

VLIR-UOS

Flemish University Council –
University Development Cooperation



Country evaluation Vietnam



Jan Visser & Trinh Quoc Lap

May 2011

sharing minds, changing lives

DISCLAIMER

This report represents the views of the Vietnam Country Evaluation Commission, and does not necessarily reflect the opinion of VLIR-UOS. The Evaluation Commission bears the sole responsibility for the report in terms of its content.

ACKNOWLEDGEMENTS

The evaluation study documented in this report benefited greatly from the cooperative attitude of the many people, both in Belgium and in Vietnam, who made themselves available to be interviewed. In the case of multiple projects in Vietnam, interviewees invited relevant members of their communities of practice to enrich the conversations, allowing diverse aspects of project implementation and attained impact to be brought to light. Where possible, project coordinators in Vietnam took pains to accommodate our insistence to see the evidence with our own eyes and appreciate the impact created by the projects they had been responsible for. Such site visits were important to us not only for the verification of evidence but also to allow us to develop a feel for the, not always easy, context in which project implementation had taken place. We are most grateful to all those who helped us in carrying out our research.

Thanks are due to VLIR-UOS for organizing the interviews with Flemish researchers in Brussels and to give us access to documentation that allowed us to develop insight into the history of the various projects. The selection of project cases made by VLIR-UOS for the interviews in Brussels allowed us to develop a balanced view of the relative importance of projects of different sizes. We are also grateful for their responses to requests for clarification that came up as our research gradually took shape.

The Belgian Embassy and Can Tho University kindly hosted reflective review meetings in Hanoi and Can Tho, respectively. We are grateful for their hospitality.

Finally, we are grateful for the comments and formative feedback received on a draft version of this report. It helped us make corrections and improve the formulation of a number of passages. Some of the reactions received are attached in Appendix XII.

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May 24, 2011

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LIST OF ABBREVIATIONS

ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
BBC	British Broadcasting Corporation
BTC	Belgian Technical Cooperation
CERN	European Organization for Nuclear Research
CES	Centre for Environmental Sanitation at UGent
CIUF	Conseil Interuniversitaire de la Communauté française (Interuniversity Council of the French Community of Belgium)
CPRGS	Comprehensive Poverty Reduction and Growth Strategy
CTU	Can Tho University
CTU-IUC	Institutional University Cooperation project with Can Tho University
CUD	Centre Universitaire au Développement (University Development Center)
CVVI	Central Vietnam Veterinary Institute
DGDC	Directorate-General for Development Cooperation [recently renamed Directorate-General for Development (DGD), the Belgian Development Cooperation]
ECVP	East Central Vietnam Program (providing scholarships for study abroad relevant to the development needs of the East Central Vietnam region)
FEA	Front-End Analysis
HCMC	Ho Chi Minh City (also HCM City)
HUST	Hanoi University of Science and Technology – Formerly called Hanoi University of Technology
HUT	Hanoi University of Technology – Now called Hanoi University of Science and Technology
HUT-IUC	Institutional University Cooperation project with Hanoi University of Technology
IAS	Institute of Agricultural Science
ICP	International Course Program (a VLIR scholarship program)
ICT	Information and Communication Technology
IEBR	Institute of Ecology and Biological Resources
IIC	Institute for Industrial Chemistry
IUC	Institutional University Cooperation
KOI	Korte Opleidingsinitiatieven (Short Training Initiatives – a VLIR-UOS program)
K.U.Leuven	Katholieke Universiteit Leuven / Catholic University of Louvain
LDI	Learning Development Institute
M&E	Monitoring and evaluation
MHO	Medefinanciering Hoger Onderwijs (Joint Financing Program for Cooperation in Higher Education (the predecessor of NPT, see below)
MK1000	Me Kong 1000 (scholarship program for study abroad, catering to the needs of regional development of the Me Kong Delta)
MOET	Ministry of Education and Training
MOST	Ministry of Science and Technology
MSU	Michigan State University
NA	Needs Assessment
NESO	Netherlands Education Support Office
NGO	Non-Governmental Organization
NICHE	Netherlands Initiative for Capacity building in Higher Education

NIVR	National Institute for Veterinary Research
NPT	Netherlands Programme for the Institutional Strengthening of Post-secondary Education and Training Capacity (the predecessor of NICHE, see above)
NS	North-South (as in North-South cooperation)
NSS	North-South-South (as in North-South-South cooperation)
NSSCP	North-South-South Cooperation Program
NUFFIC	Netherlands Organization for International Cooperation in Higher Education
ODA	Official Development Assistance
OECD	Organization for Economic Cooperation and Development
OI	Own Initiative
OPCW	Organization for the Prohibition of Chemical Weapons
PCM	Project Cycle Management
R&D	Research and Development
RIA	Research Institute for Aquaculture
RIA1	Research Institute for Aquaculture 1 (based in Bac Lieu near Hanoi)
RIA2	Research Institute for Aquaculture 2 (based in Ho Chi Minh City)
RIA3	Research Institute for Aquaculture 3 (based in Khanh Hoa province, in central Viet Nam)
RIP	Research Initiatives Program
SEA	Strategic Environmental Assessment
SI	South Initiative
SS	South-South (as in South-South cooperation)
STI	Short Training Initiative
UGent	Universiteit Gent / Ghent University
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UOS	Universitaire Ontwikkelingssamenwerking (University Cooperation for Development)
VAST	Vietnam Academy of Science and Technology
VIED	Vietnam International Education Development (scholarship program run by the Ministry of Education and Training for study abroad)
ViFINET	Vietnam Fishery & Aquaculture Institutional Network
VLIR	Vlaamse Interuniversitaire Raad (Flemish Interuniversity Council)
VUB	Vrije Universiteit Brussel / Free University of Brussels
UN	United Nations
WES	West-East-South (as in West-East-South cooperation)
WTO	World Trade Organization

PREFACE

The history of Official Development Assistance (ODA) starts in 1944 with the Bretton Woods Conference.* In the years after World War II it was followed, first by the United Nations Conference in San Francisco in which representatives of 50 countries drew up the Charter of the United Nations, and subsequently by the creation, over the time span of several years, of the various organs of the UN system.

The UN General Assembly launched in 1961 the first UN Development Decade which had as its major goal to attain a minimum annual growth rate of 5% in aggregate national income by the end of the decade. The goal remained largely unattained in most developing countries. The then Secretary-General, U Thant, noted that only a few countries had demonstrated that “given a favorable constellation of circumstances and policies, an adequate and sustained pace of development can be achieved.” Indeed, development assistance has turned out to be something more complex than initially thought.

Followed a Second (1970s) and a Third Development Decade (1980s). Despite lofty goal settings the results remained dismal, as illustrated by the fact that the number of countries designated by the General Assembly as ‘least developed’ had grown from 24 in 1972 to 47 in 1991.

During the 1990s, the Fourth Development Decade, the attention shifted gradually to the issue of poverty reduction. Resolutions were presented, by the Group of 77 and China, for a first United Nations Decade for the Eradication of Poverty. The proposed Decade had technically already started in 1997 and would thus end in 2006. In December 1999 the General Assembly voted to officially implement the Decade. It called on all nations to formulate and implement “outcome-oriented national strategies and programs” and set time-bound targets for poverty reduction. The Assembly further called on developed countries to strengthen their efforts to achieve the agreed target of 0.7% of their gross national product for overall official development assistance, and within that target to “ earmark 0.15% to 0.20% of their gross national product for the least developed countries.” The Assembly resolution highlighted the importance of strengthening the cooperation between developed and developing nations in order to “promote capacity-building and facilitate access to and transfer of technologies and corresponding knowledge.”† Unfortunately, the outcome of the Decade still remained poor. The meeting that closed the Decade considered that advances had been made but also that much still needed to be done.

Perhaps the most important outcome of the first United Nations Decade for the Eradication of Poverty was a change of consciousness, the recognition that “poverty is a multidimensional problem and that by focusing only on reducing income poverty, we fail to address its root causes. For example, we need to take people’s access to education and health care into account as well as their vulnerability and their lack of political influence. Over the past years, we have also come to realize the importance of governance, in particular the debilitating effect of corruption, on the effectiveness of poverty eradication efforts. In addition, the adverse impact of environmental degradation, notably global warming, on poverty reduction efforts is increasingly becoming the focus of attention. Therefore, strategies to fight poverty need to be comprehensive and address the entire range of factors that prevent poor people from escaping from the clutches of poverty.”‡ One

* Führer, H. (1994). *A history of the Development Assistance Committee and the Development Co-operation Directorate in Dates, Names and Figures*. Paris, France: OECD.

† Details regarding the various Development Decades excerpted from the *Encyclopedia of the Nations* (<http://www.nationsencyclopedia.com/>).

‡ Draft report of the meeting of 15 and 16 November 2006, held at United Nations Headquarters, New York, of the International Forum on the Eradication of Poverty: An inter-agency multi-stakeholder event to mark the end of the first United Nations decade for the Eradication of Poverty. The draft report is available at <http://www.un.org/esa/socdev/poverty/PovertyForum/Documents/forum.report.pdf>.

may take this conclusion of the International Forum on the Eradication of Poverty as a strong call to rethink development cooperation from the perspective of complexity and reconceptualize development strategies in terms of transdisciplinary approaches. In a sense, the recognition expressed in the above quote comes late. Late twentieth century science had long been aware that the way in which complex adaptive systems evolve cannot be understood in terms of simple linear mechanisms.

This is the historical backdrop and current setting against which we conducted the research presented in this report. Despite the continual reinvention of the concepts of development assistance and development cooperation, the world is still in search of their real meanings, meanings that reflect the staggering complexity of what is involved in changing the balance (or should we say imbalance?) of wealth in the world and within countries.

Notwithstanding the somber picture painted by the above historical analysis, we are cautiously optimistic by what we found in Vietnam, i.e., significant evidence of improved well-being in areas where previously poverty had reigned, and the surprising effectiveness of enduring personal relationships between committed and dedicated scientists. Perhaps Vietnam is one of those countries referred to by U Thant where “given a favorable constellation of circumstances and policies, an adequate and sustained pace of development can be achieved.” If so, Vietnam may be a prime opportunity for starting to play an important role in South-South and North-South-South configurations that link it to countries in the region as well as in Africa and Latin America where similar conditions and circumstances prevail. If not, there is still much that one can learn from Vietnam’s experience of collaborating in the domains of science and technological innovation with Flemish institutions of higher education and research. We hope that our report makes a modest contribution to such learning.

This report was written in different phases. Elements of it emerged first while doing our field work in the form of brief presentations about issues that we wished to discuss during review meetings. They tended to focus on preliminary conclusions and intended recommendations. A further and more complete iteration at this level emerged in preparation for a debriefing meeting held with VLIR-UOS officials in Brussels after completion of the field work. Feedback received in the process of these various meetings informed the next phase, the writing of a first draft of the report. The draft report was circulated and received further (both formative and corrective) feedback, which was taken into account in developing, during the final phase, the current version of the report. It should be noted in the above regard that references to documentation available on the World Wide Web are dated to the time of writing, i.e. in most cases late 2010.

Key issues in the report, such as impact, sustainability, relevance, effectiveness and efficiency, are being addressed throughout the report and not just under the headings that mention these words explicitly. To facilitate selective reading of the report we have added an ‘index of page references for key concepts and issues’ at the end of the report (Page 50). While we hope this will be found to be a useful tool, we also recommend reading of the report in full. To make that feasible we kept the report deliberately short and furthermore tried to ease reading by including pictures and vignettes.

In respectfully submitting this report to VLIR-UOS and its community of researchers and development practitioners, we express the wish that it may help its users in their pursuit to address the extraordinarily complex development challenges that continue to haunt humanity.

JV-TQL

ABOUT THE EVALUATION COMMISSION

The evaluation commission charged with the evaluation of the VLIR-UOS program activities in Vietnam consisted of an international expert, Jan Visser (team leader), and a country expert, Trinh Quoc Lap.



Prof. Dr. Ir. Jan Visser is President and Senior Researcher at the Learning Development Institute (LDI), a not-for-profit headquartered in Jupiter, Florida, USA, and Professor Extraordinary at Stellenbosch University, South Africa. LDI promotes, facilitates and conducts globally networked research and development regarding human learning. Jan Visser is a theoretical physicist, trained at the Delft University of Technology, with research experience at universities in The Netherlands and Israel. Jan is also a well-known learning scientist, specialized in instructional systems design, with degrees from Florida State University. Four decades of his professional life have been devoted to improving the conditions of learning, work and living in the developing world. Higher education development has been a major part of that effort, to which he has contributed through teaching and training, as dean of faculty, resident coordinator of interuniversity cooperation, and as evaluator and adviser. He worked, among other organizations, with UNESCO, the Directorate General for International Cooperation of the Netherlands Government, UNICEF, the World Bank, and select international NGO's. Visser's research experience in two starkly disparate fields gives him a unique cross-disciplinary insight in processes of knowledge building best suited to understand and make decisions about complex issues—such as those encountered in international development cooperation—that transcend the boundaries of single disciplines. A former director and lifelong fellow of the International Board of Standards for Training, Performance and Instruction, he adheres to rigorous standards of disciplined inquiry in his evaluative research. Further details at <http://www.learndev.org/People/JanVisser/Index.html>.



Dr. Trinh Quoc Lap is Vice-Dean (International and Research) at the School of Education, Can Tho University (CTU), Vietnam. Lap studied educational sciences at the University of Amsterdam, The Netherlands, where he obtained a PhD in 2005. He has since taught courses at CTU on research methods in education and quantitative and qualitative data analysis to students at the Master level. As a manager, Lap has participated in developing, monitoring and evaluating collaborative projects between the School of Education at Can Tho University and other schools of education in South East Asia, aimed at introducing active teaching methods in higher education, changing the nature of initial teacher education programs, and reforming in-service teacher professional development in Southeast Asia. He also served as an external evaluator to the collaborative project “*Integrating of School Reform with Community Development in the Mekong Delta of Vietnam*” between Michigan State University (MSU) and CTU. Lap worked as visiting scholar, doing joint research in education with Australian and Thai researchers at the University of Sydney in Australia and Phranakhon Rajabhat University in Thailand, respectively. A senior educator, researcher and manager in a higher education institution in Vietnam, Dr. Trinh Quoc Lap is acutely aware of issues regarding the impact and sustainability of collaborative programs on individual, institutional, regional and national level.

Conflict of interest statement: Both researchers declare that they have no conflict of interest regarding the VLIR-UOS program under scrutiny in this evaluation or any of its components.

EXECUTIVE SUMMARY

This evaluation study focuses on the program of VLIR-UOS activities in Vietnam. In reporting on the study we are thus not concerned with individual projects as such but rather with the question how, together, projects have contributed to implementing the overall vision and mission of VLIR-UOS. In doing so, our emphasis is on the societal impact and sustainability of achievements attained. Our report reflects this perspective: it is not a collection of individual project evaluations but instead presents conclusions and recommendations relevant to the program as a whole.

The data collection was carried out from 7 to 11 June 2010 in Brussels and from 7 to 25 August in Vietnam. Analyzing the data and writing the report naturally took much longer and was spread over a period of months. The research covers a diverse representation of activities undertaken with VLIR-UOS funding during the fourth and fifth development decades, roughly from 1998 to 2007. For most of these activities at least a number of years had elapsed between their completion and the time when our program evaluation took place. This made it possible to gather evidence regarding post-project impact as well as to develop insight into the prospects of long-term sustainability.

Below we excerpt and summarize elements of the report relevant to the ‘fast track’ reader who is not too concerned with the detail of how we did the research and why we took particular routes to finding answers to our research questions. We thereby follow the structure of the report.

Context, background, and the nature of the VLIR-UOS program against the backdrop of the challenges at hand

Vietnam is a country in rapid transition. Since *Đổi mới*, the renovation drive set in motion by the Sixth Party Congress in 1986, the country has undergone spectacular economic growth while gradually transitioning from a centrally-led to a market economy. It strives to become a middle-income country in 2012 and has set its hopes on being an industrialized nation by 2020. The country has been a member of the Association of Southeast Asian Nations (ASEAN) since 1995 and joined the World Trade Organization (WTO) in 2007. Yet, Vietnam is still a poor country, with 21.5% of the population living on less than \$ 1.25 a day in 2006. Poverty reduction thus remains an important strategic development goal. Addressing the goal followed initially a strategy that relied on price subsidies. However, it has subsequently been replaced by a system based on targeted programs, aiming at market liberalization, recognition of private property rights and, ultimately, the emergence of a vibrant private sector economy. The heritage of centralized government and high levels of bureaucracy and corruption (both officially combated by Government) are complicating factors. The gradual replacement during the coming decade of a graying leadership that still represents past values by a younger generation that has been exposed to different values, particularly those from the West, is seen as an important potential contribution to a more complete system change in the country.

Education and training play an important role in the above context. Anyone participating in the effort of building capacity among young academicians, enhancing their scientific competence while giving them the opportunity to get exposed to diverse values and

different models of pedagogical interaction, is making a vital contribution to this process of transformation. The culture of learning and teaching in Vietnam is still firmly rooted in the Confucian tradition and the practice of rote learning of facts, thus hindering the development of mindsets that are oriented towards critical analysis and active participation in changing one's condition through the creative collaboration with others. The program of VLIR-UOS activities, which aims at 'Sharing Minds—Changing Lives' and is driven by the central idea of collaboration among scientists in the North and the South, is conceptually a perfect match for meeting the challenge. Our research has thus sought to evaluate the results and sustainable impact of the VLIR-UOS activities against the backdrop of the challenge at hand as described above.

Methods and their implementation

Our research is methodologically distinct from how our colleagues approached their task in evaluating, at different stages of their implementation, the various VLIR-UOS projects, either externally or from within (through self-evaluation). We considered that socio-cultural and economic impact—one of our two dependent variables, in addition to sustainability—is a phenomenon of great complexity that is most relevantly captured in narratives, rather than expressed in terms of quantitative indicators. Besides, just a few years after termination of projects the long-term sustainability of outcomes cannot simply be deduced from a momentary look at things. Rather, its prospects are revealed by the history of how a new reality came into being. Moreover, such new reality is seldom the result of the actions of a single actor. In addition, it is contingent on evolving circumstances. All these considerations render support to our argument that qualitative methods are best suited to our research.

Because of the methodological differences between the present and past reports, we provide a detailed seven-page rationale underlying our methodological considerations to allow readers to judge for themselves the validity of our conclusions. We do not here summarize, other than through what appears in the above paragraph, these methodological considerations, which can be found on pages 9 to 15 of the report.

Recording and reporting of findings

We report findings from three different perspectives: (1) what could be gleaned from researching the extensive documentation base to which we were given access by VLIR-UOS; (2) what emerged from interviewing Flemish representatives of VLIR-UOS projects according to a selection made by VLIR-UOS officials, a selection we subsequently found to have been representative of the existing diversity among projects of different scope and size; and (3) what was unveiled as we traveled through Vietnam from North to South and looked at the available evidence, spoke with those who had been involved in or benefited from projects, and held review meetings with groups of researchers, project coordinators and program secretaries representing different projects.

In line with the qualitative nature of our research, findings were recorded in the form of digital audio recordings of interviews and collected narratives; written field notes; and an extensive photographic record. In the body of the report these findings are presented, in addition to a written account of what we learned in the three aforementioned contexts, by way of vignettes and photographs dispersed throughout the report. We refer to the latter, easily visible elements, for a brief survey of cases of interest. Otherwise, the conclusions that follow reflect additional detail of our findings.

Major conclusions

Select major conclusions derived at in this report appear below in a summarized fashion.

On the whole, performance of the various projects and programs has met with considerable success, both as regards immediate outputs and results, and in terms of societal impact and sustainability, a statement that should be read against the backdrop of a broader reality in which contextual factors, including the work done by other actors, play an important role as well, which makes it difficult to isolate one's own role in the achievement of impact. That said, it is noted that the mix of very small, small, and big collaborative research events works very well, except that the administrative burden associated with the smaller collaborative events is disproportional to their size. The fact that there is choice allows researchers to opt for a project size that fits the scope of their proposed research. Over time, i.e. in a serial rather than a parallel manner, the different modalities of SI, OI, and IUC often interact with each other creatively and fruitfully, in ways that can be discerned after the fact but rarely predicted.

Greater impact, however, could have been attained had there been (1) more of a shared country oriented vision among the different partners involved; (2) a greater sense of being strategically together in collaboratively pursuing important societal goals; and (3) greater openness towards learning together from the experience each one has gained. For the latter to happen, a more serious attitude must emerge towards producing, sharing and using relevant knowledge for collaborative reflection and organizational learning, which requires taking a fresh look at the existing reporting/information exchange practice. For the former to happen shared awareness of a country vision and shared commitment to a country strategy are necessary.

