDD, CIH)
Participants:	Victor Jimenez (FSC Costa Rica), Astrid Garrido (CIH Chile), Bernarda Espinoza (CIH Ecuador), Ángela Espinoza (CIH Colombia), Nandita Mondal (ICDD India), Manuel Parra (CIH Chile), Lena Kurtz (CIH Germany), Josef Matofari (ICDD Kenya), Carlos Salas (ICDD Brasil), John Amoah (ICDD Ghana), Claudia Davila Valdes (ICDD México), Carlos Sandoval-Garcia (FSC Costa Rica), Christoph Scherrer (ICDD Germany), Katja Radon (CIH Germany)
Objective:	To strengthen local fishing and agricultural communities
Methods:	Workshop, course, Literature review
Time frame:	2017/2018
Total costs:	Check local funding, funding for workshop by exceed
Possible sources of funding:	Literature review / what's done in the network to identify knowledge gaps, workshop with ILO/WHO + skill development
Concrete next step:	phone call / discussion with ICDD/CIH PhD students
Date / Time:	November 2016
Where:	Munich
Convenor:	Katja Radon, Astrid Garrido
Participants / who to invite:	
Success factors:	
Nr. exceed centers involved:	3

5. Identify the factors of migration in rural Nepal

Convenor:	Nagendra Raj Sitoula (CNRD Nepal)
Participants:	
Objective:	To identify the factors of migration in rural Nepal
Methods:	Workshop, research
Time frame:	2 years
Total costs:	
Possible sources of funding:	Government and donor agency
Concrete next step:	Research proposal
Date / Time:	2017
Where:	Nepal
Convenor:	IOETU Nepal
Participants / who to invite:	Relevant partner universities
Success factors:	
Nr. exceed centers involved:	1

6. Water Security: A vehicle to improve health and livelihood of refugees and local people

Convenor:	Mukand Babel (SWINDON Thailand), Andreas Haarstrick (SWINDON Germany), Lars Ribbe (CNRD Germany), James Kungu (CNRD Kenya)
Participants:	Zeinab Abou Elnaga (SWINDON Egypt), Victor Alcaraz (SWINDON Mexico), Samuel Paré (SWINDON Burkina Faso), Chrispin Kowenje (SWINDON Kenya), Manal Ali (SWINDON Germany), Maha Ismail (CNRD Sudan), Maria Cristeta Cuaresma (FSC Philippines), Arwa Hamaideh (SWINDON Jordan), Ahmed Aly Aly Hassan (SWINDON Egypt), Mehmet Emin Aydin (SWINDON Turkey), Bing Wu (SWINDON China), Sudeh Dehnavi (CNRD Germany), John Mburu (FSC Kenya)
Objective:	To improve health and livelihood of refugees and local people
Methods:	Workshop
Time frame:	April 2017
Total costs:	50,000 €
Possible sources of funding:	Exceed centers
Concrete next step:	
Date / Time:	April, 28th/29th 2017
Where:	Cologne, Germany
Convenor:	CNRD, SWINDON
Participants / who to invite:	
Success factors:	Multidisciplinary team including public health sciences, commitment of participants and exceed centers, funding
Nr. exceed centers involved:	3

7. Food & Nutrition Security of Refugees and Host Communities: Assessment in camp and integrated settings (Kenya & Germany)

Convenor:	Joseph Matofari (ICDD Kenya), Veronika Scherbaum (FSC Germany), Rachel Bahn (FSC Lebanon)
Participants:	Simon Riedel (FSC Germany), Wiboon Chongrattanameteekul (FSC Thailand), Victor Jimenez (FSC Costa Rica), John Mburu (FSC Kenya), Maria Cristeta Cuaresma (FSC Philippines), Birgit Felmeden (ICDD Germany), Nandita Mondal (ICDD India), Maha Ismail (CNRD Sudan)
Objective:	Improving food security and nutrition of refugees and host communities
Methods:	Research
Time frame:	2 years
Total costs:	300,000 €
Possible sources of funding:	4 PhD students (2 female, 2 male) funded by FSC PhD scholarships Apply for funding for planning and dissemination workshops
Concrete next step:	Research proposal
Date / Time:	2017-2019
Where:	Kenya, Germany, Lebanon
Convenor:	Joseph Matofari, Veronika Scherbaum, Rachel Bahn
Participants / who to invite:	
Success factors:	Rights-based approaches, power relationships, gender issues, Food supply systems: planning, logistic, distribution, monitoring, bottom-up approach, inclusion of locally available food sources can improve nutritional status and create gender balanced employment and new job opportunities
Nr. exceed centers involved:	3

