



Contents

20 years of impact. 20 stories.

Human rights and democratic governance



#0]

"At one point, I was told to go and have children"

p. 38

Food and agriculture



[#]02

"To develop resilience to food insecurity, people need better resources"

Preface	8
Guest contributions	11
Development cooperation: The quest for the Philosopher's Stone	12
The global responsibility of the higher education community	16
Facts & figures	20
VLIR-UOS budget	23
Project budget per country/region	24
Project budget per sector	26
South scholars	28
Travel grants	30
Gender	32
Glossary	262

Economic growth



[#]03

"This is the type of contribution I want to make"

p. 56

Social inclusion



[#]04

"Many of the children who participated in the study came to my PhD defence"

p. 68

Culture



[#]05

"You have to acknowledge the value of cultural heritage and take care of it... before it disappears"

p. 76

Education



[#]06

New skills for helping Peru cope with natural disaster risks

#07

Changing global health, one statistical formula at a time

p. 98

[#]08

Teacher education and its lasting impact on Higher Education Institutions and society

p. 106

[#]09

"University
professors are
beginning to accept
the idea of having students
evaluate their teaching"

p. 114

#10

"I see the same experiences and dynamics from the refugee camps in Uganda in the Belgian asylum centre where I work"

p. 120

#11

"Two years after the programme began, things are starting to change"

p. 128

Health



#**12**

The worldwide battle against infectious diseases goes on

p. 134

#13

"If you truly want to strengthen a country in a sustainable way, you have to develop your academics"

p. 144

#**14**

Occupational therapy makes a start in Rwanda

Environment



#15

A nation's development depends on its water resources and how they are managed

p. 162

#16

"We have to make sure that policy-makers know what the impact of their decisions will be"

p. 172

Long-term partnerships



#**17**

Mekong Delta: Increase in farmers' incomes helps children go to school

p. 184

#18

"If anything can improve conditions within a country, it's education – at any level"

p. 194

#19

"When talking about Flemish-Cuban university cooperation for development, we always speak about a 'before' and an 'after'"

p. 204

VLIR-UOS throughout the years



#20

The highlights and people behind 20 years of VLIR-UOS

Preface



overty, migration, climate change and worldwide conflicts: the world faces many challenges that require both global and local solutions. With the 2030 Agenda for Sustainable Development (SDGs) as a guiding framework, universities and university colleges have a huge responsibility to train their students in becoming world citizens with a critical,

resilient stance in life. At the same time, research and innovation have a key role to play in the search for sustainable answers to these global and local societal challenges.

University cooperation for development at Flemish universities has existed for many decades. As of 1 January 1998, and as part of a big reform in Belgian development cooperation, VLIR-UOS took over responsibility from the Belgian government for the policy to develop this specific type of development cooperation and the budget to manage it. Since then, the organisation, its portfolio and funding opportunities and its network have grown and changed considerably. VLIR-UOS has been able to innovate and to multiply its funding and platform opportunities.

After so many years, we felt it was about time to look back and focus on the value and diversity of the results that have been generated over time, with a sustainable impact on people, institutions and communities in many countries and across three continents. In 2018 and 2019, on the occasion of our 20-year anniversary, we organised numerous activities together with the Flemish universities and university colleges, both in Belgium and in a number of partner countries, during which we highlighted our unique partnership model as well as the personal efforts, results and sustainable impact of the many academics, students and professionals involved.

'Sharing minds, changing lives' - that is our slogan. The creation, exchange and uptake of information, knowledge, ideas and experiences, starting from global and local societal challenges, must lead to changing and improving lives and communities. In university cooperation for development, there is no way other than cooperation. Through cooperation, universities and academics can connect with expertise and talent that is available in the world, crossing language barriers and national borders, going beyond institutions and disciplines. This is the cooperation model that VLIR-UOS stands for. We aim to pool all possible expertise and interest, and to support the creation of

sustainable networks based on this. University cooperation for development is about universities and university colleges being challenged to help generate societal change through science, by joining forces and working together to multiply expertise, talent and commitment.

I am happy to be able to testify from my own personal experience that one of the big achievements over time is that the academic authorities of all Flemish universities and university colleges now highly value university cooperation for development. They recognise the dedication and work of individual academics as part of the overall scientific commitment of both the institutions and individual academics, generating a real sustainable impact on society, starting from global and local societal challenges. Moreover, these partnerships contribute to the quality of the Flemish higher education system, as well as of higher education systems and institutions in the respective partner countries. We want governments, civil society actors, the private sector and also individual citizens to know that universities are not working in isolation, but are committed to and involved in development cooperation, with many academics, researchers, technicians and students collaborating for a real impact on society.

With this publication, we would like to show the specific

added value, diversity and true impact of many projects within Flemish university cooperation for development. We want to show the shared commitment, the hard work, but also the passion and added value of working on this together. Because it is not only about sharing minds and changing lives. It is equally about changing minds and sharing lives. We want to inspire new academics to join the VLIR-UOS community and make a contribution to society through research, education and service to society. And we want to illustrate that universities and university colleges have an important role to play within development cooperation and the overall SDGs challenges' framework.

Finally, we would like to thank all the people who have helped from 1998 onwards and even earlier, in making university cooperation for development into what it has become today. In this publication, we give some of them a platform to tell their story, as they, together with many others, have been the driving force behind all the impact that university cooperation for development has generated. However, these success stories are just a few. There are many more to come. To discover more impact stories in the future, please follow us on www.vliruos.be.

Happy reading,

Kristien Verbrugghen
Director of VLIR-UOS



hen the Flemish universities engage in university cooperation for development, the emphasis is on cooperation. This entails that both parties benefit, that they co-create knowledge and through education build sustainable capacity in the South and the North. To VLIR-UOS, capacity building is the main building block of sustainable development. Development cooperation has nothing to do with the paternalistic 'aid logic' of the past. 20 years of VLIR-UOS has taught us that we rely on our partners in the South in order to better analyse and deal with the global challenges of sustainability. The challenges outlined by the Sustainable Development Goals (SDGs) do not, after all, present themselves in a single location to be dealt with by a single actor. The scope of the SDGs demands a far-reaching structural partnership with many actors in order to deal with the great challenges of our time. For their part, our partner universities in the South wish to grow and take up their role as drivers of change and progress in their own communities. We allow the local researchers to set

their own priorities. Through international research residencies and a 'sandwich' and 'co-tutelle' approach, we are training a generation of young researchers in the South and the North, who think globally on the basis of networking and the international experiences they have gained. In Flanders, we consider it self-evident that our universities and colleges contribute to finding solutions to all kinds of problems in society, but knowledge institutions in the South have even greater potential in that area. Collective interdisciplinary research (soil fertility, water, biodiversity with a focus on ecosystem services, human rights, anti-corruption measures, child mortality, viruses, tropical disease) and development of the resulting actions (ecotourism or an integrated approach to basic healthcare, for example) create the conditions that combat such crises as famine, premature death and loss of biodiversity through drought in a sustainable way. The results of university partnerships are certainly not always immediately visible and not every partnership is a great success. However, we can be proud of the many success stories. Because sustainable capacity building and the co-creation of solutions for a more sustainable future really works, and regions become more stable, just and prosperous, rendering 'aid' and 'crisis intervention' unnecessary.

Johan De Tavernier, Chairperson VLIR-UOS



niversity cooperation for development has become a high priority for Flemish universities in the context of the overall framework of the Sustainable Development Goals (SDGs), and as part of the overall policy of internationalisation and globalisation of universities worldwide. The VLIR-UOS funding schemes give us a lever that is quite unique in Europe. Not only does VLIR-UOS enable us to invest in capacity building in the South, it also allows us to give form and substance to our commitment to the implementation of the SDGs in the North. Given the urgency and complexity of the global challenges, these call for inter-university cooperation and partnerships within Flanders and worldwide in order to find innovative and sustainable solutions through capacity building, research and a real impact on society.

Luc Sels (on the left), Chairperson VLIR Rector KU Leuven



Development cooperation: The quest for the Philosopher's Stone

by Carl Michiels, First Director of VLIR-UOS from 1998 to 2004

Currently Director at the European Centre for Development Policy Management



From the very beginning to the present day, development cooperation seems to have been approached in the same way as the quest for the Philosopher's Stone. Grandiose, ingenious ideas have emerged at regular intervals throughout six decades of official aid – each one heralded as the Philosopher's Stone that would transform underdevelopment into development. But what can we learn from this history?

he first grandiose, all-encompassing idea and answer to underdevelopment emerged soon after decolonisation. In the absence of local experts – which resulted from the colonial powers' underinvestment in higher education for the local population – the newly-established development administrations dispatched thousands of international experts to these countries in order to take on crucial positions in the administration. This was the heyday of technical assistance.

In the 1970s, the Philosopher's Stone was found in allocating vast resources to establish industrial production capacity in countries of the South. Massive loans were given and investments were made in ports, airports and heavy infrastructure. The ensuing debt crisis gave rise to drastic, externally imposed structural adjustment programmes, which were accompanied

by draconian cuts in public spending and a decrease of state investment in social sectors, including healthcare and education.

Following the fall of the Berlin Wall in 1989, the aid paradigm was shaken at its roots. On the one hand, the end of the Cold War meant that the rationale for looking the other way when it came to democracy and human rights in developing countries with unsavoury regimes, no longer applied. On the other hand, there was the hope that the introduction of a democratic system or 'good governance' would provide the longsought leverage to help the partner countries on their way to further development. The shifting of geopolitical motives, the growing political influence of non-governmental organisations and the infiltration of ethical considerations into both reflection and action relating to development cooperation gave rise to the notion of poverty reduction as a central concept and general objective. Many donors gave their enthusiastic support to electoral processes and the financing of local civil society, hoping to initiate the processes that would lead to democratically-elected governments, along with the accountability systems and the necessary checks and balances that the donors regarded as prerequisites for economic development in their own countries.

Disillusionment would soon follow. In many cases, the elections were nothing more than a formalised puppet show, hardly achieving any change in the actual balance of power and not able to achieve a true social contract between the state and its civilians. Even worse, in terms of social and economic development, countries like China and Vietnam, which had decided to steer clear of this democratisation process in favour of their own single-party systems, were better off than countries that had adopted multi-party systems. By the end of the second millennium, donors became disillusioned, and as a result aid budgets crumbled.

The beginning of the third millennium created new momentum for international commitment and optimism. At the Millennium Summit in September 2000, all 191 United Nations Member States expressed support for a new, magical concept: the eight Millennium Development Goals (MDGs) - a new Philosopher's Stone. In contrast to earlier declarations, a target year (2015) was established for achieving these goals, and a monitoring mechanism was developed in order to measure progress. The most noteworthy feature of the MDGs was the commitment to cut the population living on less than USD 1.25 a day in half by 2015. Specific goals were also established in terms of universal primary education, gender equality, child mortality, maternal health, HIV/AIDS and malaria, as well as environmental care, as part of a global partnership for development. Ambitious plans required ambitious resources, and the international community once again supported the target of 0.7% at the 2002 Monterrey Conference, committing to finding additional resources for development.

Ambitious plans and ambitious resources also imply a new and different way of working. In the past, it had become clear that the thousands of separate projects, each with their own methods and accountability requirements and often tailored to the donor's priorities – imposed a huge burden on the already weak institutions of the partner country. In 2005, both donor and recipient countries signed the Paris Declaration on Aid Effectiveness under the intellectual impetus and supervision of the Secretariat of the Organisation for Economic Co-operation and Development's Development Assistance Committee (DAC).

These three events – the MDGs, Monterrey and Paris – would constitute the pillars of the dominant aid paradigm in the first decade of the 21st century. The emphasis of the MDGs on social development was so strong that it led to the neglect of the productive sector and the gradual disappearance of agriculture from aid programmes (this error would be corrected after the 2008 food crisis). Monterrey effectively paved the way for an increase in official development assistance throughout the world. Belgium even set itself a legal requirement to meet the

standard of 0.7%. This generous model accepted time for change, placed trust in local stakeholders and had a high appetite for risk.

The paradigm met with tough opposition, however, including in the form of administrative inertia and path dependence, combined with political impatience and risk aversion. As the Declaration had completely failed to acknowledge the political character of change, development and even the relations between donor and recipient countries, the five basic principles (editor's note: five basic principles for an effective partnership: ownership by the recipient country, alignment with local systems, harmonisation among donors, management for results and mutual accountability) would remain largely unfulfilled. The three-year monitoring system that was built into the Declaration as well revealed that the principles had been interpreted and applied in very different ways, both by donors and partner countries. Donor administrations had proven quite reluctant to leave the beaten paths and relinquish control. The partner countries, meanwhile, were not always capable of making the required changes in the management of their public finances. The lack of tangible results and even the slightest rumour of mismanagement raised serious questions within the parliament, the media and the public concerning budget support – the Declaration's most prominent instrument, in which assistance funding is transferred directly to the governmental budgets of the partner countries and in which greater ownership is assigned to the governments of these countries - thereby generating anxiety among political decision-makers.

At the beginning of the second decade, the paradigm gradually became less powerful and, over time, Paris returned to simply being the capital of France. The emergence of new donors, especially China, proved to be a game changer in the partner countries. China was quick to capitalise on its recently-acquired status as a former developing country. Appealing to its shared past in the Non-Alignment Movement, China largely poured a lot of cash into these states, with relatively few strings attached. It seemed as though

the final phase of decolonisation had finally dawned: for the first time, the partner countries had an alternative to their Western donors, who, in many cases, were also their former colonisers and who, in their opinion, had never stopped imposing their own agendas and conditions. The Chinese aid, however, often implied using Chinese services and Chinese goods. For the Western donors, this set off alarms that had remained silent for several decades. The classic donors once again organised joint missions of development aid ministers and business people, and these missions were unlikely to disappear any time soon.

As the target date of 2015 approached, the time had come to evaluate the MDGs. Although exact figures proved difficult to come by, the consensus was that major progress had been achieved in terms of reducing poverty and famine. Thanks to China, improvements had also been achieved in terms of maternal and child mortality, as well as in access to clean drinking water. The results were less impressive in other areas.

To create new momentum after the MDGs, the United Nations took a great leap forward. In December 2014, the Member States approved the Sustainable Development Goals (SDGs), which, unlike the MDGs, covered almost every aspect of human activity, including a focus on inequality. These goals were also more universal. Whereas the MDGs had called for partnership between donors and recipient countries, with emphasis on progress in the partner countries, the SDGs relied more on collective action on the part of the global community as a whole, with universal sustainable development as its main objective. The target date for the SDGs was 2030.

It soon became clear that achieving these goals would require 'trillions, not millions' each year. For this reason, at the 2015 Financing for Development Conference in Addis Abeba, the member states explored ways of encouraging the partner countries to mobilise their own resources, particularly with regard to the private sector. Whereas it had been nearly taboo to use the terms 'private sector' and 'development

cooperation' in the same sentence a decade earlier, especially in Belgium, the red carpet was now being rolled out for the private sector: as a creator of local employment, as a transmitter of knowledge, as a bringer of innovation and – most importantly – as a source of funding.

New, ambitious plans were made, and new, ambitious resources were made available, albeit this time without a manual. The Paris Declaration had no successor to complete the tripod of a new aid paradigm. The lack of an intellectual powerhouse to point everyone in the right direction (as had been the case with the DAC Secretariat and the British Department for International Development) had consequences. History was likely to repeat itself in the notion of a powerful, central development idea – a new Philosopher's Stone. Once again, it would be extremely difficult to measure the impact of this idea. On to the next one.

At present, there is a proliferation of actors on the development stage, including China, the BRIC countries (editor's note: Brazil, Russia, India and China) and major philanthropic funds. Each of these actors has its own priorities, methods and accountability requirements. The objective of poverty reduction has been supplemented and, in some cases, has even met with competition from universal challenges (e.g. climate change) and internal concerns, including the reduction of migration (particularly illegal migration) and terrorism. The dialogue between donors and recipients has shifted from the technical-administrative level to the political level, with an emphasis on visibility and faster results, rather than on continuity and a longterm commitment. Almost all of the traditional development stakeholders are struggling to deal with the private sector.

The American Brookings Institution recently published an article called 'The Future of Aid', referring to a survey conducted amongst 94 development managers. They argued in favour of abandoning the project approach, which imposes an excessive burden on local administrations. Instead, the emphasis should be

shifted towards results and greater trust in local stakeholders. But wait; wasn't this the essence of the Paris Declaration? A short memory won't help us in our quest for the Philosopher's Stone.

There is no Philosopher's Stone with regard to the most complex challenge facing humankind: sustainable development. When official development aid first emerged 60 years ago, Albert Hirschmann argued against the folly of the 'great central notion' – against the one imperative development idea around which a dogmatic development paradigm would be constructed, and which would come to dominate the aid industry shortly thereafter. The arguments made by this development economist remain disturbingly current. There is no universally applicable model of development. There is no substitute for the hard work that external developers must undertake in order to understand the specific political, economic and social realities of each context.

The academic community and expert practitioners have since launched strong resistance to the folly of accelerating development with pseudo-creative answers that give the illusion of quick, integrated and definitive solutions. Three Harvard University researchers with practical experience have convincingly demonstrated that the skills ('capabilities') that low-income countries have for carrying out both core tasks and new tasks in the face of increasing globalisation — and global warming — are likely to come under even more pressure, as they have stagnated or even declined, even despite aid efforts.

This brings me to VLIR-UOS and the role that this umbrella academic body can play as a connector between scientists and academic organisations in the South, policy-makers in donor countries and the non-state actors who are actively involved in sustainable development. It would certainly be worth the effort for VLIR-UOS to seek connections with the Communities of Practice that are refining the research agenda on aid and that are adjusting to and fitting themselves within the world of the possible, and not the imaginary.

The global responsibility of the higher education community

by
Dirk Van Damme,
Former General
Director of the Flemish
Interuniversity Council

Currently Senior Counsellor at the Organisation for Economic Cooperation and Development



Universities are global and local

ew systems we know today are as global in nature as higher education. From their earliest days, universities aspired to be places of research, scholarship, study and debate, which speak to the learned community regardless of geographical boundaries. In early modern times, travelling scholars and students were a familiar phenomenon in Europe, but also in other places of the globe, such as the Arab world or China. Today, scientific research is probably the most globally connected and integrated system of modern human society. Transnational research networks and international co-publishing are growing in scope and impact every year. Talented researchers and academics constitute a global market into which ambitious universities are tapping in order to increase their research output and status. Research is the most powerful driver in the internationalisation of universities. However, the education side is following very rapidly. Today, over five million students are mobile and studying in another country worldwide, and the numbers are still growing every year.

But the internationalisation of universities and academic globalisation are about much more. Despite the absence of any form of global governance, there are important trends and mechanisms of international convergence. International agreements, for example with regard to recognition of degrees, mutual acceptance of accreditation arrangements, common qualification frameworks and credit transfer systems, represent important regulatory frameworks for the global system. In certain regions, for example within the European Union or the European Higher Education Area, they have become very powerful as a result of the Bologna Process. Also in other regions of the world, often in the context of international trade agreements, similar arrangements have been put in place. And on top of all this, global university rankings are classifying the complex reality of global higher education in an easily readable, but hierarchical and reductionist list of status and reputation, thereby falsely suggesting a global level playing field of academic merit.

Yet the global higher education system is not without its limits, contradictions, tensions and enemies. There are many signs today that the glory days of unbridled internationalisation are over. In many countries - the United States and the United Kingdom are visible examples, but there are many more – nationalist policies seem to be taking priority over international aspirations. This is not entirely new. The vast majority of modern universities are the product of 19th and 20th century processes of nation-state formation. Truly global universities constitute a very small fringe of the system. Most universities define and identify themselves as belonging to specific national systems of history, culture, language and politics. Political shifts are also important. Conservative opinion leaders in some countries have started to attack universities as 'globalist propaganda machines'. It is very likely that the internationalisation and globalisation of higher education is turning into a politically contested reality. At the time of writing this essay, the minister of one of the most

successful countries of international higher education, the Netherlands, is considering curtailing universities' international ambitions and policy instruments.

Global inequalities

eyond the surface of today's politics, it is important to look at the more fundamental trends. Global higher education is itself one of the most unequal systems the world has seen. Processes of colonialism, asymmetrical trade and economic inequalities have deeply influenced the expansion of academic institutions over past centuries. The centres of academic development have been concentrated in the economic and political hegemony of global order. And since the middle of the 20th century, the global hierarchy of the academic system has been consolidated in these hegemonic countries. Only in recent decades have things started to change, with emerging economies starting to invest and expand their own higher education systems to meet the demand of aspiring and increasingly prosperous middle classes. China, followed by India, is taking the lead and its example is inspiring many other emerging economies. It is extremely difficult for ambitious universities in these countries to challenge the power mechanisms behind academic excellence, but China seems to be becoming successful in slowly penetrating the upper ranks of the global system. However, for many other countries, this will almost be impossible; after all, the measurements, definitions and data collections behind the assessment of academic reputation are not free of cultural bias and the academic community has a hard time to improve its self-definition of success.

The historical legacy of concentration of academic excellence is increasingly at odds with the reality of higher education development and demand. Participation and

graduation rates in the countries of academic hegemony are reaching ceiling levels, while demand is exploding in many other parts of the world. From around 150 million tertiary graduates worldwide in 2015, we will advance to 300 million in 2030, so doubling the numbers. The bulk of this historically unprecedented expansion of higher education delivery will be in emerging economies such as China, India, Brazil, Indonesia and the Arab states. The share of the US and Europe in the global pool of graduates will shrink, for the US from 14% in 2015 to 8% in 2030. The consequence is that, from a geographical point of view, there will be an enormous mismatch between the location of exploding demand and the location of perceived academic excellence. In itself, this mismatch is driving global student and staff mobility, because people who can afford it look for the best opportunities in the world. Rankings serve as search tools for aspiring students, and in doing so, their biased definition of academic excellence is reinforced.

Sustainability

n my view, the most important question facing the global academic community is whether the sharp inequalities in the system are sustainable. In the 21st century, is it still sustainable to maintain a system that is built on 19th and 20th century premises and is clearly at odds with meeting the needs of demand for knowledge, research and education in other parts of the world? Is it sustainable to implicitly and explicitly support academic hegemony and power imbalances? And is it überhaupt possible to do so when knowledge travels the world at the speed of bits and bytes?

A community for which freedom of research, the free flow of knowledge, and the power of scientific reason are essential cornerstones of the value system would enormously benefit from a level playing field between all members, the closing down of historical privilege and

the elimination of power imbalances. This noble idea is gaining political traction because of the unique opportunities provided by the United Nations' Sustainable Development Goals (SDGs), including SDG4 on education. These goals, adopted by the international community, are very important drivers for a more sustainable global higher education system. So far, universities have been largely absent in the international debate on SDG4. However, recently, things have started to move and international university associations are making strong arguments in favour of including universities as partners and actors in achieving progress towards the SDGs.

Development

ll this creates huge opportunities, but also challenges for the sector of university cooperation for development. Across the world, and very notably also in Flanders, universities have historically taken up their responsibility in development cooperation to support sister institutions in partner countries. Development aid, capacity building, technical expertise, knowledge transfer and many other functions have inspired this work. Important achievements have been made. In many countries, local universities have matured thanks to the lifeline of research collaboration, technical assistance and management support. Numerous doctoral students and post-docs from partner countries have benefitted from the opportunities to study in universities in the developed world through the support mechanisms provided by development cooperation.

This is extremely important work and has to continue over the years to come. However, it is now time to step up to a higher level. University cooperation for development has remained a rather marginal activity in universities, often initiated by motivated individual academics. It has not yet transformed the





overall mission of universities, which continues to be dominated by traditional measures of excellence in research and teaching. In many countries, internationalisation has turned into a quasi-commercial purpose, to attract fee-paying students from overseas and export education services through branch campuses and affiliate institutions. Genuine unselfish approaches of aid, support and collaboration have come under severe stress in recent university internationalisation policies.

Global responsibility

hat could constitute such a higher level? It is my firm belief that universities around the world, especially in partner countries, have a self-interest in establishing a level playing field for all universities around the world to engage in academic work in research, teaching and community engagement. Power differences and inequalities, which are historical legacies rather than the outcome of academic merit, have no place in a global academic community. If the value system of universities and the academic community at large includes valuing knowledge sharing, the power of scientific reason and the openness of ideas, a level playing field much better serves its interests than illegitimate power differences. No academic would accept power or tradition as a valuable argument in a scientific discourse. Why would the global academic community accept that it be itself deeply divided by power differences?

The SDGs are a unique opportunity to strengthen the global responsibility of the academic community. The world calls on universities to help build a better and more sustainable world, no longer by outdated notions of assistance and help, but by taking responsibility for the global academic community.





uring its first 20 years of existence (1998-2018), VLIR-UOS has invested more than 550 million euros in academic cooperation for development, supporting hundreds of programmes and projects in developing countries and Master programmes and trainings in Belgium, as well as granting thousands of scholarships to students and academics both in the South and in Flanders. The next few pages of this publication will provide an overview of facts and figures on this 20-year cooperation. Throughout the publication, there will also be facts and figures on the cooperation in each of our present partner countries.

In terms of budget, VLIR-UOS has received an average of **29 million euros** each year from the Belgian federal government. Over the years, this grant has more than doubled. In the last few years, however, the grant has decreased again due to budget cuts. Nearly half of the budget has been invested in the support of cooperation for development programmes and projects in developing countries, and almost another quarter in the funding of scholarships for students from developing countries. These two jointly make up about 70% of the total VLIR-UOS budget.

Each year, about 200 funded projects on average were ongoing, some 70 of which were newly selected for funding. A lot of projects last for many years. For example, the Institutional University Cooperation (IUC) programmes and NETWORK University Cooperation programmes are the longest-running projects (more than 10 years) and focus on the institutional development of partner universities at large. A total of

33 IUC and 4 NETWORK programmes in a total of 18 countries have been funded — many of which are still ongoing today. Projects of a shorter duration, such as Own Initiatives and TEAM projects (4 to 5 years), and South Initiatives (2 years) amount to some 600. About 150 Crosscutting projects — which evolved into JOINT projects in 2017 — have also been funded. These interventions specifically support cooperation between multiple partners in various developing countries.

VLIR-UOS has also provided funds for a number of Master and training programmes organised at the Flemish universities and university colleges. Between 1998 and 2016, the same (mostly two-year) 12 Master programmes were funded each year. That number was increased to 15 in 2017 and included 5 new programmes. Each year, an average of 10 training programmes have also been funded. Additionally, VLIR-UOS has funded the annual intake of between 10 and 12 scholarships (often two-year) per programme for both the Master and training programmes, granted to students from developing countries, on average between 300 and 450 each year.

Aside from funding these Master and training scholars, VLIR-UOS has allocated about a quarter of the budget of projects in developing countries to scholarships. The bulk of this budget was earmarked for PhD scholarships. Together with the total budget of the scholarships in Flanders, about 40% of the total VLIR-UOS budget has been allocated to scholarships, thereby building capacity at individual level and turning these scholars into agents of change.

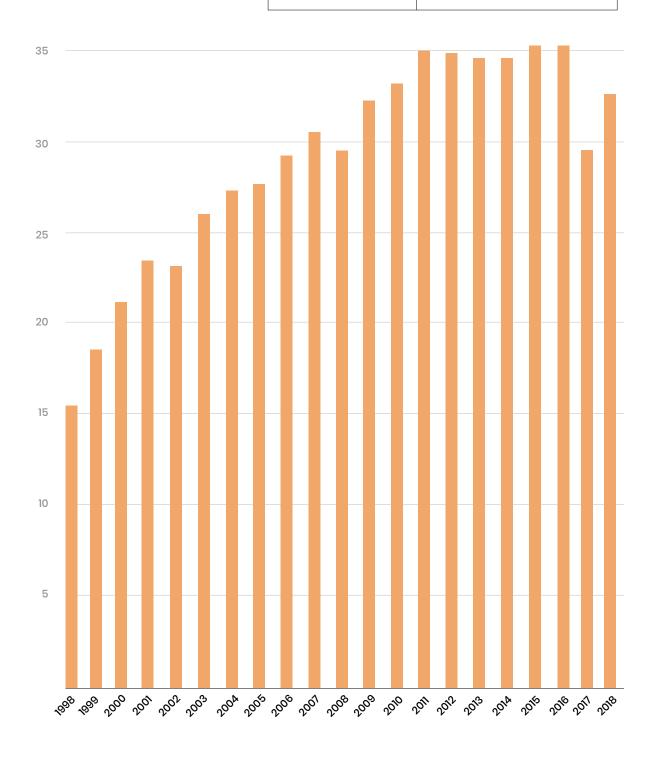
VLIR-UOS budget

(in millions)

1998 - 2018 period

€ 609,613,433

VLIR-UOS budget



Project budget per country/region

1998 - 2018

period





€ 255,273,791 project budget

Africa

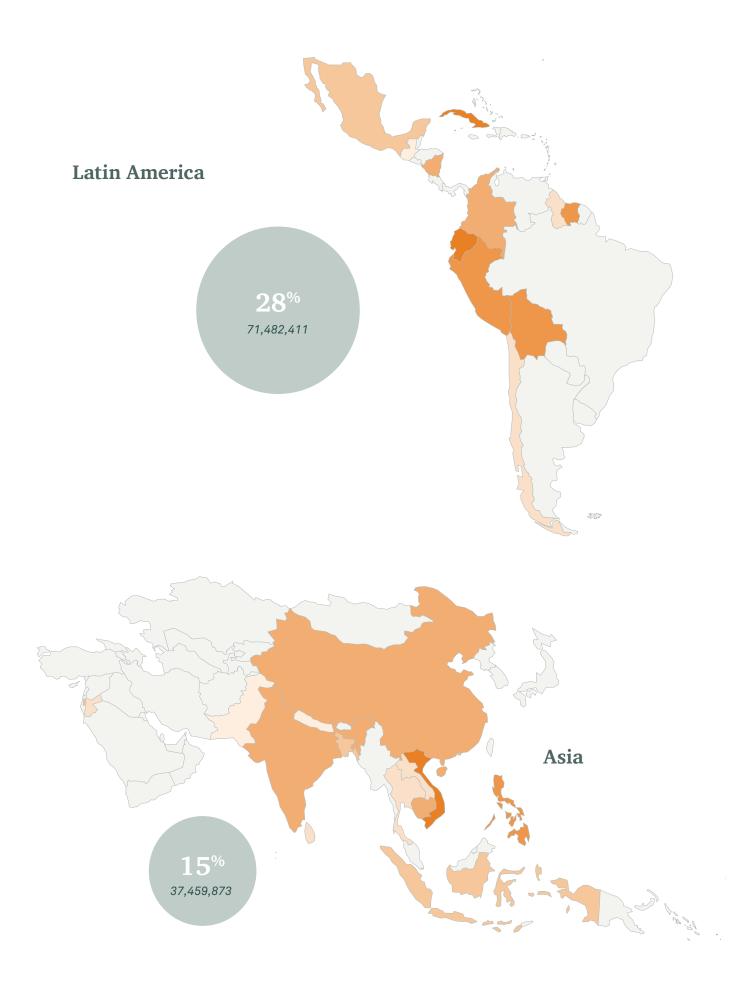
57 %

146,331,507

Legend

Percentage of project budget per region

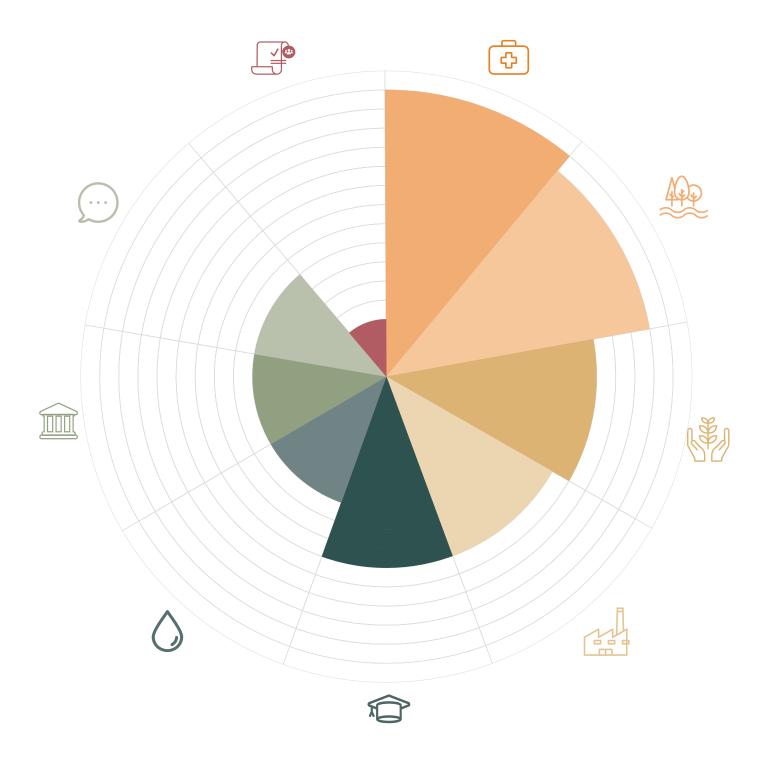




Project budget per sector

Health	15%
Agriculture, Forestry, Fishing	149
General Environment Protection	119
Industry, Mining, Construction	10%
Education	10%
Water Supply & Sanitation	7%
Government & Civil Society	7%
Communications	7%
Population Policies/Programmes & Reproductive Health	3%