Training of Vietnamese researchers at MSc and PhD level has been effective. Returning graduates occupy positions of importance in their various university departments and research centers that allow them to participate in existing research efforts or develop their own research as well as to transfer the benefits of their training to others through regular teaching, by conducting workshops, or in providing on-the-job guidance to their colleagues. Those with whom we spoke demonstrate a high level of enthusiasm and commitment. There are no doubt others for whom it worked less well. Lack of systematic student data made it impossible to draw a representative sample for interviewing. We spoke with those who were brought to our attention or whom we discovered through our own efforts. The opportunity sample thus created was well balanced in terms of gender.

While the training effort is clearly effective, it is not feasible to establish its cost-efficiency and cost-effectiveness. Many cost dimensions associated with the training, such as school fees that reflect the real financial value of the training offered to the students, remain hidden.

Building human capacity could gain in efficiency and effectiveness if in areas of interest that are shared across university departments—such as training for English language skills; pedagogical skills and attitudes; ICT skills; management skills; library skills; and essential skills, attitudes and values for the conduct of research of recognized value and validity—the capability to build and improve human capacity were embedded in organizational entities that serve the institution at large, such as a staff development unit or academic development center at a university. Further improvements could be attained by making better use of the potential of information and communication technologies as well as by exploring more fully opportunities for cross-donor collaboration. We furthermore conclude that most, but not all, training occurs in a traditional disciplinary

perspective. Considering the complex nature of development issues when looked upon from the point of view of desired socio-cultural and economic impact, we greet the existing openness among the scientists with whom we spoke towards transdisciplinary research and encourage further development in this direction.

The fact that much of the success of the cooperation depends on the personal involvement over long periods of time of willing members of the Flemish scientific community is both a strength and a weakness. It requires gradual replenishment of the pool of able and willing researchers. The program of Flemish Travel Grants, which allows Flemish students to get involved in collaborative research in developing countries, works well and is potentially a welcome contribution to strengthening the pool from which in the future researchers of the younger generation can be drawn.

Training of young Vietnamese researchers in Flanders is generally directly linked to the collaborative development and implementation of research at Vietnamese institutions and, in general, contributes to building a research culture and a research tradition. In a number of cases this results in financial benefits generated by the research. Such benefits provide important potential for reaching financial sustainability, which leads to the conclusion that a stronger focus on generating marketable products and services, though perhaps not always feasible, is recommendable. We caution, though, against short-term thinking that would make this principle an exclusive criterion for selecting proposed projects.

There are encouraging signs of South-South and North-South-South cooperation and networking, leading us to conclude that the time is ripe to develop a specific focus on these modalities of cooperation.

Two important concerns have remained largely ignored: (1) Needs Assessment and Front-End Analysis and (2) Organizational Learning and Reflective Practice. We deal with these two issues extensively in the report (see Index at Page 50 for page references in general and Recommendations 1 and 2 on Page 45 specifically). We make references to relevant literature and authors in Footnotes 60 and 61 on Page 45.

Overview of recommendations

Following is an overview of the recommendations that have emerged from our analysis. They are expressed here in the form of brief imperative statements. Further detail is available in the ‘Recommendations’ chapter of the report (pp. 45-49). Substantiation of these recommendations is to be found throughout the body of the report.*

1. Needs assessment and analysis of boundary conditions and context must precede design and development of projects and programs and preferably be revisited at relevant moments during the implementation phase.
2. Organizational learning and collective reflection on practice must be part and parcel of the implementation of interventions so as to ensure that socially relevant goals beyond limited project interests can be collaboratively attained in synergistic fashion.
3. Evaluation and monitoring practices, as well as the use of knowledge created through such practices, must be rethought from the perspective of creating opportunities for reflection on practice and learning at the organizational level.

* We have felt tempted to group these recommendations in categories with specific headings such as ‘program development’ (e.g. 1, 8, 10, 13, 14, 15, 23); ‘program implementation’ (e.g. 2, 4, 5, 6, 7, 9, 12, 16, 17, 18, 19, 20, 21, 22, 24); and ‘program evaluation’ (e.g. 3, 11), but realized that doing so might obscure the fact that all recommendations are part of a single holistic view, within which each of them interacts with all the other ones.

4. The potential of information and communication technologies must be explored more fully and more vigorously for the development of distance education/e-learning as well as for the networking of scientific institutions and individual scientists, both for the purpose of scientific communication and to facilitate project management.
5. Capacity building regarding issues that are of crucial importance in a university wide context (e.g. English language skills; pedagogical skills and attitudes; essential skills, attitudes and values for the conduct of research of recognized value and validity; ICT skills; and library skills) must be approached in a transversal fashion, affecting institutions at large, rather than single departments, allowing relevant capacity to become absorbed in central units (such as an academic development center) that serve the entire institution.
6. The development of a culture of learning and teaching must be given attention alongside the existing attention to developing a research culture so as to serve universities in a more comprehensive fashion, while leading at the same time to greater efficiency and effectiveness.
7. In addition to capacity building in research and education, attention must be given to university governance, particularly with a view to nurturing the next generation of leaders.
8. Effort must be employed to enhance Vietnam's validity and credibility for generating and facilitating SS and NSS networking, so as to broaden long term impact and improve robustness of the achievements attained by networked partners.
9. West-East-South (WES) partnership must be considered in cases where the East European experience of post-Soviet era transformation appears to provide interesting models for the transformative processes Vietnam is envisaging.
10. Inter- and transdisciplinary approaches, which explicitly include attention to the social and human dimensions of facilitating change in areas of development that are otherwise dependent on scientific and technological expertise, are to be favored.
11. Opportunities must be studied and, if found viable, explored to facilitate the diffusion of innovation that has proved successful in one geographical region to other relevant regions of the country.
12. The development and adoption of new technologies must be followed by studies of environmental impact as a matter of course.
13. Central Vietnam must get appropriate attention in efforts that aim at spreading the benefits of IUC Partner Programs beyond their current focus on two major hubs in North and South Vietnam.
14. The development of projects and programs, and their implementation, must be informed by an agreed vision regarding the development objectives of the country and a shared strategy for addressing identified and selected development goals.
15. Marketability of results of research must be one among multiple other criteria for judging proposals for research grants so as to make it more likely that the capacity to undertake research will contribute to financial sustainability of the research infrastructure, human as well as physical.
16. Selection of students for degree-oriented training in Flanders must be done, besides looking at their intellectual ability, by deep questioning regarding their motivations

and the values to which they adhere through careful interviewing and study of elaborate statements of interest and intrinsic motivation.

17. Students, selected for study in Flanders, must be offered participation in a pre-departure process of preparation—mentally, culturally, and in terms of English language competence—and be linked into networks of fellow students going through similar experiences, so as to facilitate acculturation, an effective start of their studies, and smooth integration in the academic environment.
18. Strong student and alumni networks must be developed and cared for (which can be based on some partial initiatives already underway), serving the post-graduation professional interests of network participants as well as the interests of Belgium.
19. Flexibility in choice of PhD training models (sandwich, full-time, hybrid) ought to be considered, allowing for better adaptation of the proposed study pattern to the circumstances of students and the nature of their proposed study.
20. Consideration must be given to studying possibilities for integration of VLIR-UOS funded scholarships with scholarship opportunities offered by Vietnam, so as to create equitable circumstances for all Vietnamese students studying at Flemish universities.
21. Support to stimulating and nurturing postdoctoral research should continue full force as it was found to have been effective in enhancing the research capability.
22. Improvements in recording relevant data—including keeping track of alumni and accounting for hidden costs associated with the cooperation—and safeguarding such data should receive serious attention so as to make it possible to gain better insight into the efficiency and effectiveness of the cooperation.
23. The size of budgets and appropriation of funds for IUC interventions should be determined in accordance with the scope of these interventions and the goals to be attained through them, rather than being based, as in the current practice, on a scheme of fixed yearly amounts.
24. Effective information exchange with agencies such as CIUF and NUFFIC, and exploration of possibilities for better coordination and synergy concerning the largely similar aims pursued by such agencies should be seriously considered.
25. Closer collaboration and effective alignment should be sought with agencies (bilateral, multilateral, civil society) active in the country and doing things that fall in line with the objectives pursued by VLIR-UOS, without losing sight of the need to retain diversity of approach among collaborating partners.

EVALUATION OF THE VLIR-UOS PROGRAM ACTIVITIES IN VIETNAM

with a focus on impact and sustainability

Introduction

Scope and purpose of the evaluation

The evaluation study documented in this report was commissioned by VLIR-UOS, the department for University Cooperation for Development of the Flemish Interuniversity Council. In accordance with the Terms of Reference (Appendix I), the focus of the study is on *impact* and *sustainability*. Furthermore, the study centers on the *program* as a whole rather than on the individual projects and activities undertaken in Vietnam as part of the VLIR-UOS program. This distinguishes this evaluation, and consequently the report, from previous exercises, which concerned individual components of the program. Vietnam is one of two countries, alongside Ethiopia, selected by VLIR-UOS for such a program evaluation study to be undertaken. Both countries are “representative of long lasting activity and partnership” (ToR, p. 9). The intended reflection on impact and sustainability of past activities in the two countries is meant to inform decisions regarding the future involvement of VLIR-UOS in the development efforts of the two countries concerned as well as in other countries where the presence of VLIR-UOS has so far been less prominent.

We present in this report an overall picture that expresses the significance of the totality of the assistance, small and big, provided by VLIR-UOS for the development of Vietnam over a period that lasted more than a decade. In doing so, we bring together our review of what has been documented in the past, when projects and other program components were assessed and evaluated, with what we learned from interviewing the various actors concerned and making our own *in situ* observations regarding the capacity created in individuals and institutions; infrastructure built; currently prevailing conditions; and the external impact of the cooperation. Based on the picture that emerges, we present conclusions and make recommendations.

Regarding the scope of the study, the Terms of Reference refer to finding strengths and weaknesses; identifying outstanding results (particularly in priority areas of the country’s development, such as poverty reduction; analyzing impact and sustainability where this realistically can be done; exploring venues for the future; and determining the added value of a country strategy and focus as compared to a project-based approach. Reference is furthermore made to the need to carry out a tracer study regarding the effectiveness of the VLIR-UOS scholarship and travel grant mechanism. This latter item was dropped in conversation with VLIR officials considering the impossibility to conduct such a study if no prior data are available within the timeframe set for the current evaluation study.

Background and context

The country

Basic facts about Vietnam are presented in the sidebar on Page 2. Comparing these data with those that applied only four years earlier, one sees that the population has grown by six million people; life expectancy for both women and men has increased by four years; and per capita gross national



Figure 1: Vietnam is moving fast.

income has grown from US\$ 620 to US\$ 1168. Vietnam, with half of its population under the age of 30, is moving fast. Yet, Vietnam is still a poor country, with 21.5% of the population still living on less than \$ 1.25 a day in 2006.¹ On the other hand, the dynamics of development look positive.²

Vietnam defines itself as a Socialist Republic. It is a single party state. Major decisions that determine the direction in which the country evolves are made by the Communist Party. Under the leadership of its current Secretary-General, Mr. Nong Duc Manh, who initiated his mandate in 2001 and was reappointed in 2006, the country has been steering in the direction of aggressive economic reform (in addition to combating corruption and bureaucracy) aiming at becoming an industrialized nation by 2020. Vietnam has been one of the fastest growing economies in south-east Asia for the past 20 years. The predicted economic growth rate for 2010 is 7%. It is expected to become a middle-income country by 2012. The fact that labor costs in Vietnam are considerably lower than in neighboring countries such as China and Thailand helps in making the country attractive to foreign investors.³ This has allowed Vietnam to position itself as an increasingly interesting partner in the global economy, permitting it to join the Association of Southeast Asian Nations in 1995 and the World Trade Organization in 2007.



Figure 2: Map of Vietnam
Adapted from: <http://gbgm-umc.org/missionstudies/vcl/>

FACTS ABOUT VIETNAM

Full name: Socialist Republic of Vietnam
Population: 89.6 million (US Census Bureau, 2010)
Capital: Hanoi
Largest city: Ho Chi Minh City
Area: 329,247 sq km
Major language: Vietnamese
Major religion: Buddhism
Life expectancy: 72 years (men), 76 years (women) (UN)
Monetary unit: 1 dong = 100 xu
Main exports: Petroleum, rice, coffee, clothing, fish
GNI per capita: US \$1,168 (IMF, 2010)

Source: http://news.bbc.co.uk/2/hi/asia-pacific/country_profiles/1243338.stm#facts and <http://www.internetworldstats.com/asia/vn.htm>.

According to a fact sheet of the Asian Development Bank (ADB) and Vietnam,⁴ the efforts of the Vietnamese Government to reduce poverty have focused on carrying out economic and institutional reforms and on making poverty reduction programs and projects more targeted. “In particular, Viet Nam has been in gradual transition from a centrally planned to a market economy, and from a poverty reduction program that relied heavily on price subsidies to a system based on targeted programs. Market-oriented reforms included full or partial privatization of state-owned enterprises, liberalization of markets, and recognition of private property rights, which has resulted in the emergence of a vibrant, albeit young, private sector.”

Current developments in Vietnam obviously benefit from the above developments. On the other hand, they are also still being hampered by vestiges of the past. Not everyone in the leadership is comfortable with the nature and pace of the renovation efforts, which leads at times to ambiguity. One notes this, for instance, in regard of the depth of penetration of Internet use in society. As of June 2010 there were 24,269,083 Internet users in Vietnam, i.e. 27.1% of the population. While this looks impressive, one should appreciate this figure against the backdrop of a mere 200,000 users (0.3% of the population) in 2000.⁵ In 1996, ten years after *Đổi mới*, the renovation drive set in motion by the Sixth Party Congress, computers were still virtually nonexistent in Vietnam’s information processing and communication landscape. One is often told that before 1986 the country was as

¹ http://www.adb.org/Documents/Fact_Sheets/VIE.pdf.

² http://www.economist.com/node/11041638?story_id=11041638

³ <http://www.washingtonpost.com/wp-dyn/content/video/2010/07/26/VI2010072600457.html>.

⁴ http://www.adb.org/Documents/Fact_Sheets/VIE.pdf.

⁵ <http://www.internetworldstats.com/asia/vn.htm>.

closed and isolated of the rest of the world as North Korea is now. Currently, the government attitude towards Internet use is ambiguous. It is both encouraged and subject to control.⁶ One can easily imagine how these historical events have held Vietnam back in mainstreaming the use of computer technology in society at large and how it has affected the readiness of the academic community to explore the potential of, for instance, online learning and social networking technology.

The education landscape

Until the August Revolution of 1945 and the end of French colonial rule in 1954, Vietnam was a mostly illiterate country. No more than some three percent of the indigenous population was served by the education system built by the French colonizers,



Figure 3: Education is highly valued by the Vietnamese. Here school children are visiting the 'Temple of Literature' in Ha Noi, Vietnam's oldest (11th Century) university, grounded in the Confucian philosophy of teaching and learning. Touching the tortoise's head is believed to open up their mind and receive wisdom.

“functioning primarily as a means of training civil servants for colonial service throughout French Indochina.”⁷ A succession of campaigns, which started in 1945, in parallel with the building of Vietnam's current education system, including the provision of universal primary education, raised the level of adult literacy in slightly more than half a century from 10% to more than 90%.⁸ Currently, almost 94% of the adult population is literate and the gap between male and female literacy rates is gradually closing.⁹

Education has been a high priority in Vietnam ever since the unification of the country in

1975. The Education Law of 2005¹⁰ states in Article 9 that “educational development is the first national priority with a view to improving people's knowledge, training manpower, and fostering talents” and Article 10 goes on to say that “learning is the right and obligation of every citizen.” Thanks to such improvements in, among other areas, the education sector, Vietnam now ranks 113 out of 169 on the Human Development Index (HDI). Its average annual HDI growth rate was 1.70% from 1990 to 2010 and 1.24% from 2000 to 2010. Only eight other countries had an average annual HDI growth rate of 1.70% or more between 1990 and 2010. Nonetheless, important problems remain. There still is considerable discrepancy in opportunities to learn among different regions of

EDUCATION AND THE POOR

Statistics on the educational level of the poor show that about 90 percent have reached at most lower secondary level or below. The results of the Living Standards Measurement Survey show that among the poor, the rate of those who have never attended school is 12 percent; the rate of those completing primary education and lower secondary education are 39 percent and 37 percent respectively. That education expenditure is high for the poor and the education quality that the poor are able to access is limited have prevented them to improve their situation in order to overcome poverty. The poverty rate declines as the level of education rises. 80 percent of the poor are involved in agricultural activities that generate very low levels of income. A low level of education prevents the poor from finding better jobs in other sectors, for example in non-farm sectors that provide more remunerative and stable employment.

Source: Comprehensive Poverty Reduction and Growth Strategy (CPRGS). Hanoi, November 2003 (available at http://siteresources.worldbank.org/INT/VIETNAM/Overview/20270134/cprgs_finalreport_Nov03.pdf)

⁶ See for instance <http://news.bbc.co.uk/2/hi/asia-pacific/6169057.stm>.

⁷ See *Việt Nam Cultural Profile* at http://www.culturalprofiles.net/viet_nam/Directories/Vi_ACYAIw-7879_ADs-t_Nam_Cultural_Profile/-3201.html.

⁸ See Tram Phan, Ayse Bilgin, Ann Eyland, & Pamela Shaw (2004). *Literacy in Vietnam—An Atlas*, available at http://www.stat.mq.edu.au/Stats_docs/research_papers/2004/Literacy_in_Vietnam_-_an_atlas.pdf.

⁹ The World Bank DataFinder reports progression in the overall and male/female adult literacy rates as follows: 1979: Overall=84%, Male=90%, Female=78%; 1989: Overall=88%, Male=93%, Female=83%; 1999: Overall=90%, Male=94%, Female=87%; 2008: Overall=93%, Male=95%, Female=90%.

¹⁰ Downloadable from <http://en.moet.gov.vn/?page=8.8&view=5101>.

the country. Such discrepancy often goes hand in hand with unequal distribution of wealth.

Besides, while important inroads have been made, particularly since the start of the reform process in 1986, education and training lag behind in responding adequately to the demands of the ongoing transformation of Vietnam's centrally planned economy into a market oriented economy, both qualitatively and quantitatively.¹¹ The draft *Vietnamese Education and Training Development Strategy to Year 2010 for the Cause of Industrialization and Modernization of Vietnam*¹², dated 2001, identifies as primary weakness the fact that "teaching, learning and assessments and evaluation are mainly for the purpose of driving learners to mechanical memory, paying little attention to training independent and creative thinking abilities and applying knowledge and skills into real life" (p. 6). This continues to be a problem today, whence the interest of Vietnam in continuing to attract educational expertise from abroad as well as to offer opportunities to worthy Vietnamese students to get exposed to pedagogical models in use elsewhere in the world so as to help improve teaching and learning at home. Other weaknesses mentioned in the same document are the ineffectiveness of the system in terms of the low rate at which those who enter a particular educational level actually graduate from it and the lack of flexibility students perceive in making choices within the system, seeing only "one way to go, that is to continue with studying in universities, that the choice to study in . . . [vocational and technical] training institutions at other levels is still limited" (p. 6).

Figure 4 below provides a schematic overview of Vietnam's formal education landscape as of 2006.

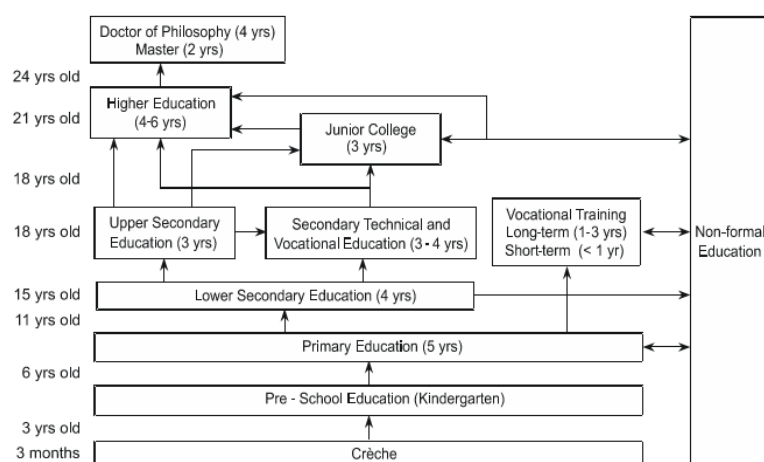


Figure 4: Vietnam's formal education landscape.
Source: <http://en.moet.gov.vn/?page=6.7&view=3401>

Postsecondary education

At the postsecondary level, Vietnam faces the following challenges:

- Lack of capacity to accommodate a sufficient number of students in response to the rapidly evolving needs created by changing economic conditions. Only about a third of those taking the University Entrance Examination¹³ can be admitted.