8. Open Access Database on Local Migration

Convenor:	Aly El-Bahrawy (CNRD Egypt)
Participants:	Katharina Luig (CNRD Germany), Anne Biehl (CNRD Germany), Nora Lucidi (CNRD Germany), Günter Fröschl (CIH Germany), Manuel Parra (CIH Chile), Manal Ali (SWINDON Germany), Rojina Haiju (CNRD)
Objective:	
Methods:	Workshop, research, publication
Time frame:	1 year
Total costs:	
Possible sources of funding:	DAAD/exceed
Concrete next step:	Form a team, establish keywords for database, find intelligent software
Date / Time:	
Where:	
Convenor:	
Participants / who to invite:	
Success factors:	Access to local knowledge, disseminate migration data, continuous update of information, quality control
Nr. exceed centers involved:	3

9. Analyse effects of forced migration on economies of different countries

Convenor:	John Mburu (FSC Kenya)
Participants:	Afio Zannou (FSC Benin), Heinrich Hagel (FSC Germany)
Objective:	Construct case studies of effects of migrants on economies of industrialized and low income countries
Methods:	Start with a workshop to develop research proposals
Time frame:	
Total costs:	
Possible sources of funding:	To be explored but DAAD / exceed can be a start
Concrete next step:	Plan / organize the workshop
Date / Time:	
Where:	Nairobi
Convenor:	
Participants / who to invite:	
Success factors:	Many countries are already burdened by migrants and therefore are likely to fund this research. The multidisciplinary approach will contribute to the success of the project.
Nr. exceed centers involved:	1

Final report from DAAD - Exceed conference: flight and migration in the field of a global network



Group picture of participants of the exceed conference "Forced Migration - environment and socioeconomic dimensions"

With the "exceed" program, the DAAD is funding academic excellence and international cooperation in exceptional dimensions through funding from the German Federal Ministry for Economic Cooperation and Development (BMZ): Five German universities are cooperating with 37 partner institutions in Africa, Asia and South America. The value of this exchange with regard to the topics of flight and migration has now been elucidated by a conference in Berlin.

Flight and migration - these topics have dominated the headlines at the latest since summer 2015. The UN Refugee Agency (UNHCR) currently counts more than 65 million people who are fleeing the world - mainly in their own country. But what are the causes of migration and how are military conflicts and water deficits related? Is a dignified existence possible in refugee camps? How do host countries deal with the influx of refugees and what is the responsibility of the international community?

These questions were at the center of the conference "Forced Migration - Environmental and Socioeconomic Dimensions" organized by the five German universities of the DAAD program "Hochschullexzellenz in der Entwicklungszusammenarbeit - exceed" in Berlin on 19 and 20 October. The TU Braunschweig, the LMU Munich, the TH Cologne and the Universities of Kassel and Hohenheim, together with their 37 partner institutions in Africa, Asia and South America, form a network that the DAAD has been funding since 2009 - funds from the German Federal Ministry for Economic Cooperation and Development (BMZ).

An essential strength of the exceed network is that its members have a differentiated view on global issues. This was also demonstrated by the Berlin conference and the invited speakers. For example, Dr. Benjamin Schraven, a social scientist from the German Institute for Development Policy (DIE), made it clear that the current peak in refugee numbers was due to armed conflicts, such as in Syria or Iraq, but that causes of flight were generally more complex. This also has to do with climate change: the probability of flooding and droughts has increased. This in turn has implications for nutrition: fertile soils for agriculture and pasture land for livestock are becoming scarcer - a reason for flight and displacement.