1998 - 2018 period

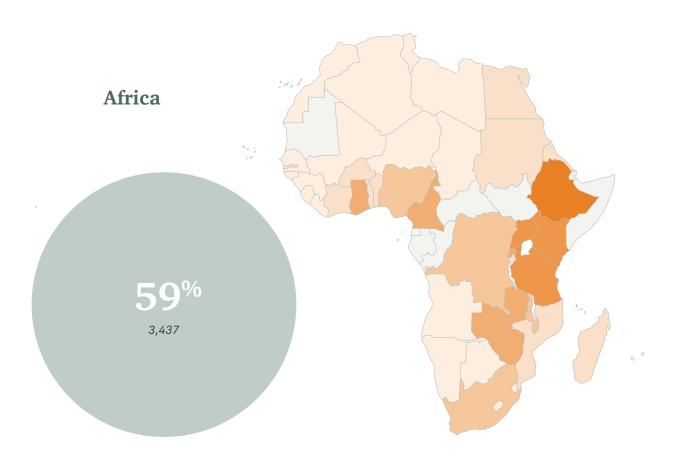


South scholars

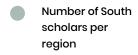
2003 - 2018 period

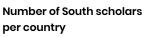
81 countries

5,882 South scholars



Legend







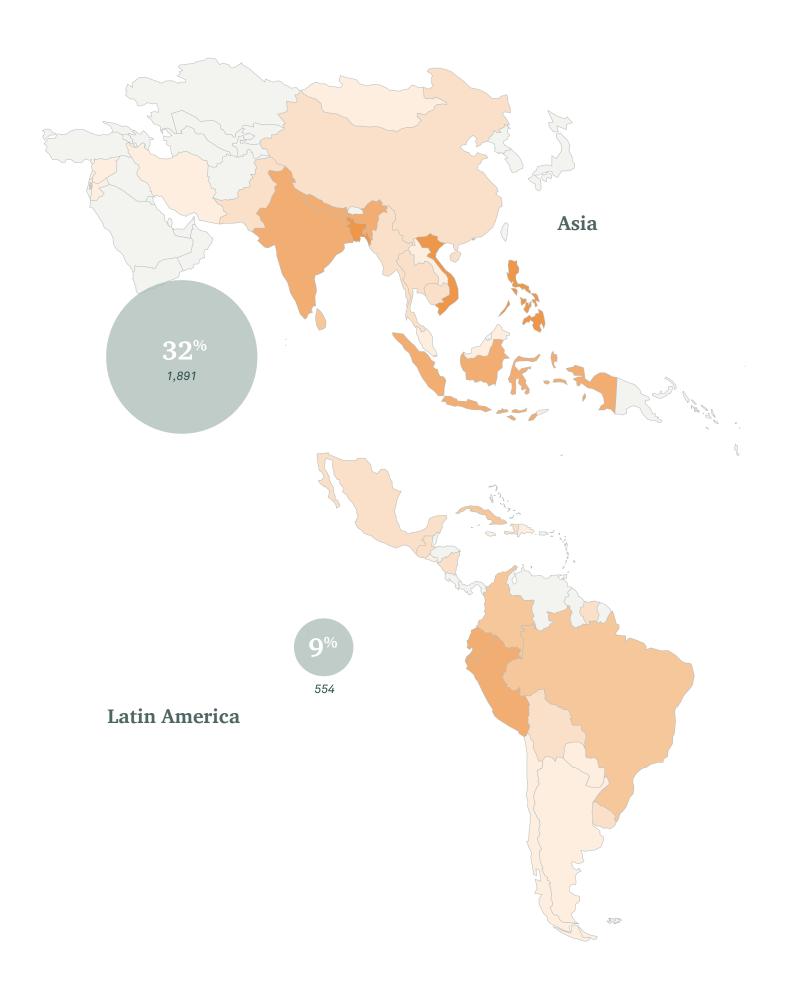




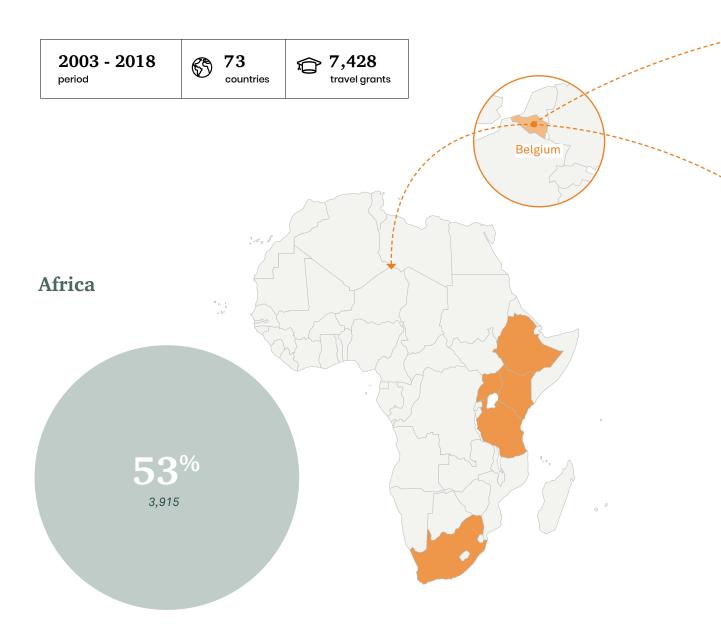








Travel grants



Top 5 travel grant destinations in Africa

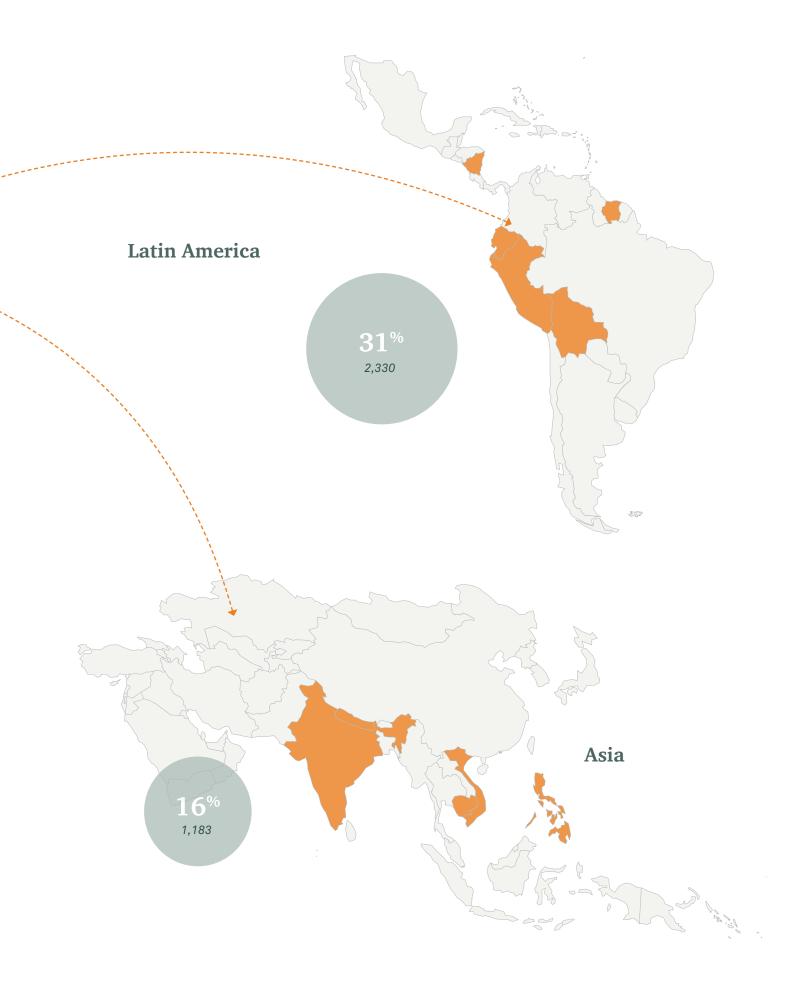
- 1. South Africa
- 2. Uganda
- 3. Tanzania
- 4. Ethiopia
- 5. Kenya

Top 5 travel grant destinations in Asia

- 1. India
- 2. Vietnam
- 3. Philippines
- 4. Cambodia
- 5. Nepal

Top 5 travel grant destinations in Latin America

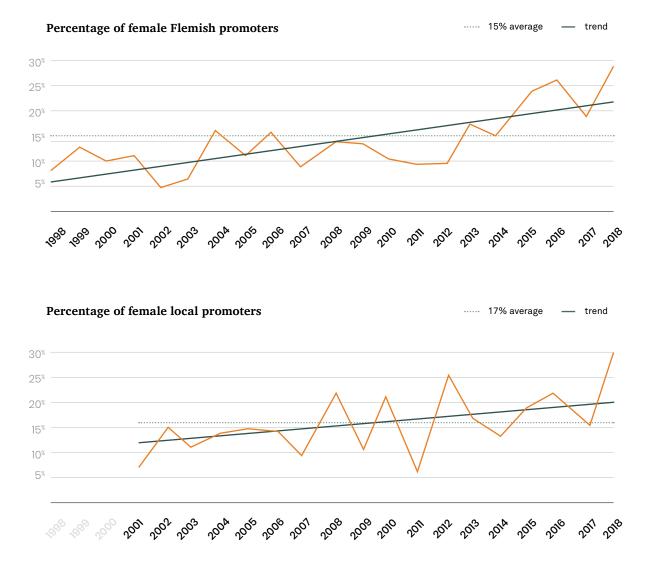
- 1. Suriname
- 2. Ecuador
- 3. Peru
- 4. Bolivia
- 5. Nicaragua



Gender

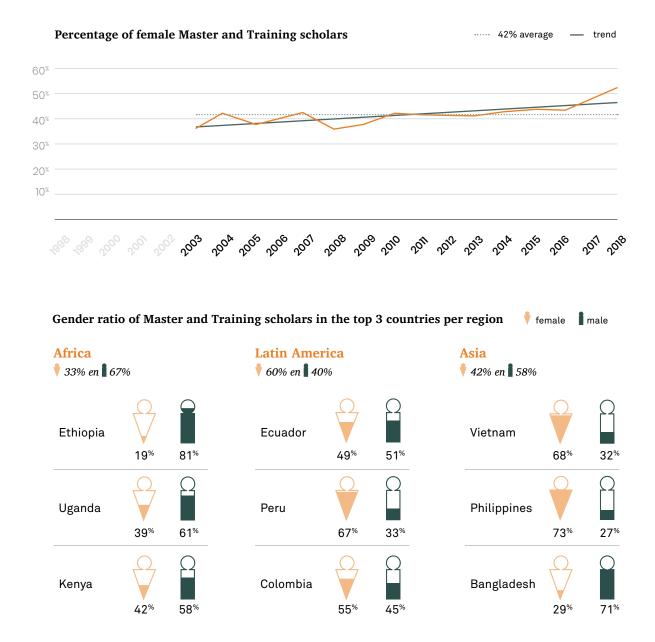
Gender of promoters

Although the number of female academics involved in VLIR-UOS interventions more than doubled during these 20 years, women still represent less than one third of all academics involved both in Flanders and in the partner countries, reflecting a general imbalance in staff at Higher Education Institutions worldwide. A reality for which VLIR-UOS is developing strategies to contribute to a more balanced situation.



Gender of Master and Training scholars

We see a positive evolution in reaching a more balanced scholarship attribution for Masters and training programmes between men and women, reflecting a worldwide trend of increasing female enrolment in and graduation of higher education, although there are striking regional differences. Important facts and figures which VLIR-UOS uses to further update its gender policy.











Beating the odds in Mozambique's *Desafio* programme

"At one point, I was told to go and have children"

By pursuing higher education as a young woman in Mozambique, Farida Mamad did not choose the path of least resistance, given the omnipresence of child marriages, gender inequality and poverty in this South-eastern African country. Mamad nevertheless made her own choices. This is a story about her contribution to solving a number of Mozambique's greatest challenges: social security, women's rights and HIV/ AIDS, partially within the VLIR-UOS IUC programme ('Desafio' – Portuguese for challenge).

hen we met
Mamad for
an interview in the
summer
of 2018, she was about to
finalise her PhD at Eduardo
Mondlane University (UEM)
within the framework of the
Desafio project on social
rights. Her supervisor is
Petra Foubert, professor at
Hasselt University's Faculty
of Law, whose research
focuses on discrimination law,
particularly with regard to
employment. Although these
two women come from very

different backgrounds, they clearly have many similarities. Both are passionate about law and they share a great amount of idealism about using their knowledge to improve the fate of many women – particularly in Mozambique, but also in the rest of the world.

HIV/AIDS, early pregnancy and child marriage in Mozambique

Women and girls are two of the most vulnerable groups in Mozambique, along with children, the elderly, the disabled and the chronically ill. Although the country does have laws in place to protect these two groups, its provisions are often violated in practice.

One major health risk faced by women, as well as by large segments of the general population of Mozambique, is the high prevalence of HIV/ AIDS. According to UNAIDS data from 2018, more than two million of the country's 29 million inhabitants are HIV-infected.

One problem that is specific to girls is that they are often forced to marry and bear children from a very young dropping out of school. When girls discontinue their education early, they do not acquire the knowledge and skills that ment opportunities. Moreover, child brides are isolated from school, friends and workplaces, and they do not receive the social support needed for their emotional well-being. Many times, child marriage is accompanied by teenage pregnancy, with the associated risks to both mother and child of dying before or during childbirth. Teenage pregnancy can also have a lasting impact on the girl's health, education and income-earning potential,



PhD student Farida Mamad and her



My mother always said 'I'm not marrying off my girls. They will go to school.'

transferred to the baby she is carrying. In terms of health, girls are often exposed to the risk of HIV/AIDS at a young age. In addition, access to sexual and reproductive health information is often limited in remote areas.

Taking the road less travelled

If it had not been for her mother, Mamad would have suffered the same fate. "My mother always said 'I'm not marrying off my girls. They will go to school and work in a bank'. For myself, I wanted to be a teacher at a very early age."

This was far from evident, however. According to UNESCO estimates from 2014, only about 32% of all girls in Mozambique made it to the last grade of primary education. "Studying in Africa, in Mozambique, is not something for women," Mamad confirms. "Postponing having children is not something for women. At one point, I was told to 'go and have children'."

primary school and managed

to complete secondary education. In 2009, she even completed a Master degree. Today, she is teaching at UEM in Maputo, while simultaneously pursuing a PhD within the framework of the VLIR-UOS Desafio programme. Her research is on the impact of policies on people infected with HIV/AIDS and the possibilities that the country's social security system offers for taking women out of poverty.

"I come from a province in Mozambique that is deeply affected by HIV/AIDS," she explains. "I have almost none of my childhood friends anymore, because nearly all of them have died from HIV/AIDS. Very early in my career as a lawyer, I wanted to specialise in HIV/AIDS."

Mamad and Foubert join forces

It was 2013 when Mamad and Foubert crossed paths, as Foubert had become the Flemish project leader of one of the projects of the Desafio programme at UEM. The project that Foubert

was leading involved social rights and social protection in particular, with a specific focus on health rights and rights for people with HIV/AIDS. At that time, the social rights of people with HIV/AIDS in Mozambique were often violated. At the same time, because these people were many times not aware of their rights, they were even more vulnerable to stigmatisation and discrimination. Although some employers in the country had set up forms of protection or assistance for people with HIV/AIDS, those targeted by these protections often did not claim their rights. When the project started in 2008, social protection and social rights had become an important theme on the Mozambican political agenda, and decision-makers were looking for researchers who could provide them with information, facts and cases in their native language -Portuguese. Although the country adopted a National Strategy for Basic Social Security in 2010, putting these rights into practice proved quite difficult. There was no judicial enforcement of these rights, no higher education programme addressing social rights and no public pressure for implementation of the national strategy, due to a lack of good information. To address this need, the VLIR-UOS Desafio project was aimed at increasing expertise in this domain within UEM

by establishing a Master

programme in social law at the university and by training PhD candidates and Master students in this expertise. The Master programme is available to important stakeholders, such as the Mozambican government, law and human rights institutions, and the public audience, particularly with regard to rights related to HIV/AIDS.

Changing lives together

At the time of our interview, ten years after the start of the Master programme, about 60 professionals from a variety of backgrounds, such as civic organisations, NGOs and the private sector, have benefited from the university's Master programme in social law. "The Master programme focuses on people who are already working, for whom we organised a number of evening classes," explains Foubert. "Once students have taken all of the modules, they receive their Master degree."

The project has also had a substantial impact outside of the university. "We have collaborated with the institute that trains judges, we have worked with a parliamentary committee and we are in touch with the social security department, as well as with

the human rights and children's rights commissions," explains Foubert.

Returning to the original goals of the project - to raise awareness within key institutions and to train paralegals in the local community – courses and workshops in social law have indeed been organised for students, paralegals and members of the parliament. For example, members of the parliament participated in conferences organised as part of the project, in addition to participating in training courses to acquire expertise on social rights and social protection and

Women and girls are two of the most vulnerable groups in Mozambique, along with children, the elderly, the disabled and the chronically ill.

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My life has changed. I'm more confident. I hope people like me can open a window of hope to other people.

requesting legal advice from the university. The project has also had a special link with the Mozambican Platform of Social Protection, and it has helped to create a centre for social rights. The Mozambican Bar Association (which unites lawyers in Mozambique) is aware of the research. The UEM has additionally organised four conferences in order to disseminate the knowledge generated through the project. The research has also resulted in brochures and leaflets, which have been distributed throughout civil society in order to raise awareness on human rights and social protection with regard to HIV/AIDS.

told that I could teach in the faculty. Education made me question everything that I had learned as a child. My life has changed. I'm more confident. I hope people like me can open a window of hope to other people."

One thing is for certain:

Mamad will not conform to any gender stereotype, and is headed straight towards

until I got good marks and was

the finish line for her PhD.

"Completing this PhD will
be a statement against the
suppression and underestimation of women in Mozambique:
no one thinks that I will be able
to do it," she adds with a smile.

Girl power

Mamad says that education has made an incredible difference in shaping the person she is today. "I was a very shy girl when I was growing up,



Mozambique

7 projects

1	Institutional University Cooperation programme	€ 6,487,500
3	Crosscutting projects	€ 75,995
1	Own Initiative / TEAM project	€ 183,412
2	South Initiatives	€ 149,492

1998 - 2018



6,896,399 total budget (in €)



Partners

- a) Instituto Superior Politecnico de Manica
- b) Universidade Eduardo Mondlane
- c) Universidade Zambeze



"We need enthusiastic and inspiring academics like you," Her Majesty the Queen Mathilde said when talking to students and researchers during her visit to Hasselt University in 2016. "High-quality education is a vector for sustainable development," said HM the Queen, for whom sustainable development is a vital issue. "Thanks to your academic leadership and creativity, you can make a difference for many people in society." She called on everyone to contribute personally and actively over the next 15 years to achieve the Sustainable Development Goals, with 2030 being the ultimate perspective, and thanked everyone for their efforts. "Seeing your passion and enthusiasm first-hand is a privilege."

Mathilde, Her Majesty the Queen of the Belgians - 2016





Tackling food insecurity in DR Congo and Ethiopia

"To develop resilience to food insecurity, people need better resources"

According to the 2019 Global Report on Food Crises, 14% of the world population in 2018 'experienced acute hunger, or required urgent food, nutrition and livelihood assistance'. Most at risk are people living in areas where there are conflicts, climate shocks or economic problems. Together with Geert Haesaert from Ghent University (UGent), Robert-Prince Mukobo from the University of Lubumbashi, and Karen Vancampenhout and Addisu Fekadu Andeta, both from the Catholic University of Leuven (KU Leuven), we look at two of the world's most food-insecure countries, DR Congo and Ethiopia, and on how VLIR-UOS projects in these countries have been able to make a difference.

Fungi for better crops in DR Congo

bout 70% of
Congolese people
live in rural areas
and directly or
indirectly depend
on agriculture for their income.
Farmers in the Katanga region,
for example, face many challenges: they often do not have
access to mineral or organic
fertilisers, the fertility of the
soil continues to degrade, and

they do not have the financial means to counter these problems, with a sometimes disastrous impact on agricultural production.

"Food security is the basis of development in DR Congo."
When Robert-Prince Mukobo tells us about his motivation to work on food security in his home country, he does not beat around the bush. "The productivity of Congolese people in all areas of life depends on their ability to be

food secure." The Food and Agriculture Organization of the United Nations confirms that being food secure is important, as food insecurity impacts a country negatively in many ways, resulting, for example, in lower economic growth and productivity and a higher prevalence of disease. As an agronomist, Mukobo is well-placed to function as the go-between for Congolese farmers and crop researchers. Reviewing research findings, he helps recommend food production solutions to local farmers. During his quest to improve food security in DR Congo, he has also participated in two VLIR-UOS research projects, during one of which he completed his PhD.

A symbiosis in two parts

In 2015, Mukobo joined forces with Geert Haesaert from Ghent University as part of a VLIR-UOS TEAM project to increase farmers' production of corn and vegetables in the Katanga and Lubumbashi region by improving soil quality. The soils in the hinterland of these regions are low in nitrogen and phosphorus, two essential nutrients for plants. Phosphorus makes the plant mature faster and is particularly important in promoting



Robert-Prince Mukobo and Geert Haesaert have joined forces in a VLIR-UOS TEAM project. Top photo: Maize plants and the influence of biofertiliser use on their growth.

Middle photo: The processing of Enset in Ethiopia, with Addisu Fekadu Andeta on the right.

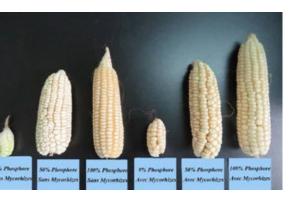
Bottom photo: An Enset field in Ethiopia

Right photo: Harvesting of the Ethiopian Enset plants root growth. Nitrogen is even more vital to crops as it is key to plant growth, development and reproduction.

Mukobo and Haesaert aimed to increase the productivity of corn and vegetable (green beans and onion) crops by using arbuscular mycorrhizal fungi (AMF) as biofertiliser. AMF penetrate the crop plant's roots, creating a symbiotic association that stimulates the plant's uptake of nutrients such as phosphorus and nitrogen, improves the acquisition

Yielding more crops and knowledge

The impact of VLIR-UOS support is not only coming from the AMF project. "A former project on plant breeding resulted in new maize varieties that are now on the national Congolese variety list," Haesaert explains. "The University of Lubumbashi breeds these varieties, introduces them to the market and receives a small compensation in return. This means that it is









The productivity of Congolese people in all areas of life depends on their ability to be food secure.

of water and increases a plant's resistance to pathogens. The use of this fertiliser is also sustainable in the long term, as it is affordable for local farmers and they only have to apply it to the soil once to have the mycorrhiza sustain themselves afterwards. "With very small interventions, we managed to increase crop yields by 10 to 20%," says Haesaert. "Families can produce more food, go to the market and create financial added value for their families."

not only the farmers involved in the project who benefit, but a much bigger group." Mukobo emphasises the importance of universities in tackling food insecurity: "The role of universities is crucial as they are the best placed to collect information about problems that limit food production. They also have the capacity to develop solutions adapted to the local context. To develop resilience to food insecurity, people need better resources such as solutions

resulting from high-quality university research."

Ethiopia's tree against hunger

In Ethiopia, droughts and floods are a real threat to people's food production. Farmers' agricultural systems are rain-fed, which make harvests extremely vulnerable to changes in the frequency and intensity of droughts. Farmland is also vulnerable to degradation. "Degradation happens when a landscape's natural resources, such as soil, water or vegetation, decrease in quality, e.g. due to an increasing population pressure. In North Ethiopia, large-scale efforts have been able to curb this trend, but in the Southern Rift Valley there still is a lot of land degradation", explains Karen Vancampenhout from KU Leuven. "If climate extremes such as droughts strike in healthy landscapes, they do not necessarily have a negative impact. If, however, the land and agricultural system is already degraded, an extreme drought can turn into a disaster."

A buffer for droughts

What if, however, there was an Ethiopian crop that could keep producing during long droughts, provide fodder for animals in dry seasons, and protect the soil? Well, there is, and it is called *Enset* or the "tree against hunger", providing food, animal feed,



starch, fibre and traditional cures for about 15 to 20 million Ethiopian people, about 14% of the country's total population. Under a VLIR-UOS TEAM project, Ethiopian farmers, KU Leuven and Arba Minch University joined forces to make crop production more profitable in the Gamo Highlands – a region where Enset has traditionally been grown extensively. Enset or Ensete ventricosum cultivation in Ethiopia is said to be 10,000 years old. The plant's wild form has been found in South Africa, Mozambique, Zimbabwe, Malawi, Kenya, Uganda, Tanzania, Ethiopia and DR Congo. "The cultivation of Enset is an essential element in local households'

resilience towards land and soil degradation and climatic extremes," says Flemish project leader Vancampenhout. The cultivation of Enset does have its obstacles, though. First of all, infection of crops by 'bacterial wilt', a disease causing plants to shrivel and die, can leave an Ethiopian family vulnerable to food insecurity for years. Secondly, market prices can be low when the product is not processed well. "Part of the Enset plant cannot be eaten immediately after harvesting and has to be fermented first," clarifies Vancampenhout. Fermentation is a process in which adding certain micro-organisms to food brings about a





desirable change in the food end-product.

Addisu Fekadu Andeta, one of the project's PhD students, adds: "The final fermented product varies in quality. In one village the quality is relatively good, in another village the quality is poor." Both bacterial wilt and the unpredictability of the fermentation process has led to chronic food insecurity and poverty for families in the region. Two very important research goals were identified: to reduce the incidence of bacterial wilt disease and to improve the nutritional and market value of the edible Enset product via improved post-harvest processing.

Research for food security

When analysing the bacterial wilt disease threatening Enset, the VLIR-UOS TEAM project researchers mainly looked at the farmers' management practices, the properties of the soil and the agro-ecological conditions, concluding that the disease seemed to be linked to altitude and probably also to soil management. "We looked for ways to optimise the farming system so that bacterial wilt could do less damage to the harvests," says Vancampenhout. Addisu Fekadu clarifies how they went about tackling the other research focus: post-harvest processing. "Traditionally, if you wanted to get food from Enset, you had to wait a minimum of

two months. We succeeded in reducing the fermentation time to a few days, depending on the altitude of the area." To optimise the fermentation process, researchers made use of so-called 'Sauerkraut iars' and starter cultures. 'Good' bacteria (the starter cultures) are deliberately added to the harvested product in airtight jars to start a fermentation process, resulting in a more homogeneous final product that could be produced more consistently. Additionally, the end product is tastier, healthier and provides more food than before, as it avoids waste of fermented Enset.

Spreading the knowledge

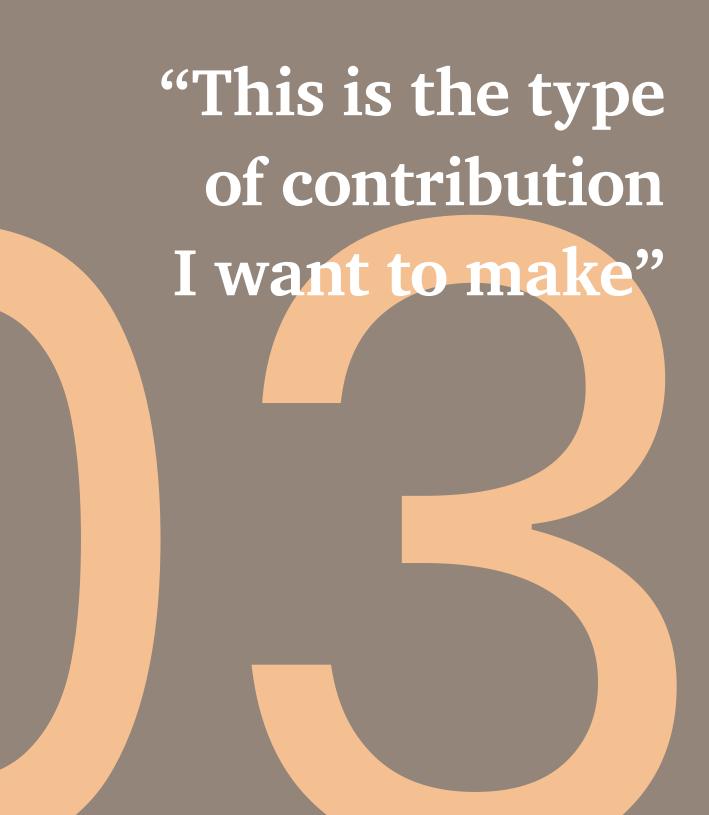
The knowledge gained through the VLIR-UOS TEAM project is now used in the 'fermentation house', a local centre where farmers can get to know more about Enset. Also, in the university's Enset garden, a 'hub' for local Enset processors was created in order to share ideas on tools and technologies from different areas in order to improve their farming practices. "The project has built a bridge between researchers and people who, up until now, had little access to any scientific information on Enset," Vancampenhout concludes.

Men, women and children at an Ethiopian Enset harvesting site





Towards a more inclusive economy in Nicaragua

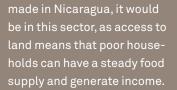


Growing up in a rural context in the south of Nicaragua, Carmen Lissette Collado Solis witnessed first-hand how certain groups such as small-scale farmers and women had much more difficulty acquiring land for agriculture than others. Motivated by this experience, she is now doing research within a VLIR-UOS TEAM project on the effectiveness of local interventions to counter this unequal land access. Along with her, Johan Bastiaensen from the University of Antwerp (UAntwerpen) and Pieter Van den Broeck from the Catholic University of Leuven (KU Leuven), we look back on how VLIR-UOS projects have been able to increase inclusion for disadvantaged groups in Nicaragua's economy, and in the agricultural sector in particular.

hroughout the history of Nicaragua, access to land, agricultural services, credit and resources have been unequally divided among various groups. Small and medium-sized farmers and women have often been excluded. Yet access to land in particular is key to being able

to thrive in the agricultural reducing poverty could be

sector, and is especially vital in a country where agriculture is an important part of the economy, as in Nicaragua. The World Bank notes that agriculture is the mainstay of the country's economy and "the major provider of food, nutrition, jobs, and export earnings". The organisation adds that, if further gains in



Unequal land access for small farmers and women

"The high inequality in land access especially applies to small farmers and women," says Carmen Lissette Collado Solis, who has been a PhD student within a VLIR-UOS TEAM project in Nicaragua since 2018. Richer farmers, (local) governments or development agencies, among others, have a great deal of prejudice against those excluded groups that are unable to access land. "They think that 'people do not own land because they are lazy or because they do not work hard enough'," says Collado Solis. However, there are bigger issues at play. After the Sandinistas started governing the country at the beginning of the eighties and onwards, they prioritised state-owned farms and largescale farming and production over individual and small-



kes part in a VLIR-UOS TEAM project on

scale farming, as the latter could reduce the production of crops for export and prevent



The high inequality in land access especially applies to small farmers and women.

the inflow of foreign currency. The government therefore primarily provided credit and subsidies to large producers. Moreover, women are often hindered from getting access to land, as is the case in many other countries. Although, theoretically, there are laws to ensure gender equality, in practice, women are disadvantaged due to cultural factors, institutional practice and social customs. For example, Nicaragua has a patriarchal culture, which means that society is mostly focused on men. Because of traditional culture, both the land and farm assets belong to the man of the household. If a couple separates, it is usually the man who gets access to the land.

A wind of change for small and medium-sized farmers

Johan Bastiaensen from UAntwerpen's Institute of Development Policy (IOB) quickly noticed the inequalities for small-scale farmers on his first trip to Nicaragua in 1983 – his honeymoon.

"My honeymoon was a trip
with Broederlijk Delen (editor's
note: a Belgian NGO fighting poverty and inequality
in its partner countries),"
the professor recalls. "I was
probably the only one not
going to the country to 'celebrate the revolution'," he says.

"This probably enabled me to
perceive more easily that the

principle of 'land belonging to the person who cultivates it' was not being implemented at all."

Five years later, in 1988, Bastiaensen got involved in a VLIR-UOS Own Initiative project with the Nicaraguan Universidad Centroamericana (UCA) as an assistant and PhD student under the supervision of Stefaan Marysse and Peter Marchetti. "The project was actually a plea for a different kind of policy. It mapped the diverse production systems and agricultural zones, both for larger and smaller farmers in Nicaragua, to show the big role that small and medium-sized farmers did play in food and export production." After the research, a second follow-up VLIR-UOS Own Initiative project supported the consolidation



of the partner organisation as an incubator of innovative, farmer-focused policies.

Preparing the land by setting up pilot projects

The research group from the first project was transformed into "Nitlapan" (a word from Nahuatl, an indigenous Nicaraguan language, meaning 'preparing the land for sowing corn'), a research and development institute at UCA that would offer concrete alternative interventions for small-scale farmers. Nitlapan wanted to 'prepare the land' by setting up pilot projects to gradually change the entire country's policies, bottom-up. "We started a project in which, in agreement with the local communities, we transformed a big deforested cotton area with large haciendas (editor's note: bigger farms) into small, diverse types of farms that jointly produced a lot of added value and which exist to this day," says Bastiaensen. The land belonged to the small farmers and cooperatives that had acquired it during the Sandinista government's land reform. "Nitlapan provided farmers with technical assistance. In a second phase of the project, small local village

banks provided farmers with credit, at first in the form of chickens and pigs, later in money – a concept that would later be transformed into a microfinancing bank – Fondo de Desarrollo Local."

Microfinance, critical thinking skills and new Master programmes

Fondo de Desarrollo Local (FDL), the microfinancing bank that Nitlapan set up in 1992, was one of the many impacts generated by the original two VLIR-UOS Own Initiative projects. "These VLIR-UOS projects have played an essential role in the creation and consolidation of FDL," says Bastiaensen. This spinoff wanted to enable micro-, small and medium-sized farmers to improve their living standards by providing financial services, loans and

training, among others. In the mid-nineties, the university invested its own capital, which would be extended by revenues from microfinancing operations over the years to come. Many years later, part of this FDL was transformed into a regulated microfinancing bank under the supervision of the Central Bank, International financiers provided it with extra capital. "Nowadays, FDL, co-developed thanks to VLIR-UOS projects, is a pioneer in agricultural microfinancing," explains Bastiaensen.

He also notes another kind of impact: "Many of the young researchers within the then VLIR-UOS Own Initiative projects now have crucial positions at FDL or at Nitlapan, the Chief Executive Officer (CEO) and vice-CEO of FDL and the director and research director of Nitlapan, amongst others. The projects have



Nowadays, the FDL microfinancing bank co-developed thanks to VLIR-UOS projects, is a pioneer in agricultural microfinancing.

Nitlapan wanted to 'prepare the land' by setting up pilot projects to gradually change the entire country's policies, bottom-up.

provided these people with the opportunity to develop themselves and to critically reflect on their development work." The skills gained during the VLIR-UOS projects, such as a critical attitude, is something the researchers have taken with them to their current jobs, and which helps strengthen the institutes they work for as well. Some of these researchers – like the current research director of Nitlapan - have also got their PhD at the IOB in Flanders. Other researchers have got their Master at IOB or KU Leuven.