¹¹ See, e.g., <http://www.washingtonpost.com/wp-dyn/content/article/2010/07/23/AR2010072303685.html>.

¹² Available at http://planipolis.iiep.unesco.org/upload/Viet_Nam/Viet_Nam_Edu_Training-Strategy.pdf

¹³ Students choose among four fixed groups of subjects, i.e., Group A – Mathematics, Physics, Chemistry | Group B – Mathematics, Biology, Chemistry | Group C – Literature, History, Geography | Group D – Literature, Foreign Language, Mathematics.

- Deficiency of conditions, such as excessive student/teacher ratios; lack of qualification of teaching personnel, with only a very small proportion of the faculty holding doctoral degrees; insufficient laboratory conditions.
- Inadequate curricula, poorly adapted to developing the skills graduates require to function well in their future professional life.
- Problematic teaching and learning practices, inherited from the Confucian tradition, which emphasized rote learning (but not solely; see the sidebar on ‘*Study at the Quốc Tử Giám*’), and taken over from the Soviet era training, which many of today’s senior academics received,¹⁴ favoring theory over practice and valuing familiarity with a single ideology over diversity of thought and vision.

Related to the above challenges is the need to link research, teaching and learning more effectively, directly, and concretely to particular development goals, especially those relevant to poverty reduction.

Reform efforts addressing the above challenges, particularly those directed at changing the culture of learning and teaching, may be expected to eventually result in overall system change, also at levels below the higher education level, among other mechanisms via the role played by the postsecondary subsystem involved in preparing teachers for the lower levels of the education system.¹⁵ Cooperation with universities in other parts of the world is consistently seen by university officials as an important input into bringing about the much needed change. Universities often actively pursue establishing such cooperation with diverse countries around the world. However, there is a clear predilection, explicitly expressed by some of our interviewees, for western countries, particularly those that are flexible and open to establishing long-term relationships based on the principle that the cooperation serves mutual interests, allowing the nature of the relationship to be determined by both parties concerned.

STUDY AT THE QUỐC TỬ GIÁM

The organization of instruction and learning at the Quốc Tử Giám (National University) began in 1076 under the Lý dynasty and further developed in the 15th century under the reign of the Lê dynasty.

The Quốc Tử Giám was headed by a Tê' Tửu (director) and a Tư nghiệp (vice director). The professors of the Quốc Tử Giám had different titles: Giáo thụ, Trực giảng, Trợ giáo and Bác sĩ.

Most of Giám sinh (students of the Quốc Tử Giám) had passed the Hương (regional) exam.

During the course of study, the students paid special attention to the discussion of literature, and wrote poetry as well. Their textbooks were “The Four Books” (The Great Study, The Golden Means, The Analects, Mencius), “The Five Pre-Confucian Classics” (Book of Odes, Book of Annals, Book of Rites, Book of Spring and Autumn, and Book of Change), ancient poetry, and Chinese history...

The students had to learn at the Quốc Tử Giám from three to seven years. They had minor tests each month and four major tests each year. If they completed enough terms of study, results were approved by the Ministry of Rites to qualify for the Hội (national) exam.

The candidates needed to pass the national exam to sit for the Đình (Royal) exam held at the court. At this exam, the King himself posed the questions, responded to the candidates’ answers, and then ranked those who passed the Royal exam into different grades.

The Quốc Tử Giám was the biggest educational center in the country under the feudal regime, contributing to train thousands of scholars for the nation. It was worthy of being called the first National University of Việt Nam.

Source: Information on display at the Temple of Literature (Văn Miếu) in Hanoi.

It is noted in the above context that right now there is an important opportunity for countries like Belgium, which enjoy a relationship of trust with Vietnam, to contribute to the desired system change. Many among the old guard are at an age at which they will be retiring over the coming decade. Members of the younger generation who are now being trained in places like Ghent, Leuven and Brussels—and who are, as a consequence, being exposed to diverse alternative models—will take their places.

¹⁴ Between 1951 and 1989 “the former socialist countries helped train over 30,000 undergraduates, 13,500 postgraduates, 25,000 technicians and thousands of other scientists” (see <http://www.wes.org/ewenr/00may/feature.htm>).

¹⁵ In 2000 about two-thirds of Vietnam’s degree granting junior colleges were involved in training teachers for the lower levels of the education system (ibid).

In addition to opportunities offered by the donor community and those commercially available for self-financing by interested students, there is equally great interest on the Vietnamese side to send promising students abroad and pay for it as well as to accept students from abroad to do (part of) their research at Vietnamese universities. All of this contributes to changing patterns of thinking and doing through exposure to alternative models. Facilities such as the MeKong 1000 (MK1000) Project¹⁶ and the East Central Vietnam Program (ECVP), offer opportunities for training abroad to young academics and administrators from the respective regions. The Vietnam International Education Development (VIED) program,¹⁷ managed by the Ministry of Education and Training (MOET), caters to the training needs at national level, with emphasis on the development of a new leadership generation.¹⁸

Development cooperation

The overall picture

A survey article about Vietnam in the *Economist* of 24 April 2008,¹⁹ with the title ‘*Half-way from rags to riches*,’ discusses both the miracle achievements of Vietnam since *Đổi mới* and the crucial risks and challenges the country still faces on the road ahead to becoming an industrialized nation, an achievement it hopes to have accomplished by the year 2020. The article closes with the following paragraph:

Despite the risks ahead, Vietnam has already provided the world with an admirable model for overcoming war, division, penury and isolation and growing strongly but equitably to reach middle-income status. This model could be followed by many impoverished African states or, closer to home, perhaps by North Korea. If it can be combined with gradual political liberalisation, it might even offer something for China to think about.

Does a country, does a people as resilient as the Vietnamese, that has successfully managed to overcome the devastation caused by an atrocious history of successive wars and ill conceived post-war policies that worsened the damage; that boosted its agricultural capacity from below subsistence level to becoming a major provider to the rest of the world; and whose export capacity has skyrocketed, still qualify for development assistance? According to the *Economist*,²⁰ “Vietnam no longer really needs the multilateral organisations’ aid.” Indeed, it does not do so in the traditional sense of the word. It would be wrong, though, for at least the following two reasons, to conclude that the country should be left to fend for itself.

First of all, Vietnam still faces critical challenges in terms of poverty reduction for which it must not only maintain its spectacular economic growth but actually further improve it. A 2006 study by the Vietnamese Academy of Social Sciences, cited in the same survey article in the *Economist*, concludes “that further reductions in poverty will require higher growth rates than in the past because the remaining poor are well below the poverty line, whereas many of those who recently crossed it did not have far to go.” Development cooperation of the kind offered by VLIR-UOS and likeminded international partners

¹⁶ See http://app.ctu.edu.vn/mk1000/mk1000_en/.

¹⁷ See <http://old.vied.vn/en/default.aspx>.

¹⁸ See for more detailed information about these scholarship programs the 2009 NUFFIC-NESO report on ‘*Vietnam’s Higher Education – Trends and Strategies*’ available at <http://www.nuffic.nl/home/docs/neso/neso-e-newsletter/2010/vietnams-higher-education-trends-and-strategies.pdf>.

¹⁹ A survey of Vietnam: *Half-way from rags to riches*. *Economist*, 24 April 2008. Available at http://www.economist.com/node/11041638?story_id=11041638.

²⁰ Ibid.

remains therefore a crucial contribution to completing the work successfully engaged in by Vietnam and its partners over the past two decades and a half.

A second, and perhaps more important, argument to continue one's involvement with Vietnam in an international development context, is that Vietnam can very well be integrated in South-South cooperation constructions of shared development with countries in, for instance, Africa where similar conditions and potential exist. One already sees the beginning of such cooperation schemes emerge in the shared development of aquaculture between Vietnam and countries in Africa, such as Mozambique and Rwanda.

Vietnam could become a key case for essentially rethinking the traditional models of development cooperation, away from the mainstream North-South collaboration towards South-South, North-South-South and West-East-South²¹ configurations.

The VLIR-UOS program: General considerations

VLIR-UOS, the program for University Cooperation for Development of the Flemish Interuniversity Council, sees itself primarily as a facilitator (Appendix I, p. 3). In that capacity it wishes to find the best “match between priorities and needs of institutions in the South, and the interest and expertise in Flanders.” It sees ‘motivation’ as a particularly crucial ingredient of the team approach and the dynamics of cooperation in creating “sustainable academic networks.” Such networks are to “support universities and research institutions in the South in their triple function as providers of educational, research related and societal services,” impacting national and regional development. We underline the notions of sustainability and impact. These are the chief dependent variables of interest in the present study.

The VLIR-UOS program: Its implementation in Vietnam

The VLIR-UOS program as implemented in Vietnam is characterized by diversity of approach, modality, and length of cooperation and flexibility of choice regarding the modality most appropriate for a particular instance of desired cooperation and of the ways in which the collaborating partners in the North and the South decide to structure activities. We underline again the most striking characteristics of the program as described in the ToR. While undertaking the research effort we have specifically looked for evidence that shows that these characteristics are indeed recognized as key ingredients of the cooperation by the partners in the South.

Users of the program can choose between relatively short, medium, and long term cooperation with budgetary requirements that can range from as little as € 7000—for so-called ‘research backpacks’, allowing focused research regarding a specific interest or problem that can be addressed over a relatively short period of time—and programs such as the *IUC Partner Programs*, aiming at institutional and human capacity building in a phased approach

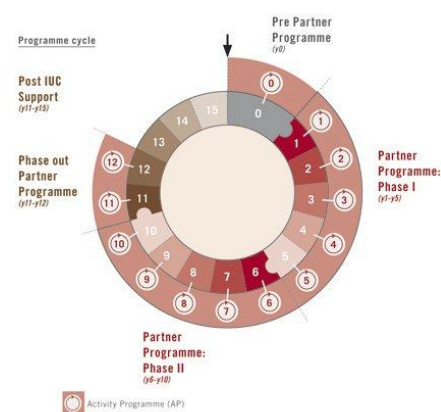


Figure 5: Overview of the IUC program cycle
Source: http://iuc.vliruos.be/index.php?language=EN&navid=440&direct_to=IUC_Programme_Cycle

²¹ We owe the notion of West-East-South collaboration to Prof. Le Quang Minh, Vice-President, Vietnam National University, who suggested that cooperation between Western countries, Eastern European countries (such as Hungary and Poland), and countries in the South, which, like Vietnam must undergo fundamental transformation of their governance structure, would be particularly useful for such countries in the South to learn from the recent experiences of countries in Eastern Europe and receive pertinent training in that regard.

lasting 12 years. This is usually preceded by several years of pre-program collaboration between the candidate partner institutions. Facilities exist as well for post-Partnership Program activities. The total duration of VLIR-UOS support in an IUC-related context could therefore amount to as much as 17 years. This is a unique feature in the present day context of inter-institutional cooperation for capacity building at the postsecondary level between institutions in the North and the South. In our research we have tried to establish if there is added value in the IUC modality of cooperation currently offered by VLIR-UOS. We have also tried to find an answer to the question of how such deviation from the norm is experienced and appreciated by likeminded—at times competing—bilateral and multilateral entities in the North as well as by beneficiary partners in the South (i.e., Vietnam in our case) who have access to, and usually take advantage of, a variety of offerings. Asking these latter questions was particularly relevant against the backdrop of the *Paris Declaration* and the *Accra Agenda for Action*.²²

About this report

The above introduction to this evaluative research report is followed by a section on ‘*Methodological considerations*’ in which we provide detail about the research design and the, largely qualitative, methods used to arrive at reliable and valid answers to our research questions. We do so *in extenso*, in the interest of letting readers judge for themselves what the validity of our research is.

The above mentioned section on methodological considerations is followed by a brief section on ‘*Implementation of the research*’ and three larger sections that constitute the ‘body’ of the report. Those are the ones to which readers will likely pay their main attention. The section on ‘*Findings*’ paints a broad picture of the reality we uncovered. The section is organized around key issues associated with the notions of impact and sustainability. We then continue with a section in which we draw ‘*Conclusions*’ based on our findings. Finally we present a section with ‘*Recommendations*’ and their underlying rationale.

In writing the report we have made a deliberate effort to keep things short, readable and accessible.

²² See http://www.oecd.org/document/18/0,3343,en_2649_3236398_35401554_1_1_1_1,00.html.

Methodological considerations

In view of the specific nature of this study, distinct from earlier evaluative studies commissioned by VLIR-UOS, we start off with a somewhat extensive overview of how our study was conducted; why particular methods of data collection and analysis were chosen; what data sources were explored; and how the validity of our findings is underscored by what we did and by measures that were taken to limit possible biases.

This study is about the impact and sustainability of the VLIR-UOS program of activities in Vietnam. The program aims at the development of higher education and research with a view to serving important goals of societal development, particularly poverty reduction. The study is timely, considering the length of time VLIR has been active in Vietnam; the long-lasting relationships between Flemish universities and Vietnamese institutions that subsequently emerged and have flourished; and the fact that several years have elapsed since major programs, such as those of interuniversity cooperation with Can Tho University (CTU-IUC) and the Hanoi University of Science and Technology (HUT-IUC)²³, formally came to an end. The study could hardly be more appropriate, considering the mission expressed in VLIR-UOS's inspiring motto: "Sharing Minds—Changing Lives." Keeping this motto in mind, the research team, in its efforts to collect relevant data, has continually sought evidence of lasting impact in the lives of the actors concerned and, particularly, the people and communities affected by them, often the populations in rural Vietnam. To remain in close proximity of the reality on the ground, the researchers engaged in extensive travel throughout the country, from North to South, by train, car, boat, motorbike, and on foot.

The variables under scrutiny

In this section we first discuss the meaning of the variables studied: *impact* and *sustainability*. We then highlight some of the complications involved in assessing them within a context of multiple influences.

Impact

When some occurrence has strikingly changed something else, we say that the occurrence has had impact. The term 'impact' connotes, according to most dictionary definitions, the act of striking or impinging; the existence of forceful contact; the force of impression itself, due to the contact; as well as the resulting forward motion resulting from such contact. The term derives from the Latin *impingere*, which means 'to push'. Thus, if indeed the VLIR-UOS activities have impacted Vietnamese society, such impact must be detectable through observation in the locations where it occurred and be expressed in the stories told by those who firsthand experienced and continue to embody the provoked change.

Sustainability

The Terms of Reference for this evaluative study refer to sustainability in the first place in terms of the "chances of durable linkages [between Flemish and Vietnamese partners] thereby contributing to self-reliance of the Southern partner" (p. 9). VLIR-UOS believes that such linkages derive their durability from the academic cooperation that inspires them. Our study thus looks at this aspect of the development envisioned by VLIR-UOS. However, it also explores sustainability in the perspective of the wider development

²³ Until 2009, HUST, the Hanoi University of Science and Technology, was designated in English by the name Hanoi University of Technology (HUT).

efforts aimed at by the VLIR-UOS program. It thus asks pertinent questions about how impact on research and higher education are likely to have affected the country's economic and social development, especially concerning the poor. In other words, we attempt to look beyond the changes brought about in the people and institutional environments directly affected by the cooperation to changes in the society.

Sustainability is still a much debated concept. Most often quoted is a definition given in Chapter 2 of *Our Common Future: Report of the World Commission on Environment and Development*. The report resulted from the work of the Brundtland Commission, convened by the United Nations in 1983. The Brundtland report was published in 1987.²⁴ It defines sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” The report emphasizes that the most pressing current needs are those of the world's poor “to which overriding priority should be given.” It also stresses that the state of technology and social organization imposes limitations on the environment's ability to meet present and future needs.

Considering the convoluted nature of the concept, the chances of sustainability are hard to assess, particularly as the research reported on here took place only a couple of years after the conclusion of the major components of the VLIR-UOS program. The research team has therefore particularly sought to detect evidence of facilitating factors that potentially allow impact to sustain and further evolve. Among those facilitating factors is robustness of the socio-organizational context in which the impact occurs. An equally facilitating condition is the capacity of the human-socio-ecological system to accommodate the natural growth set in motion by the innovations resulting from the VLIR-UOS projects.

Impact and sustainability in a multi-actor context

Regarding both dependent variables, impact and sustainability, we draw attention to the added difficulty to isolate the effect of VLIR-UOS's actions among the multiple influences of different development actors. Rather than pursuing the impossible, our study thus often looks at ‘VLIR-UOS in context’, identifying linkages with the actions of others; contemplating benefits derived from working collaboratively—or at least of being aware of what relevant other partners are doing; and exploring the added value inherent in VLIR's contributions in the context of what such other actors bring to the table.

Sources of data

Five different sources of data inform the current study. They are described in some detail below.

Documentation base: A comprehensive collection of documents was provided by VLIR-UOS at the start of the assignment. The documents are specified by their file names in Appendix II. They relate to the history of both smaller and bigger VLIR-UOS projects implemented in Vietnam since the later part of the last decade of the past century. They cover VLIR-UOS's main south programs of Institutional University Cooperation alongside Own Initiatives (OI) and South Initiatives (SI) as well as activities undertaken under the North South South Cooperation Program (NSSCP) and the Research Initiatives Program (RIP). The documentation base, as given (it is presented ‘as given’ in Appendix II), was difficult to usefully exploit for persons, such as the members of the research team, who had no prior knowledge of the VLIR-UOS procedures, specific nomenclature and acronyms. At the request of the researchers, VLIR-UOS improved the usability of the

²⁴ See <http://www.un-documents.net/ocf-02.htm>.

documentation base, using a suggested color coding system, to highlight the relative importance of the various documents. Despite this improvement, the extent of the documentation base itself, the lack of summary data and meta data that could have been produced over time, and the extensive, at times irrelevant and repetitive, detail presented in some major reports further complicated the useful exploration of the available documentation base.

Guided by the color coded advice received from VLIR-UOS and based on their own cursory appreciation of what was available, the researchers made a choice to rigorously read, from cover to cover, prior to initiating their field research, a selection of the documents, annotating them with critical questions and observations, both regarding the projects as such and about the evaluation, monitoring and reporting practices in use. This proved to be a worthwhile, though time consuming, exercise, which necessarily had to remain restricted to a limited number of documents. It allowed initial questions to be formulated and problems to be identified that served as generative starting points for the subsequent interviews with representatives of VLIR-UOS and the various Flemish institutions of higher education as well as, later, for the field research in Vietnam.

Actors involved on the Flemish side: Before pursuing their field research in Vietnam, the team spent five days in Brussels, interviewing and listening to actors who, at diverse levels of responsibility, had been involved in the cooperation. An overview is presented in Appendix III. Included are, notably, representatives of VLIR-UOS, the Belgian Development Cooperation (DGDC), and the three universities involved: the Free University Brussels (VUB); the University of Ghent (UGent); and the Catholic University of Leuven (K.U.Leuven). The research team's interaction with the actors in question consisted of briefings given at the initiative of the actors concerned, who occasionally also provided paper based and electronic information; probing interviews conducted by the researchers; and dialogic exchanges of views to test the research team's perceptions against those of their interlocutors. Two of the scheduled interviewees failed to turn up at the agreed time. With one of them the interview took place later via teleconferencing.

The interview sessions had been organized by VLIR. They took place at the VLIR offices in Brussels. The selection of interviewees made by VLIR-UOS covered fairly the different kinds of project options offered. The research team would have preferred to meet the various actors on their own territory so as to be able to also appreciate the environment to which Vietnamese students are exposed when studying in Belgium, particularly in terms of laboratory conditions. This was unfortunately not feasible, in view of the available time allocated to this part of the study. However, on the afternoon of their last day in Brussels the researchers were still able to catch a glimpse of university life in Belgium via a brief visit to the Free University Brussels on the occasion of the thesis defense of a graduating Vietnamese PhD student at the Department of Human Ecology.

Actors involved on the Vietnamese side and the context of their involvement: Following the discussions in Brussels, the researchers organized their program of work for the field visit in Vietnam.



Figure 6: Trinh Hai Le is but one of many Vietnamese students who pursued a degree at a Belgian university. He is seen here, holding his doctoral dissertation on Health and Environment. We interviewed him only hours before he would defend his thesis at the VUB. He is determined about returning to Vietnam and applying his knowledge to the problems of Quang Tri province.



Figure 7: Briefing session at the National Institute of Veterinary Research.

