



hat strikes me again and again is the contrast between refugee camps and the surrounding area. Refugees often end up in areas where the local population is hard up too. In the camps there is food, there are hospitals and schools, and sometimes it is safer there too,' says Bram Jansen, a researcher at the Wageningen Sociology of Development and Change chair group. He is specialized in refugees and migration, and regularly visits refugee camps. This summer he was in Zaatari, a large camp for Syrian refugees in Jordan.

'It is high time Wageningen expertise was deployed for migration-related issues'

For his PhD in Wageningen (2004-2011), he stayed two years in Kakuma, a refugee camp in Northern Kenya that houses refugees from South Sudan, Ethiopia, Somalia, the Congo and Uganda. 'In Northern Kenya, a lot of people live in poverty, suffering recurring food shortages and having to deal with violent cattle rustlers,' says Jansen. 'The refugees in Kakuma get protection, healthcare and education. There are facilities such as a braille school, wheelchair basketball and a safe house for women. Of course, nobody stays in a refugee camp for fun. But sometimes families from the area move to this camp so their children can go to school.'

FLOWER BED IN THE DESERT

Jansen is primarily interested in the way a refugee camp develops. In the course of time, more and more shops spring up, as well as roads, schools, hospitals, sports fields and sometimes even universities. Jansen talks about how power relations, judicial structures and a youth culture emerge. 'In Kakuma, which has existed for over 25 years, a second generation has already been born. The camp was intended as an emergency facility, but it has turned out to be less temporary than that. People are building a life there.'

By way of illustration, he describes a refugee who had fought in South Sudan. 'In Kakuma he became an English teacher, and earned a pittance teaching at one of the four secondary schools. He had a wife, a child and two cats, and he watered his garden every day, a tiny flower bed in the desert. The temporary situation had become normalized for him.'

Jansen is working for the Association of Dutch Municipalities, which is involved in Zaatari with the municipality of Amsterdam, on an evaluation of their projects in refugee camps such as the development of the public spaces by creating a park and a nature trail. 'Public space could be planned better in order to meet the needs of people in normalizing camps. Aid organizations often see that as a luxury, besides necessary facilities such as food, water and medical care. But a park is more than just a green place where people can meet up and where new initiatives are launched. It also offers possibilities for harvesting and storing water to cope with droughts and flooding. So aid in the form of urban planning contributes to the development not only of the camp but also of the region.'

OVERLOADED RECEPTION REGIONS

According to UNHCR estimates, as of 2018 there are more than 68 million people who have been displaced by war or natural disasters. This figure covers both internal refugees and those who have fled abroad. As many as 85 percent of all these refugees are put up in developing countries. 'Many regions are becoming overloaded,' says Marian Stuiver, Metropolitan Solutions programme leader at Wageningen Environmental Research. 'There is not enough food, the diet is not varied enough, there is not enough work, and water and firewood are scarce. There is environmental damage, natural resources are being depleted, and there are no waste disposal systems, for instance.'

It is high time, in Stuiver's view, that Wageningen expertise was deployed for migration-related issues. 'It is one of the biggest problems of our time. There is growing urgency and therefore also political pressure in the West to help make regional reception possible.' In 2017, Stuiver took the initiative of organizing the annual Changing Routes event.

At this day event, scientists, policymakers and people from aid organizations can discuss the developments around migration flows, make new plans and form new collaborations. 'We hope to work out the mechanisms



One of the five demonstration greenhouses for tomato cultivation in the Beqaa Valley in Lebanon. The greenhouses save water and create work for local farmers and Syrian refugees.

that cause migration.' Stuiver emphasizes it is in everybody's interests that projects have real impact because there is a lot of money involved in aid to refugees – governments and other organizations often pump millions of euros into it,. She is working on a broad research agenda on refugees and migration, and on various projects such as the development of a sustainable campus for both Jordanians and Syrian refugees in Jordan (see inset).

In the same region, Wageningen is involved in projects related to water management and horticulture. Last spring, the ministry of Foreign Affairs funded the building of four demonstration greenhouses for growing tomatoes in the Beqaa Valley in Lebanon, with the aim of saving water and creating jobs for refugees.

HELPING WITH THE HARVEST

Horticulture experts at Wageningen University & Research developed low-tech greenhouses that enable local farmers to manage with less water. About 15 enthusiastic farmers are involved in the project, and their colleagues are being introduced to the new methods in the demonstration greenhouses as well. 'The idea is that these farmers will hire refugees to help them with the harvest,' says team leader Caroline

CAMPUS IN JORDAN

GreenfieldCities wants to build a sustainable campus in the city of Mafrak, close to Zaatari refugee camp in Jordan. This campus will provide jobs, housing and training programmes – in IT for instance - for about 1500 Jordanians and Syrians. Early in 2017, the Wageningen Ambassadors donated 30,000 euros for the preparatory phase. Now GreenfieldCities is carrying out a feasibility study with the help of Wageningen and with funding from the ministry of Foreign Affairs. 'The local governments are responding positively and property developers in Jordan are keen to build on the campus. Dutch companies are showing interest as well,' says Joris Benninga, the founder of GreenfieldCities. 'The support of Wageningen University & Research has certainly helped. It made the Dutch government take us seriously as a player.' Looking ahead to the future, Benninga expects that Wageningen researchers could help to develop an agricultural cooperative and training courses for farmers, as well as to monitor and evaluate the project.