Towards the end of the nineties, a short VLIR-UOS Own Initiative project financed a bilingual English-Spanish regional Master in Economic Development in Nicaragua. Today, IOB intensively cooperates with Nitlapan-UCA and related Central American academics, who have become a strategic long-term partner of IOB. They contribute 'from a Central American perspective' to the IOB Master programmes ('Development Evaluation and Management', 'Governance and Development' and 'Globalisation and Development') in Antwerp and will jointly offer a module of these three Master programmes at the UCA - with the support of VLIR-UOS. Since the start of the VLIR-UOS projects in the eighties, Bastiaensen and the IOB have had many VLIR-UOS projects running to support small and medium-sized farmers in Nicaragua, together with the Nitlapan institute and FDL.



In Nicaragua, a lot of big players buy up land rights, which concentrates them within the hands of a few big land owners.

"The VLIR-UOS Own Initiatives have also been able to have an impact on *Nitlapan*'s policies, as they happened during the set-up of the research group," Bastiaensen adds.

Land ownership

The project in which Collado Sollis is doing research, a 2018 TEAM project in which Nitlapan and KU Leuven joined forces, is about a parallel problem of unequal land access in Nicaragua: land concentration. "In Nicaragua, there are still a lot of big players, for example involved in livestock farming who buy up land rights," says Pieter Van den Broeck from KU Leuven, Flemish promoter of the project. "This system concentrates land rights within the hands of a few big land owners, resulting in large-scale agriculture, resource depletion and forests disappearing."

Van den Broeck gives an example of how local land is often used in the global economy. "Part of Nicaragua's economy is about meat production for the United States. Forests in Nicaragua are chopped down and used for grazing cattle. The meat will then be used for burgers in the US. That is an example of the global economy's influence on local land use transformation."

Trying to fill the knowledge gap

Family-based and indigenous farming is supposed
to be more sustainable and
challenges the dominant
trend of land concentration,
which is why the VLIR-UOS
TEAM project has put its
focus there. It did not start
from scratch, though. Several
national farmer movements,
local organisations, a national
research centre and international NGOs had already joined
forces under the so-called

'National Engagement
Strategy' (NES), a network
which is coordinated by
Nitlapan. The organisations
in this network exchanged
knowledge and conducted
small-scale research and
advocacy on the land access
of rural women, youth and
indigenous people.

This network had only limited impact, though. The group was lacking certain knowledge on land dynamics, for instance on flex crops and on ambiguous land use rights, its generated knowledge did not reach policy-makers nor potential funders, and social forces stood in the way of effective advocacy.

Within the VLIR-UOS project, Nitlapan and the NES therefore joined forces with KU Leuven to conduct research on how these organisations' interventions could be substantiated with a stronger research component, and on how the gained knowledge could effectively reach policy-makers and potential funders. The research tries to answer several questions: how do the NES organisations effectively change something in the dominant processes of land concentration? What socio-institutional barriers are there? How can they improve their advocacy? How can regional and national policies be upscaled and consolidated

to support this alternative land rights' use? In order to collect data for the research, Nitlapan trains members from the NES to do the research themselves, which can later be used as input for Nitlapan's research or for use within the NES. Collado Solis - who finished a Master in Human Settlements at KU Leuven in 2015 – is responsible for this training. "We have very different profiles in the training programme," she says. "There are people working in accounting, popular educators, teachers, journalists, people from women's associations, among others. We train them in such a way that they



"We have very different profiles in the training programme," says Collado Solis (on the left).



"We train them in such a way that they will be able to do the research themselves in the coming years, with less support, and depending less on consultancy," says Carmen Lissette Collado Solis.

will be able to do the research themselves in the coming years, with less support, and depending less on consultancy. This will eventually make them stronger and more self-sufficient," Collado Solis adds.

Changing beliefs

Although the TEAM project has only been running since 2018, some impacts are already noticeable. "This project is generating a change in people's perceptions. They have started questioning the assumption that they are lazy or do not work hard enough. Researchers are now seeing the full context of how they are systematically disadvantaged in many ways."

Once the research is done, the NES organisations will have more information on which interventions are most effective and can then apply them accordingly. "The organisations provide interventions such as credit programmes, land funds and technical assistance to support women and youngsters, to get people to have access to land and to maintain it over time." If these interventions are more effective, they will be able to have more impact on the vulnerable groups excluded, so that their access to land improves. During our conversation with Collado Solis, her fire and determination in standing up for vulnerable groups in Nicaragua does not ebb for a minute. On the contrary, her tenacity and firmness

only grows as our discussion carries on. "The ideal scenario? Organisations working in cooperation with governments, making changes in people's lives that enable women and youth to get access to land, and people to farm that land in a more environmentally friendly way. Working in research here, I realised that this is what I wanted to help achieve." With firm dedication in her voice, she concludes: "This is the type of contribution I want to make."



Nicaragua



8 projects

6 Own Initiatives / TEAM projects

2 South Initiatives

1998 - 2018 period

 $1,\!371,\!542$ total budget (in \bigcirc)



Partners

- a) Instituto de Investigación y Desarrollo Nitlapan
 - Universidad Centroamericana
 - Universidad Nacional Autónoma de Nicaragua



For all Flemish universities, both social responsibility and societal impact are high on the agenda. Special attention goes out to the most vulnerable in society both in the North and the South. It is very important that we take up this responsibility via academic cooperation for development, as development problems are very diverse and complex and need to be tackled from many different perspectives and disciplines, a complexity that demands quality university capacity in the South that is built through partnerships with universities in the North.

(VLIR-UOS corporate film 2018)

Luc SelsRector of the Catholic University of Leuven





Protecting vulnerable groups in Bolivia

"Many of the children who participated in the study came to my PhD defence"

"My story on the impact of our cooperation starts with Eva, a 13-year-old girl. I met her as a street worker in the streets of La Paz on a Friday night. She was small, pale and skinny. When we met her, she teased us into playing tag. Her smile revealed that she must have been quite a beautiful girl before being infected with HIV. Running behind her in the street reminded me of the games I used to play at my daughters' birthday parties. But then a car stopped, its door opened, some money was shown, and Eva was whisked away."

he story that **Gerrit** Loots, professor in psychology at Vrije Universiteit Brussel (VUB), told at our VLIR-UOS impact event on 20 December 2018, made a ence. For twelve years now, researchers from VUB and Universidad Católica Boliviana (UCB) have been trying to vulnerable communities in Bolivia, street children among others. Their most important research partners in the process? The vulnerable

groups themselves. As Loots puts it, "If you want to create social change, you have to involve the communities."

Family on the streets

Delinquents, drug addicts, criminals... the reputation of street children in Bolivia and its political capital, La Paz, is far from good. They often face enormously challenging circumstances in their daily lives, which, in turn, impair their social and cognitive development: homelessness, malnutrition, drug abuse, lack

of education, and physical, sexual and mental abuse. Still, many children prefer to start or keep living on the streets after being interned, even when there are other alternatives available to them, such as intervention programmes, shelters or going That was the research question of **Edith Marcela Losantos** Velasco's PhD, as part of a VLIR-UOS Own Initiative (OI) project, when in 2010, she partially exchanged working with street children in an NGO for an academic career. For her research, Losantos Velasco headed to the streets of La Paz to get to know the them to take pictures of their living situation. "After analysing the pictures, I was able to draw some conclusions on why children remain on the streets," says Losantos Velasco. "They feel, for example, that the street is a social place where they feel welcome and protected, contrary to and requirements in order to be accepted can leave the children feeling stifled. Going to an institution also means losing the people whom they consider to be their family and



Edith Marcela Losantos Velasco interviewing a youngster during her PhD research.

© Mauricio Panozo Montero



Edith Marcela Losantos Velasco during her PhD research at UCB. © Mauricio Panozo Montero

having to integrate with an entirely new group of children." As a spin-off of this PhD research, the Belgian NGO Wolfpack Basketball Academy where Loots, Losantos Velasco's PhD promoter, was working with at that time, brought youngsters on the streets together in a basketball team to give them a positive, healthy street activity and to discourage drug use. "Following the sports initiative, a public dialogue was organised between the local La Paz authorities and the street children, which has resulted in a protocol to improve healthcare for HIV/ AIDS-infected youngsters on the street, a protocol which will soon be implemented by the La Paz government," explains Losantos Velasco, who has also been involved in the public dialogue that

laid the foundations for the protocol.

Three PhD students later

At the time of the project, Bolivia was experiencing a wave of parental migration. Due to an ongoing chronic economic, political and social crisis in the country with its roots in antecedents long before that time, major parts of the population reported low levels of well-being and life quality, which led to, among others, parental migration. This type of migration was having a major impact on families' and children's lives: emigrants' children were often growing up without adult protection, facing a lot of social, psychological and learning problems. Yet, little scientific knowledge was

available on the impact of socio-economic risks on the development of children and adolescents in such circumstances, nor was there much political and social awareness on the subject. "The OI project wanted to provide local organisations and policymakers with concrete guidance to help improve their prevention and intervention work in poor urban communities," explains Losantos Velasco. Losantos Velasco is one of three PhD students that graduated as a result of the OI project, all of whom started teaching at UCB and took up leadership roles at the university. She took the lead at the IICC, the Instituto de Investigación en Ciencias del Comportamiento, which was set up as a concrete result of the OI project. Mariana

Santa Cruz Terrazas became Research Coordinator at the UCB campus in Santa Cruz. She leads a transdisciplinary team that conducts community-based research in the rural area of Chiquitania. María Elena Lora Fuentes set up and headed the UCB's Doctoral School of Psychology. "All the PhD students researched themes relevant to children. adolescents and families at social risk, and did their research together with local public and private organisations, such as NGOs," says Losantos Velasco.

The research has provided the university with more insights on the risk factors and biopsychosocial consequences for children and adolescents. "We published a book called Familias, niños y adolescentes en situación de vulnerabilidad: aportes para la política pública ('Families, children and adolescents in vulnerable situations: contributions for public policy'), aimed at policy-makers."

At the stove

There is a remarkable common denominator that Loots and Losantos Velasco highlight when they talk about the projects: the shift that the university has made towards involving the communities in their research. Loots described it as follows on 20 December: "At first, we did research on them and about them, but not with them, which started to feel like a continuation of their oppression." So

they decided to start involving the communities more. "The regular model that we had in our universities in the past was going to the communities just to observe or get information." notes Isabel Melina Balderrama Duran. former local IUC programme coordinator. "They were kind of the study's object, in a passive way. Now, we try to include the communities as an additional actor that can also provide knowledge and experience and give you their perception of a situation. We understand that they are not just learning from us, but that we are learning from them as well." Loots refers to one of the PhD students, who worked with women living in difficult circumstances in the Los Lotes suburb and who tried to figure out how these women were surviving day by day with an unreliable supply of drinking water and electricity.

"There was a moment at which

mothers came together at lunch to cook for the children who were coming home from school. I remember arriving there, and looking for my PhD student. I almost didn't recognise her in her apron and hadn't expected her to be at the stove herself." The fact that this PhD student was participating in these women's lives, while doing research, is a clear example of the change in research that has happened." Losantos Velasco mentions another case. "Many of the children who participated in the study came to my PhD defence. They also answered some of the questions asked by the jury members," she recalls with a smile.

On impact and springboards

"For me, the OI project has been very successful," says Loots. "The students that obtained their PhDs are now



We understand that they are not just learning from us, but that we are learning from them as well. making a big difference at the universities. The project has also been a springboard towards the IUC programme, which is an upgrade for the university's capacity building in research, education and service to the communities." "In the past, we mostly focused on teaching and not so much on research," explains Balderrama Duran. "The IUC programme offers us a great opportunity to increase our research capability and to be connected with research groups." "The IUC programme was actually an extension of what we had been doing within the Own Initiative project," explains Losantos Velasco. "With the experience gained in the OI project, I formulated the project on 'Strengthening the capacities of social vulnerability' within the IUC programme.

With this programme, however, there is cooperation with five Flemish universities and a number of university colleges. The programme is also bigger in scale, covering all four campuses of the UCB instead of just two."

From research to NGO

"When I was working in the NGO sector, academia was perceived as something far away from what was happening in the real world," Losantos Velasco continues. "Now that I work in academia. I realise that NGO interventions can be improved by input from research, and can be monitored and measured." The research centre that she is in charge of has a particular way of working with NGOs: "NGOs come to us with a specific problem for us to research,

they pay us for the research, and they apply the research findings in their activities." "I had already been in contact with SOS Children's Villages for my PhD," Losantos Velasco adds. "In 2016, the NGO came to our research centre with a question on how parents can avoid losing care of their children and having them interned." She explains that in Bolivia, internment is the quick and easy option when there are family problems, but the centre's research provided the NGO with enough evidence to develop a model for strengthening the families before they lose care of their children. "Now, the NGO is also working with the parents instead of just with the interned children – with a focus on prevention instead of treatment."

Losantos Velasco says making the switch from the NGO sector to academia has made her reflect more on impact. "I had never wondered about the impact of interventions — I was just implementing them. Now that I'm working on the other side — research before intervention — I see the importance of that." Losantos Velasco concludes, "I think if we work together we are more powerful."



Edith Marcela Losantos Velasco at her PhD defence together with street children from La Paz. ©UCB

Bolivia

19 projects

2 Institutional University Cooperation programmes	€ 7,439,603
2 Research Initiatives Projects	€ 195,288
6 Own Initiatives / TEAM projects	€ 1,516,234
9 South Initiatives	€ 183,554

1998 - 2018 period



9,334,680 total budget (in €)



Partners

- a) Centro de Ecología y Pueblos Andinos
- b) Universidad Autónoma Tomas Frias
- c) Universidad Católica Boliviana "San Pablo
- d) Universidad Mayor de San Andrés
- e) Universidad Mayor de San Simon
- f) Universidad San Francisco Xavier





Preserving Cuenca's cultural heritage

"You have to acknowledge the value of cultural heritage and take care of it... before it disappears"

Compared to healthcare, food provision and conflict resolution, cultural heritage might seem a low priority in development cooperation. Yet, in recent years, research increasingly shows the significance of conserving cultural heritage for a country's economy and its people. On top of the more obvious economic benefits, such as increased tourism and local jobs, access to historical sites and museums also enhances the inhabitants' sense of identity and a feeling of connection. According to Koenraad Van Balen from the Catholic University of Leuven (KU Leuven): "Cultural heritage improves people's well-being. This insight often comes too late, though."

Ithough Van
Balen formally
graduated as an
Architectural
Engineer, it was
not long before he got into
monument conservation.
"I started from a technical
perspective," he recalls. "But
along the way, I ran into the
limitations of this technical
aspect. Cultural heritage is
about more than bricks and
buildings. It's about the knowledge of various stakeholders,

conservationists' expertise and society's appreciation of this knowledge and expertise."
When trying to put cultural heritage higher on the agenda of development cooperation, Van Balen has faced a fair amount of scepticism, for example, during an ABOS (editor's note: precursor to the current Directorate-General Development Cooperation and Humanitarian Aid) project that he carried out from 1989 to 1994 in the Ecuadorian capital

Quito. "When I talked to people about cultural heritage during that period, they would say: 'That is really the thing people least care about. First, there has to be good healthcare, food and electricity." Still, experience within VLIR-UOS projects in Ecuador and Cuba has proven the sceptics wrong: there is room for the preservation of cultural heritage in development cooperation — what's more, it is key to local and sustainable development.

From an improved economy to greater well-being

Nowadays, culture is often referred to as the 'fourth pillar of sustainable development', particularly in the context of developing countries, as the benefits are numerous. The 2013 Hangzhou Declaration, agreed at the international congress 'Culture: Key to Sustainable Development'in Hangzhou (China), declared culture to be "at the very heart of sustainable development policies" and heritage "a critical asset for our well-being and that of future generations". According to research from Stanford University, investing in one's cultural heritage in particular may be one of the best economic investments



Cuenca is brimming with cultural heritage, and was included in the UNESCO World Heritage List in 1999.





that a developing country can make. It estimates that, by 2025, global heritage could provide about 89 billion euros per year for developing countries. Investing in cultural heritage conservation also creates local jobs and provides people with income: labour often makes up 60 to 70% of the conservation cost. These jobs can be occupied by various vulnerable groups in society, women amongst others. They also spread income throughout the country's economy. Thirdly, investing in cultural heritage conservation increases tourism, which is often also considered key to development in developing countries. One condition is that this tourism should be sustainable in order to prevent any negative impact on cultural heritage sites. Sustainable tourism helps to reduce poverty and empowers women, youth and migrant workers as it provides employment opportunities as well.

Besides providing economic gain, cultural heritage preservation protects local and national identity and pride, and reminds people of their common history and progress. Moreover, it increases well-being: people report 'higher levels of well-being and life

satisfaction' when there is a specific place that they feel deeply connected to. There is a link between historical sites and museums on the one hand, and indicators of well-being on the other. People are happier in both natural and built-up scenic locations.

Cuenca as a UNESCO World Heritage site

With its strong cultural tradition and background, the city of Cuenca, also known as the 'Ecuadorian Athens', is home to many creative and intellectual minds - writers, scientists, poets, musicians, philosophers and politicians. In 1982, the Ecuadorian State declared the historic city of Santa Ana de los Rios de Cuenca as a national cultural heritage site. Sixteen years later, in 1999, UNESCO officially included the culturally vibrant city in the UNESCO World Heritage List. "People thought Cuenca's nomination was crazy because they underestimated its heritage," says Fausto Cardoso Martínez, researcher at the University of Cuenca (UCuenca). Although a true badge of honour, this acknowledgement also brought challenges to Cuenca's inhabitants and government. In Ecuador, cultural heritage management and inventory lies mainly with the cities and municipalities themselves. Cuenca had no inventory that was up to date. Furthermore, there was no

Fausto Cardoso Martínez (on the left) with a couple that has taught him a lot about cultural heritage.







Top photo: La Iglesia de Santo Domingo, part of Cuenca's cultural heritage

Middle and bottom photo: "Cultural heritage is about more than bricks and buildings," says Koenraad Van Balen from Catholic University of Leuven. (Middle photo © Ksenia Ragozina / Shutterstock.com)

Bottom right photo: Cuenca, Ecuador-December 24, 2018: Group of dancers in typical dress of Azuay Province dancing in the streets during a parade Paseo del Nino Viajero, heritage of UNESCO. planning and management in place for the historic centre, and there was a shortage of professionals who had in-depth knowledge or expertise in cultural heritage conservation. Additionally, the country's national heritage institute, the Instituto Nacional de Patrimonio Cultural – a public institution coordinating all administrative levels of cultural heritage in Ecuador – was lacking expertise in city preservation management.

Tackling Cuenca's challenges

In 2006, Van Balen formally got in touch with UCuenca. The professor from KU Leuven, who had expertise on preventive conservation – preventing or delaying the degeneration of cultural heritage - joined forces with his Ecuadorian counterpart, Cardoso Martínez. "The university had decided to add cultural heritage as a project theme to the IUC programme, as Cuenca is on the UNESCO World Heritage List and they saw the potential of using their cultural heritage for local sustainable development," says Van Balen. Both UCuenca and KU Leuven were interested in doing research on the link between cultural heritage and sustainable development, so five professors working at UCuenca's Faculty of Architecture wrote a project proposal built on existing links between the Ecuadorian university and KU Leuven.

At the start of the project, a UNESCO Chair on Preventive Conservation, Monitoring and Maintenance of Monuments and Sites was initiated at KU Leuven, creating the opportunity to develop joint research projects between both universities on city preservation as an instrument for development.

The team set out to support Cuenca conserve its cultural wealth under a VLIR-UOS IUC project, and to have a plan and team in place to keep doing this over the long term as well. Since the cooperation between KU Leuven and UCuenca started in 2007, the Architecture Department at UCuenca is now home to an important research group on cultural heritage that aims to generate the scientific knowledge that is still missing. The group's researchers, PhDs and research assistants among others, contribute to the Ecuadorian Southern region's need for more people with expertise and knowledge of preventive conservation and local development. Two VLIR-UOS scholarship students of the Master in Conservation of Monuments and Sites at KU Leuven are part of this group as well, working on a VLIR-UOS TEAM project at the university. "It was a challenging start," recalls Cardoso Martínez, local project leader. UCuenca had no previous experience in this kind of research. "The fact that there were colleagues from Belgium and other European countries was fundamental."



Cultural heritage is about more than bricks and buildings.

Veronica Heras, one of the PhD students who has finished the Master in Conservation of Monuments and Sites in Belgium, developed the much-needed preventive conservation plan for the city with a local team. On top of that, the research group managed to propose a methodology to finish the long-awaited inventory of the city's cultural heritage and developed preventive conservation manuals and other tools for professionals and managers of heritage properties. The acquired knowledge was also summarised in flyers with information about how to care for the features of heritage buildings, why they are damaged, and how this damage can be treated.

International recognition

As a result of the cooperation, UCuenca now has a professional Master programme in city preservation management. "Some of our alumni are currently part of the teams managing Cuenca's and other regions' cultural heritage, both within the municipality and the national heritage institute. Some are working for other municipalities in the region," says Cardoso Martínez. What is more, these institutes now stimulate their employees to follow the Master programme. Currently, UCuenca is also internationally recognised for its expertise in preventive conservation methods and techniques and is the only university in the country with research in the field of city preservation management. Additionally, the research group has been able to attract national research funds and plays a proactive role in several international research groups, such as the International Council of Monuments and Sites.

Sustainable development

Van Balen emphasises the importance of including cultural heritage management in the structure of development projects. "When you connect the economy, the environment, social development and culture from the beginning, the entire development will be more sustainable." In this case, the conservation of the cultural heritage in Cuenca has contributed to the inhabitants' quality of life, it supports sustainable tourism and

involves diverse stakeholders from within society. One message comes up repeatedly during our conversation with Van Balen: people underestimate the importance of cultural heritage. "Historical places are places that have importance, contribute to people's well-being. Sometimes we see this too late, though." He adds: "People do not always see the true value of cultural heritage. Look at the massive reaction following the fire at Notre Dame in Paris — you have to acknowledge the value of cultural heritage and take care of it... before it disappears."







Development cooperation and VLIR-UOS are the result of a strong social commitment.

A commitment that is very important today and that is also shared by our students, not just with the students we are educating here, but also the students we train in the South. The questions they raise about the world they live in, that will be their children's and grandchildren's world, should be a challenge to all of us.

(VLIR-UOS corporate film 2018)

Herman Van Goethem
Rector of the University of Antwerp



cultural heritage in society was another goal of the project.

In the first phase, the built heritage team mainly did research on districts and buildings to fill this information gap. There was, for example, a joint PhD (editor's note: two (or more) different institutions awarding a doctoral degree and taking on shared responsibility for supervision) on managing the urban architectural heritage in Santiago de Cuba taking sustainable development into account. Another joint PhD focused on locally produced documentaries as archives of rural eastern culture.

During the first phase, for a small part, the project focused on passing on the knowledge gained to society.



Researchers from the UO Department of Architecture and Urbanism studied the beautiful district *Vista Alegre*, which is one of the city's wealthiest areas in terms of built heritage. The Cuban colleagues then presented historical information on specific buildings and their inhabitants in the district's primary school and tried to show these children the true value of the houses and district that they live in.

Currently, following this first phase, we are focusing on disseminating the acquired knowledge to other Cuban academic circles, but also to a broader audience. We are creating a platform on which you can find a wide range of cultural heritage information and data, by publishing the results of the research from the first phase. In the long run, there will be apps working with the platform. For example, in the Vista Alegre district, you will be able to walk around and at the same time get information, photos and maps on your smartphone about buildings and how people used to live in these buildings. The second goal is a publicly accessible toolbox with best practices when dealing with cultural heritage for use by a wide range of stakeholders such as community leaders of the eastern provinces, the tourism sector and other towns and cities."





20 years of International Master Programmes at Flemish universities

New skills for helping Peru cope with natural disaster risks

When in 2000 Ingrid Olortegui Guzman started the Master of Human Settlements in Belgium, it was not a rash decision. Volunteering as a Bachelor student after one of the 1996 earthquakes in Peru – with students registering affected houses and professors evaluating the types of damage – she realised that the reconstruction went beyond physically rebuilding houses. It required taking a step back and looking at the planning of the entire area. Seventeen years later, a natural disaster struck the country again, with El Niño causing floods and mudslides in many areas. Since the beginning of 2019, Olortegui Guzman has been working on a project by the country's Ministry of Housing and Urban Affairs for reconstruction in the aftermath of El Niño.

I had just finished my architecture degree in Lima when I started the Master course in Belgium," Ingrid Olortegui Guzman recalls. In September 2000, she started a Master in Human Settlements at the Catholic University of Leuven (KU Leuven) with a VLIR-UOS scholarship, as she

wanted to know more about sustainable construction, taking into account ecological and bioclimatic factors in construction and working with natural materials, and rural development. "The architecture in Belgium and Leuven was very impressive, old but well-maintained. Cities were relatively well-organised.



The differences with Lima were astonishing," Olortegui Guzman recalls of her first impressions in Belgium.

Learning more about other types of architecture and urban planning by living in a city different from her own was just the start of what her time in Belgium would bring about for her, both personally and professionally.

Professional self-confidence and a more holistic perspective

When we ask Olortegui Guzman about the skills that she picked up during her Master in Belgium, she names several: "When working on my thesis in Belgium, I was mainly my professors pointing out to me that I had to focus more on problems. Now, being a design focus on indicating a thesis afterwards do I tell students corrected – a change of focus which has had a very positive become more analytical and solution-oriented since the Master programme.

Students from the Master of Human Settlements during a photography workshop.



The Master course taught me to look at a project from various angles for an integral view.

The Master programme still influences her work to this day, as she has more professional self-confidence and a holistic perspective. "The course covered many themes: planning, architectural economics, renovation, urban topics, architecture and history. It taught me to look at a project

from various angles for an integral view."

The importance of context

In the Master at KU Leuven, field trips play an essential part in broadening students' views on urbanism, planning and architecture. "The study trips were key," says Olortegui Guzman. "In every new location we were able to analyse how the architecture was linked to urban design, history, economics, and more. We visited several countries, Spain, France and the Netherlands, among others, and we could compare different patterns in each country." "One of the most fundamental goals of our programme is to have students understand context," explains Bruno De Meulder, former promoter of the Master at KU Leuven, who has been teaching 'Urbanism' and 'Urban Design' within the programme. "Fieldwork is essential – if you want to work in a certain context, you can't stay behind a desk." Ever since the programme started, its content has changed according to contextual factors. For the past few years, there has been a

A picture taken by Ingrid Olortegui Guzman from her classmates at a field trip to the Netherlands.



greater focus on sustainability, climate change and urban planning, for example. Cities are very vulnerable to climate change, yet at the same time responsible for a large chunk of energy-related greenhouse emissions. According to United Nations data, about 70% of energy-related greenhouse emissions come from cities. Cities can therefore play a key role in the fight against global warming by reducing their emissions. For example, urban designers and planners can change how cities are planned, conceived, managed and powered.

in research in the field of planning, specifically in coordinating and leading positions, for example the coordinating position I now have with the Peruvian Ministry of Housing and Urban Affairs." Olortegui Guzman has also started teaching at the University of Applied Sciences (UPC) in Lima at Master level, propagating the holistic view she picked up at KU Leuven. "For example, in design classes, I permanently remind my students to take into

account all conditions that define the specific functions at a site, with economic dynamics being particularly relevant. For example, I usually tell my students that in architecture, it is easy to get distracted by the aesthetics of a project and forget that a beautiful but over-sized project will eventually not be executed because it is not financially viable." De Meulder stresses the significance of an ICP diploma for both the students and their

Putting the newlygained knowledge into practice

Once she had the Human Settlements degree in her pocket, Olortegui Guzman returned to Peru, with a noticeable advantage on the job market. "Having a Master degree from a European university is an important asset when applying for jobs in Peru," Olortegui Guzman explains. "KU Leuven also invited me to the World Urban Forum in Vancouver in 2006 and to the International World Urbanisms Seminar in Leuven in June 2019, which is an added value on my CV as it shows that I am aware of worldwide trends that are still very new in my country." "I started my professional career as a researcher at the metropolitan municipality in Lima. Subsequently, most of my experience has been



The majority of our alumni return to their home country, often to a former employer, where they can take a step forward in their career and strengthen a department at a university or a ministry with the newlygained knowledge.



What we're doing right now with the Housing Ministry is evaluating local urban planning processes, so that cities can be adapted to be more resilient in the face of possible new natural disasters in the future.

organisation. "The majority of our alumni return to their home country, often to a former employer, where they can take a step forward in their career and strengthen a department at a university or a ministry with the newly-gained knowledge." The alumni's organisations often have a considerable influence or impact in partner countries, such as ministries, municipalities and planning services. Some graduates also start working as lecturers or researchers at local universities. "On a higher level, the ICPs connect students from developing countries, allowing exchange that is visibly

meaningful to the participants and on how they professionally perform afterwards."

Connecting people and partners

The ICP in Human Settlements also collaborates intensively with partner institutions that offer similar programmes, stimulating the co-production of intensive urban design workshops and short courses.

The Ho Chi Minh City
University of Architecture

to the setting up of a similar Master in Urban Design at UAH. This programme is adapted to the local context of South East Asia and targets students from Vietnam, Malaysia and Indonesia, among others. The Master offers research-based education, integrating, for instance, design studios focusing on urgent development issues and involving local stakeholders such as local communities and government authorities.

Upgraded skills in the aftermath of *El Niño*

The most recent episode of the weather phenomenon El Niño, which resulted in extreme rainfall with floods and landslides, left a trail of destruction in Peru. Many lives were lost and numerous assets destroyed. "Most parts of the Peruvian coast were in a state of emergency, the water level in the rivers had risen and the heavy rainfall devastated major parts of the rural areas as well," recalls Olortegui Guzman. "I wanted to do something about this." Since the beginning of 2019, she has been involved in the Peruvian government's El Niño reconstruction planning, this time professionally. "I was

Students from the Master in Human Settlements on a field trip in Vienna in February 2019.

(UAH), for example, is an

important partner of the ICP

and alumni are contributing

programme. Together, ICP staff



called to be part of a team to supervise the urban planning activities for the Peruvian Housing Ministry," she says. Nowadays, Peru has made disaster risk management a high priority at national level and is undergoing institutional reform at all levels. Olortegui Guzman's official

Olortegui Guzman's official role is Chief of Supervision. She coordinates everyone involved in the urban planning process as well as the processes themselves. When working on the Housing Ministry's project, she says the multi-sided focus from her Master degree provides an added value for the team. "At the moment, I am the monitoring team leader for the regions most affected by El Niño in Peru. What we're doing right now with the Housing Ministry is evaluating local urban planning processes, so that cities can be adapted to be more resilient in the face of possible new natural disasters in the future. In short, we're improving the authorities' risk management. To achieve an appropriate planning in this evaluation, we look at the technical, social and political aspects."

And what about Olortegui Guzman's original goal of having a greater impact on people's lives? Does she feel that investing in herself by following the Master in Belgium has helped her in doing so? "My contributions are definitely more solid now than when I had just started working in risk areas. I have gained expertise in urban



I am having a greater impact with my work right now.

design and management, construction, regulations and working with communities. Because I have been in contact with so many professionals with various backgrounds, I have been exposed to a wide range of approaches and my knowledge has increased significantly." Olortegui Guzman thinks her current job puts her in a good position for impact. "From my current position, I can influence the development of urban plans and help direct the necessary change - something for which I am very grateful. I am certain that I am having a greater impact with my work right now," she concludes.

Peru

26 projects

1	Institutional University Cooperation programme	€ 5,930,000
10	Crosscutting projects	€ 425,207
7	Own Initiatives / TEAM projects	€ 1,517,066
8	South Initiatives	€ 344,359

1998 - 2018



8,216,631 total budget (in €)

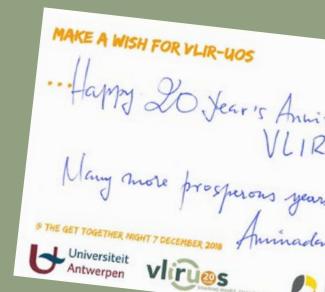


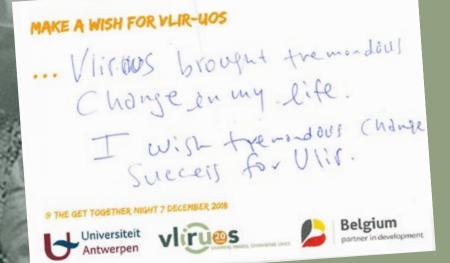
Partners

- a) Pontificia Universidad Católica del Perú
 - · Universidad Nacional Agraria La Molina
 - · Universidad Nacional de Ingeniería
 - Universidad Nacional Mayor de San Marcos
 - Universidad Peruana Cayetano Heredia
- b) Universidad Nacional de Cajamarca
- c) Universidad Nacional de Trujillo
- d) Universidad Peruana Cayetano Heredia

Get Together Night 2018: Best wishes to VLIR-UOS

Each year, one of the five Flemish universities organises the so-called 'Get Together Night', where ICP students from all Flemish universities can meet and share experiences. 2018 was a special edition celebrating 20 years of VLIR-UOS – birthday cake included! A few birthday wishes from the scholars:







111 SH Belgium

MAKE A WISH FOR VLIR-405

WISH VLIR-40S A MORE PROSPEROUS YEARS AHEAD.

> -MAY YOU CONTINUE FO FACILITATE SHARING OF MINDS AND OHANGING . Kema OF THWORLD. Dounk de

@ THE GET TOGETHER NIGHT 7 DECEMBER 2018







298. Belgium

105 longer, my grandchilden Belgium

MAKE A WISH FOR VLIR-405

My best XLIR tos on its 20th Anniversa. is that the effort that it is making Investing in improving quality of like of the teople in the South achieve its goals and see them living the best life that they wish them to have 9 THE GET TOGETHER NIGHT 7 DECEMBER 2018 M. J. C









20 years of International Master Programmes at Flemish universities

Changing global health, one statistical formula at a time

It was in 2005 that Setia Pramana left his home country, Indonesia, to pursue his passion. Supported by a VLIR-UOS scholarship, he completed the Master in Biostatistics at Hasselt University. In 2019, fourteen years later, he works as an associate professor at the Institute of Statistics in Jakarta, Indonesia, teaching data mining, survival analysis and computational statistics. He is also Indonesia's representative within the United Nations (UN) Statistics Global Working Group. Much of his research focuses on using data and statistics for medical purposes, such as drug development for cancer, schizophrenia and chronic diseases. "It all started in Belgium," he underlines.

iostatistics is key to modern medical, biological and other discoveries. Providing an answer to many pressing research questions, such as whether a new drug will work or how long it will take for a disease to break out, the discipline of biostatistics does have a far-reaching social

impact. It provides tools and techniques for collecting, summarising, analysing and interpreting data. In short, biostatisticians convert the complex mathematical findings of clinical trials and data in the field of biology into information that could be valuable for official government decisions, a career path which also appealed to Pramana.