They took the advice received while in Brussels during the conversations with their interviewees as well as obtained through follow-up email correspondence with them. The information provided by the Flemish colleagues was very helpful, though it often remained difficult to obtain responses from prospective contacts in Vietnam. The intervention of Professor Sorgeloos, who visited Vietnam just prior to the research team's presence and who had the opportunity to speak with many of the intended interviewees, became crucially helpful for securing a number of the

appointments. Nonetheless, some of the appointments could only be made and consolidated while the research was in progress. The good thing is that virtually all intended contacts eventually materialized and even some additional ones could be added to an intensive schedule of work (see Appendix IV, which includes the names of those contacted during the mission). The researchers' interaction with the Vietnamese actors and the environments in which they operate took place via in-depth interviews and *in situ* observations. On occasion, interviewees had prepared themselves with briefings and paper-based as well as electronic information sources. When relevant, the researchers asked for additional documentary evidence. One desired contact, with the Ministry of Education and Training (MOET), failed to materialize. Despite repeated efforts over a long period of time and multiple emails and voice messages left behind, no responses were obtained from the Ministry.

Actors present in the wider context of VLIR's projects and programs: VLIR's operations take place in the wider context of the Belgian bilateral development cooperation with Vietnam as well as in the even broader setting of the multi-agency international development efforts in general. The research team judged it pertinent to also investigate this wider institutional environment, particularly in light of the '*Paris Declaration*' and the '*Accra Agenda for Action*'.²⁵ The researchers thus conducted interviews with representatives of relevant agencies represented in Vietnam. In one case this was extended to interviewing officials of a Dutch organization (NUFFIC) with a record of involvement in Vietnam similar to that of VLIR. See for further detail Appendix IV.

Individuals and communities affected by the program, including their contextual circumstances: One group of individuals included in this category consists of students who received training in Belgium or elsewhere as a direct or indirect consequence of VLIR-UOS initiatives, in a number of cases with ICP funding, in other cases with BTC funding or occasionally Vietnamese funding.



Figure 8: Interviewing a farmer at his home in Soc Trang in the Me Kong Delta. Thanks to applying the results of VLIR funded research to his farming practice, his working life had changed from subsistence farming to commercial farming, allowing him to make a solid income to support his family and greatly improve their living conditions.

²⁵ See http://www.oecd.org/document/18/0,3343,en_2649_3236398_35401554_1_1_1_1,00.html.

Also included are researchers, not necessarily graduates of Belgian universities or recipients of Belgian scholarships who successfully applied for VLIR-UOS research grants that are open to applicants from beyond VLIR's sphere of immediate influence.

A second, even more important, group in this category is made up of individuals and communities who have benefited from innovations that are the result of research undertaken in the context of the various VLIR-UOS initiatives. Farming communities that started implementing new techniques are a typical example.

In all these cases evidence was collected through in-depth interviews and, where possible, *in situ* observations. Particular attention was paid to documenting how lives had changed.

Details of specific contacts made are available in Appendix IV.

From collecting data to uncovering patterns and identifying pertinent issues—Validity considerations

With the exception of very few interviews that were conducted in The Netherlands by the lead researcher in the absence of the co-researcher, the entire research effort was otherwise carried out collaboratively by the research team. Interview strategies and leading questions were determined in preparation of each of the interviews. Both members of the team participated in the process of questioning in accordance with the agreed interview strategy. More importantly, they entertained an ongoing dialogue as they worked together to collaboratively construct a picture of the reality they were investigating. The multicultural composition of the team was an important asset for diminishing the risk of researcher bias, both in conducting the interviews and interpreting the findings. Data collection and analysis constituted, at least in part, an iterative process. As the investigation advanced, hypotheses and new questions emerged that led to different questions and the need to search for evidence initially not contemplated. Thus, adjustments were made and research pursuits were added on the go.

The focus of the research was on discerning patterns and identifying issues of relevance. Patterns that emerged and issues that were uncovered were never taken for granted at first sight. Whatever appeared apparent at one time was always put to the test of further scrutiny, triangulating findings with previous ones as well as structuring subsequent investigative efforts towards either confirming, clarifying, reformulating or discarding as wrong or irrelevant earlier assumptions and provisional conclusions. This allowed an ever more refined and increasingly more valid and valuable picture to emerge.



Figure 9: Site visit at the Research Institute for Aquaculture 1: The co-researcher (left) queries RIA1 Director, Dr. Le Thuan Luu.

Interviews were conducted, whenever possible and relevant, in combination with making *in situ* observations. They were always of an investigative nature, with probing questions leading to answers that would, in turn, generate further questions. Interviews were deliberately kept open-ended and free-flowing so that emerging leads could easily be pursued and detail discovered that might otherwise have remained hidden if fixed interview protocols had been followed. Besides, the conversational nature of open-ended interviews dispositions interviewees to more easily and spontaneously come forward with information that is not specifically asked for.

Spontaneously volunteered information was, on occasion, an important reason to start rethinking the whole process of the research and reanalyzing the data so far collected. Notwithstanding the open nature of the interviews, the researchers discussed beforehand among themselves what particular information they wished to obtain and weaved their interviews around a couple of central concerns, such as related to the history of what had happened; the broader context of factors that influenced success (or failure); interconnections with other VLIR-UOS activities as well as with the work of non-VLIR actors; the impact attained; and the likelihood of sustainability of impact.

To ensure validity of findings and conclusions drawn, two reflective review meetings with interviewees were held at the conclusion of major phases of the field research, i.e. in Hanoi at the end of the first week and in Can Tho on the very last day of the mission. An additional debriefing meeting to discuss preliminary findings, conclusions and recommendations took place at the VLIR offices in Brussels involving VLIR-UOS officials. These meetings helped confirm the validity and relevance of the findings presented. Presentations made on the three occasions are available in Appendices V.a, V.b, and V.c. Furthermore, a draft version of this report was distributed among Flemish researchers. They provided useful formative feedback regarding details of the report, but were otherwise in agreement with its conclusions and recommendations.

All conversations conducted in the course of this research—the interviews as well as the above review and debriefing meetings—were audio recorded in digital format. The recordings are backed up by handwritten notes made on the spot as well as by abstracts later developed based on the recordings. In addition, relevant *in situ* observations were, whenever feasible, photographically recorded, equally in digital format.²⁶

²⁶ These data will be safeguarded for a minimum of five years.

Implementation of the research: Some challenges and opportunities

The implementation of the research went roughly as designed and planned, with only minor deviations from the researchers' expectations. Some of the challenges that complicated the research and opportunities that enhanced it are highlighted below.

As mentioned earlier, interviews in Brussels were organized without the involvement of the researchers. Thus, contrary to the researchers' intentions, they took place outside the environments where interviewees worked and their students had studied. Interviews in Flanders would likely have been more probing and more comprehensive, involving more persons, and providing a clearer picture of the context of the collaboration schemes under scrutiny, had they taken place at the respective venues of the different entities involved and had more time been available to conduct them. They were now limited to only one hour and generally took place with a single person who had been involved in or associated with the project. It would be recommendable if on future occasions there would be more effective communication between the researchers and officials in Brussels who are responsible for actually contacting the persons concerned and scheduling the interviews.

Moreover, two planned interviews in Brussels and one in Vietnam did not materialize. One of the two missed interview opportunities in Brussels could later be compensated for by a telephone conference with the individual in question.

On the positive side, luck was on the side of the research team when it turned out to be possible to squeeze in the occasional, not previously agreed, interview—usually on the spur of the moment—when an opportunity arose. Besides, some of the informal conversations, such as over lunch or dinner, at times allowed information to emerge that might not that easily have been extracted through a formal interview.

Our already tightly scheduled itinerary inside Vietnam had sometimes to be adapted as a consequence of discrepancies between the published train schedules and what actually happened. Such departures from what was planned have not affected the quality and effectiveness of the work, thanks to a well working mobile communication infrastructure in Vietnam and the willingness of interlocutors and those facilitating site visits to adapt to changes in the schedule.

A somewhat greater challenge was posed when interviewees were, on occasion, overly controlling, wanting to tell their stories rather than responding to questions. In one case this resulted in a meeting that lasted a full morning to which some 15 people had been invited, 10 of whom with ready-made interventions, mostly in Vietnamese, that took up almost all the time, leaving very little scope for investigative questioning by the researchers. Had we been aware that this might happen, and given sufficient time for the preparation of the mission, we would have been more explicit in communicating what we expected of our interlocutors. On the other hand, loss of validity in the referred cases was largely compensated for by the large number of opportunities to triangulate data from multiple sources.

The absence of data, particularly regarding past students, was another complicating factor, but so was the overload of data, and lack of discrimination between what was important and relevant and what was not, in other cases. The latter observation applies particularly to the huge documentation base provided at the start of the research, which was disproportionate in size to the number of days allocated by contract for researching it.

All in all, though, the implementation of the research went well, to the satisfaction of the research team.

Findings

In presenting our findings, we follow the chronological sequence of events that marked the implementation of our research, a process that started off with a desk study of the available documentation. This desk study was followed by interviews with Flemish academics in Brussels and subsequently, after an interval of almost two months, by interviews and site visits in Vietnam. Two review meetings, held in Vietnam (Appendices V.a and V.b), and a preliminary debriefing in Brussels (Appendix V.c) were important opportunities for reflection on and validation of our findings. Based on the desk study, we started out with a critical view of the cooperation. Our views became increasingly more positive as we continued our explorations.

Monitoring and evaluation

The desk study of existing documentation gave the researchers insight into how the cooperation between Flemish universities and institutions in Vietnam had evolved over time and how it had been appreciated by those who monitored and evaluated it. It also was an opportunity to appraise the relevance, thoroughness and quality of the existing monitoring and evaluation practice as it transpired from the various reports. We report on both these aspects.

The reported content

Given the extent of the documentation base (Appendix II) in comparison with the limited time contractually foreseen for the desk study, our focus was initially on the two bigger (IUC) programs of cooperation with the Hanoi University of Science and Technology (HUT, now HUST) and Can Tho University (CTU). Evaluation reports about these long-term interventions were read from cover to cover and annotated in detail. Studies regarding the smaller collaborative interventions were generally given less detailed attention. Questions derived from the desk study served as a basis for the interview protocols used in Brussels and Vietnam. The desk study also resulted in checklists of evidence the researchers wished to review during their field work in Vietnam. Hereafter we report main findings regarding what was read.

Design issues: Little could be read that allowed outcome and impact of projects to be gauged against measurable aims defined and appreciated in the context of known conditions at the start. Bigger projects that emerge in the context of the facilities offered by VLIR-UOS are often the fruit of smaller-scale prior collaborations from which they naturally grow. Because the process is so natural, it is often ‘forgotten’ to document the beginnings and establish a baseline of data for future reference. Proper Needs Assessment (NA) and Front-End Analysis (FEA) at the time major decisions are being made, such as at the start of a new phase in an ongoing scheme or when an entirely new project is planned, would be of help to the actors involved when later they want to look back at their achievements and learn from their actions. On the positive side it is noted that the introduction of Project Cycle Management (PCM) and the use of Logical Frameworks (logframes) around the transition from Phase 1 to Phase 2 of the IUC Partner Programs, and particularly the fact that PCM training was provided, is a marked improvement, the effect of which is manifest in at least part of the reporting. Nonetheless, PCM is only a valuable tool if it takes place with reference to a clearly established baseline and is applied—not in the first place for the purpose of bureaucratic control—but as an input into organizational and individual learning and as a means towards facilitating reflection on practice. The reports do not reveal a concern with, or even consciousness of, such more

important reasons for the use of PCM. This finding is consistent with a later finding when project actors were interviewed who told that reporting on the details required by PCM was felt by them as a bureaucratic requirement they had to comply with but that constituted a drain on their time and left them with little to no benefit.

Fit between reported facts and the reality on the ground: As far as relevant information is provided (see below), evaluation reports fairly represent what has happened over time in the various projects. No notable discrepancies were found between what could be read in the reports and checked against evidence on the ground.

Sustainable impact: The reports available to the researchers provide little insight into issues of impact and sustainability. This is to be expected for the following two reasons: (1) evaluations were carried out at the close of running projects, which is generally poor timing for assessing impact and sustainability; and (2) existing evaluation procedures emphasize the collection of quantitative data. Sustainable impact, however, often takes the form of change in a complex environment in which human, social and economic factors interact with the outcomes of scientific research and technological innovation. Such change is normally better expressed in the form of narratives—which may or may not include quantitative references—than through mere quantitative data.

Research culture: Concern with the development of a ‘research culture’ stands out in a number of the reports, particularly after the transition from Phase 1 to Phase 2 of the two IUC Partner Programs. However, the concept remains inadequately defined and is mainly understood in terms of the number of publications produced and the journals in which they appear (national vs. international; non-peer-reviewed vs. peer-reviewed). Little can be read about how research contributes to reaching important development goals. This is not to say that the Flemish and Vietnamese researchers are insensitive to questions raised outside the academy, or that they are disinterested in the potential implications of their research for improvements in the communities served and the advancement of society as a whole. It is equally well possible that the lack of reporting on this aspect is a reflection of existing expectations, among different actors concerned, about what is to be reported on. Going by the reports read, such expectations seem to be biased towards measuring immediate outputs that can be expressed in quantitative terms, rather than outcome and impact. Indeed, the facts on the ground, as we later discovered while doing our fieldwork, turned out to be much more encouraging, particularly in the case of HUT-IUC, than what could be read in the reports.

Culture of learning and teaching: While the notion of ‘research culture’ does get serious attention, far less is reported regarding desired and accomplished changes in the prevailing culture of learning and teaching. On the whole, the VLIR-UOS program of multiple modalities of cooperation transpires a bias towards the development of research, giving less emphasis to teaching and learning. However, the reality in the academic world is that researchers are often also teachers. More in particular, the Vietnamese researchers who are being trained at Flemish universities get exposed to models of teaching and learning not known to them. Many of them report, as we later found, on the benefits they derive from such exposure for their own teaching and how it affects the quality of learning by their students.

Technology use to advance and enhance learning: Information and communication technologies (ICT’s), if appropriately used in a given context, can do the following two things: (1) improve the quality of learning and teaching, and dramatically expand the reach of learning environments supported by such technologies, in the context of learning systems for which universities exist, i.e. to educate students at the highest levels of the

education system; and (2) play an increasingly important role in diminishing the transactional distance between partners involved in developing, managing, implementing and monitoring programs and projects of interuniversity collaboration, such as those facilitated by VLIR-UOS. In the former case most of the learning is to the benefit of individuals, even though individuals often learn best in a socially relevant and interactive context. In the latter case the learning takes place primarily at the organizational level and results, for instance, in improvements, at that level, in the implementation and management of projects. However, the available reports generally show a tendency to focus on the tools of technology (given hardware and software options) rather than the creative use of those tools. In other words, attention goes predominantly to creating infrastructure and the building of technical competence to the detriment of the development of Technical Pedagogical Content Knowledge (TPCK) and systems of technology-enabled learning.²⁷

Knowledge production and knowledge use for collaborative reflection and organizational learning

Based on our analysis of the content of the various reports and other documents to which we had access, we presented in the previous paragraphs a summary of relevant findings. These findings informed our interviews and field inquiry. We realized that the content we explored was potentially also an essential basis for stimulating collaborative reflection on ongoing practice and thus constituted an important potential input into learning at the organizational level. It naturally led us to asking ourselves such questions as: Does the knowledge produced this way reach its intended audience? What happens with reports after they have been written? Who actually reads them? Do they play a role in improving practice?

Considering that analysis of the quality of reporting is not formally part of this study, we present our observations regarding the practice of monitoring, evaluation and reporting in annex to this report (see Appendix XI), limiting ourselves here to noting that, generally, reports challenge the reader's patience and benevolence as they are lengthy and repetitive; present inconsistent data; include segments of irrelevant information; are poorly referenced; and present errors of presentation and interpretation of statistics.

Questioning during interviews in Belgium and Vietnam revealed that reports are often left unread or, when read, poorly understood. Besides, those, such as project coordinators, who contribute to the reporting frequently perceive of this aspect of their work as a mere bureaucratic requirement. They do not see how it could benefit their work. In short, important opportunities for (organizational) learning and reflection on practice are missed. We come back to these issues later.

While there are things in the reporting practice that could—and should—be improved, the more important issue relates to the life of reports after they have been written. Merely distributing them for instant review and feedback and then shelving them is of little value. They should become instruments for bringing people together to discuss issues, build new visions and develop innovative strategies to solve identified problems. Reports should not only be seen as vital tools for management and consultants, but be accorded equal—if not greater—importance for those involved in implementing projects and programs.

²⁷ TPCK is an enhancement of an earlier introduced concept, PCK, or Pedagogical Content Knowledge, which was first suggested by Lee Shulman [see Shulman, L. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher*, 15(2), 4-14. An abridged article by Matthew J. Koehler and Punya Mishra on *What Is Technological Pedagogical Content Knowledge?* is available at <http://www.citejournal.org/vol9/iss1/general/article1.cfm>].

The northern perspective

Findings under this heading are based on interviews held in Brussels with VLIR-UOS officials; representatives of the Directorate General for Development (the funding source for VLIR-UOS projects); and academics from Flemish universities (UGent, VUB, and K.U.Leuven) who played a key role in the development and implementation of diverse instances of cooperation with Vietnamese institutions of higher education (see Appendix III for the details). An additional interview was conducted with the officer in charge of the Vietnam portfolio²⁸ at the Netherlands Organization for International Cooperation in Higher Education (NUFFIC) in The Hague. The latter interview served to get a complementary perspective on higher education development in Vietnam. A second purpose of this interview was to explore potential possibilities for collaboration between organizations in the North that are involved in similar activities in the same country, NUFFIC being the most likely partner for VLIR-UOS for such collaboration.

The above interviews followed the desk study, which had left the researchers with many questions and unresolved issues. The interviews helped in the first place to get clarity on such matters. Secondly, they served for the researchers to familiarize themselves with the views that northern partners have of their cooperation with the South. Besides, they shed light on the conditions under which the cooperation took shape in the North. The interviews furthermore helped identify relevant contacts to be pursued during the planned field work in Vietnam. The picture emerging from the weeklong series of interviews can't be but very complex. Following are pertinent highlights of what was found.

Resources, resource management, and decision making about where to invest

Currently, VLIR-UOS typically handles overall annual budgets of 30 million Euros. This is Belgian taxpayer money put to good use under the responsibility of the Belgian Development Cooperation. A substantial proportion of that budget (25 %) gets invested in the development of Institutional University Cooperation (IUC). As shown in Figure 5, planning in the context of the IUC Partner Program cycle over the timeframe of the evaluation took place in two five-year periods (Phases 1 and 2), with annual plans having to be approved on a year-by-year basis. The transition from Phase 1 to Phase 2 was preceded by a mid-term evaluation, which was intended to make adjustments informed by what could be learned from the experience of implementing the first phase of the program. In the two cases under investigation (IUC-HUT and IUC-CTU), notable changes were indeed introduced as a consequence of such mid-term evaluation exercises. What was initially often no more than a loose collection of individual projects, acquired, with the transition to Phase 2, a collective focus on broad goals such as institutional strengthening and capacity building for policy development and project management as well as the development of a research culture. In general, it appears that the IUC interventions long followed a management-by-discovery model, finding out only rather late in the process how the cooperation could best serve relevant development goals.²⁹

Over the entire cycle depicted in Figure 5, annual budgets for a particular IUC do not stay the same. In the pre-Partner Program period they are normally € 100 000; in Year 1 they are € 500 000, after which they are increased to € 745 000 for subsequent years, trailing off towards the end with budgets of € 90 000 and € 20 000 in the phasing out period of the

²⁸ Armand Gaikema

²⁹ We do not necessarily take a negative view of what happened but merely want to be factual. IUC programs in Vietnam were a first generation of its kind and as such showed many of the deficiencies we bring to light in this report. VLIR-UOS learned from the experience and addressed such shortcomings in the course of implementing the programs.

IUC Partner Program (Years 11 and 12, respectively).³⁰ After Year 12 support to universities who have successfully completed the cycle, is on the basis of open calls, with the IUC Research Initiatives Program (RIP) as the principle granting instrument of the so-called IUC ex-post tool box.³¹ The above mode of operations stands to change in 2013 with the introduction of a single six-year cycle, with three-year plans to be approved and management to be based on monitoring and evaluating results obtained. What strikes regarding the existing funding practice for Institutional University Cooperation initiatives is its one-size-fits-all character. There is no apparent connection between the funds granted and the needs that must be addressed. In fact, there is no evidence, at least not from the cases under scrutiny in this report, of an established practice to initiate cooperation only after needs have been seriously identified and assessed. Critical questions must thus be asked regarding the apparent influence of Flemish universities on the decisions made, such as highlighted in Footnote 29, where it led to one Vietnamese university receiving only half the money that another university received. As it appears from the reported facts, that decision was partly based on a rationale that allowed interests of the universities in Belgium to take precedence over development needs in Vietnam.