How different causes of escape interact, Professor James B. Kung'u of the Kenyan Kenyatta University presented using the example of cattle-breeding nomads in the north of his country.

Due to the drought, they compete for less and more grazing land and water bodies. This leads to displacement, flight and conflicts, which are exacerbated, because cattle farmers from nearby Ethiopia cross the border to Kenya due to water scarcity and because weapons come from Sudan and Somalia, neighboring countries that have been suffering for decades under armed conflicts.

Time is running out

Professor Bülent Topkaya predicted another dramatic development for the world's most arid region, the countries of the Middle East and North Africa. A large portion of the fresh water is used there for the irrigation of fields. If the economy fails to save water in agriculture, the future looks gloomy: "In the year 2030, people will suffer absolute water deficiency in most countries in this region," Topkaya said. According to the conclusion of the Turkish environmental engineer from the Akdeniz University in Antalya, "water scarcity will possibly be the driving force for migration in the next decade".



In the search for answers: pressing questions of the present were discussed in Berlin by the conference participants

The countries in the region are already struggling with the dramatic consequences of flight and migration. In Lebanon, refugees are now one-fifth of the total population. Over half of them are children. Professor Nahla Hwalla from the American University of Beirut has found in a case study that more than 80 percent of these children suffer from malnutrition. With a school nutrition program initiated by the scientist, the calorie intake as well as the protein intake of pupils could be improved.

On how the living conditions in refugee camps can be sustainably improved, Manal Ali, a PhD candidate at the Technical University of Braunschweig, made a suggestion. With the construction and operation of a sewage treatment plant, waste separation and the production of biogas from sewage sludge, she wants to solve the urgent wastewater and sewage problems and at the same time provide refugees with training and jobs. As demonstrated by the example of the Jordanian refugee camp Zaatari, the hosting population would also benefit because the labor market would be relieved, and the facility would continue to operate if the refugee camp was dissolved. In order to further develop the concept, scientists from TU Braunschweig are currently seeking funding.



In the dialog: The exceed conference brought together scientists across many disciplines

Necessary change of perspective

The Exceed conference, to which over 120 scientists from all over the world traveled to Berlin for, also made it clear where research on migration can become even better. "We need to involve the affected ones even more so that we can draw the right conclusions," said Professor Lars Ribbe of the TH Cologne. Just as important as the local level are the political control instruments. Thomas Gebauer, managing director of the aid organization medico international, encouraged to take the structural reasons for flight into view. This also includes international trade policy. Small-scale farmers in the countries of the South would also be forced to flee because they themselves do not have any chance on local markets in the face of industrially produced cheap goods - chicken wings from the Netherlands or tomatoes from Italy.



DAAD Division Manager Stefan Bienefeld: Looking at the future of the network

Stefan Bienefeld, Director of Development Cooperation and supra-regional Programs at the DAAD, underlined in the concluding panel discussion that in Germany the view on the issue of flight and migration had changed with the current refugee crisis - and the importance of local help was also recognized. The German Federal Ministry for Economic Cooperation and Development had taken several initiatives at the same time. The chances that the research will continue in the world-wide exceed network are certainly good, as Stefan Bienefeld assured: "There are conversations about continuing the exceed program beyond 2019."

Kristina Vaillant (October, 31st 2016)

Credits

We would like to thank all our partners for your participation.

- Ain Shams University
- Akdeniz University
- American University of Beirut, Libanon
- Asian Institute of Technology (AIT)
- Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
- Egerton University
- Independent University, Bangladesh (IUB)
- i.nez - International cooperation in mental health
- International Labour Organization (ILO)
- Jimma University
- Kasetsart University
- Kenyatta University
- Ludwig-Maximilians-Universität München
- Mansoura University Egypt
- Maseno University
- Mutah University
- Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA)
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