A unique opportunity

Pramana first came into contact with biostatistics during his Bachelor in few people had expertise in particularly within the medical and biomedical field." Pramana spotted a great opportunity to gain knowledge still largely unexplored by "Not many people participated in biostatistics programmes in my country, nor were there many programmes in this specific field available," he recalls. ship allowed Pramana to start the Master in Biostatistics at Hasselt University (UHasselt) - one of the first Master programmes for which VLIR-UOS provided scholyear provides a solid foundation in applied statistics in

Solving the imbalance

general," Pramana explains.
"The second year focuses on

"Since 2007, the Master programme has greatly evolved in terms of content," says *Paul Janssen* from

Setia Pramana started the Master in

UHasselt. As a former programme promoter, he has a track record in International Master Programmes (ICP) going back to 1993, when scholarships for the Master programme in Statistics were still funded by ABOS (precursor to the current Directorate-General for **Development Cooperation** and Humanitarian Aid). "To equip students with relevant knowledge to have an impact as changemakers in their home countries, we currently offer a Master in Statistics with three specialisations: Biostatistics, Bioinformatics and Epidemiology & Public Health Methodology," he explains.

As a result, local partners can engage in data-driven research. "In projects and programmes that work together with or focus on problems in partner countries, local researchers are often the ones collecting the data.



The biggest added value is that students from partner countries can follow high-quality master programmes in Belgium, programmes that, in general, they cannot find in their home countries.

The data processing, however, happens in the West, mostly to the benefit of western actors and institutions," says current

ICP promoter, Niel Hens. "We wanted to change this and give local partners, organisations and institutions more ownership of the data they had collected." Paul Janssen adds: "We want to arm our students - and therefore also the organisations, research institutions and universities where they work - not only to collect, but also to process data in a qualitative way." The added value of the ICP programmes and VLIR-UOS scholarships is crystal clear,



ICP Students at the Get Together Night at Hasselt University in 2016. © UHasselt

At the yearly Get Together Night, students from all Flemish universities' ICPs get the opportunity to exchange experiences.



according to Hens. "The scholarships allow students from partner countries to follow high-quality Master programmes that, in general, they can't find in their home countries." Janssen and Hens see many successes of the programme. Alumni often end up working in important positions in their home countries, within the university but also beyond the university's walls. One of the key results of the ICP - and for VLIR-UOS programmes in general – is that they create networks between students, professors and institutions. "We partner up with alumni for publications, and a lot of our guest lecturers at UHasselt were ICP students in earlier years," says Janssen. "Alumni also find each other in their home countries," says Hens. Janssen gives an example. "Alumni in Uganda have set up a local chapter of the 'International Biometric Society - Uganda Region', a

national contact point which is part of the International Biometric Society, a chapter similar to the one we have in Belgium. This is a sustainable result, with a long-term impact in Uganda." ICP alumni are also often keen to get involved in other VLIR-UOS projects once they return to their home countries.

More focus on local needs

In order to maximise longterm impact and following the shift in the VLIR-UOS policy for ICPs stimulating them to become more southern focussed and to create international networks, the programme organisers have decided to change the selection procedure for applicants. Janssen explains: "Up to 2017, students were selected based on their individual records. Students are still selected based on the criterion of 'excellence', but the

programme now prioritises seven countries," Janssen clarifies. These are not just seven random countries, but countries in which institutions that UHasselt structurally cooperates with are located. "We focus on fewer countries, but work together in a more structural way," says Hens. "We do keep two to three positions for candidates from the other eligible scholarship countries though." The main reason for this development is to create more sustainable cooperation in the long run. "By working together on an institutional rather than on an individual level, we can cooperate in a more structural way and have more impact," says Janssen. By doing this, the ICP's ultimate aim is to help and support the creation of a similar Master programme at the local partner institute. "For example, there is a need for a highquality Master in Statistics in Vietnam," says Janssen. "Our

cooperation tries to change this, bottom-up, through Vietnamese students who have followed our ICP here and by working together with local organisations such as the National Institute of Hygiene and Epidemiology."

Changing lives, one number at a time

After finishing his Master degree, Pramana obtained a PhD at UHasselt in collaboration with Janssen Pharmaceutics within a project on drug development for schizophrenia, and went on to a post-doc cancer research position in Stockholm. In 2014, he returned to Indonesia, back to his former employer, the Institute of Statistics in Jakarta. "I don't produce statistics myself, but I teach students to produce statistical data," Pramana explains. He teaches data mining, survival analysis and the statistical

software 'R'. "This software is something I got to know at UHasselt. R was not commonly used in Indonesia before I introduced it in the institute's student courses. All students now get a course on this free and flexible software used for statistical computing and graphics. I've also published three books on this statistical software because of the growing interest in the matter." Pramana feels that the Master programme has left him well-equipped for capacity building. "The knowledge and practical skills I can pass on to my students are reinforced by the professional international network that I was able to build. Still, the connection with Belgium is strong, with Flemish experts visiting Indonesia for guest lectures and collaborative research." "When you participate in an ICP programme, you meet people from different backgrounds, from different

countries, with a different point of view. We tried to get to know each other and learned how to deal with these different backgrounds - not as a solo researcher, but as a team of researchers." Looking back on his career, he summarises: "It all started in Belgium. A biostatistician's job is not just about calculating and doing statistics, but being able to explain these calculations to people from different backgrounds. That is one of the most important things that

I learnt at UHasselt."



Graduates often end up in biopharmaceutical companies, medical research institutes, in academia and governmental agencies.

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Indonesia



7 projects

1998 - 2018



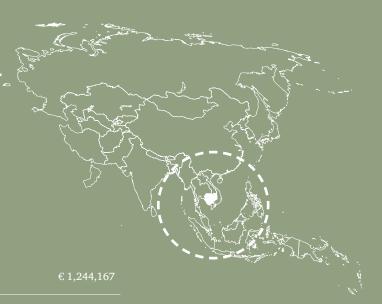
678,315



Partners



Cambodia



9 projects

5 Own Initiatives / TEAM projects

4 South Initiatives

€ 105.986

1998 - 2018

perioc



1,350,153

total budget (in €)



Partners

- a) · Cambodia Maritime Institute
 - Institut de Technologie du Cambodge
 - National Institute of Education
 - National Institute of Managemen
 - National University of Management
 - Royal University of Agriculture
 - · Royal University of Phnom Penl
 - · University of Health Sciences

Empowering professors in Ecuador and Cambodia

Teacher education and its lasting impact on Higher Education Institutions and society

There is a direct link between the quality of teaching and student performance. Improvements to teacher education and study programmes have a lasting impact on teachers, study programmes, institutions, and, ultimately, on students. This is a story on how empowering professors in Ecuador and Cambodia by enhancing research and innovation in teaching can pay off.

n 2006, the Ecuadorian government issued a new ten-year plan for education. The plan focused on teacher training and professional development as its main priorities, in the context of many professors lacking research skills being a huge challenge. According to data from a study conducted jointly by UNESCO and VVOB (a Flemish organisation working on education in developing countries) only 9% of a sample of 256 higher education lecturers conducted research in the period of 2006 to 2011. However, research is crucial

to guarantee the quality of education, as well as to stimulate educational innovation in the long term.

When teaching is research-based and when teachers are equipped with the necessary research skills, this provides teachers and school leaders with a certain level of credibility, while subsequently increasing accountability.

Educational research contributes to a research culture within higher education institutions and strengthens reflective thinking, analysis, communication and teaching,

as well as intercultural and cooperative skills.

Making teaching more research-based

When **Stiin Janssen** from the Limburg Association of Higher Education (AUHL), Wouter Hustinx and Anniek Orye from PXL University College formally agreed to set up a with the Technical University of the North in Ibarra, Ecuador (Universidad Téchnica del Janssen was no stranger to the project's local promoter in Ecuador, Ramiro Nuñez. "We'd been friends for many years before starting the project," been living in Ecuador for a long time before starting to ing for VVOB in Ecuador. The Teacher Education project was selected by VLIR-UOS in 2017. It had two objectives: to competences of teacher trainers and to introduce innovation in current teaching practices at UTN. "Many professors at the university don't have PhDs, and they don't consult research papers for their teaching," says Hustinx, the Flemish promoter



Anniek Orye (on the left) and Socheatl
Mam (fourth from the left) at the Roya
University of Phnom Penh.



We wanted to launch a project that would be easily accessible, but which would also focus on educational innovation.

of the project. "We wanted to set up a project that would be easily accessible, but which would also focus on educational innovation." Nuñez explains how they did this. "We started making groups made up of professors from different majors: English, elementary education, physical education, arts and psychology. Each of these five Teacher Trainer Design Teams had an in-depth look at their own teaching practices using a specific research methodology called ADDIE, which is short for 'Analysis, Design, Development, Implementation and Evaluation." For example, the Teacher Trainer Design Teams from the **UTN Psychology Department** decided to work on the research topic 'Assertiveness in the classroom with preservice (future) psychology teachers'. They investigated new learning scenarios and

innovative teaching materials. Once they had finished their research, they tested these new teaching practices in their classrooms. They then evaluated the new approach in their teaching and based on their findings, they renewed their design and tested it again in their classrooms. This cycle

was repeated several times, refining the teaching approach with each cycle.

An ICT platform allowed the research groups to contact their Flemish colleagues from PXL whenever they needed coaching. "The teacher teams were involved in a blended-learning course," explains Hustinx. They were regularly given assignments to help them become accustomed to research. "We also made videos in which some of our colleagues at PXL demonstrated design practices based on their expertise."

An inspiration for other projects

The project's impact soon materialised at UTN.
Seventeen professors completed the design-based research course and received a certificate. Professors who had participated in the research training for teachers



indicated that they felt more confident consulting scientific literature and subsequently writing academic articles. Each Teacher Training Design Team designed, developed, implemented and evaluated an innovative educational approach within the context of their own educational practice. Four participants have also started a PhD programme in Europe and North America. Nuñez and his team were determined to communicate about the project results beyond their own university. "We have travelled through Ecuador, to all universities, in order to share the project's results. Two important publications were generated on the basis of this project. One of them was published in various journals around the country and around the world." The research team designed a practical manual, which they handed out at the final conference. The project has also been an inspiration for a similar VLIR-UOS project in Cambodia.

A sister project in Cambodia

The Khmer Rouge regime left Cambodia's educational system in bad shape. Teachers were often unqualified, and there was no high quality teacher training programme. Cambodia is still one of the poorest countries in Asia: investment in education could therefore accelerate much-needed change and development. Research was



not part of the daily practice of professors. Inspired by the teacher training project in Ecuador, PXL and the Royal University of Phnom Penh have established a similar cooperation.

"Research is a scary thing for

"Research is a scary thing for many of our faculty members," jokes Soth Sok, Dean of the Education Department at the Royal University of Phnom Penh. He explains how this attitude is culturally embedded: "In Cambodia, for a long time, we simply cited texts from the wall of the temple. The first education in our country was Buddhist. However, research is slowly being adopted in our country." "Our project is actually intended to create a link between teaching and research, in addition to demonstrating how action research can improve teaching," notes Socheath Mam, who is a project member, teacher trainer and researcher. He can draw on his own experience to tell about the difference that research can make. "I bring this new concept to a classroom full of future teachers and present them the design of the project. I share and apply the knowledge that I have gained during the teacher training." Although the project's main goals are to strengthen the research skills of professors and to achieve innovation in their teaching practices and curricula, the project members have also tried to extend their efforts to the level of policy. To this end, the rector

Top photo: "Research is a scary thing for many of our faculty members" jokes Soth Sok (on the right). © Anniek Orye

Bottom left photo: Students at the Royal University of Phnom Penh



I share and apply the knowledge I have gained during the teacher training.

and vice-rector responsible for international relations have also been informed about the project and will get a report with the project teams' results and a policy reflection on the local impact of these types of projects. "In 2020, we will have the opportunity to involve the Minister of Education. In particular, when the report is published, we will submit a copy to the State Secretary and the Minister and invite

them to attend the kick-off," Sok adds.

Orye observes that the project has generated several important new cooperative projects. "We now have a formal partnership with VVOB Cambodia. This means that we're going to work together for at least two years. It is a fine opportunity." The cooperation will focus on 'blended learning' – a combination of face-to-face and digital teaching – as a

model for the continuous professional development of university professors.

Positive vibe

"We are very pleased with the positive vibe from this project," says Hustinx. "It was really new and challenging, working with a South-American partner and doing a South Initiative, but it motivated us. What is key is that the ownership of the project resides with the local partner institution. Although Flemish universities can contribute to local solutions by sharing their expertise, the project actually focuses on the challenges encountered within the local context and the collaborative effort to try and cope with these local challenges. I think that this is one of the success factors."



The Ecuadorian project team and the members of the Teacher Design Teams.



An important role for university colleges

VLIR-UOS has been providing travel grants to Flemish students enrolled at Flemish university colleges since 2003. The Travel Grants Programme (REI) was the first VLIR-UOS programme to be accessible to the university colleges in Flanders. It has gradually been followed by other VLIR-UOS programmes, including international training programmes, short training initiatives, international congresses, sensitisation programmes, South Initiatives and JOINT projects.

college's cooperation for development is its focus on education and/or practice-oriented research, proceeding from concrete problems and working towards applicable solutions. Stakeholder involvement is also a key aspect for university colleges.



Universities and university
colleges play different but
complementary roles in
cooperation for development.
By involving university
colleges, VLIR-UOS aims to
provide southern institutions
with access to all possible
expertise available in Flemish
higher education institutions.
VLIR-UOS also encourages
integrated programmes involving
collaboration between universities
and university colleges.

Ecuador

56 projects

2	Institutional University Cooperation programmes	€ 13,776,134
1	NETWORK Cooperation	€ 1,545,000
15	Crosscutting projects	€ 967,576
5	Research Initiatives Projects	€ 430,594
2	JOINT projects	€ 169,406
13	Own Initiatives / TEAM projects	€ 2,927,364
18	South Initiatives	€ 881,175

1998 - 2018



20,697,249 total budget (in €)

Partners



- a) Escuela Politécnica Nacional
 - Universidad Andina Simón Bolívar
 - · Universidad San Francisco de Quito
 - Universidad Técnica del Norte
- b) Escuela Superior Politécnica del Litoral
- c) Universidad Casa Grande
- d) Universidad de Cuenca
- e) Universidad de Guayaqui
- 1) Universidad Laica Eloy Alfaro de Manabi
- g) Universidad Nacional de Educación
- h) Universidad Nacional de Loja
- i) Universidad Regional Amazónica IKIAM
- j) Universidad Técnica Particular de Loja

Improving higher education quality in DR Congo

"University professors are beginning to accept the idea of having students evaluate their teaching"

2010. Working in DR Congo, Ghent University professor Oswald Van Cleemput reached out to his colleague, professor Arno Libotton, who was working at the Vrije Universiteit Brussel at that time, asking him to join a project on quality assurance (QA) in the country's system of higher education. Now, nine years later, the VLIR-UOS project 'Assurance Qualité' has helped put this theme on the political agenda and integrate it into the country's national policies. Libotton observes, "there is still some way to go, but we've made a good start."

t is not just the number of students obtaining diplomas that counts.

Another important part of the equation is the quality of higher education, which essentially amounts to whether the graduates have acquired the skills and professional capacities that they need in order to be performant in their jobs.

Still, quality assurance in higher education has never been much of a priority on the political agenda of DR Congo.

"There was no structural quality assurance system in DR Congo. We started from scratch," recalls *Georges Mulumbwa*, the local promoter of the project working at the University of Lubumbashi. He has been involved in the project since 2012. Libotton confirms, "The situation in DR Congo was really terrible at that time, according to UNESCO reports. The country was always very far behind, with the lowest scores on everything. For example,

some of the participating institutions did not even have a list of their teaching staff." Many of the teaching staff members did not have PhDs and the universities did not have the tradition of having their students evaluate their courses. As a result, the quality of Congolese higher education was very poor, and graduates were not equipped to cope with the challenges that they encountered in their professional lives.

These kinds of stories made the researchers wonder what they could do to improve the quality standards of the country's higher education institutions. More importantly, they sought ways in which to increase their capacity and exchange knowledge, such that Congolese institutions would eventually be able to operate their own quality assurance system.

Spill-over effect

Since 2010, a VLIR-UOS project has been running with the seven Congolese partner universities of VLIR-UOS and four higher education institutions selected by the Congolese Ministry of Higher Education. "We created a



Each year, the project organises three or four training courses on quality evaluation in the national capital, Kinshasa.

digital guide containing all kinds of questionnaires, flowcharts and manuals for student evaluations and self-assessments by teaching staff," Libotton explains. "We trained people from the Congolese institutions to prepare self-evaluation reports involving all aspects of a university: scientific aspects, research work and educational programmes. As a result from all of this, they now have systematic student course evaluations." Each year, the project organises three or four training courses on quality evaluation in the national capital, Kinshasa. Each four-day course is given to a group of approximately 25 teaching staff members and administrative workers from universities and other higher education institutions throughout the country. Equipped with expertise from the training, participants

return to their home institutions, where they train other people with regard to quality evaluation (the 'train the trainer' principle). This all leads to setting up their own quality evaluation systems. Also three employees of the Congolese government have participated in the training courses, thereby ensuring that the project would also have an impact on national policy. This has ultimately resulted in two new laws and an official QA department within the Ministry. Throughout the entire timeframe of the project, about 30 people have been trained.

"The university was already accustomed to top-down assessments, but it is now gradually becoming familiar with bottom-up and other external assessments as well, from CAMES, or PASET (editor's note: African quality-assurance networks)," explains Mulumbwa with

reference to the project's impact on the University of Lubumbashi. "University professors are beginning to accept the idea of having students evaluate their teaching." The project's story did not end with the initial project. In 2017, Mulumbwa and Libotton extended the project, as they wanted to make sure that it would have a spillover effect on other institutions as well. To date, it has resulted in the creation of regional centres of expertise on quality assurance (CREAQs), where institutions with staff members who have already been trained in QA have started to train staff from other institutions in their respective regions in DR Congo. In addition to setting up a cooperative partnership between the Flemish and Congolese universities, the project has enabled Congolese universities to get to know one another and



Throughout the entire timeframe of the project, about 30 people from Congolese institutions followed training courses on quality evaluation.



There is now a circular letter on quality assurance, specifying that each university must spend a certain percentage of its operational budget on quality assurance.

create a Congolese platform that facilitates current and future cooperation.

"The main goal of the project is to improve the quality of the educational system, as well as the quality of the degrees and diplomas," explains Libotton. These improvements in education could subsequently help universities position themselves internationally, according to Kathleen Wuytack, the VLIR-UOS programme manager for DR Congo. "The aim of the project is to achieve international standardisation, so that the universities become visible within the international system of higher education, in addition to participating in international exchange programmes."

All the way to the policy level

The VLIR-UOS project has definitely had an impact on the institutions involved. For example, they now have more systematic student evaluations. The Assurance Qualité project has also helped to guarantee the quality of higher education throughout the country in a more structural way, having made it to the political and policy level. "There is now a circular letter on quality assurance specifying that each university must spend a certain percentage of its operational budget on quality assurance," recounts Libotton. "The institutions are also required to send a report to the Ministry each year, in order to demonstrate what

they have done in the area of quality assurance." The structural impact does not stop there. A second law on rules and standards for higher education has recently been passed. Some of them emerged directly from the project. Finally, the Ministry created a separate department to address quality assurance. Higher education institutions are required to report to this department about the progress they have made in the area of QA.

Future perspectives

Mulumbwa regards this project as a clear success story. "Within only six years, we have created quality assurance units in at least eleven universities and colleges, as well as a national quality assurance department and, soon, a network of regional centres of expertise on quality assurance will follow." Wuytack notes that the project is anchored quite strongly. "The evolution of the project has been stable. It has been built in a very solid manner, and it is anchored in policies, as well as within the organisational structure of the universities. I think this guarantees the sustainability of the results and impact of the project."



The importance of the quality of higher education

Quality assurance sounds great in theory, but what does it entail in practice? According to the QA Handbook, a university's level of quality is reflected in the 'characteristics of the university graduates'. In many cases, the skills and professional capacities of these graduates to function in the real world serve as a litmus test for the quality of higher education at the institutions at which they have earned their degrees. If individuals who have graduated from a university as a doctor or engineer are unable to perform well in their respective professions due to 'a lack of quality' on the part of the university, that would indicate that the institution had failed its quality exam.

Another important aspect has to do with the attributes (e.g. level and relevance) of the knowledge produced by the higher education institution and disseminated through and made available for use within the society. Moreover, the quality of higher education also reflects fairness and equity: Who is



able to become a student? Who will be able to complete a degree? Which careers are available?

Hydratan

pucissan

A third important aspect of quality assurance is 'accountability'.

Governments count on higher education institutions to guarantee quality, while also reporting on how they proceed in achieving this goal. They must be accountable to individuals and institutes that rely on this quality, including governments, students — both current and prospective — parents, alumni, employers and civil society organisations.

DR Congo

131 projects

3	Institutional University Cooperation programmes	€ 6,950,000
11	Crosscutting projects	€ 3,943,245
3	JOINT projects	€ 365,893
35	Own Initiatives / TEAM projects	€ 6,255,161
79	South Initiatives	€ 7,625,802

1998 - 2018



 $25,\!140,\!101$ total budget (in ε)



Partners

- a) Centre de Documentation de l' Enseignement
 Supérieur, Universitaire et de Recherche à Kinshasa
 - Cliniques Universitaires de Kinshasa
 - Institut Supérieur des Techniques Appliquées
 - Université Catholique du Congo
 - Université de Kinshasa
 - Université Pédagogique Nationale
- b) Centre de Recherche en Hydrobiologie
- c) Centre de Recherches en Sciences Naturelle
- d) Université Catholique de Bukavu
- e) Université de Kananga
- f) Université de Kisangan
- g) Université de Lubumbashi
- h) Université de Mbujimavi

The world through the eyes of refugees

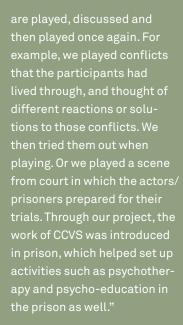
"I see the same experiences and dynamics from the refugee camps in Uganda in the Belgian asylum centre where I work"

In 2012, Julie Schiltz left Belgium for an internship with a VLIR-UOS travel grant at the Centre for Children in Vulnerable Situations (CCVS) in the north of Uganda. CCVS aims to promote the psychosocial well-being of children in vulnerable situations, and organises individual psychotherapy and community programmes such as awareness-raising and psycho-education - a combination that Schiltz considered very meaningful in the context of northern Uganda, where years of conflict, the stigma of child soldiers, and sexual violence had severely distorted local communities. Afterwards, she did a PhD in Uganda with a VLIR-UOS VLADOC scholarship, examining the lives and futures of young South Sudanese refugees in a Ugandan refugee camp.

What was your travel grant project in Uganda about?

my fellow Pedagogy students from Ghent University, I stayed participated in the daily activities of CCVS and organised prison of Lira. Many prisoners

– as with large segments of the population in general had psychological problems group was already performing a play for fellow prisoners on a monthly basis. Our project wanted to make their theatre participatory, which basically



Can you describe your **VLADOC PhD project** in Uganda?

Schiltz: "My VLADOC PhD project in Uganda was a studied 30 South-Sudanese youngsters who had been living in the Adjumani (editor's camp since April 2015, where they had sought refuge after fleeing the civil war in South Sudan. Every six months, I interviewed them and we talked about their lives in South Sudan, their journey to Uganda, their daily lives in the camp and their prospects for the future. Additionally, I spent the market, in schools and at people's homes.



Together with a few youngsters, we made movies in which they told me about their lives in the camp. These movies made the research more accessible to a broader audience and at the same time allowed a group of young people to tell their story and become partners in the research.

An important theme was insecurity, and how the daily reality of living in a humanitarian context determined how youngsters shaped their futures. The presence of the international community had an impact on the youngsters' aspirations, for example, of studying, finding a good job, or migrating to a better place. Sadly, this hope seldom turned into reality in the refugee camps. My research was a critical analysis of the refugee camp, starting with the youngsters' stories. I wrote, among other things, about the resilience and

self-sufficiency of youngsters in the context of humanitarian aid, and about creating a future in a context that is, by definition, temporary."

What impact did the project and the experience in a partner country have on you as a person and researcher?

Schiltz: "It made me think about the way in which we deal with migration and refugees, and about how some wellintentioned aid actions can generate or even consolidate exclusion. I also became more aware of how you can learn a lot by listening and working together with people who barely get their voices heard - not by sharing their real-life stories with the outside world, but by constantly checking and questioning your own ideas and truths. This experience has been very humbling and I've learnt to question my own life and environment. It has taught me to see the world more sharply."

How has this experience influenced your career or even life choices?

Schiltz: "My experience in Uganda has made a huge difference to my life since. Today, I work as a social worker in a refugee centre and I often think about what I learnt at CCVS, for example, recognising and talking about psychological disorders in people from

Julie Schiltz participated in the daily activities at the Centre for Children in Vulnerable Situations.

Top right photo: The Adjumani refugee camp

Bottom right photo: Refugee women cooking at a transit centre.

other cultures. Recently, we are also experimenting with a participatory theatre project to learn about the asylum procedure in Belgium.

My time in Uganda sparked my interest in refugee experiences and in the political reality of humanitarian aid. As a social worker in an asylum centre, I see similar experiences and dynamics from the refugee camps in Uganda here as well: the daily insecurity, the hope, the disappointments, the far-reaching impact of political decisions on people's lives. I'm glad that, in my current job, I have a more support-focused rather than analysis-focused role, but my experience in Uganda, where I was allowed to discover things, think about them and question them, strongly influenced the way in which I do my job today."





Combining climate and development research

"My travel grant was the trigger for me to keep on doing policy support and applied research in partner countries"

As a young bioengineering student, Jean Hugé decided to go to Mali with a VLIR-UOS travel grant (REI) in 2002. Later on, he got his PhD in Sciences and worked for the Centre for Sustainable Development at Ghent University. From 2005 to 2011, he worked for Vrije Universiteit Brussels (VUB) and Université Libre de Bruxelles (ULB) on several policy-supporting projects focusing on the analysis and development of impact analyses in Flanders and in partner countries, in Africa in particular. From 2010 to 2018, he worked as a researcher for KLIMOS*, a research group supporting the Belgian federal government by doing research and generating input for policies to make the transition to a sustainable society in Belgium and its partner countries. From 2009 to 2011, he was involved in the VLIR-UOS IUC programme with the University of Limpopo.

*See also: "We have to make sure that policy-makers know what the impact of their decisions will be." on page 174 What was your VLIR-UOS travel grant about?

Hugé: "I went to Mali in 2002 as part of the field work for my Master in Bioengineering. At the time, I promoter was Patrick Van Damme. Together with my Malian supervisor, Amadou Kouyaté, I collected samples of different populations of the Detarium tree and observed flowers. The research was part of a bigger project, in which researchers examined if and whether Detarium microcarpum could be cultivated for its wood and other lucrative products in order to increase the income of the local community. Back in Ghent, I tested methods to extract DNA from the tree's leaves to do a genetic analysis of the Detarium trees in the country. The general project aimed at building capacity in genetics and entomology for both Mali and Belgium. Detarium is not a predictable resource and could be over-exploited in an unsustainable in controlled and predictable



circumstances would lead to the sustainable and possibly lucrative production of Detarium products (wood for construction, fruit, bark, etc.)."

What impact did the project and this experience in a partner country have on you as a person and as a researcher? Are there certain skills that you gained?

Hugé: "I learnt a lot from the researchers at the Institut d'Economie Rurale de Sikasso (IER) in Sikasso and think I was able to help them with following protocols and the scientific approach that I had learnt at UGent. It was my first experience in Africa, and, although it might sound like a cliché, it made me more interested in the link between development and sustainability — in how to make a country develop itself economically in an ecologically sustainable way. This balance has remained a common thread throughout my work, ever since my field work in Mali seventeen years ago. Seeing with my own eyes how people in Mali live and work, by discovering

tropical ecosystems and tropical agricultural systems – a kind of total immersion – this was a unique and life-changing experience for me. Working together with researchers from other disciplines, working ing on one's own two feet as a researcher and person in general these are all skills that I gained in Mali. The field experience made the between the sustainable management of natural resources and socio-economic development, very tangible for me. This was the trigger for me to keep on doing policysupporting and applied research

Uganda

44 projects

1	Institutional University Cooperation programme	€ 1,600,000
7	Crosscutting projects	€ 569,273
14	Own Initiatives / TEAM projects	€ 3,719,768
22	South Initiatives	€ 1,334,712

1998 - 2018

period



7,223,753 total budget (in €)

Partners



a)	Busitema University
b)	Gulu Regional Referral Hospital
c)	Gulu University
d)	Kawanda Agricultural Research Institute
e)	Kyambogo University
f)	Lira University College
g)	Makerere University
h)	Mbarara University of Science and Technology
i)	Mountains of the Moon University



When I first visited a VLIR-UOS project, I was impressed by the beauty, strength and impact of scientific cooperation between universities and university colleges here and in partner countries. The fact that the VLIR-UOS slogan is 'Sharing minds, changing lives', is no coincidence. I have seen in Uganda how it works. It had an impact on my own mindset, and on my personal life.

(VLIR-UOS corporate film 2018)

Caroline Pauwels
Rector of Vrije Universiteit Brussel

Global Minds at Hasselt University

"Two years after the programme began, things are starting to change"

Sofie Ignoul is Institutional Coordinator for Development Cooperation (point of contact for matters concerning VLIR-UOS) at Hasselt University (UHasselt) and responsible for Global Minds, a programme that aims to strengthen effective university cooperation for development at higher education institutions in Flanders. Each Flemish university and a consortium of university colleges can design and implement its own Global Minds programme, based on its own needs and opportunities. This is the story of UHasselt's approach.

As we are a small university, we try to work along the three pillars of the Global Minds programme: research, education and awareness-raising. We launch three types of calls for our faculties: one to support visits from and to a partner institution, one to support pre-doctoral visits from a PhD candidate from a partner institution and one for bigger projects that can consist of summer schools or congresses

or of building a network with both staff and students from (potential) partner institutions. Within these project calls, we incentivise certain conditions: we stimulate cooperation and multi-actor cooperation projects, and try to get 'newcomers' into the VLIR-UOS system, Flemish academics with no experience in university cooperation for development. For example, if a bigger project is a cooperation between various faculties or when there is a

provide a larger budget. When who has no previous experience in university cooperation for development, the project gets a higher ranking in the Apart from project calls, we also try to raise awareness among the university staff and students by organising several activities, such as Fairtrade Week and Human Rights Week. In this respect, we have develhave a 'World Evening' for 400 people and an optional course available to all faculties: Globalisation and Sustainable we have International Interdisciplinary Internships, in which five to six students from various faculties go to a partner country to work local students. We also have an award for the best develwe organise different kinds of training courses and workexample, a course on project proposal writing.



Sofie Ignoul is responsible for the Global Minds programme at Hasselt University.



Top photo: A 'fair' afterwork party organised within the Global Minds programme of Hasselt University. © Liesbeth Driessen

Bottom photo: Students at Hasselt University

At the moment, two years



after the programme's start, things are starting to change. We have received a lot of travel grant applications. More professors are interested in exploring partnerships with partner institutions and are requesting support through Global Minds. Things are starting to take off. Global Minds is an added value because it allows us to set up initial contacts and to build research and educational capacity, allowing us to develop and manage bigger projects in the field of university cooperation for development down the road. These can be VLIR-UOS projects, but also other kinds of projects. It also helps to engage people at the university. Global Minds also stimulates all Flemish higher education institutions to work together: we can learn from each other, exchange and grow."



University cooperation for development is a success story and a good practice in Belgian development cooperation. University centres and scientific institutions are strengthened. Scholarship students get new perspectives and become agents of change and progress.

(2015 Federal Development Cooperation Policy Note)

VLIR-UOS has one of the highest returns on investment.

(Contribution of minister De Croo to the 2016 VLIR-UOS New Year's panel discussion)

Alexander De Croo
Belgian Minister of Development Cooperation





From malaria to Ebola

The worldwide battle against infectious diseases goes on

Global health anno 2020. Although improvements have been made, the fight to guarantee basic health to every person and child worldwide is far from over. 'The biggest area of need is probably in infectious disease prevention and treatment,' the New York Times wrote in February 2019. We spoke to three experts, *Jean-Pierre Van geertruyden* from the University of Antwerp (UAntwerpen), *Hypolite Muhindo Mavoko* from Université de Kinshasha (UNIKIN) and *Erik Verheyen* from the Royal Belgian Institute of Natural Sciences and UAntwerpen, who put heart and soul into fighting infectious diseases – malaria and Ebola, among others – within VLIR-UOS projects.

fter visiting
DR Congo as a
student, development cooperation
was an obvious
career choice for Jean-Pierre
Van geertruyden, professor at
UAntwerpen's Health Sciences
Department and founder of
the university's Global Health
Institute. Following graduation, he worked, among others,
as a researcher and teacher
at the Antwerp Institute of

Tropical Medicine and as a doctor and coordinator for *Médecins Sans Frontières* and the World Health Organization (WHO) in the field for many years, before eventually getting into academia at UAntwerpen.