The above long-term Institutional University Cooperation program is complemented by two modalities of smaller initiatives: the medium-term Own Initiatives (OI) and the short-term South Initiatives (SI).³² The former have a roll-over possibility in the budget and can run for three or four years³³ with a maximum budget of € 300 000. The latter can be run for a maximum of two years and must be one-off projects that can be completed on a very small budget (often less than € 10 000 per case). Such smaller projects are frequently the seeds from which more long-term cooperation emerges, but not necessarily so. It is the availability of diverse options within the VLIR-UOS offering that makes VLIR-UOS, as we later found, a preferred partner for interested entities in the South to deal with.

All the various modes of cooperation are assumed to serve both academic and development-oriented objectives. Such development-oriented objectives do not only relate to institutional development at the various higher education and research institutions, they are particularly also geared towards development goals at the community and societal level, i.e. outside the walls of the institutions and beyond the spheres of interest of their immediate clients. The fact that these cooperation schemes serve academic interests in both the South and the North was judged by the Vietnamese officials concerned to be one of the strengths of the cooperation. In their view, it guarantees that there is a sound basis for sustainability of the cooperation beyond the terms of the formal program or project. The researchers did indeed find that, in many of the cases under scrutiny in this report, the cooperative relationships survived the projects through which they became established and consolidated. Nonetheless, it seems timely that questions be raised about how in the long run available monies should be managed so that they are most effectively invested in the pursuit of agreed development goals. Raising such questions should not overlook the fact that, at times, development goals are best served by building long-term relationships between universities in the South and the North who have likeminded academic interests.

³⁰ It should be noted that these figures represent the regular budget allocations. In Vietnam they applied to IUC-CTU, but not IUC-HUT. Budget allocations for IUC-HUT were half those of IUC-CTU, due to an internal political decision among Flemish Universities, considering that the VUB (the Flemish coordinator for IUC-HUT) 'already had another IUC' and taking into account that HUT was 'only' a technological university.

³¹ See http://iuc.vliruos.be/index.php?language=EN&navid=517&direct_to=Research_Initiatives_Programme.

³² See http://www.vliruos.be/index.php?language=EN&navid=496&direct_to=Own_Initiatives_EI for more detail about the Own Initiatives and <http://www.vliruos.be/index.php?navid=629&language=EN&throughadmin=1> for further detail regarding the South Initiatives.

³³ In reality, as shown in Appendix VI, they may run for as long as five years.

Nor should it be forgotten that robust relationships evolve best under conditions that allow partners to seek their own ways. This calls for reflective practice in a transparent and flexible environment in which clear mechanisms of accountability exist.

In regard of the above considerations and findings, it should be noted that the funding agency, DGD, considers *cooperation* the key concept, and *impact in Vietnam* what counts most. Such impact should be in line with Vietnam's views of human resource development. In other words, from DGD's perspective, societal demands and policy considerations emanating from Vietnam, rather than academic interests originating from the Flemish universities, should motivate the desire to cooperate. We find this a perfectly reasonable proposition.

In addition to the formal budgetary allocations, there are also hidden resources involved in implementing the cooperation, i.e. expenditures that do not show up in the books. They relate to the fact that Flemish academics give freely of their time for which they, or rather their universities, do not receive financial compensation.³⁴ Besides, foreign students who enroll in the regular programs at Flemish universities enjoy the same (significant) financial privileges as their Belgian colleagues. In the interest of evaluating the real cost-effectiveness and cost-efficiency of the cooperation, and thus to allow well informed decisions to be made, such hidden resources should be made visible and accounted for. In fact, this has earlier been pointed out in a 2007 report to VLIR-UOS on the *Evaluation of selected ICT-related projects* (see a verbatim quote from that report, which we fully endorse, in the sidebar on 'Accountability and transparency').

ACCOUNTABILITY AND TRANSPARENCY

The current model of mobilisation of Flemish partner expertise is flawed in relation to ICT-related projects in general, and institutional strengthening activities in particular. Primarily, the model of 'partnership' lacks the mechanisms for mutual accountability and transparency, the basis for partnerships of equality. Time and effort spent on delivering the agreed project inputs by Flemish Project Leaders and other experts, as well as any South partner inputs not fully covered by project budgets, should have been logged and costed in some transparent way, even if no money changes hands at institutional level. Without this kind of information, no hard evidence is available to inform partner institutions of the real scope and scale of the commitment they make to deliver on the IUC projects, or to underpin planning and decision-making in future phases. Nor can the quality of inputs and outputs be assessed and assured.

Partnership projects that are dependent on individual goodwill and dedication leave little scope for equal accountability and the opportunity for appropriate assessment of outputs. It engenders a 'paternalistic' approach to the task in hand rather than a developing, collaborative partnership, in which 'demand-led' and 'ownership' mean something real.

Source: Carpenter, J., Simaey, B. & Struijve, O. (2007). *Evaluation of selected ICT-related projects* (pp. 11, 12). Report to VLIR-UOS.

The cooperation through the eyes of the Flemish academics

The above findings reflect the views of those responsible, at different levels, for the allocation and management of the financial resources that make the cooperation between Flemish universities and their counterparts in the South possible. Below we expound the views and experiences of the Flemish researchers and professors involved in establishing, shaping and consolidating the cooperation. The conversations with those concerned were obviously rich. In the interest of readability we highlight only key findings below.

Motivation and interest: Consistently, throughout the weeklong series of interviews, we met with highly motivated people who showed great dedication to the work they had been involved in, as well as commitment to the causes served by that work. While their initial motivations may perhaps have been in the first place 'academic'—though not always so—those interviewed generally left little doubt that the research interests they had pursued, collaboratively with their Vietnamese colleagues, served important societal development goals—over and above those of institutional development and human capacity building at their partner universities—in areas such as the protection, management and sanitation of the environment; the development of agriculture and aquaculture; and animal health and disease control.

³⁴ Only travel, board and lodging costs are being covered.

Those who had been involved in smaller projects often came over as more highly motivated. By and large, they also expressed greater satisfaction with the results obtained through their work. This may in part be explained because in smaller projects one is usually more directly in touch with the people whose situation one seeks to affect.

It is to be noted, also, that motivation and interest were generally associated with the project(s) one had been involved in, rather than with the program as a whole. Individual researchers did not show a ‘program vision,’ even though references were occasionally made to programmatic issues, such as poverty reduction. Such issues were primarily thought of as linked to the project one had been responsible for. Consequently, one sees no integration of projects among themselves and within a larger conceptual framework of relevant societal issues to be addressed.

Levels of satisfaction: While the project representatives we interviewed were critical of different aspects of the work in which they had been involved (see next item), they were generally satisfied with what was achieved. Levels of satisfaction ranged from ‘moderately satisfied’ (around 60%, according to the interviewee concerned) to ‘fully satisfied.’ No major frustrations were reported. The most serious frustration mentioned occurred when the training of PhD students had been foreseen and no qualifying candidates became available, often due to insufficient mastery of the English language.³⁵ Another area of frustration mentioned was that of the bureaucratic burden associated with project implementation.

Constructively critical reflections: Interviewees often showed openness and even propensity towards constructive critical reflection regarding their experiences and achievements. The following critical observations reflect what we heard:

- “It’s time for very serious reflection.”
- There has been too strong a focus on research.
- The achievements resulting from an overall investment of 70 million Euros for VLIR-IUC projects worldwide are disappointing.
- Improvements are called for in attaining sustainable impact, ensuring that both what the

SMALL CAN BE BEAUTIFUL, SUCCESSFUL AND SUSTAINABLE

The OI (2004) project of cooperation in nematology research between UGent and VAST presents an interesting case of success. A modest budget of € 280 000 resulted in the implementation of environmentally and socially relevant research; strengthened research capacity; training of one PhD and two MSc’s; publications (including a small book); the creation of a local group of nematologists; and a symposium held to share the results and exchange knowledge with people from surrounding countries involved in the study of human impact on mangrove environments, food web changes, and environmental management. It furthermore led to the construction of an education center, which is being used for knowledge and awareness building among the general population.



Years after the conclusion of the project, in 2009, and based on the acquired competence, Vietnam co-organized a second international symposium on *Nematodes and tropical ecosystems*, together with the Russian Society of Nematologists. The development of such international relationships is a good sign not just of acquired competence but also of confidence in one’s ability to take on a leadership role. It is an important guarantee for sustainability.

The project is important in connection with poverty reduction. Knowledge building among the populations in mangrove environments and capacity building among those who study and manage such environments, helps preserve their ecologies and thus their valuable food webs. Besides, preservation of the mangrove ecology reduces the impact of tsunamis.



Sustained contact with Vietnamese alumni of UGent’s MSc Course in Nematology (supported by VLIR through its ICP fellowship program since 1992) is believed to have been an important condition for the success of the project. “We knew the people already.”

Source: Interview with Nic Smol (UGent) on 10/6/2009 and subsequent *in situ* observations and interviews with local officials.

³⁵ It is noted in this regard that the Flemish researchers give freely of their time to the collaborative development effort. The only return they get from this personal investment is related, as Martin Valcke correctly notes in his comments on our draft report, to “successful local students, doctoral research, publications and conference contributions” (Appendix XII).

**NOT ALL THAT SUCCESSFUL . . .
HOWEVER, WE LEARNED!**

7000 Euros is not all that much to run a project. But South Initiatives (SI) are meant to be small, very small indeed.

The Centre for Environmental Sanitation (CES) at UGent has, for the past 22 years, been running a two-year Master course in Environmental Sanitation and Environmental Science. In 2002, CES started a South Initiative providing a so-called 'research backpack' to two of their alumni and one ICP supported student then at UGent who all worked at the Centre for Experimental Biology in Hanoi. The planned research was carried out, but none of the former students is any longer with the Centre for Experimental Biology. CES lost contact with two of them. It thus has no way to find out what happened to the equipment purchased with the funds. Success is therefore somewhat in question.

However, CES has learned from its experience with its first SI project. It has since successfully conducted another five SI's in different countries and now maintains effective contact with its alumni. In fact, it offered them in 2010 a short training, with VLIR-STI funding, to update them on new technologies for waste management.

Source: Interview with Marc Van den Heede and Sylvie Bauwens on 10/6/2009.

North can offer and the solutions generated in the South are sustainable. The choice of universities in the South—those that can be expected to have impact in large and relevant outreach areas—is important in this regard.

- Selection of and preparation for new projects must have sustainability in mind right from the start.
- Better use must be made of opportunities that are complementary to the primary resources of VLIR-UOS, such as the MeKong 1000 scholarship facility, which is funded by the local provinces belonging to the Mekong Delta. It is a government scholarship, but not at the national level.
- The route to creating more PhD holders must be better thought out in terms of quality, rather than quantity. Particular attention should be paid to selection processes and criteria that lead to the right choice of candidates, those that have real

potential. Consequently, evaluation of the performance of projects that have a focus on capacity building at the PhD level should look beyond the numbers at the quality of graduates. More should be done to prepare potential candidates for their entry into a new and unfamiliar study environment. Transition from the Vietnamese into the Belgian higher education system could be smoothened through better preparation of the students while they are still at home, including acculturation to a different country with a different educational context and different expectations about the students' behavior and performance. Improving the prospective students' mastery of English would be an important point of attention in this regard. Besides, it is worth taking a serious look at the interface between secondary and postsecondary education, developing a vision and strategy for overall improvement of the education system.

- The idea of developing a 'culture of research', originally suggested by Flemish professors as a goal for Phase 2 of the IUC projects, unfortunately led to a practice that primarily focused on counting the number of publications by journal category. The concept is in need of being defined more broadly and more relevantly, keeping in mind the need for research to be more clearly problem oriented and geared towards socially relevant goals.
- Small projects such as Own Initiative (OI) projects, "can produce beautiful pearls" as they are usually geared towards solving some specific and concrete problem. Because of their size and narrower focus they can be more easily controlled. However, the administrative burden associated with such smaller projects is hardly different from what is required for the much larger



Figure 10: The development of a research culture gets expressed in the number and type of publications produced. But is that enough of a criterion?

schemes that involve millions of Euros. A better balance is called for between the size of projects and the bureaucratic requirements put in place for auditing the good use of the financial resources involved.

- Though interesting progress was occasionally made in promoting and establishing South-South and North-South-South cooperation, for instance through the creation of ViFINET, more can be done.
- Higher levels of efficiency could be reached—particularly by making better use of resources—through increased cooperation between VLIR-UOS and CIUF-CUD, the equivalent of VLIR-UOS for Belgian’s French Community.
- Higher levels of financial sustainability can be reached by creating research capacity that leads to marketable products through which money can be made, allowing financial incentives to be paid to the contributing researchers and investments to be made in the development of the research infrastructure.
- The low salaries paid to Vietnamese researchers are a concern to their Flemish colleagues. At the existing level of remuneration it is difficult to develop research capacity effectively and sustainably.
- The concept of development cooperation is inappropriate for what is actually happening. Partnership building would be a better term for it.
- The project component focusing on the use of ICT for teaching and learning in the CTU-IUC project was successful from a logistical and administrative perspective during the first phase, when the emphasis was still on equipment and on putting the technological infrastructure in place. However, during the second phase, it ran continuously into difficulties because there was no central unit in the university that had responsibility for the academic and pedagogical development of e-learning. The need to have such a unit, which could have absorbed the results of capacity building in this area, had not been foreseen at the planning stage. Neither had it been foreseen that the inflexible system of definitions, rules and regulations that governed the face-to-face teaching/learning mode would cause a major problem for the development of distance education, which requires a different conceptualization of the teaching/learning process. The problem was exacerbated as top-level management had not been involved in the project. Such involvement is a key requirement. Proper needs assessment and front-end analysis, to determine and analyze contextual parameters of relevance, during the planning stage of the project could have avoided some such mishaps.³⁶ Opportunities were also missed to apply this area of development across projects, in particular in response to shared needs of HUST and CTU.
- Emphasis in VLIR-UOS tends to be on individual

THE IMPORTANCE OF NEEDS ASSESSMENT AND FRONT-END ANALYSIS

Many things may go wrong while implementing a project. However, some of those things could be avoided by taking the right decisions before the start of the project.

CTU-IUC was initially set up around goals pertaining to specific areas of disciplinary expertise, such as in aquaculture; soil science; biotechnology and technology for education. Transversal issues, related to skills development across the various projects, such as research skills; library skills; English language skills; ICT skills; teaching and learning skills, were only later found to be of crucial importance to the effective implementation of almost all projects. No financial resources had been foreseen to address such transversal needs and no entity in the university had been identified that could be made responsible for ensuring the university wide presence of such transversal skills among students and teaching staff.

Needs assessment, undertaken at the planning stage of the program and projects, would have identified all relevant needs to be addressed, their interdependence, and their order of priority in a strategy for solving the university’s problems. Front-end analysis would have revealed contextual factors that could hinder or facilitate the implementation of the strategy.

Based on: Telephone interview with Martin Valcke on 10/6/2010.

³⁶ It must be recognized, though, that, of course, not everything can be controlled. The change of leadership that occurred at CTU (see Martin Valcke’s comments in Appendix XII) is a case in point.

projects. Consequently, transversal issues often fail to become adequately addressed. Key issues in capacity building, such as the development of ICT skills, instructional skills, skills in using academic English, research skills and library skills are thus never defined to be taken up by central units within the university. When the absence of such skills is discovered as being problematic to adequately implement individual projects, it is often at a stage when money has already been allocated to project specific issues. Attending to such generic skills then often becomes an afterthought. Whatever gets done in these areas in the context of a single project naturally fails to impact the university at large.

A view from the south

Findings in this section are based on interviews with Vietnamese students and alumni, both in and outside Vietnam; Vietnamese professors, lecturers, researchers and administrators; representatives of communities and local authorities, alongside informal conversations with members of the Vietnamese populace in general. The core contacts made are listed in Appendix IV. The names of many others, who sat in meetings with the core individuals, as well as those with whom we conversed informally, are usually not mentioned.

Some of the individuals contacted fall into more than one category. Thus, researchers usually combine their research with teaching duties and are therefore either professor or lecturer; a number of them may additionally have taken on administrative roles; and with some of them the formal interview carried over into, or was followed up by, conversations in an informal setting. Besides, a number of the academicians with whom we spoke had studied, and occasionally were still studying, at Flemish universities with ICP, BTC, or Vietnamese financial support.

It should be noted that for those individuals who wear multiple hats, their diverse responsibilities often carry similar weight. Thus, by way of example, teaching and research are not just minor additional responsibilities if one is also a dean of faculty. In fact, accumulation of responsibilities is quite common in the academic world in Vietnam. It is a way of still making a somewhat reasonable salary, considering that salaries for full-time discharge of single responsibilities are extremely low, ranging from \$ 100 to \$ 120 per month for junior staff to \$ 300 to \$ 350 per month for senior staff.

An important purpose of the field research in Vietnam was to adjust, complete, and validate the picture that had meanwhile emerged from the desk study and the interviews conducted in Brussels. Thus, our interviews were based on what we had already learned. We used them to complete and enrich the picture, to triangulate the data already collected with those collected in Vietnam, and to validate our conclusions. Two reflective review meetings, one in Hanoi and one in Can Tho, played an important role in that validation process. The site visits we were able to carry out allowed us to interpret the recorded narratives against the backdrop of the conditions within which projects had achieved their goals.

Satisfaction

All the Vietnamese we met were invariably highly satisfied with the results of the collaborative events they had been involved in and/or the training they had received at Flemish universities. They did not just say so; they were also able to explain in an elaborate manner why they were satisfied. In substantiating their claims, they often referred to the value added of the VLIR-UOS programs and projects, notably their

flexibility; the fact that different options such as SI, OI, and IUC are offered; the focus on real and lasting collaboration; and the long-term vision, allowing programs to run and be planned to last for periods of 12 and more years (in the case of IUC's). They also find that the fact that projects are based on shared research interests particularly beneficial to establishing long-term ties.

Belgian scientists as seen through the eyes of their Vietnamese colleagues

Those interviewed often referred to the crucial role played by Flemish scientists in promoting and facilitating the cooperation. In this process the initiative must almost certainly have been on the Belgian side, at least initially. However, over time, a number of the Belgian academics became so well known in Vietnam for their work that they are now often being sought out when particular interests emerge among the Vietnamese researchers and students. 'Patrick Sorgeloos' (UGent) has become more of a concept than just a name, which seems to be on the lips of almost everyone in Vietnam; Prof. Ronald Van Loon (VUB) received a Doctor Honoris Causa degree at HUST in recognition of his contributions to the development of that university; and the name of Luc Hens is for many in Hai Phong, the city that awarded him for his services, identical with care for the human ecology and sustainable development. The relationships with the Belgian researchers are generally perceived by their Vietnamese colleagues as smooth, natural, respectful, robust and lasting. The way they are referred to in conversations expresses affection and a high level of appreciation. They are said to work well with and within the Vietnamese culture.

They are well known.

BECOMING DISCIPLINED, SKILLFUL AND FOCUSED

Lien's passion has always been with the environment. Vietnam, with its rapidly growing economy, faces many environmental challenges that crucially interact with the well-being of people and the development prospects of the country. This keeps her passion alive and growing.

She started off with a first degree in chemical engineering from the Moscow University of Chemical Technology (1980-86). While working at the Institute for Industrial Chemistry (IIC) in Hanoi, she took short courses on environmental issues in Sweden and Australia and spent two years at UGent (1996-98) as a student of the CES international Master program. While at UGent she learned to solve environmental problems—at technical, regulatory and policy level—alongside acquiring new insights into how to teach others.

Back at IIC in 1998 she taught, led workshops, designed projects while working with others, and developed learning packages that continue to be used. In 2004 she moved from the Ministry of Industry and Trade, where she then worked, to the Organization for the Prohibition of Chemical Weapons (OPCW) in The Hague, where she is an inspector. Her work remains focused on the chemical industry. She keeps her options open and may, when time comes, return to Vietnam or continue her career in an international context, still always representing and serving her country.

UGent has changed her life. She broadened her horizon; has learned to look at problems from the perspective of multiple disciplines; and has become more disciplined and focused; as well as grown in competence as a skillful researcher.

Based on: Interview with Nguyen Thi Kim Lien in The Hague on 5/8/2010.