Zaatari refugee camp in Jordan has grown into a city with its own shops, roads, schools, sports fields and hospitals.

van der Salm. She works in Jordan too, on a similar project: here, medium-scale horticulture businesses in the Jordan Valley are themselves investing in slightly more advanced mid-tech greenhouses. Half their costs are refunded on the condition that they employ refugees. The project will generate 600 jobs, two thirds of them for Syrian refugees.

Wageningen is also working with aid organization ZOA on setting up two training centres for flower cultivation, for Syrian refugees in Jordan. This project is financed by Australia. 'The training courses will mainly be for women refugees and refugees with a disability, to increase their chances of getting work,' says Van der Salm. Het team advises on how to set up the centres.

MOSQUITO NETS AND MATTRESSES

Thousands of kilometres away, in the Democratic Republic of the Congo, the Wageningen development economist Maarten Voors is studying whether aid really works - in this case, basic emergency aid for the people in the east of the country who have fled in the face of violence by rebel groups. These refugees usually take shelter with family, friends or strangers in villages one or two days' walk from home, explains Voors. They have had to leave everything behind and their host families are often extremely poor. So the United Nations hands out vouchers to the poorest refugees, with which they can buy things like mosquito nets, mattresses, buckets and soap at a special market. Only the poorest 10 percent of the villagers get these vouchers. 'We are studying the impact of this emergency aid,' says Voors. 'That is incredibly relevant; after all, we are talking about millions of people every year. The non-profit organization International Initiative for Impact Evaluation is funding the field experiment. A random selection of 70 people get the extra aid, and 70 others, who are equally poor, do not. A mobile research team questions and studies both groups straightaway and then again six weeks later. They look at mental and physical health and social integration. 'You might wonder, for instance, whether the goods cause conflicts, or whether people in fact share them,' explains Voors.

The study has been going for a year and has covered 31 villages. The provisional results suggest that the health of the people who got the goods is no better, and infant mortality has not gone down. 'Perhaps six weeks is too short to see changes in that,' says Voors.

'People build up a life in the refugee camp'

The emergency aid does mean the recipients have more to eat. 'That could be because they can spend more of their budget on food,' explains Voors. 'It also seems as though the emergency aid has a positive effect on social integration. But the biggest positive impact was on the mental stability and resilience of the people who received the aid.'

CLIMATE MIGRATION

It is not just war and violence, as in the Democratic Republic of the Congo, that force people to flee their homes. According to the Internal Disaster Monitoring Centre (IDMC), in 2017 there were nearly 11.8 million new refugees displaced by conflict and violence, and nearly 18.8 million displaced by natural disasters. Ingrid Boas of the Wageningen Environmental Policy chair group studies the interaction between migration and climate change. 'Most studies show that climate change is not a primary motive for large numbers of people to trek long distances, and that climate migration is largely local,' says Boas. She was awarded a Veni grant by the Netherlands Organization for Scientific Research in 2016 for her research on climate-related migration and the influence of modern communication technology. In 2017, Boas spent five months in Bangladesh, which suffers from rising sea levels and flooding caused by increasingly powerful cyclones. She spoke to residents of affected areas about their decisions to stay or to leave, and mapped their escape and migration routes. When the danger subsides after a cyclone, people usually return and rebuild their houses, Boas tells me. 'Whether people migrate depends on their social networks, how much money and resources they have, and other factors such as environmental and political problems. A lot depends on the local government, and on questions such as whether the money for repairing dykes disappears or whether a better dyke does actually get built. When flooding leads to salinization and erosion, local residents can be forced to leave. Boas: 'In such cases, a lot of people gradually move away from the coast, sometimes just a few metres at a time. Others move to another island or a nearby city.' Modern telecommunications play a role in this. 'On their mobile phones, they ask family or friends who already live in the city to look out for housing or work for them.'

Wageningen researchers want to gain a broader understanding of the motives of people who end up packing their bags. 'When ecosystems change in an area, or there is not enough water or food, crises can blow up, conflicts escalate, or people may move away,' explains Bertram de Rooij of Wageningen Environmental Research. With a view to being able to predict refugee flows better and perhaps to influence them, he and his colleagues have been asked by the ministry of Agriculture, Nature and Food Quality to develop a new methodology. They are going to see how they can link data about conflicts, climate, water and natural resources with existing economic and agrarian models for harvest forecasting, food security, production and trade. 'Once we have a better understanding of the interactions between the various factors, governments and organizations such as the United Nations can intervene more effectively in regions that are under pressure. Then you could perhaps make sure that people are directed towards places that have been designated and prepared in advance. And maybe sometimes you can even prevent people needing to migrate.'

www.wur.eu/migration

CREATING GARDENS IN UGANDA

Uganda is hosting more than a million refugees from neighbouring countries. In the West Nile region in the north, most of the refugees are from South Sudan, but there are some from the Congo too. The Dutch ministry of Foreign Affairs wants to help these people by teaching them how they can boost their incomes and vary their diets at the same time. Wageningen is contributing to this project, which is likely to start this autumn. 'Most of the refugees are put up in existing villages. The local communities are poor themselves and they need just as much support, and we don't want to create tension between the refugees and the villagers. So the project targets both the refugees and the host local population,' says Katherine Pittore, Food and Nutrition Security advisor at the Wageningen Centre for Development Innovation. The participants learn to create gardens where they can grow their own vegetables and even ornamental plants. This provides their families with a more varied diet, and they can sell part of the harvest. 'In this way the refugees are equipped for a longer stay. And if they should go back to their country, they will take new skills back with them,' says Pittore.