"I have been hired here at the university because of the start of the IUC programme in Limpopo in South Africa. Actually, it is thanks to VLIR-UOS that I work here," Van geertruyden recalls with a smile. Thanks to – among others - VLIR-UOS projects, more and more people at the university have been able to start working on university cooperation for development over the years. "In ten years, we have established an entire research group." Nowadays, this group – the Global Health Institute – has many projects running in the South, some of which are VLIR-UOS projects. It connects a big network of alumni, other research groups and partner institutions, and offers - apart from several short courses – both an International Master Programme (Master in Epidemiology), for which VLIR-UOS scholarships are available, and, jointly with all Flemish universities, an interuniversity Master in Global Health.

From malaria to HPV

In those past ten years, Van geertruyden has conducted a number of VLIR-UOS research projects in many different countries, in particular the field of malaria, his specialisation. For example, he worked on the elimination of malaria in the Peruvian Amazon and on the cognitive, psychomotor and physical impact of



Researchers on their way to field work.







Top photos: It is one thing to vaccinate people in case of an outbreak, but what about figuring out where the Ebola pathogen's origins lie in the first place?

© UAntwerpen

Bottom right photo: Researchers within the biodiversity and Ebola project. © UAntwerpen malaria and other (infectious) diseases on school-aged children in Tanzania. His extensive VLIR-UOS portfolio also includes projects on human papillomavirus (HPV), cervical cancer, non-communicable disease control and community health.

He refers to three projects in particular that have had quite some impact in DR Congo, a country that is severely affected by tropical infectious diseases. "Our most beautiful story is that of the Congo projects, which really had to start from scratch. In the past ten years, we have been running three VLIR-UOS projects in which we have managed – little by little – to train four assistants to PhD level. They, in turn, are now all professors at UNIKIN, and are all teaching and applying for international project grants." Since 2010, UAntwerpen and UNIKIN have joined forces to construct a research clinic at the local Department of Tropical Medicine at UNIKIN, to develop expertise on, among others, HPV and malaria.

Ebola research

As a result of this ten-year relationship, the researchers of UNIKIN's Department of Tropical Medicine were able to gain massive expertise, and to cooperate for an Ebola vaccine trial with the Centre for the Evaluation of Vaccination and the Global Health institute of UAntwerpen, in which

four former VLIR-UOS PhD students are involved. "The VLIR-UOS projects at the Department of Tropical Medicine allowed funding for two clinical trials on malaria, in which we gained expertise that is now recognised by the National Malaria Control Programme, the technical branch of the Ministry of Health. We are involved in the training and research activities that they conduct. Additionally, we are using this expertise to conduct high-standard clinical trials such as an Ebola vaccine trial within a bigger research project called 'EBOVAC3'," says Hypolite Muhindo Mavoko, a former PhD student from the three original VLIR-UOS projects at UNIKIN, who is now the main investigator on the Ebola vaccine trial. The EBOVAC3 project is conducted by a broader research consortium which is led by the London School of Hygiene and Tropical Medicine. It is a EU-funded Innovation Medicine Initiative project, in which researchers further document the safety and immunogenicity of the Johnson and Johnson candidate Ebola vaccine through the conduct of large vaccine trials in different age groups, including healthcare providers in DR Congo (Boende, Tshuapa province). This work will support the licensing procedure for this vaccine, which is essential to prove that safety standards are being met and to allow its use in disease areas. For



We are trying to increase the preparedness of the Congolese health system in case there is an outbreak in this area.

the moment, unlicensed vaccines can be used only in emergency situations. Since 2018, DR Congo has seen two new separate outbreaks of Ebola. To date. health workers have been relentlessly vaccinating with another vaccine that has been approved for use in emergency situations, but the availability of a second vaccine will help curb the current outbreaks. Additionally, in drug development it is important that there are two versions of one drug for capacity reasons to avoid vaccine shortages in emergency situations. **UAntwerpen and UNIKIN** have joined forces to take up the last part of the research needed for the licensing process, during which they will vaccinate a group of 700 healthcare providers, local Red Cross staff and community relay persons - people who will be the first to come into contact with patients in the event of an outbreak.

"We are trying to increase the preparedness of the Congolese health system in case there is an outbreak in this area," explains Muhindo Mavoko. "If this is the case, we will give the vaccine to all healthcare providers in the region, which may help the community to be protected." Muhindo Mavoko finished his PhD in Antwerp in 2016 on the improvement of malaria diagnosis and treatment at

primary healthcare level – for which he did his research in DR Congo and Uganda. He thinks his PhD has provided him with tools for the type of research he is doing right now. "I learnt about various research methodologies and ways to conduct clinical trials. The clinical trial standards in the malaria research are the same that we are applying now for the Ebola vaccine trial."

A link between biodiversity and Ebola?

It is one thing to vaccinate people in case of an outbreak, but what about figuring out where the Ebola pathogen's origins lie in the first place? "As a spin-off of the VLIR-UOS IUC programme with the University of Kisangani (UNIKIS), the UNIKIS Centre de Surveillance de la Biodiversité, the Royal Belgium Institute of Natural Sciences and UAntwerpen have joined forces under the EBOVAC3





Biodiversity loss can have a huge impact on the incidence of zoonotic diseases.

project to screen mammals in DR Congo for the incidence of pathogens such as Ebola," says Erik Verheyen from the Royal Belgian Institute of Natural Sciences and UAntwerpen. "This research is crucial, as it is still unclear from which wild animal types the Congolese Ebola virus is transmitted to humans." Verheyen indicates that the research on the link between biodiversity and the spreading of zoonotic diseases (infectious diseases transmitted between animals and humans) is part of an upcoming BIODIVERSA project coordinated by Herwig Leirs from UAntwerpen. "There is a loss of biodiversity in the Congo basin, primarily because of deforestation, bushmeat consumption, and the use of pesticides. There is a scientific hypothesis of the dilution effect - which suggests that increased biodiversity reduces the risk of transmitting infectious agents. Biodiversity loss can therefore have a huge impact on the incidence of zoonotic diseases. The most

recent Ebola outbreak after deforestation could fit into this idea, but there is a lack of convincing evidence."
According to Verheyen,
VLIR-UOS projects at UNIKIS have laid the foundations for a One Health approach to this issue, which basically means that multiple sectors, such as Biology and Medicine, communicate and work together so that public health outcomes will improve (in this case, for Ebola). "This research has

been possible because of the expertise that we have built up within the VLIR-UOS IUC programme and the VLIR-UOS South Initiative project at the University of Kisangani, which is on safely collecting, studying and gaining an understanding of the species compositions in the region combined with training (on e.g. epidemiology, the study of pathogens)."

30 years and a UAntwerpen honorary degree later

Another important partner in the EBOVAC3 project and local promoter of two VLIR-UOS projects on infectious diseases is Jean-Jacques Muyembe Tamfum. Muyembe Tamfum is currently director of the National Institute for Biomedical Research and professor at UNIKIN. With his lifelong expertise on Ebola – he was there for the first Ebola



outbreak in DR Congo in 1976 - he was appointed secretary general of the Multisectoral Committee for the Response to Ebola Virus Disease by the Congolese government to oversee the current outbreaks in the east of the country. On 15 May 2019, when the five Flemish universities jointly awarded UOS honorary degrees for the first time, on the suggestion of VLIR-UOS, Muyembe Tamfum received the UAntwerpen's honorary degree for his lifetime contribution to the fight against Ebola. At the time of the honorary degree, he was 77 years old and still in charge of many laboratories and coordinating responses to Ebola outbreaks today.

Impact on society

Just like Muyembe Tamfum, Muhindo Mavoko combines Ebola research with lecturing at UNIKIN. Additionally, Muhindo Mavoko is working on DR Congo's National Malaria Control Programme: "I am involved in training programmes with the Ministry of Health in Congo, and in the National Malaria Control Programme. I give refreshment courses to healthcare practitioners and I also give lectures." He is a textbook example when it comes to taking academic knowledge beyond the university's walls to have a societal impact, as he is using his PhD knowledge and research experience in the fight against two extremely prevalent infectious diseases



in the country: Ebola and malaria.

Because of the expertise built up over the years, UNIKIN's Department of Tropical Medicine was able to take the lead on the Ebola Vaccine Trial, but they have also qualified for a European & Developing Countries Clinical Trials Partnership grant, in which the department will conduct a clinical trial to test a new malaria drug in pregnant women. "Thanks to university cooperation for development, the UNIKIN Department of Tropical Medicine has grown in human resources and competences," says Muhindo Mavoko.

Van geertruyden concludes that investing in universities via VLIR-UOS projects, means creating sustainability and impact in the long run: "If your educational programmes are better, if the people who graduate are better, if your professors are better, and if

your educational system has been strengthened, in the long term, this will result in better advisors for the government, more research-based policies, and ultimately in a stronger society."

Bottom left photo: Jean-Jacques Muyembe Tamfum gets awarded an honorary degree as part of the VLIR-UOS 20-year celebrations.

Top right photo: Jean-Pierre Van geertruyden (second from the right) says the projects in DR Congo have had the most lasting impact. © UAntwerpen

Fighting hepatitis B in the Mekong Delta

Pierre Van Damme is former chairperson of the University of Antwerp's (UAntwerpen) Vaccine & Infectious Disease Institute, head of the Centre for the Evaluation of Vaccination (see main article) and professor at the UAntwerpen's Medicine and Health Sciences Faculty. He has done a VLIR-UOS project in Vietnam on pertussis vaccination, but in our interview he elaborates on a second VLIR-UOS South Initiative project on the coverage and timeliness of hepatitis B vaccination with infants in the Vietnamese Mekong Delta.



What was the project about?

Van Damme: "A lot of mothers in Vietnam are carriers of the hepatitis B virus, and most will also transmit the virus to their baby when giving birth. Although Vietnam started vaccinating new-borns against hepatitis B in 2003, coverage remained low, especially in the Mekong Delta. In this region, mothers often give birth at home and in more difficult circumstances. Nevertheless, it is crucial for babies to get vaccinated within 24 hours after birth, so that the child does not become ill or become a carrier of the virus itself."

What were the most important findings?

Van Damme: "Both the coverage and the timeliness of the vaccines need to improve if the region is to reach the targets set by the World Health Organization (WHO), which sets a rate of 95% of new-borns being vaccinated within 24 hours after birth. The children often do get the vaccine, but 14 to 21 days after birth instead of 24 hours afterwards. We discovered five main reasons why there was a lack of vaccination coverage. Some health centres and hospital facilities were not able to offer the vaccination to children, there was a lack of health staff such as doctors and midwives, sometimes there was a vaccine shortage, some families refused vaccination, and there

were ambivalent contraindications for the hepatitis B vaccine, for example the child being ill, resulting in the vaccine being withheld."

What possible solutions are there to these problems?

Van Damme: "Trying to increase the coverage of neonatal hepatitis B vaccination provided by health staff in several ways. Firstly, it is important to strengthen health education and promotion in the community for pregnant women and their families - via health staff or the mass media, such as TV and leaflets. Secondly, providing the health staff with regular training in knowledge and counselling skills is key. Thirdly, on a practical level, it is important to provide enough equipment for vaccination. Last but not least, the government can offer rewards to hospitals for implementing neonatal hepatitis B vaccination."

Did you get these findings out into society?

Van Damme: "We organised a workshop for ten of Vietnam's neighbouring countries on the importance of hepatitis B vaccination at birth, where we presented our study results, but also highlighted our hurdles and difficulties. The latter, apparently, were also present in other countries,



so we could learn a lot about how other countries tackled them, how they solved problems and what programmes they implemented. The WHO was present at that meeting as well, which has given more weight to our recommendations. The public health officials immediately said 'Let's translate the recommendations from that research into recommendations for the government'."



"Professors realise that research together with our partners can have more impact in the South" Chris Van Geet is vice-rector at the Catholic University of Leuven for the biomedical sciences group and also vice-rector responsible for university cooperation for development. "Giving attention to global challenges This scientific approach makes for in healthcare (child mortality, an added value in the field. Local malnutrition,...) requires researchers partners bring forward research to have an open mind and to be able themes, which means that, with to put themselves in other contexts. respect to content, the focus is on When health professionals in training development-relevant challenges go to the South, it broadens their important to the local partner. views, which makes them better Knowledge sharing strengthens qualified when they return home, both the local and Flemish partner institutes at the educational and the since they know better how to behave in different contexts and how to do research level. This strengthening research with their partners that has of capacity on both sides is a impact. Complex problems can only prerequisite for durable cooperation be solved in a multidisciplinary way and development." with multiple actors in the field. This experience for all collaborators is of huge value. University cooperation for development is 'evidence-based', and always focuses on research.



VLIR-UOS is an organisation that brings us together and makes us stronger through partnership. This way we can have an impact on a global level.

Rik Van De Walle Rector of Ghent University

(VLIR-UOS corporate film 2018)

Improving reproductive health in Africa

"If you truly want to strengthen a country in a sustainable way, you have to develop your academics"

2019 marked the 25th anniversary of the 1994 International Conference on Population and Development (ICPD) at which 179 governments agreed that sexual and reproductive health is a fundamental human right, and is vital to tackling development and population challenges. Still, maternal mortality, unsafe abortion and sexually transmitted infections (STIs) such as HIV/AIDS are threats that the world, and Africa in particular, is facing to this very day. Twenty years of VLIR-UOS research support has significantly contributed to a network of research centres on reproductive health and rights in three different countries - Kenya, Mozambique and Belgium - shaped by experts such as Marleen Temmerman, Peter Gichangi and Leonardo Chavane.

Where do I sign?" Temmerman asks when one of her colleagues from the International Centre of Reproductive Health (ICRH) Belgium comes in during our interview with a proposal for a research grant. Although the professor has emeritus status since the end of 2018, she is still working full-time in

Kenya at Aga Khan University Hospital and Aga Khan University East Africa. Over the years, Temmerman has gained a massive amount of experience working as an obstetrician-gynaecologist and researcher both in professor, politician (Senator in the Belgian Parliament) and Director of the World Health

Belgium and in Africa, and as a



Centres of reproductive health

It was in 1985 that Temmerman's old friend Peter Piot, who was working at the Antwerp Institute of Tropical Medicine at the time, asked her to join a research project on HIV/AIDS at the University of Nairobi. Temmerman agreed and left for Kenya in 1987. Not long after that she started her first VLIR-UOS Own Initiative projects (OI). Upon her return to Belgium five years later, she founded the 'International Centre of Reproductive Health' at Ghent University in the aftermath of the 1994 ICPD Cairo conference. "We set up a centre with

people from various backgrounds, such as medicine, sociology, law and human rights. However, we had almost no budget at the



"We have a great model in university cooperation for development, which sets an example for other countries," says Marleen



Up until now, about 30 to 40 people in Ghent and 400 people worldwide have got their position in an International Centre of Reproductive Health thanks to, among others, the support given by Own Initiative projects and IUC programmes.

very beginning. Working with VLIR-UOS funded Own Initiative projects enabled us to continue our research in cooperation with our African partners," Temmerman explains. Together with her ICRH colleagues, she has worked in the context of several VLIR-UOS Own Initiative projects on different topics such as HIV/AIDS, cervical cancer and STIs, maternal and child health, family planning, gender-based

violence and human rights.
Later, similar research centres were opened in Kenya and Mozambique, ICRH Kenya and ICRH Mozambique respectively, which extend the original centre's research network and share a similar goal and vision. "Up until now, about 30 to 40 people in Ghent and 300 people worldwide have got their position in such a centre thanks to, among others, the support given by Own Initiative projects and

IUC programmes for capacity building," says Temmerman. The ICRH researchers contribute to sexual and reproductive health and its promotion as a human right by conducting research in Africa, Latin America, Asia and Europe, by building Belgian and local universities' capacity and by delivering local services. In Mombasa in Kenya, for example, the centre has contributed to setting up a gender-based violence recovery centre and sex worker drop-ins.

Inspiring policies in Kenya

From 2014 to 2019, ICRH Kenya was led by Peter Gichangi. He met Temmerman in 1988 and was her research assistant in Pumwani Maternity Hospital, a large public health maternity with close to 100 deliveries a day. Jointly they conducted a research project on HIV in pregnancy coordinated by the University of Nairobi. Eleven years later, in 1999, Gichangi finished his Master in Obstetrics and Gynaecology at the same university and decided to start his PhD under Temmerman's supervision in the VLIR-UOS IUC programme. After finishing his PhD, Gichangi worked for several NGOs as well as for the Namibian government. He also joined the University of Nairobi as a professor. Currently, he is Deputy Vice Chancellor Academic Affairs, Research and Extension at the Technical University

of Mombasa. Additionally, he is Visiting Professor at Ghent University (UGent), where he also supervises PhD students. "Career-wise I have progressed from being a regular lecturer to being part of the university's top management," Gichangi confirms. The PhD also enabled Gichangi to further his academic research career, publishing various articles on cervical cancer and on STIs such as HIV and human papillomavirus, often in collaboration with people he had met in the VLIR-UOS IUC programme.

Research at ICRH Kenya covers many themes, such as maternal and child health, sexual and gender-based violence, STIs, and HIV and AIDS prevention, treatment and care, with the centre attaching a lot of importance to evidence-based and cost-effective interventions. Additionally, the organisation has links with the Kenyan

Ministry of Health and with 16 of the 47 county governments in Kenya. "By working with the Ministry and these county governments, research findings from studies undertaken by ICRH inform and inspire policies and programmes," concludes Gichangi.

Service to society in Mozambique

In 2009, ICRH Mozambique was officially registered as an organisation as well. Leonardo Chavane has worked at the organisation as a consultant and is Temmerman's former PhD student with a VLIR-UOS scholarship at UGent. The VLIR-UOS IUC programme with Eduardo Mondlane University focused on HIV/ AIDS and reproductive health. Several faculties including Health Sciences and Medicine, Social Sciences, Law and Human Rights joined forces. Chavane now mainly

lectures in 'Health Policy and Health Management' and 'Reproductive Health' in the university's Master programmes. Additionally, Chavane is putting his knowledge into practice during a part-time, temporary consultancy for Population Services International (PSI), an American NGO that is assisting the Mozambican Ministry of Health to scale up a contraceptive for women called Sayana Press®. In 2015, the drug was initially introduced in Mozambique for distribution by community health workers. In 2019, the Ministry of Health decided to scale up the drug's availability and introduced its distribution with all public health facilities. "I'm helping PSI support the Ministry of Health with the planning process and in preparing the



From 2014 to 2019, ICRH Kenya was led by Peter Gichangi. © UGent, photo by Nic Vermeulen



It is not just about the money – money has to be there to do research and build capacity – but it is mainly equality, mutual respect, mentorship and cooperation that create a win-win situation.

health system to cope with the nation-wide scaling up of this new method," explains Chavane. "I am also assisting with the inclusion of this method in the regular supply chain management system." Chavane thinks his PhD has advanced his career in many ways. As part of this consultancy, for example, he is still developing and designing public health interventions, skills that he learnt in his PhD. "Doing a PhD is an opportunity for someone to improve his or her knowledge in terms of mastering tools, of being able to conduct research, leading teams to do more accurate research and contributing to better health services management by third parties," Chavane notes. "It changed my life, it changed the way I approach my research and teaching."

Opportunities for capacity building

When looking back on the IUC programme with the University of Nairobi, most impact has been generated at the level of capacity building, according to Gichangi. "At the University of Nairobi, former PhDs are now advanced lecturers and professors in the department. The university also benefits by having more skilled people to teach and supervise the students."

there to do research and build capacity - but it is mainly equality, mutual respect, mentorship and cooperation that create a win-win situation," Temmerman explains about the VLIR-UOS model. "If you truly want to strengthen a country in a sustainable way, you have to develop your academics. Otherwise who will teach? Who will do the research?" Temmerman believes the VLIR-UOS IUC model has already been able to contribute to reproductive health in Africa. "We have a great model in university cooperation for development, which sets an example for other countries. The model consists of a longterm partnership between Flemish universities and a university in a low or middle income country, a partnership of ten to fourteen years, with ample time to prepare and look for partners, to develop a partnership programme that aims for capacity building in education and research, and with sufficient budgets to really make a difference and a long-lasting impact. But as usual in Flanders and Belgium, we are far too modest about this," she reflects. "I think, however, we should be very proud and invest in the global visibility of the IUC model."

money - money has to be



Kenya

50 projects

3	Institutional University Cooperation programmes	€ 14,261,480
22	Crosscutting projects	€ 1,130,236
2	Research Initiatives Projects	€ 199,992
1	JOINT project	€ 68,866
15	Own Initiatives / TEAM projects	€ 3,214,183
7	South Initiatives	€ 380,049

1998 - 2018



19,254,806 total budget (in €)

Partners



- a) Dedan Kimathi University of Technology
 - Jomo Kenyatta University of Agriculture and Technology
 - Kenya Medical Research Institute
 - Kenyatta University
 - Technical University of Kenya
 - University of Nairobi
- b) Coast Provincial General Hospital
- c) Kenya Agricultural Research Institute
- d) Kenya Marine and Fisheries Research Institute
- e) Maseno University
- f) Masinde Muliro University of Science and Technology
- g) Moi University
- h) University of Eldoret



The really unique and valuable thing about the VLIR-UOS approach to IUCs is that it is a ten to twelve-year partnership programme. There is no other country in the world that does this. No country sets up projects and cooperation for such a long time and tries so hard to get the application procedure right. It pays off — I've seen how it pays off so dramatically well because I've done evaluations and I've honestly seen universities seriously transform. It's transformational in a way that I've never seen among other education development programmes. This kind of engagement and commitment is really unique. As institutions in Flanders, it's not a small thing to commit to. And after 20 years, with the big IUC evaluation, it has become absolutely apparent that the long-term value of academic engagement is very clear, that the rewards are huge for both sides.

Julie Carpenter
Selection commission member for IUC programmes
Education for change

Pioneers in Rwandan higher education

Occupational therapy makes a start in Rwanda

"I am the first qualified occupational therapist employed in my institution." Since last year, *Pierre Damien Turikumana* can proudly call himself one of the first graduates in the Bachelor of Occupational Therapy from the University of Rwanda's College of Medicine in Health Sciences (UR-CMHS). He is now applying this recently-acquired knowledge in practice, at the *Hôpital Neuropsychiatrique Caraes Ndera* (HNP-CN), where he gives occupational therapy sessions to psychiatric patients. "I want to become a pioneer in this profession and help develop it."

urikumana starts his working day at 7am each morning. From 7 to 8am he does his administration or visits patients in the ward where he will be working that day. From 8am to 4.30pm, he conducts occupational therapy sessions with his patients, ranging from expressional and social activities to psychoeducation (which means that someone provides information to people or family members of people who are

looking for or getting a mental health treatment). With this daily dedicated schedule, his ultimate goal is to maximise the patients' independence and quality of life, especially for those with difficulties in life and those who are extremely vulnerable.

Independence in daily life

When Flemish students from University College Ghent (HOGENT) and Thomas More (Thomas More) went to Rwanda to do their occupational therapy internships at the beginning of 2009, they noticed that this discipline was often still in its infancy, or even non-existent in the institutions where they were working. As a result of hosting students from Flemish universities, for example, Rwandan institutions had a few so-called 'acting occupational therapists', who had learnt the basics of occupational therapy from foreigners, but who had not had any formal education in the discipline. Both foreign and acting occupational therapists were able to offer guidance to the Flemish students doing internships. **HOGENT** and Thomas More had a Belgian contact in Rwanda that told them that many institutions wanted to learn more about occupational therapy. Physical therapy was there for sure, but strengthening people with a disability to become more autonomous - on top of physically strengthening their muscles – was still a largely unexplored area. And this is exactly what occupational therapy is all about: helping a patient regain his or her autonomy in addition to his or her regular physical therapy.

University of Applied Sciences



Pierre Damien Turikumana (on the right) gives therapy during his final clinical placement.



Occupational Therapy students at an exhibition.

"Occupational therapists take a look at how someone can function independently in society," says Toon Van Soom, a lecturer at Thomas More and an occupational therapist himself. People with a disability in society often face significant challenges. They often remain dependent on family and generally lack opportunities to lead an independent life. Still, many of these disabilities can be treated or diminished considerably through rehabilitation, and with physical and occupational therapy. "In developing countries in general, in comparison to Western countries, more people are disabled," says Anne-Mie Engelen from HOGENT. According to the United Nations, about 80% of disabled people live in rural areas in developing countries. Poverty increases the risk of getting a disability, with people affected

RWANDA OCCUPATIONAL THERAPY ASSOCIATION (RWOTA

Promoting Occupational Therapy

living in poor conditions, with no access to preventative health treatments such as vaccinations (for example, against polio), experiencing malnutrition, living in degraded environments, working in unsafe conditions, and often experiencing violence. Medical services to prevent, detect or treat disability are often inaccessible to people in developing countries. By the time they do get medical treatment, the impairment may already have become irreversible. For Rwanda in particular, 2010 data from the World Health Organization (WHO) showed that about 5% of the population had a disability, with malaria, HIV/AIDS, trauma and poverty being important causes. Psychiatric disabilities are also prevalent in the country and generate a need for occupational therapy. "The 1994 genocide left many people with a mental

vulnerability," says Engelen.
Occupational therapy also
fits into the Rwandan government's aim to give greater
priority to the inclusion of
people with disabilities, as it
has signed the 'Convention
on the Rights of Persons
with Disabilities' and has a
national plan for the rehabilitation of people with a
physical handicap.

Towards an Occupational Therapy curriculum

In 2009, Engelen, Van Soom and three other colleagues from the occupational therapy programme at Thomas More went to Rwanda to give a seminar on Occupational Therapy with several partners. In 2010, they returned for an on-the-job training course. In 2011, Thomas More, HOGENT and the then Kigali Health Institute (KHI, now: UR-CMHS) joined forces in a VLIR-UOS

South Initiatives project to come up with an interdisciplinary module in the existing physiotherapy course and a new Occupational Therapy curriculum at KHI.

"We had a look at which programmes already existed in

"We had a look at which programmes already existed in the region and used them as a basis for our project's curriculum," says Van Soom. "The idea was not to just copy and paste, but to design a curriculum tailored to the local society." The project team examined the Occupational Therapy curricula in Uganda, Kenya, South Africa and Zimbabwe and compared them with the existing Physiotherapy curriculum at the KHI to design a new curriculum for the University of Rwanda.

Van Soom explains how they tried to cater the programme to both the government's and society's needs. "Based on government studies, we had a look at what the most important disabilities were in Rwanda, for example, HIV/ AIDS and mental and physical disabilities, to see how the occupational therapy programme could cater to this diversity of target groups. On top of that, it fitted with the targets that the government had set up." One of the main target groups that the module focused on was children with a disability.

Once the project team had a draft curriculum ready, it was validated by both the university and the Rwandan Ministry in March 2013. "The institute started with the programme in 2014 and the first eight occupational therapists graduated in 2018," says Van Soom. The first semester for students in occupational therapy is shared with students from other health sciences, such as nursing and physical therapy, and consists of courses in anatomy, physiology,

psychology, and more. In the second semester, they specialise in their preferred health science and they learn more about occupational therapy in specific situations: which interventions does an occupational therapist use in psychiatry, or with people who have had a haemorrhage? They also have a course on interprofessional cooperation and on community-based work. "Three African occupational therapists with a Master degree in Occupational Therapy are now teaching within the Bachelor in Occupational Therapy," says Engelen. "Two recent graduates from the Rwandan Bachelor in Occupational Therapy will start their Master in Occupational Therapy at Stellenbosch University in South Africa so that they will be able to teach in the Bachelor once this is finished. Apart from following the

A final-year student of the Occupational Therapy programme with a little patient.



Master programme, the graduates will also have on-the-job training in teaching, both at **HOGENT** and at Stellenbosch University. Eventually, the Rwandan university will be able to provide teaching itself." Engelen says there are other positive consequences of the cooperation. "The universities of Rwanda and Stellenbosch are increasingly working together." Before the graduates can actually work as occupational therapists, they first have to pass a state exam. "Eight 2018 graduates have successfully passed their occupational therapy exam and are now working in general or psychiatric hospitals or institutes for children with a disability," says Engelen. In November 2019, another 15 occupational therapists have officially graduated as well.

Impact of the project

Turikumana says he is now using the skills he learnt during the programme in his job. "I am now assessing occupational performance among patients, setting goals, monitoring and evaluating patients' progress, using assessment tools, applying communication skills with clients and other health providers, building therapeutic relationships with patients, and much more." Epiphanie Murebwayire, President of the Rwanda Occupational Therapy Association and pioneer occupational therapist in Rwanda, says there are many

challenges ahead in making the profession known in the entire country, but she is optimistic. "It's a new profession that stakeholders, patients and other professionals all need to get acquainted with. We are now in the stage of raising awareness and I think we are taking steps in the right direction. For example, we were involved in the initial recruitment of occupational therapy students at the Nyamishaba campus in January 2015 to see if any of them from all first year's classes would like to switch to the Occupational Therapy course. Now they are the first graduates in the Bachelor of Occupational Therapy from the University of Rwanda's (UR) former KHI. Secondly we successfully managed to host the Occupational Therapy Africa Regional Group congress (OTARG) in August 2019."

"This cooperation has meant a lot to HOGENT as well as to Thomas More," says Engelen. "It has opened doors, for example to the WHO. We now have a bigger network than we had before." Engelen explains that going through the process of setting up a curriculum helped them in their own curriculum reform. "We had to find out what standards have to be met to get a curriculum approved by the World Federation, which has helped us with adapting our own curriculum at HOGENT." Additionally, they have been able to learn a lot about community-oriented

working. "Our local partners have taught us a lot about community-oriented working, something that they are much more familiar with than we are. We try to pass on these skills to our students in Flanders," says Engelen.

The project has also had a personal impact on her. "I've gained many friendships from the project, both in Flanders as well as in Rwanda." Van Soom looks back positively on the project's impact, which is proof that shorter VLIR-UOS interventions can also significantly change lives. "Right now, occupational therapists are employed within the Rwandan healthcare system, not only within rehabilitation centres, but also within psychiatric institutes. Local people who are hospitalised in a rehabilitation centre or a psychiatric hospital because of an illness or disability can now make use of occupational therapy. They can return home being more self-sufficient." He adds: "If someone can be treated by an occupational therapist and they experience a significant difference and have a better quality of life because of this treatment - you've got something valuable there."



Diplomacy has become much broader over the past decades, with several new instruments and actors.

I believe academic diplomacy is an exciting new channel which allows both to enlarge and intensify bilateral relations. In this respect, VLIR-UOS has been a frontrunner and an asset for Belgian diplomacy.



Peter Moors

Currently Secretary General of the Public Service for Foreign Affairs, Foreign Trade and Development Cooperation, Former Chief of Cabinet of Minister of Development Cooperation Alexander De Croo, Former Director-General of the Directorate-General for Development Cooperation and Humanitarian Aid



Rwanda



8 projects

4 Own Initiatives / TEAM projects

1998 - 2018

period



939,770 total budget (in €)



Partners

- a) Kigali Health Institute
 - National Veterinary Laboratory of Kigali
 - Rwanda Agricultural Development Authority
 - University of Rwanda
- b) National University of Rwanda





Water research in Tanzania and Bolivia

"A nation's development depends on its water resources and how they are managed"

Doing research in the IUC programme with Universidad Católica Boliviana (UCB), PhD student Afnan Agramont is very much aware of the importance of water. "Water is crucial for the future of humanity," he stresses. Since the eighties, population growth, socio-economic development and changing consumption patterns have increased water use worldwide by about 1%. Good water management is key to maintain a country's water resources in the face of numerous challenges, not least climate change and population growth. This is a story on how VLIR-UOS is committed to supporting research on one of the most critical resources for human development.

Water research in Bolivia tailored to the region

the streets during the so-called 'Cochabamba in the country. Over the past twenty years, Bolivia has faced managed water resources. with UCB, Marijke Huysmans,



Research on water pollution from Tarija to Lake Titicaca

PhD student Agramont takes part in the La Paz research is heavily polluted because





PhD student Afnan Agramont takes part in the La Paz research project at Universidad Católica Boliviana.

"So far, we have been able to collaborate with the river basin authorities to install a water quality monitoring network," he says.

Bottom right photo: Vicente Burchard observing crop growth parameters © Muggaga Monica Nsali

effects, communities that rely on the ecosystem services provided by the lake for their living come under a great deal of stress."

Although the project has only been running since 2017, Agramont already notices some effects. "So far, we have been able to collaborate with the river basin authorities to install a water quality monitoring network. This collaboration has allowed us to implement three water quality monitoring campaigns so that we have more information on how to better manage contamination within the entire system." The UCB also co-organised the first International Congress of Integral Water Management in October 2019, including 50 lectures, 350 participants, and panels with experts from fourteen countries. At these lectures, the project team

from the IUC presented nine papers. An article on involving vulnerable social groups in solving complex water-related problems in Bolivia has also been published in an international indexed journal. Additionally, water laboratories in La Paz, Cochabamba and Tarija have been accredited as inspection bodies for natural water quality for the national Bolivian metrological institute (Instituto Boliviano de Metrología).

Huysmans is also seeing the academic and societal impacts throughout the entire project. "Within the university, our project has received particular attention – it has created greater awareness. Water has become a major theme in the students' Bachelor papers, dissertations and internships," she explains. "The university has stronger

connections with several NGOs, cooperatives that provide drinking water and governmental organisations." This is important because a big network helps to share information from the research beyond the boundaries of the university. It helps to build bridges between the academic world and society, to apply research results, translate research findings into practice, give feedback on research findings, and more.

Tanzania: Pangani Basin's water under pressure

In another VLIR-UOS partner country, Tanzania, water availability is crucial for agriculture, but supplies are under pressure. In a 2017 report, the Food and Agriculture Organization of the United



The water use is very high, but the water productivity is relatively low.

Nations pointed to the agricultural sector as key to overall economic growth and development in Tanzania. The sector accounts for about 66.9% of employment, 29% of GDP and 30% of exports.

"Many farmers living in the Upper Pangani River basin, one of Tanzania's most important water resources in the north-east of the country, make intensive use of the river's water to set up irrigation canals for their agriculture," says Ann van Griensven, researcher at VUB and Flemish project promoter within the IUC programme at the Nelson Mandela African Institution of Science and Technology (NM-AIST). "The water streaming down from the mountains is tapped for irrigation with no water left for other users further down the river."