Having that level of appreciation at the personal level is rather unique. It makes Belgium a preferred partner in initiatives for development cooperation in higher education and research. This is both a strength and a challenge. Obviously, to retain the position of preferred partner it is necessary to continually replenish the pool of Flemish scientists with individuals who, in addition to their expertise and research interests, have the same high level of commitment to the country with which they cooperate, as well as smoothness of interaction with the relevant culture, as demonstrated by the current group of researchers. The existence of 'Flemish Travel Grants', allowing Belgian students to perform part of their study assignments in Vietnam, is propitious to fulfilling this requirement, but more may be necessary.

Study in Flanders: Facts, perceptions, impact and sustainability

Effectiveness and costs: Available data on student statistics are incomplete. Appendix VII summarizes what we received from VLIR-UOS at our request. In view of the rather haphazard character of the available data, any statistical summary conclusions or inferences drawn from them must be seen as tentative and be taken with caution. Thus, from what is known, of the students who applied for ICP scholarships during the period from 2003 to 2010, some 14% was successful in

obtaining a grant. That figure shows a considerable degree of popularity of the ICP

scholarships with Vietnamese students, though the popularity of VLIR-ICP would likely be higher had the concept been marketed in Vietnam with the same zeal as demonstrated by some other countries, such as The Netherlands. From our conversations with students it appears that word of mouth and the occasional Web search have been the principal mechanisms of spreading and obtaining knowledge about the scholarships.

Another tentative conclusion that can be derived from Appendix VII is that success rates at the MSc and PhD level are probably of the same order of magnitude (better than 90 percent; the numbers are far too small to say anything comparatively regarding the two categories, i.e. if one category fares better than the other, even though the scanty data available suggest that MSc students fare better). According to the stories we heard, those who fail do so because of culture shock, lack of prior exposure to foreign cultures and consequently poor initial ability to adapt, as well as insufficient English language skills.

Unfortunately, no information could be obtained that would have allowed the research team to at least roughly estimate the total number of MSc and PhD graduates associated with or resulting from the efforts of VLIR-UOS to promote and facilitate cooperation between Flemish and Vietnamese institutions of higher education and research.

The actual total cost involved in training a Vietnamese PhD or MSc remains obscure as no tuition or other fees are being paid to the universities. The only thing that can be said, based on the data provided in Appendix VII, is that VLIR-UOS contributes some € 7000 per student per year to the total cost concerned.³⁷ This cannot be but a minor fraction of what is involved. We argued earlier in this report, as did our colleagues in 2007 (see the sidebar on ‘*Accountability and transparency*’ a few pages above) that hidden costs should be made visible so as to get a clearer picture of the real cost involved, as well as cost-efficiency and cost-effectiveness associated with the investments made in the cooperation.

The views of students and alumni: We interviewed formally and extensively a total of nine Vietnamese alumni and students who had pursued or were still pursuing degrees at Flemish universities. Eight were interviewed individually in a face-to-face fashion; one student, who, at the time of the interview, was working on his PhD in Scotland, was interviewed by email. Besides, we had one group conversation with multiple students (see Appendix IV for details). Students had enjoyed either ICP or BTC support, or their studies had been financially supported by Vietnam. The source of assistance was found to make no difference in the appreciation expressed for the Belgian academic system and in what the experience had meant to the students,



Figure 11: Group discussion at RIA3 in Nha Trang with MSc graduates from Flemish universities.

personally and professionally. The studies by all but one of the students had been, in one way or another, associated with ongoing VLIR-UOS financed collaborative events. For the one exception, the causal connection was the reverse: his study in Belgium had led him to become instrumental—and he still is—in bringing UGent to the attention of the University of Hué with a view to establishing interuniversity cooperation between the two. He has also become a strong advocate for study in Belgium and successfully convinced

³⁷ Note though that there is discrepancy between the figures presented in the top two tables on the fourth page of Appendix VII.

his colleagues to follow his example. The full interview with this student, which took place by email, is appended to this report (Appendix VIII).

It should be noted that the students/alumni we were able to interview belonged to the segment of those trained in Belgium who were traceable, i.e., they had remained in the system that had allowed them to pursue their studies. Alternatively, if they were no longer part of that system, their new work environment was known to their colleagues or the professors under whose guidance they had studied. There are two other groups of students: those who failed to complete their studies (a small proportion, as indicated above) and those who had left the system from which they came. This latter phenomenon is particularly serious at the PhD level. It has to do with the poor salaries academics receive in Vietnam. PhD's earn easily much more outside of the academy. The effectiveness of human capacity building in institutions of higher education and research is therefore contingent upon solving the salary problem.³⁸ Those who can be retained within the system are often individuals whose material well-being is, at least in part, independent of their salary. Others, as earlier explained, solve the salary problem by accumulating several (sometimes three or four) different responsibilities. All these various factors introduced an undesirable bias in our already small sample. Nonetheless, one can learn from the different narratives we collected. They are summarized below.

- The students interviewed were unanimous in their enthusiasm about their experience of studying in Flanders. The student featured in Appendix VIII is a typical example. Yet, despite their enthusiasm, interviewed students also often referred to initial difficulties they had encountered in adapting to the new environment; getting comfortable within a different culture; coping with weak mastery of English; and meeting the challenge of having to change their study habits. They had obviously succeeded overcoming such difficulties.
- Equally unanimous were the references to the life and mind changing impact that studying in Belgium had had on these students. Following is a collection of their most relevant comments (paraphrased, so as to bring together and generalize what was articulated on disparate occasions by different individuals):
 - *Belgium was the key to opening my mind. It gave me the mental tools to improve my thinking; to become thorough and methodical in my research; and to work in a disciplined manner. I became a more serious researcher.*

I LISTENED IN A RESPECTFUL MANNER

One of the pillars on which education traditionally rests in Vietnam is respect, respect by the student for the teacher. One is not brought up to contest the views of the teacher and ask critical questions; teachers are thus not educated to listen to their students. This often results in uncritical attitudes—which hinder constructive participation in society—and in a deeply rooted wasteful practice of learning by rote.

Thus, many among the progressive leadership in Vietnam value the opportunity for young students to study abroad, particularly in Western countries, to get exposed to alternative, more open, models of teaching and learning. Here is what one of them, Phuoc, who now pursues a PhD in Scotland, writes in response to a question by the research team:

After two years of study in Ghent (2002-2004), I returned to my country and continued my work teaching and studying aquaculture. I applied all my latest knowledge and I learnt to improve my skills in teaching and research. I started with changing the context and information of the lectures for which I was responsible. I applied the way of teaching used at UGent in my lectures. I created a version of the Ghent system and set a goal to organize group discussion, motivate my students to participate in seminars, and attend field trips. I also used both formal informal presentations for teaching and information gathering; listened in a respectful manner to my students and promoted the expression of diverse opinions and perspectives. I also gave a talk on my experience of studying and staying at Ghent University with my students and my colleagues; and as we are getting closer and more open, my students and my young colleagues felt more confident in presenting their ideas and I was able, in consequence, to keep them motivated.

Slightly adapted from a written interview with Nguyen Ngoc Phuoc, August 2010. The full text of the interview is available in Appendix VII.

³⁸ Another way to solve the problem in the more immediate sense, suggested by one of our interviewees, is to more carefully select candidates for PhD studies abroad, not only on the basis of their aptitude, but equally by looking at their motivational history and outlook.

- *It broadened my perspective beyond my initial interests as my individual research became situated within a more general context of multiple disciplines, including those dealing with social phenomena.*
- *Visits to practical applications in Belgium were important. I've become able now to do experiments myself.*
- *The professors in Belgium are of a very high quality. They are real experts in their field. They also showed by example how one can teach differently and more effectively. It made me learn better and changed the way in which I now teach my own students. Access to electronic information and documentation was also very important as was the possibility to acquire lab equipment with VLIR-UOS funds. We share it with other colleagues who don't have such facilities. It has become an important basis for subsequent grant proposals. I was allowed to still hold on to my account for electronic access to information in Belgium. This has become very important to me and my colleagues.*



Figure 12: Equipment, some of which acquired with VLIR-UOS funds, placed centrally in the lab, such that its use can be shared with unrelated colleagues, working on different issues.

- *After coming back to Vietnam, I was able to teach others what I had learned. I also taught my colleagues how to teach their students and developed packages to support them.*
- *I am now able to do my own background research by consulting the excellent library at the international institution for which I currently work in Hanoi.*
- *My Belgian fellow students were very friendly. They made me feel welcome. Their example stimulated me to become more actively involved. I apply this now with my own students. Because I liked studying in Belgium, I advised my colleague to also go to Belgium.*
- *I learned things in Belgium that allowed me to subsequently develop a technology in Vietnam that is now being used by the farmers.*
- *I have three articles under review for publication in international journals. I learned to write in English.*
- Interviewees varied in opinion about the benefits of pursuing their degrees entirely in Belgium or, alternatively, by following a sandwich construction. In some cases, when research about particular phenomena is highly dependent on what is found in the local environment, the sandwich model has clear advantages and students accepted gladly the downsides of having to move forth and back between the two countries—between family and work in Vietnam and study in Belgium. In other cases, when what one learns can be applied in ways that are hardly dependent on

context (the example of genetics was cited), preference was expressed for studying integrally in Belgium. A more flexible attitude towards the choices of modality of study would generally be appreciated.

- While students had intensely enjoyed their stay in Belgium, and would gladly accept to spend yet another term (such as for refreshing their knowledge and skills) in the country whose friendly people and rich variety of beers they had learned to appreciate, they were all also very vocal in expressing their strong ties to the country and culture in which they were born. They—that is the ones we interviewed—were positively dedicated to their culture, their country, and their research interests as embedded in that environment.
- The fact that facilities such as the Research Fund are being offered to others in addition to those who have studied in Belgium received acclaim and is looked upon with gratitude by all concerned.



Figure 13: An interesting case of different donors mutually reinforcing their collaboration with the same university, HUST. Physics graduate from the University of Twente (Netherlands) who had successfully applied for VLIR-UOS research funding, allowing him to acquire an essential piece of equipment for his research.

Research development

During the 19-day period of fieldwork in Vietnam, the research team visited 16 different sites (see Appendix IV) all over the country, HUST and CTU being counted as single sites, even though each of the two IUC's at these sites comprised multiple projects. The team spoke with both administrators and researchers.

The general focus in the area of research development has been on creating propitious conditions for good quality and valid research. Prompts to engaging in these efforts were in the first place research interests pursued by Flemish researchers that happened to coincide with research interests found among Vietnamese researchers. Particularly in the case of the smaller projects, the connection was often associated with contacts via students and alumni of international courses offered by the Flemish universities. While this puts into question the demand-driven nature currently seen as the primary motive for donor engagement in development assistance to countries in the South, shared interest is, in the eyes of this research team, far from being a bad motive for long-lasting results and thus

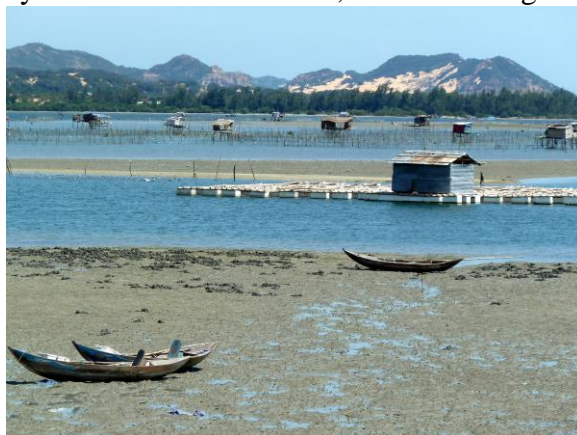


Figure 14: Lasting economic benefits can be derived from improving the technologies for the wise and effective exploitation of Vietnam's aquatic resources, with important potential implications for poverty reduction. Several VLIR-UOS projects were found to interact with this development concern.

sustainability. In fact, as the reality of what the researchers found showed, it's a pretty good motor for the development of enduring relationships and potential mutual commitment to socially relevant causes. We underline the word 'potential' as, indeed, in some cases there was a very clear awareness of the likely social benefits of the research undertaken; in other cases such awareness could have been more articulate. Whichever the case, projects in question had generally been defined and designed more with their research interests in mind than motivated by the social causes served by the research. A more conscious

attitude towards the imperative of undertaking serious Needs Assessment and Front-End Analysis prior to the design of any project, and to monitoring the advances made towards reaching socially relevant goals during project implementation, is clearly called for.

Below follow our summary findings regarding different aspects of what is involved in the development of research capacity in three major areas of concern.

Human capacity building for research: This aspect has in part already been covered in the previous section on ‘Study in Flanders’ as well as, in a less focused manner, elsewhere in this report. A major mechanism for the building of human capacity for research has been through the opportunities offered to Vietnamese would-be researchers to be trained abroad. Belgium is one of the countries offering such opportunities, among other universities at those in Flanders. Other countries do the same, under different conditions, in the context of different administrative requirements and management structures, and with different mechanisms of support. The Vietnamese scientists with whom we spoke often have a diverse academic background, having been exposed to a variety of dissimilar opportunities. For many of our interlocutors, Flanders had been part of that multifaceted background. They were articulate about what they owed to Belgium as compared to others: hands-on involvement in research; disciplined and methodical approaches; critical thinking skills; and, for what one can see against the backdrop of other international interventions in higher education development, lasting scientific ties with their colleagues in Belgium. Indeed, the Flemish system is very strong at the personal level; less so at the level of institutional cooperation. It’s a rather unique upside, with a downside in areas where some other major donors (in Vietnam’s higher education sector, The Netherlands and Australia) seem to be stronger. They all show different interests in their cooperation programs. In a sense it is good that such diversity exists. The Vietnamese choose from the menu and create their meal in accordance with their own needs and desires. That is what they are grateful for. The Flemish offerings are not imposed on them. The value added by VLIR’s assistance consists in longevity, diversity of choice, and flexibility.

Development of a research culture: A research culture goes beyond the development of mere competence. It has additionally, perhaps even primarily, to do with attitudes, values and the passion that drives the real researcher. Besides, it has to do with the ability to ask questions (not the same as formulating questions).

This issue was touched upon earlier in this report under the subheading ‘Research culture’ under ‘Monitoring

MARKETABLE RESEARCH OUTCOMES

Established research capacity allows a country, in addition to creating new knowledge, to solve its own problems; to take advantage of opportunities; and to manage and preserve its environment. It also allows research establishments to develop marketable products as well as to sell its capacity to do research to others. That way the research effort can be financially sustained, salaries paid and new investments made.



The above vaccine, produced as a result of the collaboration between VUB, K.U.Leuven, NIVR and CVVI (OI 2004), is a tangible exemplar of what is possible within VLIR’s flexible modalities of inter-institutional cooperation at a very modest cost (of the granted budget of € 310 000 only € 240 000 was effectively used). In addition to creating a marketable product, certified by the Department of Animal Health, other achievements of the project lie in the research that made the production of the vaccine possible (publication submitted); the training of some 200 para-vets; the building of diagnostic capacity; and the ICP supported training of two CVVI staff at the Master level in molecular biology.

The impact of the project is concrete and significant. The 30 % death rate among pigs farmed in Central Vietnam is now drastically reduced, resulting in higher income for the farmers.

The project is considered a big success by all Vietnamese concerned, down to the level of the farmers, whose life it changed for the better. Capacity building among farmers and para-vets has led to sustainable systemic change in animal health care in Central Vietnam. On the Belgian side one is equally satisfied with the concrete results achieved by the project, though it is regretted that no PhD’s could be trained as no candidates were found with sufficient mastery of the English language.

Based on an interview with Bruno Goddeeris on 10 June 2010 in Brussels and conversations held at NIVR and CVVI on 10 and 17 August 2010, respectively, involving some 20 different people.



Figure 15: Three generations of a farmer's family in Soc Trang (Me Kong Delta) whose life had changed thanks to the development of artemia culture in his area, a result of research conducted by Can Tho University in cooperation with the University of Ghent.

and evaluation' in the 'Findings section.' Reading of the evaluation reports had left the impression that the research culture had not evolved past the level of what could be measured by the number of publications produced and the categories of journals that had accepted them for publication. While the M&E practice had apparently focused on this indicator, and thus revealed no more than what it could measure, we are happy to report that what was found on the ground showed a much richer world and a more encouraging reality. That reality went beyond the publications generated by the research. It could be connected to relevant societal problems, problems that, in fact, motivated the researchers in more respects than just their scientific interest. Its significance could be recorded in the words of the researchers as well as those of farmers—like the one in Figure 15—whose lives were changed. While we were more impressed with what we saw than what we read, we wish to note that the project culture of what happens tends to obscure the cultures one wishes to develop project wise. A broader vision than the one that inspires the project culture is called for.

Improvement of laboratory conditions: We were generally satisfied with what we saw.³⁹ Equipment purchased with VLIR-UOS money—often relatively small amounts—was acquired for relevant purposes and frequently put to use such that it could also serve other researchers (see e.g. Figure 12 above). Equipment was generally cared for adequately, with one exception where better humidity control was found to be in the interest of maintaining the long-term functionality of sensitive optical instruments (we told the researcher in question). Ensuring the presence of adequate conditions for maintenance—in fact, the development of a culture of maintenance—should be an integral part of efforts to improve laboratory conditions.

Development of teaching and learning

The development of teaching and learning has remained underdeveloped and under attended to in both IUC Partner Programs. Universities play an obvious role in setting the trends and standards of teaching and learning, first of all at their own level of higher learning, but innovations introduced at that level generally also affect what happens at lower levels. This is thus a potentially important area of intervention.

While some research interests were in the area of educational development—particularly curriculum development and the development of conditions and infrastructure for the application of technology for education—neither of the two IUC Partner Programs had embedded such interests in a university wide vision of developing a culture of learning



Figure 16: A handful of artemia—at CTU's research station in Soc Trang.

³⁹ Review of the draft version of this report revealed (see Godelieve Gheysen's comments in Appendix XII) one instance (CTU) of non-optimal ways of equipment acquisition. We got the case confirmed and support Prof. Gheysen's suggestion to allow greater flexibility in budget allocation.

and teaching with a clear underlying philosophy. This is a failed opportunity in our view. There is, at least among part of the faculty, and among the more progressive elements in the leadership structure, considerable interest in changing the ways in which teachers teach and students learn. Lack of vision in this regard is also likely the cause of the meager results attained in the development of ICT support for teaching, learning, and networking, which we deal with next.

Development of ICT support for teaching, learning, and networking

The development of ICT support was a specific component of the CTU-IUC Partner Program. We found the results to be disappointing. The focus in developing this area has remained on the ICT tools and infrastructure (hardware and software) rather than their uses for improving teaching, learning and networking. While the entire issue should have been driven by a changed vision about the nature of the University, with obvious pedagogical implications that fundamentally touch upon university wide concerns about the quality of teaching and learning, it is a peculiar circumstance that neither CTU's School of Education nor the University leadership was formally involved in implementing the project. At the time of our visit to CTU we found a well equipped ICT Center, headed by someone who is technically competent but who is unaware of, and unable to respond to questions about, pedagogical aspects of the development of teaching and learning.⁴⁰ Consequently, e-learning—and in general distance education—have remained underdeveloped at CTU.⁴¹

In retrospect it must be concluded that many of the problems encountered during the execution phase could have been avoided, had the start of projects in this area been preceded by identification and assessment of the real needs, rather than the ones that were assumed to exist on the basis of misconceptions about the role of technology in education. It would likely have led to involving different actors, including a significant role for the leadership, and emphasis on the development of human capacity in different areas.

Interestingly, though, while HUST had no specific project on developing ICT support, they did an excellent job, largely due to the efforts of one person, Ms. Nguyen Mai Chi, making information on research opportunities available within their network by email and via the Web. Email correspondence with Ms. Chi following our visit to HUST showed undeniably a sustained concern on the part of HUST with keeping this practice alive and even expanding it to including all faculties, departments and centers.

In view of the rapidly developing innovations in the ICT landscape, one could perhaps have expected to also see an increased use of social networking platforms at the two universities, and more so even in the context a networking initiative like ViFINET, but no evidence of such uses could be found. Most likely, such developments are still hampered by the ambiguous attitude of the Vietnamese authorities vis-à-vis electronic freedom, which we mentioned earlier in this report.

Institutional development

Institutional development has for a long time remained limited to what individual projects were able to contribute to it. In other words, the collaboration benefited segments of the

⁴⁰ We have earlier referred in this report (see Footnote 27) to the importance of not separating technical knowledge from content knowledge and pedagogical knowledge, but working towards their integration within an overriding concern with the development of Technical Pedagogical Content Knowledge (TPCK). The establishment of an ICT Center is simply too limited a proposition.