The intensive water use already puts severe stress on water supply, but there are other threats. Farmers often use traditional, unsustainable agricultural practices that contribute to water

stress and land degradation. Furthermore, land is degraded as well. Climate change also puts a strain on water use as it is causing the Kilimanjaro glaciers to melt. Although melting glaciers will increase streamflow initially, this effect will wear off in the long run and will result in less capacity to store precipitation

and eventually in less water availability.

Despite these threats to the basin's water, a lot of farmers are unaware of how much water they are actually using and if they are using it at all efficiently. "The water use is very high, but the water productivity is relatively low," says van Griensven. The higher the water productivity, the more crops a farmer gets as output for his or her water consumption input. Using as little water as possible for a crop production that is as high as possible is therefore the main goal for the Catholic University of Leuven (KU Leuven) and the NM-AIST as part of their long-term IUC cooperation which started in 2013. The researchers aim to improve how the Pangani basin's water is allocated





Monitoring of irrigation flows in Tanzania © Muggaga Monica Nsali and managed. The project wants to develop expertise in the field of hydrology and integrated river basin management at NM-AIST, as well as contribute to improved allocation and management of water resources in the Upper Pangani Basin in particular. Gathering data on surface water (water in lakes, rivers and canals) and groundwater (water in the soil), the teams investigate how different land use decisions and climate change will impact hydrological systems, and assess the water that the ecosystem demands.

"With this project, we mainly try to quantify water use," says van Griensven. "We are now mapping irrigation systems and agricultural practices. That way, we get a better idea of when and where there is irrigation, what quantities of water are used and what revenues farmers get from using those quantities." The researchers summarise their findings in an 'integrated spatial model', in which the distribution of water resources now and in future scenarios is shown. Several aspects are taken into account in this model: it shows all water demands from both people and ecosystems, indicates water quantity and quality, makes connections to land use and spatial planning and takes population growth, climate change and land use change into account.

Uncharted waters

After six years of hard work within the IUC programme, some impacts can already

be seen. Research from the PhD project was accepted for presentation at international conferences and published in international journals. There are now facilities for laboratory work and data analysis at NM-AIST, with the laboratories fitted with state-of-the-art equipment. Furthermore, the project has laid the foundations for other important projects, for example the development of a World Bank project. Most third party-funded projects in the NM-AIST science departments were to a large extent the result of the VLIR-UOS IUC programme.

Plans for having the research find its way to local farmers are ready. "Once all results have been analysed, newlydeveloped water productivity maps – on agricultural water productivity among others – will be diffused via a stakeholder meeting," says Van Griensven. One of these stakeholders is the Pangani Basin Water Office, which is responsible for allocating water for different uses, managing and controlling water use, and creating awareness on how to use water effectively and efficiently.

"We will also spread the knowledge to regional agricultural extension officers (editor's note: go-betweens for researchers and farmers to communicate the research findings) and NGOs in the sector, so that they can communicate these improved practices to farmers. A team member sat together with

these officers to talk about how the uptake of knowledge can be improved. Furthermore, we will create information sheets to exchange with them."

ICP IUPWARE

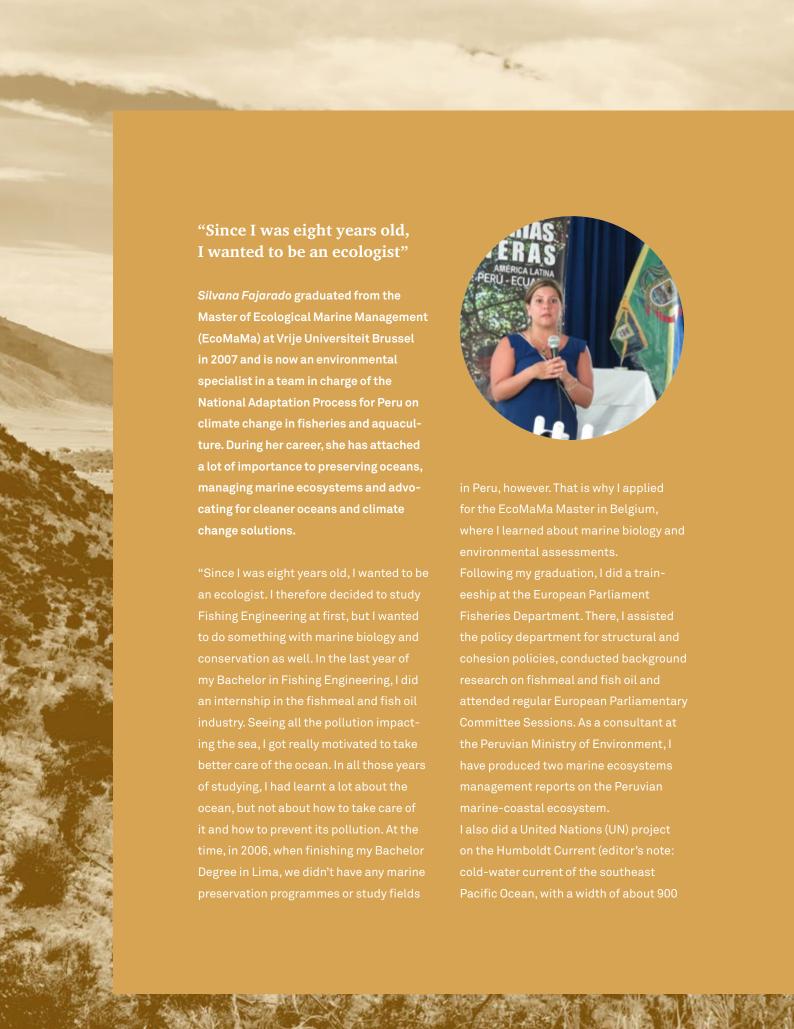
True impact and change has also come about in another way, namely in the form of the International Master Programme (ICP) IUPWARE, which stands for 'Interuniversity Programme in Water Resources Engineering'. This interuniversity Master programme between VUB and KU Leuven consists of various courses such as 'groundwater and surface water hydrology', 'environmental programming', 'water resources management' and an 'Integrated Project' which is jointly organised with a partner institute from the South. "The ICP IUPWARE is a programme with a lot of impact, because we train people from partner countries in integrated water management, modelling, data processing, and so on," says Van Griensven. "They then use this knowledge in their careers, go and work in academia or at ministries in their home countries, where they apply the knowledge acquired to water research or management. Alumni work for, among others, the University of Western Cape, Addis Ababa University and several positions at various ministries of Water, to the level of minister

building via education is very important."

For the future of humanity

Agramont's motivation for his research summarises the importance of water in a country's development. "Climate change, increased agriculture, changing consumption practices and population growth are exerting alarming pressure on water resources," he says. "These pressures can cause local, regional and international conflicts as well as environmental impacts. Our research can be used to improve water management practices, and to counter the impacts of these social and environmental threats. Knowing this is the greatest motivation for me," he concludes.

(e.g. in Bolivia). This capacity



kilometres) in which I did a study of the Humboldt marine ecosystem's health as a pollution and ecosystem health specialist consultant. I tried to have the Humboldt Current Large Marine Ecosystem project advance towards sustainable use and resilience so that the ecosystem services would be kept intact for current and future generations despite any potential climatic and social pressures.

I also participated in the UN COP20 (20th Conference of the Parties) in Lima in 2014 on the topic of sustainable cities. We organised a Climate Change Fair and met with key stakeholders on the subject institutions, NGOs and public and private agencies in search of coalition efforts for a future agenda on sustainable cities. We also organised three pre-COP20 events on sustainable cities and we managed 47 international presentations within the Environmental Fair. This laid the foundations for a project on Sustainable Cities with a small grant so that the project and

First of all, I contributed to several policies First of all, I contributed to the formulation of the 2009 Peruvian Environmental National Policy on the chapter concerning Conservation and sustainable use of natural resources and biodiversity,



Nowadays, I am
part of the team
in charge of the
National Adaptation
Process for Peru on
climate change.

and the marine and coastal ecosystem policy chapter.

In 2016, I helped with the formulation of the Nationally Determined Contributions for the adaptation to climate change within the Peruvian fisheries and aquaculture sector. Nowadays, I am also part of the team in charge of the National Adaptation Process for Peru on climate change.

While passing on my knowledge at the Saint Ignatius of Loyola University in Lima, I taught my students a skill that I've learnt during the EcoMaMa Master course myself: to always have a critical mind, to never fully believe what someone else says and to go find the truth in books, documents, journals, ... or yourself."

<u>Tanzania</u>

56 projects

21 Crosscutting projects € 844,357

3 Research Initiatives Projects € 298,623

12 Own Initiatives / TEAM projects € 2,808,510

1998 - 2018



15,571,746 total budget (in €)



Partners

- a) Ardhi University
 - · National Institute for Medical Research
 - Open University of Tanzania
 - Tanzania Food and Drugs Authority
 - University of Dar es Salaam
- b) Kabanga Nurses and Midwives Training School
- c) Mwanza Rural Housing Programme
- d) Mzumbe University
- e) Naliendele Agricultural Research Institute
- Nelson Mandela African Institution of Science and Technology
- g) Sebastian Kolowa University Colleg
- h) Sokoine University of Agriculture
- i) State University of Zanziba
- j) University of Dodoma



As a university, we want to commit to sharing the knowledge that we have acquired and to tackling the global challenges that we face together, with our guiding principles being the Sustainable Development Goals.

(VLIR-UOS corporate film 2018)

Luc De Schepper
Rector of Hasselt University

Research supporting policy-makers in the fight against climate change

"We have to make sure that policy-makers know what the impact of their decisions will be"

The impact of climate change mostly affects people who have contributed to it the least. The unequal burden on vulnerable groups in the world, and the South in particular, have been food for discussion in the climate debate for a long time. Although major emitters have set up the Green Climate Fund to provide funding or support to partner countries for dealing with the effects of climate change, up until now, not enough money has been provided to help countries in the South. Several university cooperation for development projects have been able to help both the Belgian government and local communities in partner countries in tackling one of the most pressing issues of our time.

Climate change affects everyone and everything." Elvis Modikela Nkoana, lecturer at the University of South Africa (UNISA) draws from experience when he talks to us about climate change in his home country. "I already notice the negative effects of climate change in my local community

in the Limpopo Province of South Africa: droughts and erratic rainfall." The majority of scientists agree that all over the world, humanmade climate change leads to increasing temperatures, changes in rainfall patterns and more frequent and severe floods and droughts.

A 2007 European Union research paper called 'Climate

change impacts on Developing
Countries - EU Accountability'
specifies that it will be "poor
people in developing countries who will suffer the most
from climate change". Apart
from their livelihoods and
agriculture being more reliant
on climate-related factors,
partner countries are less
'climate-adaptable': they have
fewer human and financial
resources to cope with the
effects of climate change.
Nkoana has not let this
discourage him, on the
contrary. His research mainly
focuses on climate adaptation in South Africa. As a
PhD student at the University
of Antwerp within the IUC
programme at the University
of Limpopo, he has tested
several climate adaptation toolkits from various
development cooperation
organisations within local
communities, including the
toolkit from the Belgian
research group KLIMOS.

Research for better development cooperation

KLIMOS, short for KLIMaat en OntwikkelingsSamenwerking (climate and development cooperation), is a Belgian research group supported by VLIR-UOS and ARES,



The majority of scientists agree that all over the world, human-made climate change leads to increasing temperatures, changes in rainfall patterns and more frequent and severe floods and droughts.

© Renaud Colmant



Apart from their livelihoods and agriculture being more reliant on climate-related factors, partner countries are less 'climate-adaptable': they have fewer human and financial resources to cope with the effects of climate change.

© Renaud Colmant

the Walloon sister organisation. It is a so-called VLIR-UOS Academic Research Organisation for Policy Support (ACROPOLIS) project in which researchers with climate expertise from six Belgian universities join forces: the Catholic University of Leuven (KU Leuven), Université Libre de Bruxelles (ULB), Ghent University (UGent), the University of Antwerp (UAntwerpen), Vrije Universiteit Brussel (VUB) and Université Catholique de Louvain (UCL). The KLIMOS researchers support the Belgian federal government by doing research and generating input for policies to make the transition to a sustainable society in Belgium and its partner countries. KLIMOS' research focuses on various themes related to

climate change and sustainability that are useful to governmental organisations, NGOs and the private sector in Belgium and its partner countries. Four topics in particular are of paramount importance: managing natural resources for various ecosystem services, developing sustainable energy systems and urban infrastructure, innovations in governance and institutional reforms, and the monitoring and evaluation of sustainability.

KLIMOS toolkit

The KLIMOS Environmental Sustainability Toolkit is one of the practical tools that researchers have developed. This is a database containing environmental information and two screening forms

allowing the Belgian government, NGOs, universities, colleges, schools and the private sector to take the climate change dimension into account in every development cooperation project they support. If, for example, a government official is working on a proposal for a project in a partner country in the South, the toolkit provides the necessary information and a checklist to make sure the project is helping climate mitigation (preventing or reducing greenhouse gas emissions) and climate adaptation. "Everyone who was setting up a project asked themselves the same questions: in what way will climate change have an impact on what I plan to do?" says Bruno Verbist, KLIMOS researcher from KU Leuven. "They also asked

themselves to what extent their project would contribute to climate change in the first place." There is one caveat, though: the toolkit is not compulsory for government officials in, for example, project elaboration and evaluation. Yet, this was the original ambition of the project. "Although not compulsory, one of the big advantages of the toolkit is that it generates conversation about climate change," says Jean Hugé, ULB, VUB and UHasselt researcher within KLIMOS. "The fact that this climate toolkit exists. the buzz that it creates, the fact that there are seminars about it, is even more important than a very consistent application of this kind of tool. The fact that climate change gets the attention it deserves is sometimes more important than ticking off a certain checklist. Nevertheless, it

would be better if it were to be consistently applied."

Belgian impact

"KLIMOS has always done a great job in translating its various products into policy recommendations," says *Annemie Van der Avort*, who is Policy Officer at the Directorate-General for Development Cooperation and Humanitarian Aid, and therefore actual end user of the research results. "This translation happened through seminars, workshops and policy briefs."

These seminars and workshops treated various themes,

These seminars and workshops treated various themes, such as the role of the private sector, NGOs and governments in green energy and environmental protection, and the fine-tuning of the KLIMOS toolkit together with different stakeholders to optimise the tool for mainstreaming the environmental dimension into development cooperation.

Impact in partner countries

Setting up a toolkit is one thing, but could it contribute to helping people in partner countries arm themselves against the effects of climate change? During his PhD as part of the VLIR-UOS IUC programme at the University of Limpopo, Nkoana was a go-between for the theoretical interventions and the local communities and villages in South Africa. Climate change will impact water availability and quality in South Africa in particular, as it results in changes in precipitation patterns, more intense storms, more floods

Vietnam is already feeling various climate change effects: rising temperatures, annual rainfall that has changed in various regions, and rising sea level. © Renaud Colmant







and droughts, changes in soil moisture, an increase in evaporation and changing temperatures with an impact on aquatic systems. Since 2015, the country has also experienced a massive drought, with crop losses, water restrictions and a negative effect on food and water security as a result. In the course of his PhD, Nkoana inventoried the strengths and weaknesses of several climate adaptation intervention methods developed by bilateral, multilateral and non-governmental actors involved in development cooperation, including the KLIMOS toolkit for decision-making on climate change adaptation in rural communities in the South. These tools are often designed from a Western point of view and are therefore not always compatible with local communities' perspectives. Local rural people therefore only minimally participated in these climate adaptation efforts. Nkoana investigated which interventions are best to involve local people in. Some of the best practices included explicitly acknowledging the local cultural dos and don'ts, identifying and prioritising vulnerable stakeholders and going for two-way climate change risk communications instead of just one-sidedly sharing information. Along with the IUC at Limpopo, his PhD research has had quite some output and impact. "We managed to co-author and publish scientific articles

in leading international journals on climate change adaptation. Based on the research from my PhD, we developed tools to explore climate change management - climate change impacts, climate change information, climate change adaptation, and mitigation - through focus group discussions within local communities," says Nkoana. Nkoana now teaches research and environmental education courses at UNISA, where he spreads the knowledge gained during his PhD to young students. He is also developing a Short Learning Programme focused on learning within a limited time frame to meet a specific learning need for individuals, organisations or society in climate change education. He is designing a study on how South African universities can collaborate with European universities in climate change management. "Local people are now more receptive to outside scientific and practitioner knowledge on climate change as it confirms what they have been experiencing because of a changing climate," Nkoana concludes.

The Wamade project also researches air pollution. © Renaud Colmant



"A tangible impact right now is that the research themes from the Wamade project are put on the Vietnamese universities' research agenda," says Bruno Verbist (on the right). © Renaud Colmant

Meanwhile in Vietnam

"Every change within the earth will have an impact, and this is especially so in the context of climate change." Kim Chi Vu teaches various climate change courses at Vietnam National University, Hanoi. Vietnam is already feeling several climate change effects: rising temperatures, annual rainfall that has changed in various regions, and rising sea level. In cities, people are suffering from the so-called 'urban heat island effect': urban and metropolitan areas are getting significantly warmer in comparison to rural areas because of human activity.

Vietnam is one of the top five countries most vulnerable to climate change.

As a national promoter, Kim

Chi is involved in a VLIR-UOS TEAM project, which used expertise from KLIMOS for research on sustainable cities in Vietnam. "In our WAMADE (WAter MAnagement and urban DEvelopment) project, we mainly focus on flood issues and different urban development strategies in the Ha Tinh area," says Kim Chi. Within this WAMADE project, there are three PhD students doing research. Part of the research focuses on greening the urban environment, and its effects on the city climate in Ha Tinh. "We want to show that, by changing urban structure and making cities greener, the city's climate will improve significantly. We are talking about a difference of two to four degrees," says Verbist, who has been involved in the project as well. WAMADE also investigates the impact of different climate change scenarios on water balance and floods. Finally, air pollution is one of the region's main problems and has been added to the research project later on.

"Although the impact of this project research will be more long term, a tangible impact right now is that these research themes are put on the Vietnamese universities' research agenda, even with universities that were not part of the original WAMADE project," says Verbist. He elaborates: "Local universities

pick up and use the modelling techniques for the assessment of fine dust particles, humidity and temperature. These models are taught at local universities, which is an added value for the quality of the courses' content and, eventually, for the research quality and content."

On the importance of scientists in the climate debate

"It's not the scientists' role to tell policy-makers which way to go or which decisions to make," says Hugé. "Scientists have to show which options are available. We have to make sure that policy-makers know what the impact of their decisions will be." Nkoana thinks generating research outcomes for policy purposes is very useful as well. "We as scientists should continue producing highquality research on the topic of climate change, but we should also communicate this newly found knowledge to the rest of world." He summarises: "It doesn't make any sense to produce knowledge on climate change that remains on the library shelves collecting dust rather than being used by decision-makers and the public as a whole."

South Africa

54 projects

2	Institutional University Cooperation programmes	€ 12,684,986
15	Crosscutting projects	€ 399,471
2	Research Initiatives Projects	€ 195,173
	JOINT project	€ 44,000
23	Own Initiatives / TEAM projects	€ 5,468,241
	South Initiatives	€ 470,102

1998 - 2018



19,261,973 total budget (in €)

Partners

- a) Agricultural Research Council
 - · National Research Foundation
 - · Sefako Makgatho Health Sciences University
 - Tshwane University of Technology
 - · University of Pretoria
 - University of South Africa
- b) Cape Peninsula University of Technology
 - South African Centre for Epidemiological Modelling and Analysis
 - Stellenbosch University
 - Themba Laboratory for Accelerated
 Based Sciences
 - University of Cape Town
 - University of the Western Cape
- c) Grain Crops Institute
- d) National Museum Bloemfontein



- e) Northwest University
- f) Rhodes University
- g) University of Limpopo
- h) University of the Free State
- i) University of Venda
- j) Walter Sisulu University

Policy-supporting research (PSR) from a governmental perspective

Annemie Van der Avort is Policy
Officer at the Directorate-General
for Development Cooperation and
Humanitarian Aid (DGD) and talks to
us about the importance of this kind
of research.

"Thanks to a moderate investment in policy-supporting research, DGD was able to provide seed money for interdisciplinary university cooperation for development between universities here and in partner countries. This way, we were able to access both the concrete deliverables of the KLIMOS programme and the wealth of research that the KLIMOS network represents. (Editor's note: KLIMOS researchers support the Belgian federal government by doing research and generating input for policies to make the transition to a sustainable society in Belgium and its partner countries.) Because of the long-term cooperation, KLIMOS researchers were also well-positioned to translate scientific conclusions



into policy recommendations
tailored to DGD. The Belgian actors
for development cooperation
need useful advice based on solid
scientific research when executing
their policy. Researchers, in turn, are
able to dive deep into their research
subject. Furthermore, the recognition
of Belgian academic expertise in
development cooperation via this kind
of research is an added value. The
Belgian development cooperation's
means are not an infinite source,
so we have to be able to present
good proposals to our government,
proposals based on scientific
research about what works, what
doesn't and what contributes to
sustainable development."

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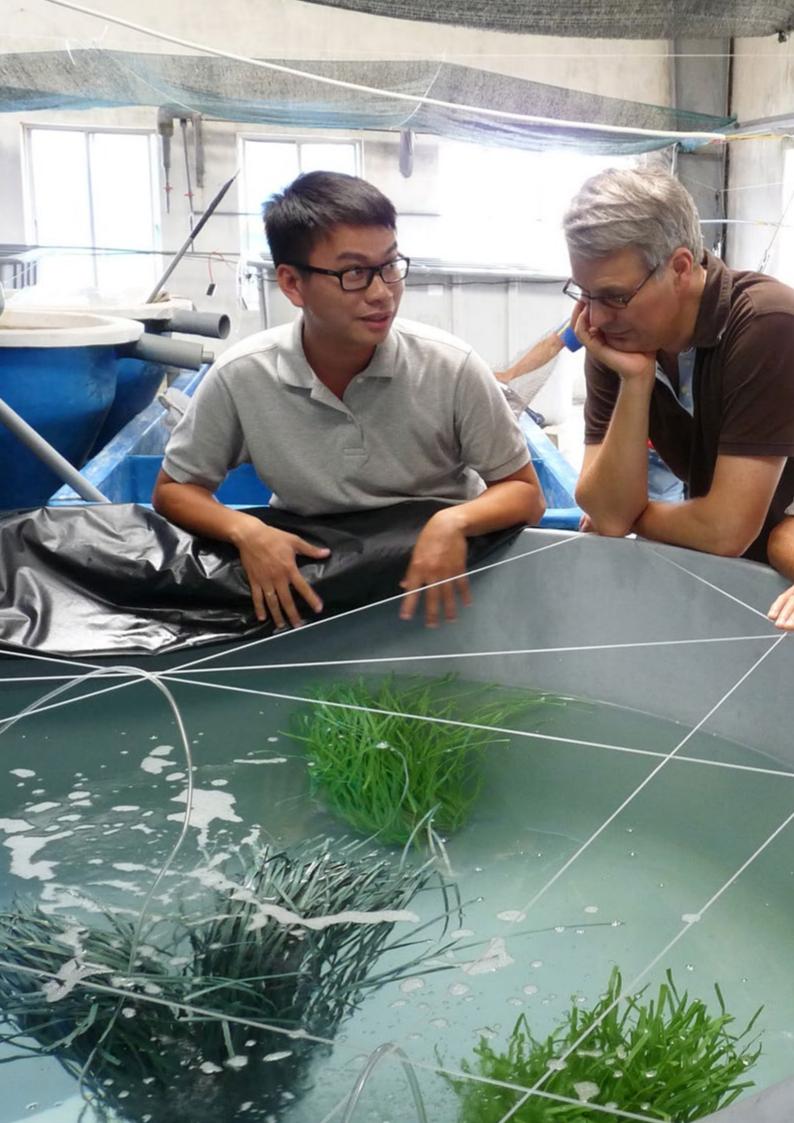
Our foreign policy towards a country or region is not something one-dimensional managed by the Ministry of Foreign Affairs. There are several actors at play, each with their proper goals and methodologies to attain these goals. With a comprehensive approach, we want to enable and improve contact between these actors and link their efforts and make them more complementary or even synergetic, where possible – both strategically and operationally. That way, we do not only strengthen the collective foreign policy but the impact of individual actors as well.

When facilitating cooperation between Flemish universities and university colleges in the first place, but also between Flemish higher education institutions and many other actors, VLIR-UOS tries to put this comprehensive approach into practice. The Directorate-General for Development Cooperation and Humanitarian Aid calls upon the interuniversity ACROPOLIS consortia for policy advice based on policy-supporting research, carried out by mixed research groups, composed of both Flemish and French-speaking researchers. (...)

In short: both for university cooperation for development and the Belgian diplomacy crossing boundaries is the only way to pool all possible expertise – academic, diplomatic, societal ... – to cope with the global challenges that we, as well as our partners in the South are confronted with. That, in the end, is what our efforts are all about: changing lives!

Koen Adam

Currently Belgian Ambassador in Serbia, Former Belgian Ambassador in a.o. Tanzania and Cuba





Aquaculture and food technology in Vietnam

Mekong Delta:
Increase in
farmers' incomes
helps children go
to school

When foundations for the cooperation between Flemish universities and Can Tho University (CTU) were laid in the eighties, many farmers in the Mekong Delta lived a daily struggle with poverty and food insecurity. CTU, the area's main university, was determined to use its research and education to improve living conditions in the region. Together with *Patrick Sorgeloos* and *Ha Thanh Toan*, we look back on 20 or so years of Flemish-Vietnamese university cooperation for development at CTU, to see how VLIR-UOS projects have been able to help accomplish this mission.

alf way from rags to riches
— this is how a 2008 article in The Economist
described the developmental progress that Vietnam had made until then. Although the Vietnam War ended in the mid-seventies, it was not until economic reforms in 1986 ('doi moi') that Vietnam really started to improve socially and economically:

undernourishment went down and access to food increased. Still, there were very large gaps in wealth distribution after these measures — with some regions being much poorer than others. At that time, 95% of Vietnam's poor lived in rural areas with high poverty rates, such as the Mekong Delta. More than two-thirds of the poor in the Mekong Delta were working in agriculture, forestry or fishery activities.



Can Tho University's social commitment

CTU, one of the main universities in the poorer Mekong Delta, wanted change for the region. It wanted to deploy its research, technology and human resources for a better economy and to improve farmers' living conditions, but also for the socio-economic development of the country in general. When the Flemish universities and CTU started their VLIR-UOS projects, they therefore focused on themes relevant to farmers in the Mekong area, such as agriculture, aquaculture and marine culture. The area is also known for its rice and fruit production, two additional VLIR-UOS project research areas. In general, the projects at CTU aimed at diversifying the agricultural sector in the Mekong Delta to get more people out of poverty and to build the university's capacity by focusing on research areas such as aquaculture, food technology and production, biodiversity, environment, e-learning, management and ICT infrastructure.

At the end of the eighties, 95% of Vietnam's poor lived in rural areas with high poverty rates, such as the Mekong Delta.







According to the Food and Agriculture Organization of the United Nations, Vietnam has gone from 75th to 4th place in the world aquaculture rankings.

Small organism, big impact

A huge obstacle in the country's aquaculture development was the fact that the brine shrimp Artemia - a type of small shrimp-like organism that can be found in salty environments such as salt lakes and salt pans - is not naturally present in Vietnam. Artemia can produce dormant eggs, known as cysts, that can be stored and hatched for live feed when needed - making the brine shrimp very suitable for use in fish and shrimp aquaculture. Ghent University (UGent), and Patrick Sorgeloos in particular, had expertise on Artemia and worked with Can Tho and the local farmers to see what they could do to solve the problem of live feed shortages in aquafarming because of a lack of good quality Artemia.

Together with UGent specialists, CTU researchers looked at the production cycle of Artemia in the Vinh Chau salt ponds, developed and improved technologies for Artemia production, and organised workshops to persuade farmers to use this new technology. After the first production cycle, the farmers could request help from the university by calling a telephone helpline. The university also trained so-called 'extension officers' that could provide farmers with information. Apart from workshops and a helpline, researchers produced several other kinds of materials providing information to local farmers, such

The VLIR-UOS projects at Can Tho University are well-known for their links to aquaculture.





Top photo: Patrick Sorgeloos (on the right) worked together with researchers at Can Tho University on the micro-organism Artemia

Bottom photo: The production of Artemia has skyrocketed in the Mekong Delta.

as leaflets, flyers and posters in Vietnamese. The team also created a documentary for Can Tho television.

"The land and environment in the Mekong Delta are very well suited for Artemia production," says Ha Thanh Toan, rector of CTU, who has been managing the cooperation from early on. "The quality of our Artemia cysts improved and became number one in the world in terms of production. Locally, in the Mekong Delta, production skyrocketed," he adds. The type of *Artemia* that the farmers use today is also more nutritious than the one caught in natural environments. Sorgeloos thinks the country has made enormous progress when it comes to aquaculture in general. "According to the UN Food and Agriculture Organization, Vietnam has gone from 75th to 4th place in the world ranking of biggest aquaculture producers. Twenty years ago, the national income from aquaculture was maybe a few hundred thousand dollars. At this very moment, the last numbers say seven billion dollars per year."

An increase in yields and income

Aquaculture is just one chapter of the story though. The Mekong Delta's most important crop is rice: in 2000, more than half of all Vietnamese rice was produced in this region, known as the country's 'rice bowl'. To guarantee food security, the Vietnamese government wanted farmers to increase

their rice cultivation from one harvest per year to two or three harvests per year. Although once successful, rice production in the Mekong Delta was gradually declining, forcing the government and farmer communities towards new cropping systems with rotations of rice and upland crops. In all these cases, CTU was consulted by local authorities, agricultural extension agents and farmers to come up with solutions. Together with their Belgian counterpart, the university took up the challenges and kick-started a research project as part of the IUC programme. This research cooperation proved successful: the researchers came up with two models for farmers to attain this goal. This resulted in a higher productivity per year compared to traditional farming methods, and an increase in income for the farmers. Farmers also mention that these new models increase yields between 10 to 20% per year on average.

Lives changed after ten years of sharing minds

So, after a decade of IUC cooperation, what are the researchers' conclusions? Has CTU's mission been accomplished? "The VLIR-UOS IUC programme was a big achievement for CTU in terms of human resources for the university," says Ha Thanh. In the case of CTU, the IUC programme funded 22 PhD and 32 Master scholarships.

"The equipment installed improved the quality of research and education," says Ha Thanh. CTU is now an important centre for research and technology on aquaculture and food technology, spreading the knowledge to local farmers. Thanks to the cooperation, research has improved in quality and has been more widely spread among the population in the Mekong Delta.

Farmers' incomes in 2018 have increased, on average, by about 500 euros per month. Poverty in the province decreased from 26.9 % in 2008 to 12.5 % in 2015, according to local governments and farmers, thanks to the new

Artemia farming methods. The newly developed methods for rice production have increased farmers' incomes by 136.62 euros per month and 161.66 euros per hectare. Farmers themselves explain that this extra income has helped them pay for their children's schooling, build houses and purchase land. They believe it has given them more life security and stability. Today, the university is also reaching out to other partners in Vietnam and the South as VLIR-UOS also wants to support local institutions to join forces. For example, CTU leads a national NETWORK project funded by VLIR-UOS with Vietnam National

University of Agriculture, Hue University, Nha Trang University and the Research Institute for Aquaculture N° 2. The NETWORK programme, which unites the institutes around Bioscience for food, is a spin-off of the IUC programme with CTU, and helps Vietnam to develop research-based education on aquaculture and food technology. The cooperation with CTU is also continuing with new VLIR-UOS projects: a TEAM project on rice production and two South Initiative projects on health. Moreover, CTU has played a key role in developing International Master Programmes (ICPs) in molecular biology, in marine and lacustrine science, and in food technology, organised at different Flemish universities. When we ask Sorgeloos about the success factors of the Vietnam cooperation with CTU, he says it comes down to one thing: human relationships. "It is important that you have a good connection with your counterpart. Partners, stakeholders and beneficiaries must be involved as equal partners." Sorgeloos emphasises that this also goes for the partners from the other Flemish universities. "Very often, good relationships between Belgian academics are developed through such cooperation projects," he concludes.



Farmers themselves explain that this extra income has helped them pay for their children's schooling, build houses and purchase land. They believe it has given them more life security and stability.

Former Master student in Belgium, current project leader in Hanoi

"Imagine if I had not gone to Belgium, where would my career be now?"

When one of her colleagues told Tran Thi Dinh that she might be able to study in Belgium with a VLIR-UOS scholarship, she seized the opportunity and applied. Being extremely passionate about both food and research, she headed to Leuven for a Master in Food Technology, which she finished in 2006 with a summa cum laude distinction. After that, she obtained a PhD at KU Leuven. Back in her home country, in Hanoi, she is now doing research on postharvest treatment and processing to reduce losses and to enhance economic prospects of fruits, which, in turn, help local farmers improve their income in other VLIR-UOS projects.

"We worked on various types of fruit storage in projects supported by VLIR-UOS. For instance, litchi and longans kept at room temperature only last for two or three days. In the same



conditions and with our technology, they can be stored for seven days. When stored in a cool room, however, their shelf life can go up to 35 days. Based on that research we organised training sessions. We went to the villages and taught farmers how to harvest the fruits and how to store them in a better way.

I stayed in Belgium for a long time, seven years, and I still go back to meet with professors in Belgium as part of projects funded by VLIR-UOS. When working together, I learned a lot from them, not only in terms of knowledge but also ways of working and solving problems. I apply these, not only in my career, but in my entire life. Imagine if I had not gone to Belgium, where would my career be now?"



Sharing minds, changing lives. The VLIR-UOS slogan expresses its sky-high ambitions in terms of overcoming the boundaries assumed to exist among institutions, cultures, academic disciplines and individuals. After twenty years of, in many ways, highly successful interuniversity cooperation, two major challenges remain, which are usually phrased in terms of improving "societal impact" and ensuring "programme logic". Whereas the first concerns the relations and interactions between academic disciplines and various fields of policy and practice, the second raises the thorny issue of the potential and limits of interdisciplinary collaboration. The two challenges are intertwined in the sense that real-world problems necessarily and by definition transcend narrow disciplinary scopes.

Mark Breusers Researcher Catholic University of Leuven

Vietnam^{*}



74 projects

3	Institutional University Cooperation programmes	€ 12,652,409
1	NETWORK Cooperation	€ 1,545,000
8	Crosscutting projects	€ 350,525
11	Research Initiatives Projects	€ 1,098,453
21	Own Initiatives / TEAM projects	€ 5,142,684
30	South Initiatives	€ 1,705,761

1998 - 2018 period



22,494,831 total budget (in €)

Partners

- a) Haiphong University of Medicine and Pharmacy
 - Hanoi National University of Education
 - Hanoi University of Pharmacy
 - Hanoi University of Science
 - · Hanoi University of Science and Technology
 - · National Institute of Hygiene and Epidemiology
 - National Institute of Veterinary Research
 - National University of Civil Engineering
 - University of Transport and Communications
 - · Vietnam National University
 - Vietnam National University of Agriculture
 - Vietnamese Academy of Science and Technology
 - Vietnamese Academy of Social Sciences



- b) Can Tho University
- c) Ho Chi Minh City University of Food Industry
- d) Ho Chi Minh City University of Technology
- e) Hue University
- f) Institute of Malariology, Parasitology and Entomology
- g) Nong Lam University
- h) Quy Nhon University
- i) Research Institute for Aquaculture No. 3
- j) Thai Nguyen University



Celebrating 20 years of Flemish–Ethiopian university cooperation for development

"If anything can improve conditions within a country, it's education – at any level"

"If you can be creative in topics that help society, that's fantastic." As we chat with *Luc Duchateau* of Ghent University, several things are soon obvious. First, Duchateau is immensely passionate about his research topics, as well as about Africa. Second, with a background in engineering, he is eager to find out how things work. Finally, instead of keeping the acquired knowledge to himself, he wants to share it with the world – to the greater good.

t is this combination of characteristics that has enabled the projects in which he participated in Ethiopia to share minds and change lives for the past 20 years. The projects have generated impact in the Ethiopian educational system, as well as in the broader society. Together with other academics involved in university cooperation for development with Ethiopia, Duchateau looks back on 20 years of cooperation, with four long-term IUC programmes,

a NETWORK programme and numerous other projects on the count.

From health research at Jimma University...

"The IUC programme was actually the first collaboration of this kind of Jimma University with any other university in the world," Duchateau recalls as he tells about how it all started. "I went to Ethiopia for the first time in 2005. During the seven days I was there, my

Ethiopian colleagues and I laid the foundations for the IUC programme."

The programme tried to address one of the most fundamental problems that higher education in Ethiopia faces. "Throughout the years, many new universities have been established," Duchateau explains. "There is a major lack of human resources, especially those with a PhD. To have quality Master programmes, meaning that they are research-based, you need good PhDs to do the teaching." Kora Tushune, the local coordinator of the programme at Jimma, confirms that the university has undergone substantial change in this respect throughout the years of the IUC programme. "We have generated more than 50 PhDs, along with many scientific publications. Our teaching infrastructure has improved as well."

The research on topics including environmental health/ecology and infectious diseases/epidemiology has also had a vital impact outside of the university. For example, infectious disease studies on malaria have led to a policy overhaul within the national government. "As we were doing the research, we saw that a lot of treatment was



Luc Duchateau (on the left) and Kora Tushune (on the right) were coordinators of the IUC programme at Jimma University. Top left photo: Seppe Deckers (on the right) was North coordinator of the IUC programme at Mekelle University.

Bottom left photo: Alemtsehay Tsegay is a PhD graduate within the framework of the IUC programme at Mekelle University.

Top right photo: 20 years of cooperation between the Flemish and Ethiopian higher education institutions have four long-term IUC programmes, a NETWORK programme and numerous other projects on the count.



Based on these policy briefs, the Ministry stopped using the ineffective insecticides and shifted to more effective ones.





done with in-house spraying, with, among others, the insecticide Dichlorodiphenyltrichloroethane (DDT). The problem was that this spray is toxic to people, but not to the mosquitos. The mosquitos were actually completely resistant – a problem which was prevalent everywhere in Ethiopia," Duchateau explains. "The Ethiopian government was pumping in thousands of dollars without any effect, except for the negative impacts on humans. We prepared several policy briefs and held meetings with the Ministry. Based on these briefs, they stopped using the ineffective insecticides and shifted to more effective ones."

... to crop research at Mekelle University

As **Seppe Deckers**, Emeritus Professor of Earth and Environmental Sciences at KU Leuven, describes his experiences at Mekelle University, it is clear that he thinks academic research should take place outside of the ivory tower: "Research was in the field, boots on the ground." Those boots were no luxury, given the key themes of the IUC programme that Deckers coordinated from 2003 to 2014, which included hydrology, crop and land management and farm technology.

Alemtsehay Tsegay, a PhD graduate within the framework of the IUC programme in Mekelle and the local project leader, has seen the university move closer to reaching the main goal of the project: filling the need for qualified personnel in various areas of research. "The project has generated about 28 local PhDs," she explains. "We have published 130 research articles in internationally renowned journals, and this

has had a direct impact on the reputation and ranking of the university, both nationally and internationally." Moreover, the project has strengthened the university's teaching programmes by developing new Master programmes and PhD curricula.

In addition to its enormous impact on Mekelle University, the programme has managed to reach out to the rural communities and farmers in the Tigray region, and it has focused its research on alleviating local poverty. Alemtsehay provides a few examples: "We introduced apple trees in the highlands of the region to increase the income of farmers and contribute to their nutrition. We have transferred fishing



techniques and supported local fishing associations.
The researchers have also

studied the kinds of poverty existing within society, along with their causes and possible remedies."
The project on apple trees has distributed thousands of apple tree plantlets and trained farmers in grafting and tree management. In the 2013 project evaluation which was organised by VLIR-UOS, farmers indicated that their income had increased by 40 to

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Many scholars have the opportunity to study in-country, which is an advantage because it allows them to focus more on problemsolving research with the context of their own countries.

Two decades of impact

400 euros.

On 20 September 2018, the Belgian embassy in Ethiopia held a celebration to mark 20 years of cooperation between the two countries – delicious cake with birthday candles included. Duchateau and Alemtsehay look back on what this long-term partnership has really meant.





A birthday cake at the Belgian embassy in Ethiopia for 20 years of VLIR-UOS cooperation in 2018.

"Thanks to the collaboration between Ethiopian and Flemish universities through VLIR-UOS, Ethiopian universities are now able to create new Master and PhD programmes," notes Tsegay. "Many scholars have the opportunity to study in-country, which is an advantage because it allows them to focus more on problem-solving research within the context of their own countries."

"In Jimma, I think that we all had one common dream, and that has been to build capacity at the level of individual university staff members and students, as well as at institutional level, with a focus on the next millennium at that time," Duchateau reflects. "I have a strong belief that, if anything can improve conditions within a country, it's education at any level. The VLIR-UOS projects can give people the tools to change society, and knowledge is one of the best tools to have." According to the World Bank,

education can truly make a difference in a country, starting with the economy. Education increases human capital within a country's labour force, thereby increasing labour productivity and, ultimately, generating a higher level of output. Education can also help a country's economy to be more innovative, as knowing about new technologies and products promotes growth.

"I strongly believe in the VLIR-UOS motto of 'Sharing Minds, Changing Lives'," Alemtsehay concludes. "If countries, development organisations or even individuals do not share what they have with others, it will remain in their own hands and minds, and it will not have any impact on the world. This is why the VLIR-UOS 'sharing minds' principle has been able to bring about many changes in the lives of others, particularly in developing countries."

19 years in Ethiopia

An indirect but essential contribution

Martine Dekoninck has been the Institutional Coordinator for Development Cooperation (ICOS) for KU Leuven since 2000, working on several projects, many of which have taken place in Ethiopia. An ICOS serves as a go-between for VLIR-UOS and the universities and university colleges. Dekoninck and her ICOS counterparts inform and sensitise academics at their own universities and associated university colleges with regard to opportunities for cooperation. They also provide advice on designing project proposals and support during project implementation.

"For the past few years, ICOS have been able to contribute to the projects in a very concrete way. Within an IUC programme, there are many administrative, logistical and financial issues to be addressed. As ICOS, we try to support the academics in these tasks as much as possible, so that they can focus on scientific and policy-related matters. At KU Leuven, we provide the financial coordination and management of the IUC projects. We also contribute



to the writing of reports, planning, facilitating all mobility for scholars and visitors and purchasing goods. For example, although we insist on buying local goods as much as possible, we sometimes ship goods and materials to our partner countries. The ICOS are very important for all such matters, and VLIR-UOS projects would be impossible without them."

Ethiopia

73 projects

4	Institutional University Cooperation programmes	€ 16,084,982
1	NETWORK Cooperation	€ 540,000
32	Crosscutting projects	€ 1,165,542
5	Research Initiatives Projects	€ 488,182
2	JOINT projects	€ 69,868
16	Own Initiatives / TEAM projects	€ 4,696,254
13	South Initiatives	€ 685,119

1998 - 2018 period



23,729,727 total budget (in €)

Partners

a) Addis Ababa University



- b) Ambo University

 c) Arba Minch University

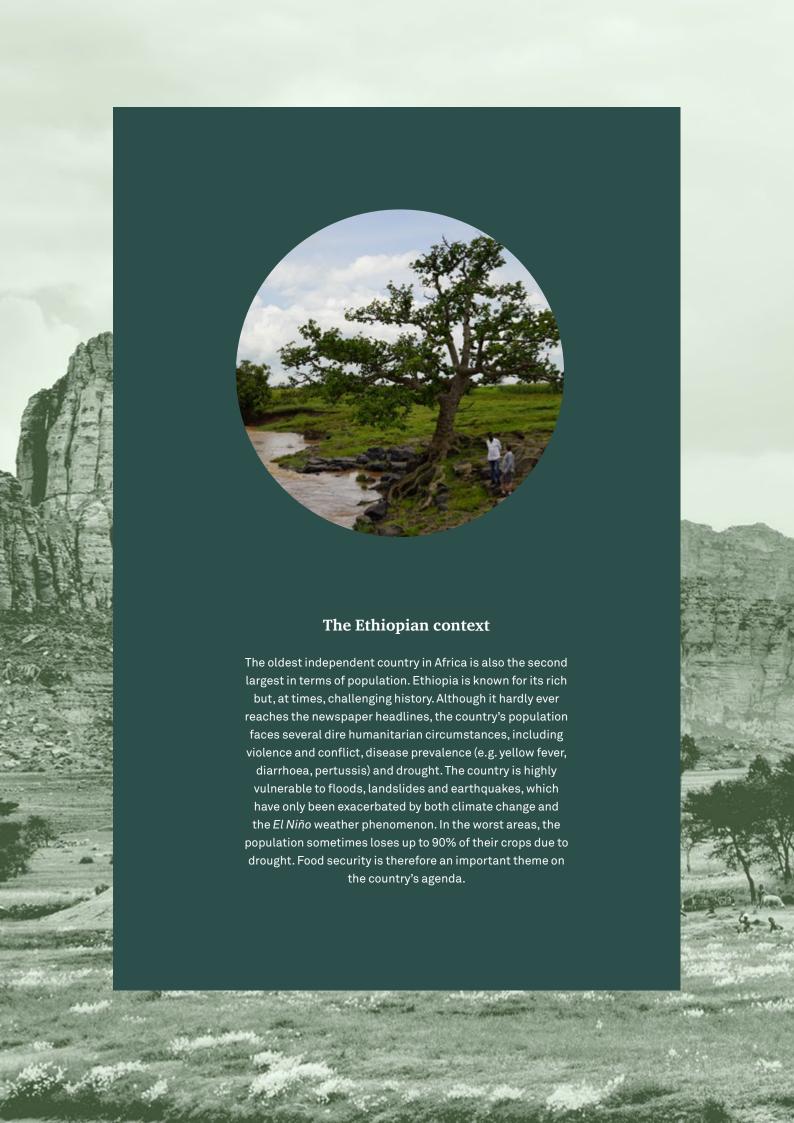
 d) Bahir Dar University

 e) Dire Dawa University

 f) Ethiopian Civil Service University

 g) Ethiopian Institute of Agricultural Research

 h) Haramaya University
 - i) Hawassa University
 - j) Jimma University
 - k) Mekelle University
 - 1) Wolaita Sodo University





I think that VLIR-UOS supports activities that are totally unique for several reasons. It has a strategy of getting people together, sharing minds, good ideas and in so building projects and sustainable partnerships through shared interests in Flanders and countries in the South. This formula brings mutual benefits, fostering development and societal change in both the long and short term. VLIR-UOS initiatives tend to build from realistic small beginnings such as SI and TEAM projects at the individual and department levels. When one considers the IUC programme, this intervention not only broadens existing collaborations but helps to build whole university institutions so that they can better function in a development context for countries in the South. There is no other programme that I am aware of where one gets such a long term vision and scope to progressively develop institutions.

Sinclair Mantell

Selection commission member for IUC programmes Emeritus professor in Plant Propagation Sciences (University of London) Celebrating 25 years of cooperation with Cuba

"When talking about Flemish-Cuban university cooperation for development, we always speak about a 'before' and an 'after'"

15 May 2019. The audience at the Brussels venue BOZAR cheers as minister José Ramón Saborido Loidi takes the stage. For his lifelong dedication to Cuban university cooperation for development, he is about to receive an honorary degree as part of the celebrations of twenty years of VLIR-UOS. From the time when he was still rector at Universidad Central "Marta Abreu" de Las Villas (UCLV) to his current days as Cuban Minister of Higher Education, minister Saborido Loidi has been closely following university cooperation for development projects. "I believe in Belgium and Cuba, we have a comparable vision of higher education: universities are important for solving the grave problems we are facing today," he summarises.

ince the Cuban
Revolution in
1959, the country's economy
has faced many
challenges. The United States'
embargo imposed because
of the country's ties with the
Soviet Union had already
left its marks on the country's economy. The situation
deteriorated further still after
the fall of the Soviet Union

in December 1991, plunging Cuba into a fully-fledged economic crisis.

This so-called 'Special Period' (el Período Especial) would be marked by famine and poverty and a steep decline in international cooperation, with many development actors discontinuing their activities in Cuba. Yet, it is always remembered that cooperation with Flemish universities remained active

during these difficult times.
Moreover, from 1996 onwards,
Flemish universities and individual academics increasingly
started collaborating with
Cuban universities.

A phone call from Ecuador

Before the crisis hit Cuba, food security had never been much of a problem for the country. The loss of support from the Soviet Union, however, turned it into a major issue. In 1993, Cuba experienced a massive food crisis, as the average daily intake of kilocalories fell from 2,908 to 1,863 per person. Cuba had to look for ways to feed its people without inputs from its former socialist partner. The Cuban government therefore decided that food security would be one of its highest priorities, and researchers within UOS projects resolved to do the same.

"In December 1996, I received a phone call from one of my former students, *Françoise*De Cupere, asking me if Vrije Universiteit Brussel (VUB) was interested in cooperation with Cuba's UCLV," recalls *Edilbert Van Driessche*, professor at the VUB's Department of Bioengineering Sciences.



Minister José Ramón Saborido Loidi has always strongly supported university cooperation for development between Flanders and Cuba and was awarded an honorary degree by Vrije Universiteit Brussel for 20 years of VLIR-UOS. De Cupere, a veterinarian, was in Ecuador at that time and had just met *Eduardo Cruz* from UCLV.

Cruz was very interested in researching colibacillosis, a common infectious disease that can put a massive strain on the production of pigs and other livestock. Additionally, he wanted to collaborate with the research unit of Protein Chemistry of VUB to investigate the anti-nutritional effect of lectins, a type of proteins present in food and feed. Van Driessche agreed to the cooperation, and so they started their first joint research within a VLIR-UOS Own Initiative project (OI) to improve food and feed provision in Cuba, to introduce protein chemistry at UCLV, and to improve and update some courses at the Faculty of Agriculture. Many more projects were to follow. "The initial project on agriculture led to an increase in the size and number of



Thanks to the project and the broader IUC cooperation, the university is now a national reference in the field of Agricultural Sciences.

collaborations," recalls
Minister Saborido Loidi, who
was rector at UCLV at the time
of the first projects. From 1998
to 2018, there were about
twenty projects on the topic
of food security in Cuba, with
a total budget of 4.5 million
euros. For UCLV, it laid the

foundations for the VLIR-UOS IUC programme, with food security and agricultural research as one of its main priorities.

A fruitful collaboration

The IUC research project at the Faculty of Agriculture of UCLV focused on improving food and feed production, for example by making certain crops such as bananas, plantains ('cooking bananas') and beans more resistant to diseases. The success of the project is the result of a close and fruitful collaboration with many professors from several Flemish universities. "During the IUC programme, twelve PhD students defended their thesis in Belgium and seven in Cuba at the Faculty of Agriculture. Partly thanks to the project and



the broader IUC cooperation, the university is now a national reference in the field of Agricultural Sciences," says Van Driessche. "Thanks to the IUC programme, the UCLV staff strengthened their administrative and scientific capacities and developed better communication skills, allowing them to successfully apply and implement nationally and internationally-financed, competitive collaborative projects, and publish their research in peer-reviewed international journals with high scientific impact. They also established many partnerships with universities in Central and South America and in Africa." Also, the synergy and joining forces with other projects within the IUC programme such as the ones on ICT infrastructure and ICT applications in language development, library development, education, management, pharmaceutics, environmental education and clean technologies and computer sciences greatly contributed to the success of the IUC programme in general and had a great impact on the research output and its societal applications, human capacity building, management, quality of teaching programmes,...

Where research meets society

Apart from a huge academic impact, the IUC project's research results have also

found their way to society. More sustainable practices in plant and animal production have improved food and feed security and production. "Several outputs result from the use of classical breeding techniques and advanced molecular biology methods," explains Van Driessche. For example, UCLV's Instituto de Biotecnologia de las Plantas (IBP) developed methods involving in vitro cultures for high-yielding banana and plantain plants, enabling cheaper production and reducing susceptibility to environmental stresses. This technology is now successfully used nationwide. Another example is the development of seeds of different varieties of potato with high productivity, reducing the need for seed imports. Within the grain breeding programme, high-quality seeds with the desired properties of sorghum and beans were developed and are now planted all over the country. A third illustration is the development of drones that can be used as excellent tools in precision agriculture. For example, they can determine the fertiliser requirements of the soil, or detect damage to crops early, allowing appropriate measures to restrict the damage. Thanks to collaborations with UCLV computer specialists,





Top two photos: From 1998 to 2018, roughly 21 million euros, which is about 8% of the total VLIR-UOS budget, were invested in cooperation projects in Cuba, being about 10% of all VLIR-UOS projects.

Bottom left photo: A practical outcome of the IUC is the use of drones for precision agriculture.

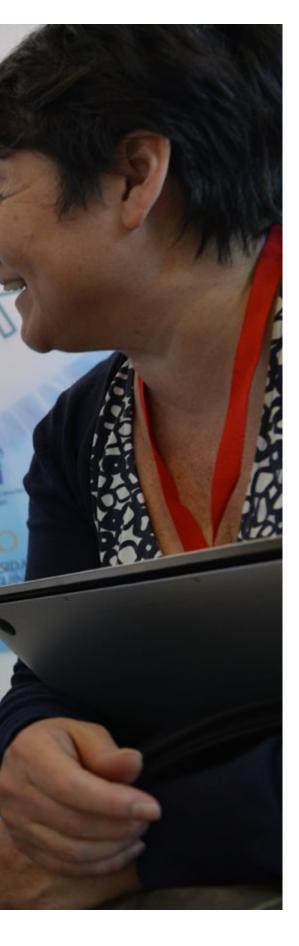
mobile devices were developed that allow farmers to

increase productivity.

"The impact of the IUC

programme at UCLV is





enormous, both with respect to the academic performance in general and the research output in particular, and the visibility of the university within Cuba and the world in general," concludes Van Driessche. "The newly developed strategies improve food and feed security, plant and animal health and therefore considerably contribute to the welfare and well-being of the people and animals of Cuba."

A digital revolution

'Digitalisation for development' is another theme that the Cuban government put high on the political and higher education agenda. During his time as rector of UCLV at the time of the Special Period. Minister Saborido Loidi decided to prioritise ICT development within the university as well, acknowledging the importance of digitalisation. "During this Special Period in the 90s, UCLV had the scientific potential, but didn't have the means to carry out high-level research," recalls Hector Cruz Enriquez, who was ICT project leader in the IUC programme at UCLV. The IUC team at UCLV was determined to bring about a wind of change. It wanted to enhance the campus computer network so that all university campuses would have sufficient ICT capacity for their academic and administrative activities. Another goal was to improve ICT infrastructure to support teaching, learning and research. For example,

professors would gain Internet access in their homes. The country also needed highly skilled people who could help in the national digitalisation process - another mission UCLV wanted to accomplish by training competent PhD and Master students. By 2012, ten years after the programme began, the UCLV computer network at the university had indeed become much larger, more stable and more secure. The personnel now uses e-administration systems for student enrolment and does its administration with open source software introduced by the IUC. By now, more than 2,000 students have graduated from a new Master programme in New Technologies for Education, which started at the university in 2005. The Faculty of Mathematics, Physics and Computer Science is currently considered one of the best in Cuban higher education. UCLV has also established a PhD in Computer Sciences, the number of PhD students from all over the country has increased and the quality of theses has improved.

Digitalisation has been an enormously important part of Flemish-Cuban university cooperation for development.



During Cuba's Special Period in the 90s, UCLV had the scientific potential, but didn't have the means to carry out high-level research.

Supercomputers and big data

But that was only the beginning. Thanks to exchanges with Flemish ICT experts within the IUC programme, Cruz Enriquez met Dieter Roefs from Ghent University. "We only dreamt at first of setting up a data centre, but afterwards of creating scientific computing conditions, including for working with high-performance computing and big data." In today's computerised society, the latter are indispensable, especially for modern scientific discoveries. Highperformance computing can, for example, help scientists analyse diseases or develop new drugs. "A supercomputer is a chain of individual computers, which gives you a much greater capacity to process data," says Roefs. By the end of the VLIR-UOS IUC programme, Roefs and

Cruz Enriquez had managed to set up a high-performance computing data centre.

"We were pioneers in Cuba, implementing a real professional data centre," says Cruz Enriquez. "We have provided physical supercomputers to three locations in Cuba," says Roefs. "In time, all universities and research institutions in the country will be given

access to those services. The scientific impact will be huge." Cuban society - including hospitals and businesses - is also very interested in supercomputers, as they can make complex calculations and analyses in a few minutes as opposed to days or weeks in the past. There is now cooperation with Biocubafarma. a Cuban national biotechnology and pharmaceutical research and development company consortium, on the early detection of arboviruses (viruses transmitted by arthropods) and the evaluation of the health impacts of the Cuban vaccine against Streptococcus pneumoniae using calculations with a big data approach.

The foundation for a NETWORK programme

The drive and results within the IUC at UCLV laid the foundations for a broader ICT VLIR-UOS NETWORK programme, initially



Bottom left photo: Dieter Roefs (in the middle) was involved in setting up a data centre at UCLV.

The drive and results within the IUC at UCLV laid the foundations for a broader ICT VLIR-UOS NETWORK programme.



coordinated by Georges Eisendrath (VUB), which started with six participating universities in 2013. Since 2008, digitalisation has been put on the agenda of the two-yearly 'Universidad' conferences organised by the Cuban Ministry of Higher Education, which follows trends and developments in higher education. Thanks to university cooperation for development and IUC support, Flemish and international experts have participated in these conferences as well. "The NETWORK programme helps universities keep up with the fast-changing evolutions in computer sciences. If you want to get to a point where Cuba's ICT solutions become export products which is already the case to some extent - the country needs to keep up with stateof-the-art technologies to be competitive on the market," says Ann Nowé (VUB), Flemish

coordinator of the NETWORK programme. The programme tries to achieve its goals in different ways. "For example, we organised a winter school on big data, in which people from the industry participated, such as BioCubaPharma. We also organised a short training course for PhD and post-doc researchers in Flanders to update their knowledge and to meet other people. In our workshops with the Cuban industry, we spread the knowledge from universities to the industry - which is something new."

Contributing to the development of eastern Cuba

Another top priority for Cuba is the development of its eastern region, which is less favoured by international cooperation and therefore more excluded from support and opportunities. The *Universidad de*

Oriente (UO), one of the universities in eastern Cuba, set up an IUC programme in 2013, working on developmental topics related to public health, food security and sustainable development, clean and renewable energy, biological products and cultural heritage. Here too, ICT capacity and digitalisation are key. "ICT capacity has been one of the main successes of the programme until now," says Teresa Orberá Ratón, local promoter of the IUC programme with UO. "We have Internet and Wi-Fi connections in all three campuses of our university which are open to everybody - thanks to VLIR-UOS. We have created a data centre which offers services to society, and have invested massively in computer equipment." In this IUC as well, digitalisation found its way to society, contributing to the 'Joven Club de Computación'.



An IUC programme strengthens the role of a university as a driver of change in society. The IUC with *Universidad de Oriente* is a textbook example of that.

These technology centres, focusing primarily on children and young people, were established in Santiago de Cuba in 1987 by the Cuban government, to allow free and open access to ICT services for all. With the support of the Belgian organisation 'Close the Gap', the IUC programme enabled these 'Computer Youth Clubs' to improve their ICT infrastructure for the entire Santiago de Cuba province, providing 120 new computers which are freely accessible to the 400,000 people living in the region. IT specialists from UO installed the necessary hardware and software, and continue to maintain the infrastructure. Peter De Lannoy, Head of Programmes at VLIR-UOS and responsible for the Cuba follow-up for nearly ten years, concludes: "An IUC programme strengthens the role of a university as a driver of change in society. The IUC with Universidad de Oriente is a textbook example of that."

Science will overcome

When taking the stage at BOZAR in Brussels in May, Rector Caroline Pauwels of VUB awarded the honorary degree to Minister Saborido Loidi for his many years of advocacy for university cooperation for development. The cooperation between Flemish and Cuban universities has now evolved into a long-standing, solid partnership and friendship. "Professor Saborido Loidi brought us friendship, transparency, trust and his university's hospitality," De Cupere said in the laudation movie. "As a result, we now have this successful collaboration with him and with Cuban universities." Nowadays, Cuba is, together with Ethiopia, the top country within the VLIR-UOS portfolio. From 1998 to 2018, roughly 21 million euros, which is about 8% of the total VLIR-UOS budget, were invested in 81 cooperation projects, being about 10% of all VLIR-UOS

150 PhDs have started, approximately 40 of which are ongoing. "When we talk about the university cooperation for development collaboration, we always speak about a before and an after," explains Minister Saborido Loidi. "The cooperation with Flemish higher education institutions is the most important cooperation Cuba has in the higher education sector." He thinks shared vision is a key success factor in long-term cooperation. "I believe in Belgium and Cuba, we have a comparable vision of higher education: universities are important for solving the grave problems we face today. I think this is very positive for Belgium and also for Cuba, because it is an example of how cooperation can help to build and form networks in the best interests of both sides." He concludes: "We share the same motto: 'Only science will overcome'."

projects. Overall, more than

Cuba

81 projects

2	Institutional University Cooperation programmes	€ 10,275,000
1	NETWORK Cooperation	€ 1,545,000
24	Crosscutting projects	€ 916,283
3	Research Initiatives Projects	€ 278,226
1	JOINT project	€ 37,092
31	Own Initiatives / TEAM projects	€ 7,203,875
19	South Initiatives	€ 964,525

1998 - 2018 period



21,220,001 total budget (in €)



Partners

- a) Centre of Marine Bioproducts
 - Centre of Pharmaceutical Chemistry
 - Centro de Investigación y Desarrollo de Medicamentos
 - Centro de Investigaciones para el Mejoramiento Animal de la Ganadería Tropical
 - Centro de Neurociencias de Cuba
 - Centro Nacional de Sanidad Agropecuaria
 - Institute of Tropical Medicine "Pedro Kourí"
 - Instituto Superior de Ciéncias Agropecuarias de La Haban
 - Universidad Agraria de La Habana
 - Universidad de La Habana
 - Universidad de las Ciencias Informáticas
 - Universidad Tecnológica de La Habana "Jose Antonio Echeverría"
- b) Universidad Central "Marta Abreu" de las Villas
- c) Universidad de Camagüey

- d) Universidad de Ciego de Ávila
- e) Universidad de Cienfuegos
- f) Universidad de Granma
- g) Universidad de Holguín Oscar Lucero Moya
- h) Universidad de Oriente
- $i) \begin{tabular}{l} Universidad de Santi Spíritus José \\ Martí Pérez \end{tabular}$
- j) Universidad de Piñar del Río





Where digital meets development: D4D

Digital 4 Development or D4D is the name of a platform initiated in September 2017 by the Directorate-General for Development Cooperation and Humanitarian Aid. Its main goal? Bringing together all Belgian development actors that work on using digital systems in development cooperation. Information literacy training for librarians

"I've gained a lot of knowledge that I have applied in my job"

In 2014, UAntwerpen and UC Leuven-Limburg (then: KH Leuven) jointly organised a training course on "Information Literacy" in Antwerp for librarians in higher education institutions in both Flanders and in partner countries. Participants did try-outs of existing tools, tutorials and resources for improved (digital) information management. The best training material was compiled into a toolkit. Vrushali Basarkar, now Head Librarian at AISSMS College of Engineering, was one of the participants of the workshop and explains what she has done with the newlygained knowledge upon her return to her home country, India.

"'Information Literacy' was a new concept for me at that time. I applied for this workshop to learn new techniques and concepts which could be helpful for day-to-day library activities. When I came back to India, I applied all the information gained during this workshop. I have written a research paper together with someone I met during



the workshop in Belgium. I also asked the Belgian workshop organisers if they could come to India and give a one-week workshop at my college so that other Indian librarians could benefit from their knowledge as well, which happened in 2015 and 2017. Many people attended this workshop and they are now applying this knowledge in their work.

The workshop has boosted my career. I've gained a lot of knowledge that I have applied in my job. I have developed a faculty publication repository at my institute. I have participated in various workshops and conferences and have also been invited as a speaker. My language skills have improved. Now I am also working as 'Directory of Open Access Journals Ambassador for India' and as an advisory committee member for 'International Open Access Week'."

We've got a winner!

WisePocket App 'most promising innovative idea in IStartup category'

4 October 2018, Royal Museum of Central Africa. A spin-off of the cooperation with Universidad de Oriente called 'WisePocket' is awarded the D4D prize for 'most



promising innovative idea in the IStartup category' by Minister of Development
Cooperation Alexander De Croo. The app was developed by team members of Vrije
Universiteit Brussel and Universidad de Oriente and wants to make public health campaigns, for example in tropical infectious diseases, more efficient and measurable via interaction and gamification. The app offers a platform for the Ministry of Health, societal actors in charge of public healthcare, civilians, doctors and public health technicians. The app can also be used offline, as Cubans often have trouble accessing an Internet connection.

Burundi

14 projects

1 Institutional University Cooperation programme	€ 3,640,000
3 Crosscutting projects	€ 108,720
3 Own Initiatives / TEAM projects	€ 766, 923
7 South Initiatives	€ 185,184

1998 - 2018



4,700,827 total budget (in €)



- Institut des Statistiques et des Etudes Economiques a) du Burundi
- b) Université du Burundi

Morocco

€ 1,233,000 € 1,348,696

15 projects

1 Institutional University Cooperation programme	€ 1,233,000
8 Own Initiatives / TEAM projects	€ 1,348,696
6 South Initiatives (SI)	€ 262,381

1998 - 2018

period



2,844,077 total budget (in €)



- a) Ecole Nationale d'Agriculture de Meknès
- b) Institut Agronomique et Vétérinaire Hassan II
- Moroccan Foundation for Advanced Science, Innovation c)
 & Research
- d) National Forestry Engineering Schoo
- e) Université Abdelmalek Essaadi
- f) Université Cadi Ayya
- σ) Université Hassan II de Casablanca
- h) Université Internationale de Rabat
- i) Université Mohammed V
- j) Université Moulay Ismaïl
- k) Université Sidi Mohamed Ben Abdellah

Philippines .



13 projects

1 Institutional University Cooperation programme	€ 6,897,639
5 Crosscutting projects	€ 294,291
2 Research Initiatives Projects	€ 188,171
2 Own Initiatives / TEAM projects	€ 354,362
3 South Initiatives	€ 47,547

1998 - 2018

period



7,782,010 total budget (in €)



- a) Ateneo de Manila University
- b) Benguet State University
- c) Saint Louis University
- d) University of Southern Mindanao
- e) University of the Philippines Diliman

Suriname

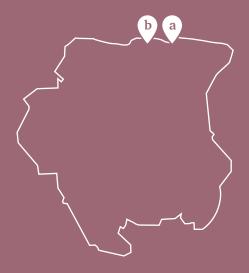
14 projects

1	Institutional University Cooperation programme	€ 6,487,535
3	Crosscutting projects	€ 174,865
2	Own Initiatives / TEAM projects	€ 630,499
8	South Initiatives	€ 467,678

1998 - 2018 period



7,760,577 total budget (in €)



- a) Anton De Kom University
- b) Institute for the Education of Teachers







The highlights and people behind 20 years of VLIR-UOS

A fixed value at VLIR-UOS

"We can be proud of what we've achieved despite the obstacles and difficulties along the way"

Dominique De Bondt has been working for VLIR-UOS as an administrative officer ever since its very beginning in 1998. Prior to that, she has worked for the VLIR-UOS precursor: the Flemish Interuniversity Council (VLIR) Secretariat of Development Cooperation. She has lived through quite a few ups and downs and has met many people along the way. Over a cup of tea, we sit down to hear her out.

You've met many people at VLIR-UOS. What marks out the people working at VLIR-UOS?

De Bondt: We have a lot of meetings (laughs). We also play ping-pong and sometimes a bit of soccer. When working at VLIR-UOS, it is important to be flexible. But you also have to realise that you are a link in a bigger chain, and the chain can't break, because that will have a negative impact on the other partners.

What makes working at VLIR-UOS unique?

De Bondt: We are a non-commercial organisation. You have an enormous amount of freedom in your job; you can determine how you do your job. People trust you to do things. That's why I love working here: the autonomy, the freedom and trust

What values do you associate with university cooperation for development and VLIR-UOS?

De Bondt: Impact, quality, soundness. VLIR-UOS gives opportunities and can be trusted

Describe the VLIR-UOS community in three words.