⁴¹ We furthermore refer to Martin Valcke's comments regarding the developments at CTU in Appendix XII.

universities, rather than having a university wide impact. Only during Phase 2 did it become clear that it was better to shift the focus to more generic concerns such as improvement of the management capacity, the development of a research culture and improving the research capacity. This shift of focus was more successfully implemented at HUST than at CTU, despite the fact that only half a budget was allocated to the collaboration with HUST whereas CTU enjoyed a full budget.⁴² Facilities such as the research fund and PCM training at HUST made a considerable difference. Better achievements in institutional development could have been obtained had more serious explorations been undertaken prior to the design of projects, aiming at identifying the most critical needs for institutional development, and assessing their priorities.

Relevance

We refer to the issue of relevance throughout this report (see Index, p. 50, for references). Relevance is about the connection between the defined objectives of an intervention and prevailing social, cultural and economic problems selected to be addressed through the intervention. Ideally, such problems would have been identified prior to designing and launching the intervention. Considering that social, cultural and economic problems are normally of national significance, it would have meant that projects should have been situated conceptually within an existing framework of national policies for development and have been responsive to national strategies. In the case of the projects under scrutiny in this evaluation study, which were for VLIR-UOS a first generation of its kind, no such country strategy had yet been developed. Rather, as mentioned earlier, projects generally came about and evolved thanks to shared research interests.

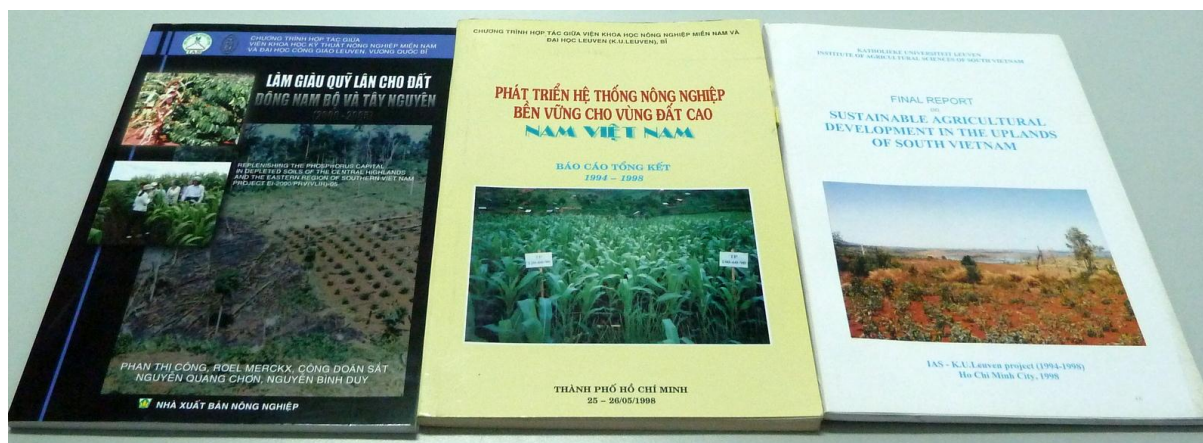


Figure 17: ‘Developing sustainable agriculture’ and ‘replenishing depleted soils’ are examples of relevant research—undertaken, respectively, in the framework of a € 5000 SI (1994) and a € 295 000 OI (2000) project—that changed the lives of farmers in the uplands of South Vietnam. Subsequent workshops served to inspire participants from other provinces and districts. Developments in the area led Government to upgrade the infrastructure. Building on these projects, the Institute of Agricultural Sciences of South Vietnam successfully submitted follow-on projects to the Australian Government for collaborative research with the Australian Centre for International Agricultural Research as well as to the Government of Queensland for extensionists.

Despite the lack of formal integration in a wider context of national policies and strategies, we found that R&D efforts undertaken in the context of the various projects and programs were yet generally responsive to relevant development goals. The link was clearest in the many cases of projects with implications for issues such as the protection of the environment; assessment, monitoring and management of the environment; sanitation; animal health; and the development of agriculture and aquaculture. Accomplishments in these areas had often led to considerable improvements among the populations affected by the outcome of the research, such as the shrimp farmers in the Me Kong Delta, pig farmers in Central Vietnam, and crop farmers in the uplands of South Vietnam.

⁴² See Footnote 29 above.

It would be shortsighted to conclude from the above that thus the development of a country strategy prior to project development would have been of no particular avail. In fact, it would have been of significant benefit for bringing projects together, thus creating synergy in collaboratively addressing important societal goals and creating the conditions for meaningful reflection on practice and organizational learning.

Considering that institutional development in the area of higher education is as such also a socially relevant goal, it must be noted (as already alluded to elsewhere in this report) that more could have been accomplished had greater attention been paid to opportunities to intervene transversally, across departments within universities as well as across different universities. A broadened focus on changing the culture of research, teaching and learning—rather than principally research—would equally have made the VLIR-UOS operation more relevant at this level of intervention in the society.

Finally, Vietnamese students and scientists, in reporting on their experiences (pp. 26-30 above) leave little doubt about how their functioning in society has gained in relevance.

Efficiency

Efficiency looks at the ratio between what is achieved through an intervention at different levels of accomplishment (outputs, results, impact) and the inputs (financial and otherwise) that were necessary to reach the results. We address the issue of efficiency, often in conjunction with effectiveness, also elsewhere in this report (see Index, p. 50). In the case of the different interventions financed by VLIR-UOS major inputs are money; (unpaid) time and effort spent by Flemish academics who also use their institutional resources; and associated personal and institutional opportunity costs minus such immaterial gains as publications, enhanced networks and credit for successfully trained PhD's that result from the cooperation. On the other side of the equation one finds a complex array of outcomes, including, for instance, new knowledge validated through peer reviewed publications in the recognized literature; gains in research capability (comprising human competence in multiple areas of concern, laboratory facilities, established values, practices and routines, capacity to generate income from contract research so as to ensure financial sustainability, etc.); and impact in relevant areas of social concern. Some of these elements are hard to express in quantitative or monetary form. Besides, in the particular case of the present evaluation study, efficiency is difficult to assess because the cost of some of the important

BEING EFFECTIVE, HAVING IMPACT, AND SUSTAINING THE RESULTS

The 2002 OI project ZEIN2002PR263 had a budget of only € 142 000. It used its money efficiently and effectively to improve environmental management in the rapidly developing coastal area of the Cà Mau province. Farmers were shifting from rice cropping to shrimp farming, which generates a 20 times higher income, but it's also more risky.



Location of Cà Mau province.

Research showed that the choice is not one or the other, but both. I.e., diversification is called for so as to mitigate the risks. The project was implemented with the involvement of provincial leaders and the People's Committees of both the Province and the District. Following conclusion of the project, extension workers were trained to train the farmers. Thanks to the project, farmers are now sufficiently wealthy and knowledgeable to buy and use autonomously their own instrumentation for the analysis of samples. Before 2002 they were poor and destroyed the forest to have more land for rice cropping.

Based on results of the project, the Japanese developed a project to help farmers raise shrimp in unpolluted waters. The People's Committee of Cà Mau evaluated the project and recommended divulging its results throughout the Province, making the knowledge directly available to the farmers [see Appendix X (in Vietnamese)]. The Province now earns one billion (10⁹) dollars from the shrimp export.

Three MSc students—one from Belgium and two from Vietnam—based their theses on the project. They now expand their inquiry and pursuit of knowledge at the PhD level, ensuring sustained competence.

Based on an interview with Nguyen Thanh Hung on 20 August 2010 at the Ho Chi MinhCity Institute of Resources Geography. Image: <http://commons.wikimedia.org/wiki/File:LocationVietnamCaMau.png>.

resources employed on the input side of projects remains hidden.⁴³ Thus, the observations that follow below are, by necessity, primarily qualitative.

First of all, looking at the broad picture, we can say that we found no noteworthy wastage of resources.⁴⁴ However, there is room for improvement. Particularly, as alluded to earlier, higher levels of efficiency could be obtained in one or more of the following ways:

- Conducting serious Needs Assessment and Front-End Analysis prior to designing projects so that baseline and boundary conditions are known and timely measures can be taken to mitigate the possibility of complications, wastage and failure during implementation.
- Better integration, coordination, and collaboration between projects that serve related or similar goals. The two OI projects ZEIN2002PR263 and ZEIN2004PR301 are cases in point. Both projects sought to impact the quality of environmental management in mangrove regions, involving different universities in Belgium working with dissimilar partner institutions in Vietnam. Surprisingly, the projects led separate lives.
- Intervening transversally, rather than within a single department, in areas of capacity building that are relevant across departments in the same institution. This may also involve the creation of an institution wide facility, such as a staff development unit, for the benefit of an entire university.
- Broadening the effect of an intervention, whenever possible, beyond the traditional walls of a university through the development of distance education and, additionally, by networking universities among themselves.
- Making more extensive and more creative use of information and communication technologies, in addition to and as an alternative for international travel, to enhance the quality and cost-efficiency of professional contact among scientists in the North and the South regarding both scientific matters⁴⁵ and issues related to the management of projects.
- Collaborating with other international partners with likeminded interests and intentions working in the same country and at times at the same universities. CIUF-CUD and NUFFIC come particularly to mind.
- Applying greater flexibility in budget allocation so as to avoid acquisition of equipment at times when conditions for installation and use are not yet fully in place (see Godelieve Gheysen's comments in response to the draft version of this report in Appendix XII).

Effectiveness

Effectiveness assesses how the actual achievements of an intervention at different levels of accomplishment (outputs, results, impact) relate to what was initially planned to happen. As one can see, the concept is related to that of efficiency in that it also deals with the outcome of the intervention. However, the comparison is now no longer with inputs that can be expressed (mostly) in financial terms but instead with intellectual and emotive inputs, the ideas and intentions that underlie the design of the intervention.

⁴³ See the item in this report on "Resources, resource management, and decision making about where to invest" under the heading 'The northern perspective' in the 'Findings' section (pp. 19-21).

⁴⁴ However, see Footnote 39 regarding an exception to the rule.

⁴⁵ This is, after all, what the World Wide Web was invented for at CERN.

The Vietnamese beneficiaries (academic as well as non-academic) of the cooperation were unanimously agreed about the effectiveness of the programs and projects, with the exception of the disappointing accomplishments in the field of e-learning at CTU. Outcome in terms of societal impact had often surpassed their expectations. Interviewees were eager and visibly proud to show the evidence of such impact to the evaluation team. We note that they had almost invariably experience of working with a variety of international partners, in addition to VLIR-UOS. In the comparison, the VLIR-UOS financed interventions, particularly the relatively low cost SI and OI projects, stood out in their appreciation among the competition as effectively leading to useful results.

Impact

Impact has already been discussed widely throughout this report in a great variety of different contexts (see the Index, p. 50, for references). We have previously⁴⁶ linked the concept of impact to VLIR-UOS's inspiring motto: "Sharing Minds—Changing Lives." Thus, while investigating the outcome of the cooperative initiatives undertaken with VLIR-UOS financing we have continually asked ourselves—and our interlocutors—the question: 'Whose lives were changed?' Naturally, we did so specifically while listening to the southern partners. Below is a summary of what was found.

We already mentioned⁴⁷ how studying at the Flemish universities profoundly, at times crucially, changed the minds and lives, both personally (ways of being and looking at the world) and professionally (ways of teaching, learning, and seeing oneself as a qualified researcher), of those who were granted scholarships. While no reliable statistics are available, the interviews held and email correspondence conducted on this matter, suggest that the proportion of failure cases is minor. Generally speaking, it therefore seems justified to conclude that impact of the human capacity building effort is above any doubt.

Impact at the institutional level was found in enhanced research capacity (human competence, self-confidence, visibility, perceived validity, lab equipment, etc.); improved ability to successfully compete for contracts; and recognition of excellence by institutions in the region as well as in other continents, leading to effective network building and both SS and NSS collaboration.⁴⁸

Most satisfactory, and beyond expectation, was what the research team was able to conclude regarding the impact on improving the conditions of living and work among the populations and communities concerned, particularly in terms of opportunities that were created for farmers to improve their earning power and the conditions put in place for the effective protection of the environment and for making wise exploration of environmental resources possible. Not only do farmers experience the impact, the entire economy of a province may derive significant benefit from the effected change. For an exemplary case we refer to the sidebar on '*Being effective, having impact, and sustaining the results*' (p. 35).

⁴⁶ See 'Methodological considerations'

⁴⁷ See in this report 'Findings' → 'A view from the South' → 'Study in Flanders: Facts, perceptions, impact and sustainability'

⁴⁸ Statistics such as those available at http://www.webometrics.info/top100_continent.asp?cont=SE_Asia provide some insight into the standing of HUST and CTU among higher education institutions in Asia. Obviously, the stature acquired by these universities is the result of multiple influences, among which the impact of the VLIR interventions cannot be isolated. However, what it shows is that VLIR has invested in a fertile environment and helped increase the likelihood of Vietnam playing an effective role in regional collaboration and research networks such as ViFINET.

Sustainability

Throughout this report we have documented change, brought about, or at least influenced in a detectable manner, by VLIR-UOS interventions, at levels ranging from the personal to the societal. We have also made frequent references to instances in which there were good reasons to believe that such change was sustainable. At this stage, one can of course only say that change has sustained until now. However, we have tried to look beyond the present and asked the question: How robust is the change that resulted from the cooperative events? What are the chances that it will last beyond what we see now? We have pondered, in that connection, related questions about what, in the various cases, are threats to sustainability and what factors favor robustness. Below we summarize what was found.

- The training of young academics in Flanders at MSc and PhD level has had sustainable impact in those fields for which they were trained and in institutional settings where they could be retained. Graduates are generally active and effective in transmitting to others what they have learned. They are an encouragement to their colleagues to follow suit. The investment in improving the capabilities of would-be and beginning researchers thus bears fruit. The presence of these trained scientists, after the completion of their studies, in the environments from which they originated impacts those environments positively, adding to the robustness of the change provoked.

An obvious threat to sustainability in the strict sense of the word is the mobility of trained cadres after their bonding agreements expire, as well as in cases where no bonding arrangements were set up or where graduates violated the terms of their agreement. As mentioned, this threat could be mitigated if better salary conditions were in place. In addition, alternative incentives, such as recognition of merit and promotion, would constitute other factors of importance in reducing this threat. The issue of human capacity building can simply not be dealt with in isolation from the need to improve salary conditions and other mechanisms of keeping people motivated for their job.

On the other hand, it should also be noted that mobility is as such not a bad thing. Thanks to being mobile, academics, not only in Vietnam but around the world, progress in their scientific career or may take up positions of higher responsibility. In doing so, they increase their value as an asset to their country's development in ways different from their more sedentary colleagues. An illustrative case in point is the Vietnamese mathematician Ngo Bao Chau who won the prestigious Fields Medal⁴⁹ in 2010 during the period when we did our field research. On the day it happened, Chau was celebrated officially and his name was on everyone's lips, despite the fact that the road to advancement had, for him, largely not passed through Vietnam. (For further detail we refer to the front page article in the Saigon Times of 20 August 2010, appended to this report as Appendix X.) The example shows that the pathways to sustainable impact may be in need of being less narrowly defined. In our own research we came across graduates, trained in Belgium, who had, following compliance with the terms of their bonding agreements, taken up contracts with such international organizations as the World Bank and the Organization for the Prohibition of Chemical Weapons, working in

⁴⁹ The medal is awarded every four years to top ranking mathematicians under the age of 40. Among mathematicians it has a status compared to that of the Nobel Prize in other disciplines.

areas closely related to what they were trained for, serving their country no longer from within but now from an international perspective.

- Relationships between Vietnamese and Flemish researchers are lasting. They remain strong beyond the term of the projects that forged and shaped them initially. They are perceived as robust by both the South and the North. Compared with what the South gains in terms of lasting relationships from working with multiple international partners, Belgium stands out. The fact that these relationships are formed in the framework of collaborative research on specific problems that constitute a shared interest for both partners is a factor of considerable importance. The longevity of the collaboration in the framework of the IUC model is another important contributing factor. It allows researchers to build a history of collaboration that doesn't easily go away. As the collaborative research projects are built around real interests, of both parties concerned, this creates a level of commitment that is hard to find in the collaboration-as-provision-of-services model that has become the mainstream in the world of fixed-term tendered projects, which cater to a specific demand that is not necessarily passionately embraced by the partner(s) in the North. As Belgium may be moving in this same direction, it will be important to conceive of alternative models of cooperation that retain as much as possible what was considered a particular asset of the old model.
- We found numerous instances of sustained change at the interface of projects and the environments with which projects interact. Many projects have had a spin-off in terms of human capacity building in the environments that surround them: farmers become capacitated in techniques with which they were previously unfamiliar;⁵⁰ authorities start taking responsibilities that until that time they were unaware of;⁵¹ ministries take over practices that are found to work within institutions that they oversee;⁵² and self-organizing and self-sustaining systems emerge where people and communities take advantage of opportunities that come into sight thanks to research based innovations or as a result of increased knowledge about their environment and what it has to offer.⁵³ This latter phenomenon is greatly helped by the eagerness of the Vietnamese to explore and learn. All this ensures that innovation does not remain isolated within the walls of institutions. Breaking through those walls creates links with the outside world that do not only benefit that outside environment; it also creates a wider system of interest in the innovation concerned, which therefore becomes more robust and self-sustaining.
- Many projects have had either a planned or spontaneous outcome in terms of offering training to others. In that vein, HUST, for instance, provides services in PCM training to other universities. Similarly, practices started in one district in Cà Mau province in the area of environmental management of these rapidly developing coastal zones, led to a subsequent decision to train all farmers in the entire province. The benefit to increased sustainability in such cases is that one's

⁵⁰ In areas such as care for animal health; alternative cropping practices; soil quality management; and environmental protection.

⁵¹ As was the case of the Hai Phong Port Authority.

⁵² Research selection procedures, first practiced at HUST, did not only become institutionalized within the University, they were also taken over by the Ministry of Science and Technology (MOST).

⁵³ As happened, e.g., following a Strategic Environmental Assessment (SEA) carried out in the Hai Phong area.

work has become more meaningful and will therefore be pursued more vigorously.⁵⁴

- Inter-institutional networking, particularly in a South-South context, around issues of acquired expertise is yet another factor that greatly contributes to sustained change for the same reason already mentioned two bullets up: network expansion and complexification give rise to increased robustness. ViFINET is, of course, a shining example. Such inter-institutional networking is, in fact, only possible if sufficient credibility is acquired that allows institutions to position themselves to play a role in a networked environment. It is of note in this regard that the VLIR-UOS financed cooperation has often contributed to establishing an institution's name among institutions elsewhere with which interests are shared.

To close this chapter, and looking back at what we learned from the evidence explored, we can't agree more with the authors of a slide presentation (see Figure 18) that was shown to us as we interviewed the Flemish academics in Brussels, regarding the conditions that need to be in place in order to attain sustainable success.



Figure 18: Conditions for attaining sustainable success. (Source: Slide presentation on '20 years Inter-University Cooperation UGent and CTU' by Patrick Sorgeloos and Jean Dhont.)

⁵⁴ The provision of services can also lead to the accrual of financial resources, which in turn leads to increased financial sustainability at the level of the providing institution.

Conclusions

For the benefit of easy referencing, we present our conclusions in itemized form below.

1. The performance of projects is always viewed against the backdrop of contextual factors. Success is the result of excellence of project design and effectiveness of project implementation on the one hand and the, often considerable, influence of contextual factors on the other. Knowledge of the context as well as determination of the needs to be addressed and priorities associated with such needs at the planning stage of projects is thus key to obtaining success.
2. With the above proviso in mind, we conclude that, overall, performance of the various projects and programs has met with considerable success, including in terms of societal impact and sustainability. It is seen as such by partners at both sides of the equation and substantiated by the evidence we collected. Stories of both personal and institutional success abound. Particularly noteworthy is the evidence, presented in this report, of sustainable impact on socially relevant issues. Yet, improvements are possible and, in our view, in order. In the last chapter of this report we make recommendations in this regard.
3. VLIR-UOS interventions come in diverse sizes budget wise, with varying duration and different scopes. All functioned well and were able to achieve valuable results within the limits of their budgets. Budgets for the smaller projects (OI and SI) are small compared to what other donors tend to offer. However, most of them are very good examples of how much can often be done with relatively little—at times very little—money. On the other hand, the comparison of the two IUC Partner Programs, one with only half the budget of the other, suggests that, rather than attributing fixed size budgets to these programs, budgets should be designed in accordance with the scope of projects and the goals to be attained as defined on the basis of needs assessment. The mix of very small, small, and big collaborative research events works very well, except that the administrative burden associated with the smaller collaborative schemes is disproportional to their size.⁵⁵
4. The facilities available under the VLIR-UOS umbrella, such as SI, OI and IUC, interact creatively with each other and with additional opportunities available in the Belgian context. For instance, students on ICP fellowships use research backpacks offered by VLIR-UOS and in the process institutional North-South linkages emerge that can later lead to larger scale projects of collaboration, which may, further down the line, result in competing, in an open call setting, for RIP funds.
5. The real cost of the collaboration remains obscured by a number of hidden factors. For instance, staff time of the Flemish researchers involved is unaccounted for, as are the financial privileges offered by the Belgian system of higher education to its students, whether Belgian or of different nationality. We are neutral as to whether such practices should change. They seem to work well and there is normally no need to change things that work well. However, in order to get a better sense of how efficiently one works, those hidden costs must be made visible.