De Bondt: Trust, believing in what we can do, good relationships.

How has VLIR-UOS turned into such a sustainable organisation over the years?

De Bondt: We started with next to nothing. In the beginning, we were just executing the policies and projects of the ABOS (editor's note: precursor of the current Directorate-General for Development Cooperation and Humanitarian Aid) and we had no autonomy. Over the years, we've become more and more independent.

The organisation's people are its driving force Kristien Verbrugghen among others. Bringing university cooperation for development to the attention of others has made it sustainable over the years. It is also the impact we have with what we do, both in our partner countries and here at the universities, that makes the difference. It is not about giving a food package and water so that people can survive for a week; we give people a future. This is something that I really think is important. You might not see many results within a year, but in the long term, the cooperation generates results. If projects go well, we are happy. If funds are well spent and used, we are happy as well. VLIR-UOS means quality projects, quality support, soundness and competence.

What is the biggest impact and biggest success story of VLIR-UOS over the years?

De Bondt: A big achievement is our digitalisation. I remember the time when our scholarship applications came by ordinary mail and, during lunch break, all our colleagues were at the kitchen table opening letters and collecting the hand-written application forms.

In the past, no one talked about university cooperation for development. I think we've really put it on the map. We can be proud of what we've achieved despite the obstacles and difficulties along the way. The universities trust in us, they understand that they need us,

The fact that we are still here, that the sector takes our opinion into account, that it listens to what we have to say — that is a big achievement. When we started out with two people at the VLIR Secretariat at the end of the eighties, we had no idea that we would become an organisation of twenty people. We've achieved a lot.

1995 and 1997

The Belgian State Secretary for development cooperation, the Flemish Interuniversity Council (VLIR) and the Conseil interuniversitaire de la Communauté française de Belgique (CIUF, now: ARES - Walloon sister organisation of VLIR-UOS) respectively sign one overall agreement and five specific agreements and corresponding guidelines relating to five programmes for university cooperation for development: the North Actions Programme, the Scholarships Programme, the IUC Programme, the Own Initiative Programme and the Training Costs Programme.



Ann Peters

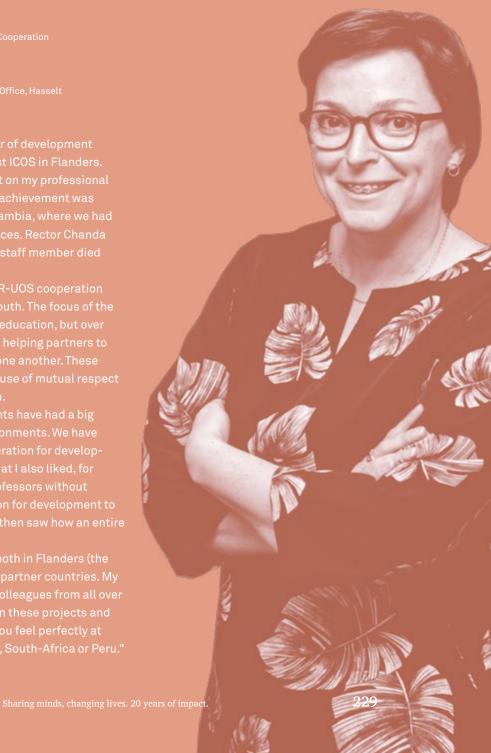
- Institutional Coordinator for Development Cooperation from 1995 to 2004
- Ghent University (UGent)
- At present: Head of Research Coordination Office, Hasselt University (UHasselt)

"My very first job was staff member of development cooperation at UGent: I was the first ICOS in Flanders. VLIR-UOS had an enormous impact on my professional life. The biggest, most challenging achievement was setting up the first IUC project in Zambia, where we had to work in very difficult circumstances. Rector Chanda told us that every day, a student or staff member died of HIV/AIDS.

Something beautiful about the VLIR-UOS cooperation is the respect for partners in the South. The focus of the VLIR-UOS projects was initially on education, but over time, it has shifted to research and helping partners to be independent and to learn from one another. These evolutions could only happen because of mutual respect and an open, amicable cooperation.

On the Flemish side, the travel grants have had a big impact on students and their environments. We have been able to bring university cooperation for development into Flemish living rooms. What I also liked, for example, is when we convinced professors without experience in university cooperation for development to get involved in these projects, and then saw how an entire new world opened up to them.

There have been many highlights, both in Flanders (the first Get Together Night) and in the partner countries. My best memories are about people, colleagues from all over the world who passionately work on these projects and who warmly welcome you so that you feel perfectly at home in Vietnam, Zambia, Ecuador, South-Africa or Peru."



Inga Verhaert

- Institutional Coordinator for development
- Rijksuniversitair Centrum Antwerpen (RUCA now: University of Antwerp)
- · At present: politician

"As the first coordinator of international relations at the then RUCA to coordinate the VLIR-UOS programme, it was the first time I became acquainted with development cooperation, and with Africa in particular. These projects only strengthened my interest in international cooperation. When, a few years later, I was in the Chamber of Representatives, my experience with VLIR-UOS was one of the reasons why I ended up in international politics and development cooperation.

I fondly look back on the cooperation with the

I fondly look back on the cooperation with the Sokoine University of Agriculture in Tanzania.

The project on rats – today known as APOPO – in the Biology Department was, in the VLIR-UOS cooperation period, a rather small pilot project.

That it was immensely interesting was evident even to the most casual observer. The rats trained to look for explosives happened to be able to detect diseases such as Tuberculosis. I still think this is one of the most valuable contributions that VLIR-UOS has offered: giving opportunities for the





Start of the Institutional University Cooperation (IUC) programmes with the first IUC programme at *Universidad Mayor* de San Simón (UMSS) in Bolivia.

VLADOC student Isabel Vandeplas during field work in Kenya. This picture has been the VLIR-UOS iconic photo for many years, being a symbol of VLIR-UOS cooperation.



1 January 1998

Start of VLIR-UOS, by taking over full responsibility for university cooperation for development policy and funding from the Directorate-General for Development Cooperation and Humanitarian Aid on the basis of the 1995 and 1997 agreements.

Toon Boon

- Institutional Coordinator for Development
 Cooperation until 2003
- Catholic University of Leuven (KU Leuven)

"I was strongly involved in the foundation of VLIR-UOS, as a fellow negotiator for the first agreements both with the government and from KU Leuven. When I got involved, university cooperation for development was very marginal within Flemish higher education institutions. Every now and then there was a small isolated project, which was then financed as a VLIR-UOS Own Initiative project.

VLIR-UOS has helped me realise that university cooperation is a major added value abroad. It is a way of letting people see the significance of working together with partner countries, both students via travel grants, and young and even more senior academics. The professionalisation of university cooperation for development via VLIR-UOS brought it out of the "hobby atmosphere"

VLIR-UOS is unique in the sense that it bundles scientific expertise that is focused on direct cooperation with scientific institutions in the partner countries. Higher education and research have to be developed in these countries to develop local capacity. Other players in development cooperation – at least in Flanders – do not focus on this. "First eat, then philosophise" may be a partially correct adage, but partner countries will not become self-reliant if they do not have the necessary intelligentsia.'

Jean Berlamont

- VLIR-UOS Chairperson from 1999 to 2004
- Board UOS Member from 1999 to 2006
- Catholic University of Leuven (KU Leuven)

"VLIR-UOS has provided me with the opportunity to set up various projects in Bolivia and Suriname. It is fulfilling to see that both of these projects still "exist", and that they are even flourishing and continuing to contribute to the well-being of the local community. At the same time, we have trained a number of researchers/lecturers who have had a lasting knock-on effect. Not only have I made a lot of friends during the projects, but the projects have also triggered research in our laboratory in Leuven and produced PhDs and publications.

VLIR-UOS is unique as it enables cooperation between all universities. It is only the quality and impact of the projects that count, with no distribution codes or contingents between Flemish universities and fields. There is good cooperation with the federal administration and no intervention from rectors and politicians. The biggest achievement is that VLIR-UOS still exists, and that it keeps striving towards quality and development relevance."



A Project Cycle Management (PCM) workshop.



A group picture at the first IUC Partner Council in 1999.



1999

- Creation of the Bureau UOS: The Flemish rectors delegate the responsibility for university cooperation for development to a specific board composed of academics with knowledge of and experience in university cooperation for development, one per Flemish university.
- Introduction of the Project Cycle Management (PCM) Methodology: In order for projects to develop a project idea, starting from a problem tree and needs assessment with stakeholders, PCM was introduced in university cooperation for development. This not only allows for thorough planning but also enables baseline setting so that the project can be more easily monitored and evaluated.
- First IUC Partner Council: VLIR-UOS invites a
 high level delegation from several IUC partner universities to Brussels to discuss the
 formal framework of the IUC Programme,
 as well as to share information and experiences and to look for synergies and
 opportunities for cooperation.

Jean Berlamont

The promotion of the first VLADOC student, Raf Aerts, in 2006.

2000

The VLIR-UOS mission statement is formally approved by the Flemish rectors, identifying the mission of university cooperation for development as well as the specific cooperation format and its key values.

2002

Start of the South Initiatives

2003

- First IUC review: The set-up of new IUC programmes is changed with the intake of three new programmes (Universidad Central de Las Villas, Cuba, Mekelle University, Ethiopia, and University of the Western Cape, South Africa).
- Start of the VLADOC and ICP PhD programmes
- Access is given to the Flemish university colleges to a set of VLIR-UOS programmes on the basis of competition.





Leen Verstraelen

- Focal point for VLIR-UOS within DGD in Mozambique and Tanzania from 2004 to 2010
- Focal point for VLIR-UOS within DGD in Belgium for VLIR-UOS projects from 2011 to 2017

"I got to know the VLIR-UOS programmes in Ethiopia, where I met Seppe Deckers from KU Leuven as a passionate mentor of the Ethiopia programmes. I also saw a group of Ethiopian students leave for their Master studies in Belgium. Afterwards, in Mozambique, I saw the work of VLIR-UOS within the IUC programme at Eduardo Mondlane University, with yet another passionate mentor in the person of Marleen Temmerman from Ghent University. Later on, in Saadaani in Tanzania, I got to know Tanzanian and Belgian students being passionately mentored by Herwig Leirs from the University of Antwerp, and I also got to know the Tanzanian professors of Sokoine University.

What makes VLIR-UOS unique is its people, their openness and enthusiasm, their dedication and motivation. 'Sharing minds, changing lives' is not just another slogan, but it is definitely put into practice within all VLIR-UOS projects and programmes.

Afterwards, I worked at the Directorate-General for Development Cooperation and Humanitarian Cooperation, with responsibility for monitoring all VLIR-UOS programmes. I also got to know all VLIR-UOS employees in Brussels, and they shared the same dedication. It is not one project or achievement that makes VLIR-UOS an 'actor of change' or VLIR-UOS students individual changemakers in their own context, but all programmes and projects together – the big impact of exchange and the change instigated in the lives of young people. Congratulations on 20 years of efforts and enthusiasm! Keep on sharing







Paul Janssen

- Bureau UOS member from 2007 to 2019
- VLIR-UOS Chairperson from 2015 to 2019
- Hasselt University (UHasselt)

"University cooperation for development has added an extra dimension to my academic career. It has taught me to think in a concrete way and to help implement, first, the Millennium Development Goals and afterwards, the Sustainable Development Goals (SDGs). Not only has university cooperation for development broadened my academic thinking, it has also added extra colour to it

Based on a project portfolio, VLIR-UOS initiates projects about academic capacity building at the level of both education and research in partner countries. In conversation with Flemish colleagues, academic partners from the South determine high-

priority project content to achieve the capacity building desired. A commission of external experts assesses the submitted project proposals based on scientific quality, development-relevance and expected impact. They select the highest-ranking projects. Within the academic world, this way of working is common, but within university cooperation for development — if you compare this to our neighbouring countries — it is a unique and important way of working.

At UHasselt, I have been promoter of the International Master Programme in Biostatistics for 25 years. Thanks to this programme, which now has my colleague Niel Hens as promoter, we have been able to train hundreds of statisticians who are indispensable for building research capacity in partner countries.

Together with these partners we developed course material for, among others, Jimma University (Ethiopia) and Anton de Kom University (Suriname). A lot of PhDs have been mentored at the Centre of Statistics to find answers to development-relevant questions.

It has been a privilege to be able to contribute to the policy of VLIR-UOS, for twelve years as a Bureau UOS member, and for four years as Chairperson. Awarding five honorary degrees, one per Flemish university, as a celebration of twenty years of VLIR-UOS has been a very strong statement from the Flemish universities that they consider university cooperation for development to be part of their core business. Given the SDGs, this is a strong and crucial statement – something the word 'universitas' truly stands for."





VLIR-UOS and the Conseil interuniversitaire de la Communauté française de Belgique (CIUF, now: ARES - Walloon sister organisation of VLIR-UOS) launch a common policy and programme for university cooperation for development with DR Congo with a joint limited list of seven partner universities, with "désenclavement" (opening up the universities to the world) and "relève académique" (growing a new generation of academics) as overarching goals.



2007

- Hasselt University becomes full member of the Bureau UOS.
- Creation of a VLIR-UOS country office in Kinshasa, DR Congo, headed by Thierry Foubert, who was replaced in November 2008 by Kathleen Wuytack. The office was closed in 2013.





VLIR-UOS organises an IUC Policy Workshop in Brussels in the context of its ten-year existence, providing a platform to all IUC stakeholders both from Flanders and the partner countries, the Directorate-General for Development Cooperation and Humanitarian Aid and other actors of the Belgian development cooperation to discuss how to strengthen the south-south(-north) partnership concept and the international IUC community.







Christophe Goossens

- Programme Manager since 2008
- VI ID-LING

"VLIR-UOS is unique as it combines academic cooperation with development cooperation. All countries need elites, be they political, economic or social, men and women who have an outstanding education and in turn use their skills to the benefit of their community. This goal is especially important in partner countries given their need for highly educated people. As such, VLIR-UOS is elitist while being fully inclusive.

My admiration goes out to the architects of the VLIR-UOS concept and toolbox, its philosophy being translated into a myriad of projects and programmes where potential partners, be they individuals, institutions or even nations can choose according to their specific needs and challenges. These formats are still very much up to date and the most effective answer to the needs of our partners, both in Belgium and in the partner countries. And that has been a success story for more than 20 years now

My best memory is the massive goodwill within the academic world for supporting university cooperation for development, volunteers who spend much of their time and energy in sharing minds and thus creating better lives."

A political agreement is signed by the Belgian Minister for development cooperation, the Flemish Interuniversity Council (VLIR) and the Academy for Research and Higher Education (ARES) relating to the reform of university cooperation for development focusing on maximising impact through concentration and cooperation. This leads to a reduced country list of twenty countries, among which seven countries common to both VLIR-UOS and ARES, and to the start of VLIR-UOS country strategies.



Patrick Blondé, the first representative for the university colleges within the Bureau UOS.



- Creation of a VLIR-UOS country office in Ethiopia, headed by Hans Bauer. It was closed in 2013.
- University colleges become full member of the Bureau UOS. As of 2010, they have one formal representative representing all Flemish university colleges within the Bureau UOS.







An exposition of the Flemish network of trauma and transformation expertise and projects was organised in 2013, as part of the Peace Symposium, organised by the Flemish government in the run-up to the commemoration of the Great War, to which VLIR-UOS contributed.

2011

 VLIR-UOS country strategies: VLIR-UOS formulates a first batch of country strategies, starting with five countries: Cuba, Ecuador, Tanzania, Uganda and Vietnam.



After the closing in 2008 of the first batch of IUC programmes and corresponding end-of-programme evaluations, a review is made of the IUC programme, led by external experts, and with the contribution of all stakeholders. The IUC review leads to the creation of the NETWORK intervention type, a national level institutional network led by a former IUC partner institution.



2013

- Contribution by VLIR-UOS to the creation of a Flemish network of trauma and transformation experts.
- University cooperation for development is at risk because, due to budget problems, some political parties want to stop the federal funding of university cooperation for development to VLIR-UOS and ARES, leaving the responsibility to the communities, with no transfer of budget from the federal government to the communities, with degressive funding in 2013 (67%) and 2014 (33%), aiming at a complete stop of federal funding in 2015. On 8 May 2013, many academics, students and scholars protest (see p.246). In September 2013 a solution was found for the budgetary problems, and all parties recognise that development cooperation is a parallel responsibility.







On 8 May 2013, many academics, students and

Reform of the VLIR-UOS project selection system: the project selection system was revised whereby a generic set of six selection criteria has been used since then, in combination with fit within country strategies. The regional selection commissions are composed of external experts with different backgrounds in terms of academic and international expertise.

2015

- Federal Minister of Development Cooperation
 Alexander De Croo refers to university cooperation for
 development as "best practice" in his 2015 policy note.
- As a lesson learned from the 2013 crisis, VLIR-UOS realises that accessible communication about societal problems and research results is key to a better understanding by civil society of the added value of university cooperation for development. VLIR-UOS publishes the report "How to get the research out there?" and organises training workshops in this field, both in Flanders and in partner countries. Just like the website "Study in Flanders", VLIR-UOS enabled the creation of these tools, which are now continued independently from VLIR-UOS.

2015-2016

Federal minister for Development Cooperation Alexander De Croo creates a new formal framework for all Belgian Actors of Non-Governmental Cooperation, to be launched on 1 January 2017, focusing yet again on maximising impact through a reduced country list, focusing on synergy, complementarity and cooperation that should be enabled through 33 Joint Strategic Country-based Frameworks.

A Joint Strategic Framework is a document containing a context analysis and a description of the priorities for the Belgian non-governmental development cooperation in a partner country, proceeding from the national development priorities.



The Directorate-General for Development Cooperation and Humanitarian Aid formally accredits VLIR-UOS as Institutional Actor for 2017-2026 with a high score of 83%. The Institutional Actors are one of the two groups within the Belgian Actors of the Non-Governmental Cooperation.



2016

Inge Vandevyvere

- Programme Manager since 2016
- VLIR-UOS
- Focal point for Gender

"Four years ago, I experienced my biggest crisis in working in the development cooperation sector. I simply couldn't believe that it was making a difference anymore. I was at a turning point in my life, ready to give up on the entire sector and make a full career switch. Out of the blue, however, an opportunity to work at VLIR-UOS came up. I really believed — and I still do — in the partnership model that VLIR-UOS stands for, and I was willing to give development cooperation another chance. Now, four years later — a record for me staying with the same employer —, with each new story of people involved in our projects and scholarships, I realise that we are still unaware of a major part of our achievements with these partnerships."

- VLIR-UOS moves to its new offices at Julien Dillensplein, becoming the neighbour of VVOB and FIABEL.
- Belgian Queen Mathilde visits Hasselt
 University, listening to impact stories of both scholars and academics from Flanders and partner countries.

2017

Sofie Ignoul

- Institutional Coordinator for Development Cooperation (ICOS) since 2017
- Hasselt University (UHasselt)

"My personal passion for development cooperation and universities and research means that I like working for VLIR-UOS. The fact that we train young people who will determine the future is something very important in development. As I work for the entire university and don't specialise in one field, I have a bird's eye view. For example, I see one faculty looking for contacts in Vietnam and another faculty that has contacts in Vietnam and I bring them together. You get to know a lot of people, you get to know many cultures. The combination of a university with development cooperation is great."

Anouk Courtin

- Communication Advisor since 2017
- VLIR-UOS

from our corporate film stuck:

"We don't just fund projects and scholarships, we fund change."

This last word, 'change', captures the essence of our story, the thing that makes us unique. Our model, which, by the way, is quite unique in the world, enables you to generate impact in the long term and for various generations.

When it comes to communications, I think we are at a turning point for VLIR-UOS. We are increasingly realising that we should focus more on our impact stories and that we should share good and bad practices among the VLIR-UOS community. As we speak, we are finalising a new vision statement and a communication strategy that will provide us with guiding communication principles that should create more impact for university cooperation for development. Watch this space..."





Belgian Queen Mathilde visits Hasselt University

2017

- Start of the 2017-2021 Five-Year Programme of VLIR-UOS, with Global Minds as a new programme, and the ICP International Master Programmes being funded for the development and implementation of a strategy to strengthen the 'South dimension' of the programmes, and a new country list of twenty partner countries.
- The VLIR-UOS Monitoring and Evaluation (M&E) system is formally accredited by the Special Evaluator for Development Cooperation.
- VLIR-UOS starts using the Theory of Change in the planning, monitoring and evaluation of projects and programmes. This tool clarifies what the project goal is, why it is the goal and how it can be achieved within a particular context. First, the desired long-term goals are identified, after which a retroactive list is made of all conditions needed in order to realise these goals and how they relate to each other.



The Special Evaluator for Development Cooperation assigns an impact evaluation of university cooperation for development on the basis of both VLIR-UOS and ARES projects. The results of this evaluation provide strong evidence that the interventions of Belgian university cooperation for development, with funding from VLIR-UOS and ARES are effective and contribute to the intended impact, in both academic and societal terms. In addition, the results indicated that interventions of the Belgian university cooperation for development have been particularly good in strengthening the research and educational capacity of partner universities in the South.



2018

Tania Braems

- Attaché at the Directorate-General for Development
 Cooperation and Humanitarian Aid
- Focal point of VLIR-UOS within DGD

"The university cooperation for development by the Flemish Interuniversity Council (VLIR-UOS) has had ar impact on the lives of hundreds of students, professionals and academics because of its projects and partnerships with universities and university colleges all over the world. The academic and societal impact of the VLIR-UOS programme should not be underestimated, and it is an important vehicle for knowledge and expertise sharing and dissemination. Through the programme VLIR-UOS is supporting research for addressing global challenges. In its 20 years of existence, VLIR-UOS has proved to be a proactive, reliable and valuable partner organisation of the Belgian development cooperation."



2019

- The five Flemish universities pay tribute to an important player from developing countries by awarding a honorary degree to each of them in the first joint ceremony of its kind. Through this joint activity, the five universities are making a clear statement about their societal commitment to the Sustainable Development Goals and to international solidarity-based cooperation. With the joint ceremony, the Flemish universities confirm that cooperation is the best way to pool expertise.
- Thematic evaluation: This evaluation focused on a sample of concluded VLIR-UOS departmental projects (South initiatives and TEAM projects) and had two main objectives. First, it aimed to develop a clear conceptual framework that clarifies different potential strategies linked to creating the conditions for uptake of new knowledge, services and/or applications. Second, the evaluation assessed the effectiveness and impact of a sample of VLIR-UOS supported departmental projects (including field visits to nine projects). This evaluation will help VLIR-UOS and the interventions it supports, to create more societal impact in the future.

Celebrating 20 years of VLIR-UOS, all five Flemish universities award an honorary degree to an extraordinary person in the field of university cooperation for development in 2019, in the first joint ceremony of its kind (here: Leymah Roberta Gbowee).















Thanks to all of you

t has been a privilege, and pleasure, to be part of the VLIR-UOS community for so many years already.

Global challenges and societal responsibility

University cooperation for development is not about money changing hands, but about ideas changing minds. VLIR-UOS is much more than just a funding agency. VLIR-UOS is an international network of experienced and committed academics, researchers, institutional coordinators, university staff, students, ... beyond the borders of institutions, disciplines, languages, countries and continents. It is about academics trying to respond to needs of society by setting up innovative partnerships, with the ambition and the expertise to make a difference in the South, and while doing so, also adding relevance and quality to higher education in Flanders. It is a platform for kindred minds to meet one another in a joint vision,

and a joint commitment to that vision. It is not about getting the biggest share of the budget, or about being the best university or academic. It is about jointly taking up, as universities, academics and individuals, our societal responsibility and about joining forces, sharing knowledge, experience and networks as the best possible way to meet the local and global challenges of science, society and the world. It is about cooperation, as a means to a goal, but also as a goal in itself.

Kindred minds: responsibility, commitment, passion, impact, hard work and fun

VLIR-UOS. It is not only about projects and scholarships, but also about people. Sharing minds, changing lives; it equally means: sharing lives and changing minds. We share a common commitment and goal, we share passion, drive and hard work to jointly make a difference in society. A joint goal that everyone aims

Berhe, the Ethiopian man that got a steady job as a driver at Mekelle University, and his wife called their babygirl "Vlir" to refer to the life changing opportunity they got thanks to the VLIR-UOS funded IUC programme © Seppe Deckers



for - trying to contribute to a better world for everybody - that mobilises people and creates togetherness. Creative and innovative talent and motivation, from many countries, institutions, people, all pooled for a shared ambition. While doing this, we work and live together; we share lives. So we also share happiness and loss in each other's lives. We celebrate life, birth and death, we celebrate birthdays and marriages, but we also support those who fall ill, or who lose their beloved ones ... VLIR-UOS impacts society through projects and by grooming agents of change, and while doing this, it also impacts the life of individual people. For instance Berhe, driver at Mekelle University. Berhe was so happy with the steady job of driver that he got thanks to the IUC programme that in 2011 he and his wife decided to have another child. They called their baby girl "VLIR", to show their gratitude to VLIR-UOS and the opportunities created through the IUC programme. We all felt impressed and flattered by

this symbolic acknowledgement to VLIR-UOS.

So yes, we share a common goal, and we all work hard to make the world a better place to live in, but while doing so, we also like to have a lot of fun and celebrate life! VLIR-UOS is an international network of kindred minds, many of whom have become also friends for life!

Everlasting linkages

Over the 20 years, times have changed. Many people have become part of our network: they have started working at the VLIR-UOS secretariat, started functioning as Bureau UOS members, started working at the Flemish or partner institutions, or got involved in a VLIR-UOS funded project. Many have joined our network, some have left for another job or on pension. But most of them still keep in touch with this network of kindred minds by attending events or in one way or another. Once you have entered the VLIR-UOS network, you remain part of it.

So I am proud. And grateful. For what VLIR-UOS is. Does. Enables. Realised. For the impact on me, as a professional, but also as a person. VLIR-UOS, it has been my child for already many years.

But I am also humble. When I look at the diversity of our network, the talent and expertise of so many academics, scholars, students, staff members ... And grateful. To be able to work with you all, to be able to learn from you, to be guided personally when on mission, to be given access to dreams and ambitions, to stories about successes but also failures. To witness what all these academics do and realise, to explore parts of the world, and to contribute to making it a better and more sustainable world. And to be able to be part of the global VLIR-UOS network!

Thanks to all of you,

Kristien Verbrugghen VLIR-UOS director since 2005

VLIR-UOS intervention types

Glossary

Crosscutting projects

Crosscutting projects were selected as part of the broader IUC programming framework (ex ante 2017), targeting international thematic cooperation (North-South-South projects) and transversal programme-wide support (transversal ICT/library/statistics initiatives, Close the Gap Outreach projects). This intervention type was integrated into the new intervention type JOINT as of 2017.

Global Minds (as of 2017)

Global Minds aims to strengthen and deepen the capacities and knowledge of Flemish universities and university colleges in the area of development. For this end, different institutions select and deploy strategic niches/ themes that are relevant to the Belgian development cooperation. This capacity building is necessary to implement effective university cooperation for development with other stakeholders, and hence to contribute to facing development challenges in the South.

Institutional University Cooperation (IUC)

Institutional University Cooperation (IUC) programmes are long-term institutional partnerships between a university in the South and the Flemish universities and university colleges in Flanders. The general objective of Institutional University Cooperation is "Empowering the local university as

institution to better fulfil its role as development actor in society". This means that an IUC envisions not only a contribution to developmental change—linked to different academic priority domains— outside the university but also a change process within the university leading to improved performance of the Higher Education Institution in a number of institutional priority domains.

International Master Programme (ICP)

VLIR-UOS has been supporting one to two year development relevant Master programmes at the Flemish universities with funding, that took the form of incremental funding since 2017. This funding is aimed at supporting the ICPs to gradually strengthen/build the South dimension of the programme in terms of content, mobility of staff and students and didactics, through cooperation with partners in the global South and co-creation and exchange of knowledge and expertise. The courses mainly focus on participants from Africa, Asia and Latin America and are taught in English. Scholarships are granted to students to enable them to participate in the programme.

ICP PhD programme (last intake in 2015)

The ICP PhD programme aims (aimed) to institutionally strengthen universities or research institutions in the South through capacity

building, by upgrading local academic personnel at these research institutes or universities on the basis of the granting of individual PhD scholarships to ICP graduates. With the ICP PhD programme, VLIR-UOS grants eight to ten PhD scholarships every year to excellent Master graduates from Africa, Asia and Latin America who have studied in a VLIR-UOS funded International Master Programme (ICP) in Flanders and wish to obtain a PhD at a Flemish university. The research should be carried out on a development-oriented subject, in a so-called sandwich programme. This means that the research and doctoral programme is geographically spread over two locations, namely the academic home institution and a Flemish university, and that the PhD student has a Flemish and a local PhD promoter.

International Training Programme (ITP)

With the International Training Programme (ITP), funding is provided to practical trainings of two weeks to three months on a development-oriented subject at a Flemish university or university college. The trainings mainly focus on participants from Africa, Asia and Latin America and are taught in English. ITP participants are professionals with relevant professional or research experience and possess at least a bachelor's degree. Scholarships are granted to the targeted

trainees to enable them to participate in the programme.

JOINT (Inter)national Academic Networking (JOINT - as of 2017)

JOINT stands for Joint (Inter)national Academic Networking. This kind of project is initiated at departmental level, but provides networking opportunities at a national and/ or international level as well, so that ideas and concepts for development change can be cross-fertilised. Projects are often of a different, less scientific nature and focus primarily on the exchange of joint ideas, the creation of (inter)national alliances or tools or focus on domains of transversal expertise/ support that are important to all academic projects in a given country or regional setting. The projects might also focus on university policy and management themes and are often multi-actor projects which start from synergies between our different interventions and actors. JOINT projects can also involve third parties.

Network University Cooperation (NETWORK - as of 2013)

A Network University Cooperation programme is a national level institutional network led by a former IUC that focuses on a priority theme within the country strategy (nationwide need-based) and that builds on previous

cooperation experiences. The programme is about multiplying and levelling up capacity building efforts. In fact, a NETWORK aims to empower local universities to join forces and to work together in order to contribute to national goals in higher education and development.

Policy supporting research (PSR)

Policy supporting research delivers research output on specific themes of interest to Belgian development cooperation on demand of the Belgian government. The goal is to improve the relevance and performance of Belgian development cooperation policy with regard to the international framework of sustainable and inclusive development. PSR is set up to meet the needs of the Belgian development cooperation administration, the Directorate-General for Development Cooperation and Humanitarian Aid (DGD). The aim is to deepen the knowledge on themes that are of prime importance for the Belgian development cooperation, linked to building knowledge and capacity of DGD.

This type of policy supporting research funding programme has existed since 1995, under different names, such as O-platforms, ACROPOLIS, ...

VLIR-UOS organises PSR together with ARES, so all Belgian universities are considered.

South Initiative (SI)

for development.

South Initiatives are short-term projects with a limited budget, initiated by academics/ lecturers at a university, university college or a (national) non-profit research institute in a developing country in collaboration with academics/ lecturers in Flanders. Other civil society actors in the South can be involved as well, but only as a supporting partner and not as an applicant or a formal co-promoter. We distinguish 'seed funding' for new partnerships and 'harvest funding' to enhance the impact of earlier projects.

SI can also be particularly interesting for young academics to get acquainted with higher education cooperation

Cooperation between departments in Flanders and the South (TEAM)

A TEAM project is a four-year departmental level cooperation project focusing on specific development themes. This kind of project aims at strengthening the research and/or educational capacity in a specific thematic domain and usually focuses on one department in one (sometimes more than one) partner institution(s) in the South. Teams in both the

North as well as in the South collaborate in a unique partnership addressing region-related challenges and offer local solutions in the concerned region/country, which are provided by assuring the right conditions for the uptake of new knowledge, applications or services. A TEAM project very often builds upon earlier exploration or contacts through our organisation (South Initiatives (SI), a scholar who returns to his or her home institution) or other cooperations and deepens the academic/scientific collaboration.

Travel Grants (REI)

Students from the European Economic Area (EEA) who are enrolled at a Flemish university or university college can apply for a Travel Grant. This grant provides limited financial support for an internship or a research stay in one of the VLIR-UOS partner countries. Flemish students get the opportunity to acquire specific global citizenship competences and to become more aware of global challenges through an internship or a research stay in a partner country and the practical experience and exposure that go along with it. Creating the necessary conditions to ensure that Travel Grant students leave well prepared and are properly supported upon their return are an important part of the scholarship

programme and help students to capitalise on their experience.

Since 2017, this type of grant has been part of the universities' Global Minds programmes. The Flemish universities and university colleges are responsible for the selection and management of these grants.

VLADOC PhD scholarships (last intake in 2016)

VLADOC PhD scholarships (VLAamse DOCtoraatsbeurzen) are (were) awarded to PhD students from EEA (European Economic Area) countries who are affiliated to one of the Flemish universities. The scholarship scheme created a funding option for high-quality research in development cooperation for EEA Master graduates in order to generate academic expertise that provides an answer to an identified need/development problem in one of the VLIR-UOS partner countries and to rejuvenate the group of experts in development within the Flemish universities, thereby keeping the development topic on the research agenda of the Flemish universities.

Colophon

VLIR-UOS — which is part of the Flemish Interuniversity Council (VLIR) — is the platform through which Flemish universities and university colleges pool expertise and efforts and work together in the context of university cooperation for development. VLIR-UOS supports partnerships between universities and university colleges, in Flanders and the South, that are searching for answers to global and local challenges. It is an international network of experienced and committed academics, researchers, institutional coordinators and students working across the boundaries of institutions, disciplines, languages, countries and continents.

Funded by the Belgian Federal Government, VLIR-UOS is the main sponsor of partnership projects between academics from Flanders and partner countries, as well as of scholarships for students and professionals from both Flanders and partner countries. These partnership projects aim at improving the research and educational performance of local higher education institutions through capacity building, while at the same time developing innovative solutions (new knowledge, applications or services) to global, developmental problems.

Through these partnerships, higher education institutes evolve into key actors that shape the economic and societal systems in their countries. The support to relevant, high-quality educational programmes in Flanders (e.g. by providing scholarships) not only allows VLIR-UOS to support future changemakers, but also contributes to the globalisation and quality of Flemish higher education.

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