⁵⁵ We note, in response to comments received on the draft version of this report (Michael Duser *et al.* in Appendix XII), that we have not been able to discern a particular bias within VLIR-UOS regarding possible preferences for projects of a particular size or scope. Selection of projects, according to VLIR-UOS, follows the process of peer review and uses scientific merit as the major criterion for selection.

6. The history of the past 10 to 20 years of Flemish cooperation with Vietnam in the area of higher education and research shows far less creativity when it comes to exploring opportunities for transversal interaction and collaboration across the different consortia and institutions in Belgium and, perhaps consequently, also in Vietnam. Greater impact could have been attained had there been more of a shared country oriented vision among the different partners involved; a greater sense of being strategically together in collaboratively pursuing important societal goals; and greater openness towards learning together from the experience each one has gained. For the latter to happen, a more serious attitude must emerge towards producing, sharing and using relevant knowledge for collaborative reflection and organizational learning. For the former to happen shared awareness of a country vision and shared commitment to a country strategy are necessary.
7. We are encouraged by the financial benefits resulting from the research in a number of cases. Such benefits provide important potential for reaching financial sustainability. A stronger focus on generating marketable products and services, though perhaps not always feasible, is in order. However, this principle should not be an exclusive criterion for selecting project proposals. As is known from the history of scientific research, it may take time for opportunities for financial benefit to come in sight. What emerges in the longer run, and can't be foreseen at the time when research agendas are being set, has often totally outperformed the benefits resulting from short-term thinking.
8. In the prevailing conception of the projects and programs so far undertaken, human capacity building is usually the by-product of research. Choices of candidates are made with the interests in mind of supporting the development of one's specific research area in Vietnam. Consequently, one regrets when a trained PhD holder, after fulfilling her or his bonding commitments, leaves the particular area of concern. There is insufficient vision of a more broadly defined strategy of human capacity development, and too much short-term thinking. In the long run, the results of efforts at human capacity development get distributed throughout society according to choices made by those who were trained. This holds as much true for Belgium as for Vietnam. The distributed impact thus created is often greater than the simple sum of focused impact in particular areas of interest.
9. In the absence of reliable records of Vietnamese students who have studied in Flanders over the time span of the current evaluation, it was not feasible to make a rigorous analysis of the gender balance. However, going by the sample of students we met and interviewed, there seem to be no serious problems of unevenness in the distribution over the two genders.
10. The absence of Needs Assessment and Front-End Analysis at the planning phase of projects and programs is a serious omission that calls for correction in identifying and designing future collaborative events. Many of the shortcomings that have been identified along the history of the programs and projects we reviewed could have been avoided had such procedures been part and parcel of the project cycle.
11. We noted that much of the success of the cooperation depends on the personal involvement over long periods of time of willing members of the Flemish

scientific community.⁵⁶ This is a clear strength of the system, which makes it unique among its ‘competitors,’ but it represents also a potential risk if the level of commitment shown by these older scientists can no longer be guaranteed among the new generation of Flemish researchers, coming out of the universities now. This should be a point of concern. The fact that the cooperation as currently structured offers opportunities not only to Vietnamese students but also to students at the Flemish universities to get involved—through the Flemish Travel Grants—in the collaborative research projects is considered a positive circumstance. It creates awareness and competence among young researchers that, in principle at least, allows them to follow in the footsteps of those who have been instrumental in establishing the current level of interuniversity cooperation.

12. We found a lack of serious attention to transversal capacity building regarding capabilities that are in demand across institutions, such as English language skills; pedagogical skills and attitudes; ICT skills; management skills; library skills; and essential skills, attitudes and values for the conduct of research of recognized value and validity. Attending to this deficiency requires central units to be created, commonly known under such names as staff development centers or academic development units, with a university wide mission and mandate, and staffed with appropriately competent people. This is also crucial for institutionalization of capacity building in these areas, which has under the current modalities often remained limited to particular departments in the university.
13. There are encouraging signs of South-South and North-South-South cooperation and networking. What we have seen leads us to conclude that the time is ripe to develop a specific focus on these modalities of cooperation.
14. Occasionally projects were found to have benefited from or contributed to the work done by others. A case in point is the complementarity of CTU-IUC and the now extinct MHO program of institutional cooperation between Dutch institutions of higher education and CTU. The two programs ran for a long time in parallel and benefitted mutually from each other’s presence.⁵⁷ However, such interactions have mostly been accidental, rather than planned. We conclude that greater efficiency and effectiveness could be reached if opportunities for cross-donor collaboration would be more actively explored and planned. This requires in the first place greater openness towards learning about and from each other in a collaborative international development context. Belgium cannot do this alone, but it can develop initiatives to bring partners together or take advantage of opportunities that come its way.
15. In general, we see a need for introducing in the system principles of organizational learning at various levels. We come back to this in the chapter on recommendations.
16. The new media of communication and networking have only sparsely been used in the context of project implementation. By and large, leaders on both sides seem to

⁵⁶ The same point has earlier been made in the 2008 report of the *Final Evaluation of the IUC partner program with Hanoi University of Technology (HUT), Vietnam* by Paul G. de Nooijer and Nguyen Van Thang (p. 4), available at http://www.vliruos.be/downloads/IUC_final_evaluation_HUT.pdf.

⁵⁷ See for further detail the 2008 report to VLIR of the *Final Evaluation of the CTU-IUC partner programme – Can Tho University (CTU), Vietnam* by Ruddi Vaes and Nguyen Van Thang (MHO is first mentioned in the body of the report on page 36 and further references can be found by performing an electronic search through this lengthy document, which is available at http://www.vliruos.be/downloads/IUC_final_evaluation_CTU.pdf.

be insufficiently aware of their potential and unfamiliar with their use. The 2008 report of the *Final Evaluation of the IUC partner program with Hanoi University of Technology*⁵⁸ states: “Regular exchange visits were undertaken by both Flemish and Vietnamese project leaders (planning of activities, review of realisations, participation in VLIR-HUT Research Council, etc.). In general these visits were appreciated” (p. 32). The observation by our colleagues raises the question of efficiency. How much could this be reduced if partners stayed more effectively in contact through electronic means? A better balance between travel for the purpose of face-to-face contact and electronic communication is called for.

17. Finally, human capacity building in the context of the collaborative research projects and programs has had a strong focus, though certainly not an exclusive one, on training in the context of the traditional disciplines. The problems one faces in the international development arena are increasingly of an interdisciplinary and transdisciplinary nature.⁵⁹ We note an already existing openness among the scientists with whom we spoke regarding the need to change perspectives. We encourage these developments. In the same vein, we wish to draw attention to the need to expand thinking about human capacity building to include concerns with the building of leadership capability. Vietnam is undergoing crucial change and has arrived at a stage where soon an older generation of leaders will make room for younger colleagues. To what extent are we, and is Vietnam, ready for it?

⁵⁸ http://www.vliruos.be/downloads/IUC_final_evaluation_HUT.pdf.

⁵⁹ We refer to comments by Michiel Duser *et al.* on the draft version of this report (see Appendix XII) suggesting that lip-service is being rendered to the principle of transdisciplinarity. We have found no evidence of such an attitude among the VLIR-UOS officials and the scientists with whom we spoke. Our reading of past reports has not revealed either any evidence that such an attitude might have been present among their authors. We agree with Duser *et al.*, though, about the difficulties one often faces in general when introducing transdisciplinary research in a traditional academic environment, particularly as regards recognition and reward structures that have not yet adapted to what, in our view, is a fruitful—and increasingly more noteworthy—emerging development in the academic world.

Recommendations

1. **Needs assessment and analysis of boundary conditions and context:** We recommend that needs assessment⁶⁰ as well as front-end and contextual analysis be included in the project cycle so as to further improve effectiveness in creating impact at the end-user level and for making the right choices about whom to get involved and how. In view of the often long-term nature of the cooperation, it is furthermore recommended to revisit the question of needs, boundary conditions and environmental factors at regular intervals along the lifespan of evolving partnerships.
2. **Organizational learning and reflective practice:** Serious attention is recommended to exploring opportunities for organizational learning.⁶¹ Project thinking was found to be predominant among actors in the program. It obliterates programmatic concerns and obscures visions of the grand goals that ought to be pursued at the societal level. It also deprives the program of the opportunity to create added value, to seek synergy and cooperation across projects. Collective reflection on what each project contributes to attaining goals beyond what can be achieved at the project level is called for. Capacity building and organizational learning within VLIR-UOS itself is part of the concern expressed in this recommendation.

This is not the place for elaborate explorations of the issues involved in organizational learning and reflective practice. An extensive literature exists regarding these two related fields. May it suffice to mention the names of founding figures like Donald Schön, Chris Argyris and Peter Senge for those readers who want to engage in their own explorations of this fascinating area? A Web search will easily reveal a wealth of resources, some of which available in electronic form and others in print.
3. **The practice of evaluation and monitoring:** Against the backdrop of the previous recommendation, it is strongly recommended to rethink evaluation and monitoring practices from the perspective of creating opportunities for reflection on practice and learning at the organizational level. Evaluation and self-assessment reports should stimulate debate instead of leading a short unfulfilled life before being filed away without being properly read. Those, like project coordinators, who dig up the data, should derive satisfaction from the exercise rather than perceive this as a mere administrative burden, necessary to satisfy bureaucratic rules.

⁶⁰ For starters, see e.g., Watkins, R., Leigh, D., Platt, W., and Kaufman, R. (1998). Needs Assessment: A Digest, Review, and Comparison of Needs Assessment Literature. *Performance Improvement*, 37(7), 40-53 (available at <http://home.gwu.edu/~rwatkins/articles/NAdigest2.pdf>); and Altschuld, J.W. (2004). Emerging dimensions of needs assessment. *Performance Improvement*, 43(1), 10-15. A needs assessment toolkit (dated 2007) is available at <http://web.worldbank.org/WBSITE/EXTERNAL/WBI/0,,contentMDK:21540152~pagePK:209023~piPK:335094~theSitePK:213799,00.html>. A forthcoming publication of interest is Watkins, R., Visser, Y., and West-Meiers, M. (in press; expected publication date: summer 2011). *Needs Assessment: Tools and techniques for collecting information, making decisions, and improving performance*. Washington, DC: World Bank.

⁶¹ 'Organizational learning' is to be interpreted as learning at the level of an entire organization or organizational network (as opposed to learning at the level of isolated individuals). Learning organizations are, according to Peter Senge, author of *The Fifth Discipline* (1990, New York: Currency Doubleday), "organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together." Senge describes five characteristics of the learning organization, namely systems thinking; personal mastery; mental models; building shared vision; and team learning. Relevant resources can furthermore be found at NUFFIC's Web page about learning organizations available at <http://www.nuffic.nl/nederlandse-organisaties/services/capacity-building/niche/themes/learning-organizations>.

4. **Distributed learning and the use of ICT**: Distance education, and in general the use of ICT for creating learning environments, has remained underdeveloped. Such learning environments could be conceived of for the purpose of expanding the learning opportunities for students beyond the walls of universities to cover regions or the country at large; they can equally be envisaged for bringing together scientists in the North and the South involved in project implementation to facilitate ongoing critical reflection on their work in the spirit of organizational learning. Infrastructure and technical competence have been installed in a spotted manner, but there is lack of vision about its potential; lack of pedagogical technical content knowledge to allow for effective and cost-effective applications; and lack of attention to serving the academic community in a university wide fashion and across institutions. By and large we find that the entire area of digital social networking is still to be discovered in the context of the Vietnamese-Flemish cooperation. These various issues call for further exploration and development. It is thus recommended that opportunities to advance this area in future work receive serious attention.
5. **Transversal capacity building in key areas**: The effect of interventions aiming at capacity building around issues that are of crucial importance in a university wide context (e.g. English language skills; pedagogical skills and attitudes; essential skills, attitudes and values for the conduct of research of recognized value and validity; ICT skills; and library skills) has largely remained confined to the entities in which research projects were embedded. We recommend attending to such issues in future work in ways that allow capacity to become absorbed in central units (such as an academic development center) that serve the entire institution.
6. **Development of a culture of learning and teaching**: Encouraging interest exists in Vietnam in changing the culture of learning and teaching. Vietnamese students trained at Flemish universities, when back in Vietnam, take advantage of what they saw and implement, in their own teaching, the models presented to them at Flemish universities. However, contributing to the desired change has not been an explicit concern in the planning of the VLIR-UOS financed collaborative research initiatives. It is recommended that the development of a culture of learning and teaching be given attention alongside the existing attention to developing a research culture.
7. **Attending to the need for new leadership**: In addition to capacity building in research and education, we recommend that attention be given as well to university governance with a view to nurturing the next generation of leaders.
8. **Networking and collaboration in South-South and North-South-South perspectives**: Interesting advances have been made during the period under review in facilitating and establishing South-South (SS) and North-South-South (NSS) networking and collaboration, ViFINET being a prominent example. We recommend that past success and achievement of excellence in this area serve as a source of inspiration for an enhanced focus on these very effective mechanisms. Vietnam is well positioned to serve as a networking hub in both the SS and NSS context. Future cooperation should have a strong focus on enhancing Vietnam's validity and credibility for generating and facilitating SS and NSS networking. Such networking should be expected to contribute to enhanced robustness of the achievements attained by the networking partners.
9. **West-East-South partnership opportunities**: In addition to the SS and NSS modalities of networking mentioned in the previous recommendation, we recommend use of a West-East-South (WES) partnership approach in those cases where the East European

experience of post-Soviet era transformation appears to provide interesting models for the transformative processes Vietnam is envisaging.

10. **Inter- and transdisciplinarity:** Many of the reviewed projects have interesting inter- and transdisciplinary dimensions. In attending to the complex and ‘wicked’⁶² problems, such as the ones encountered in the international development context, inter- and transdisciplinary approaches are gaining respect and validity in the literature.⁶³ We recommend that such approaches, which explicitly include attention to the social and human dimensions of facilitating change, be favored.
11. **Diffusion of innovations:** A possible area of attention, recommended for consideration, concerns innovations, resulting from past and current research, that have impacted limited geographical regions, such as Can Gio, which might also find useful application in other parts of the country. We recommend study of such possibilities and, if found viable, the facilitation of spreading the relevant innovation to other regions.
12. **Environmental impact assessment:** Various research projects have led to useful applications, particularly in the fields of aquaculture and agriculture. In some cases we saw clear evidence that applications were accompanied by research regarding the environmental impact of the innovations in question. In other cases we failed to get clarity on this issue and thus recommend that the development and adoption of new technologies be followed by studies of environmental impact as a matter of course.
13. **Central Vietnam:** The IUC Partner Programs have so far focused on two major hubs in the North and the South. Central Vietnam has hardly been in the picture. We recommend a broadening of the focus of attention in higher education development to particularly include Central Vietnam.
14. **Country vision and strategy:** The previous recommendation is a special case of a more general concern. We recommend that the development of projects and programs, and their implementation, be informed by an agreed vision regarding the development objectives of the country concerned and a shared strategy for addressing identified and selected development goals.
15. **Marketable products and services resulting from the development of research capacity:** While not a primary or exclusive focus, we recommend that one of the criteria for judging research proposals be the likelihood of results that can be marketed and thus contribute to financial sustainability of the research infrastructure, human as well as physical. Money thus generated can be used to improve scientists’ remuneration and to maintain and upgrade laboratories.
16. **Motivation of candidates for study abroad:** A proportion of those who studied at Flemish universities contributed little to developments in the research environments from which they came. Loss of such trained competence is reportedly related to motivational factors, both intrinsic and extrinsic ones; sense of commitment and social accountability; as well as circumstantial factors. It is therefore recommended to pay more careful attention to what motivates students and what values they adhere to in selecting them for degree-oriented training abroad. Careful interviewing and study of elaborate statements of interest and motivation are in order.

⁶² Rittel, H., & Webber, M. (1973). Dilemmas in a general theory of planning. In: *Policy Sciences*, 4(2), 155-169. Also available at http://www.uctc.net/mwebber/Rittel+Webber+Dilemmas+General_Theory_of_Planning.pdf.

⁶³ However, see also the comments by Michiel Duser *et al.* on the draft version of this report in Appendix XII as well as our response to those comments in Footnote 59 above.

17. Preparation of candidates for study abroad and accompanying them while abroad: We compared the attention given to students who study at the Flemish universities and those who go to The Netherlands via NUFFIC/NESO, interviewing NESO officials at their HCMC office.⁶⁴ NESO has an elaborate system of preparing students—mentally, culturally, and in terms of English language competence—before they depart, through a series of events. Prior to departure, they are also linked into a network of Vietnamese students who already study at the universities in question to which they go. This facilitates acculturation, smooth integration, and an effective start of the study. We recommend that similar procedures be followed for the Vietnamese students who go to Belgium as it will reduce the loss of students due to difficulties in adapting to a new environment and responding to new expectations.
18. Building a student and alumni network: In the same vein as the previous recommendation, and with reference again to the NUFFIC/NESO experience, we recommend developing, and subsequently caring for, a strong student and alumni network. This is both in the interest of the students and graduates and of Belgium. It provides Belgium with an excellent pool of human resources to draw upon for involvement in different development activities in Vietnam in the future. It is also important for keeping track of students and graduates, which will facilitate longitudinal study of the effectiveness of the human development effort.
19. Flexibility of choice of PhD training models: We recommend considering to allow flexibility in the choice of models for PhD training (sandwich and full-time). Students who related their experience vary in their preference and they all have valid arguments for their particular preference.
20. Integration with scholarship opportunities funded from Vietnamese sources: Vietnamese students have different options to seek financing of their studies at Flemish universities. The cases we were able to investigate show that they are comfortable with whatever they get, though there is some concern regarding the rather meager funds associated with the scholarships that Vietnam has on offer. On one occasion the suggestion was made to us that VLIR-UOS consider the possibility of topping up Vietnamese scholarships. We recommend the issue, as well as alternative possibilities for integration, for further study.
21. Nurturing postdoctoral research: Support to stimulating and nurturing postdoctoral research to enhance the research capability has been effective. We recommend that it continue full force.
22. Collection and safeguarding of data: We recommend a more serious attitude within VLIR-UOS and the participating Flemish universities towards recording relevant data and safeguard them to make it possible to gain better insight into the efficiency and effectiveness of the cooperation. This should include keeping track of alumni and accounting for hidden costs associated with the cooperation.
23. Budgeting and appropriating funds for IUC interventions: We recommend that the size of budgets for IUC interventions be determined in accordance with the scope of these interventions and the goals to be attained through them, as opposed to working with fixed size budgets. Needs assessment should inform the design of the budget. We equally recommend flexibility in apportioning and appropriating funds over the course of the implementation of IUC Partner Programs.

⁶⁴ <http://www.nuffic.nl/home/nuffic-offices/neso-vietnam>.

24. Information sharing and cooperation with likeminded agencies: Information exchange with agencies such as CIUF and NUFFIC, and exploration of possibilities for better coordination and synergy concerning the largely similar aims pursued by such agencies, is recommended.
25. In-country agency collaboration and alignment: In the spirit of the previous item, we also recommend closer collaboration and effective alignment with agencies (bilateral, multilateral, civil society) active in the country doing things that fall in line with VLIR's own objectives. Alignment should be interpreted in this context as seeking to mutually reinforce one another's action and saving money and other resources in the process. It is decidedly not the same as uniformization. Diversity of approach among different collaborating partners is crucially important for organizational growth. Opportunities for collaboration and alignment should be identified at the start of the cycle in the context of the assessment of needs and analysis of boundary conditions and contextual factors.

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Publisher: Flemish Interuniversity Council, University Cooperation for Development (VLIR-UOS)

Design: VLIR-UOS

Registration: D/2011/10.960/7