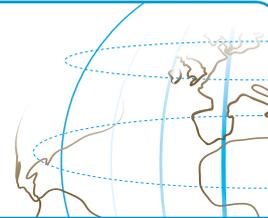


NUFU 2007–2012



NORWEGIAN CENTRE FOR INTERNATIONAL COOPERATION IN EDUCATION

The Norwegian Programme for Development, Research and Education

Final Report

July 2013

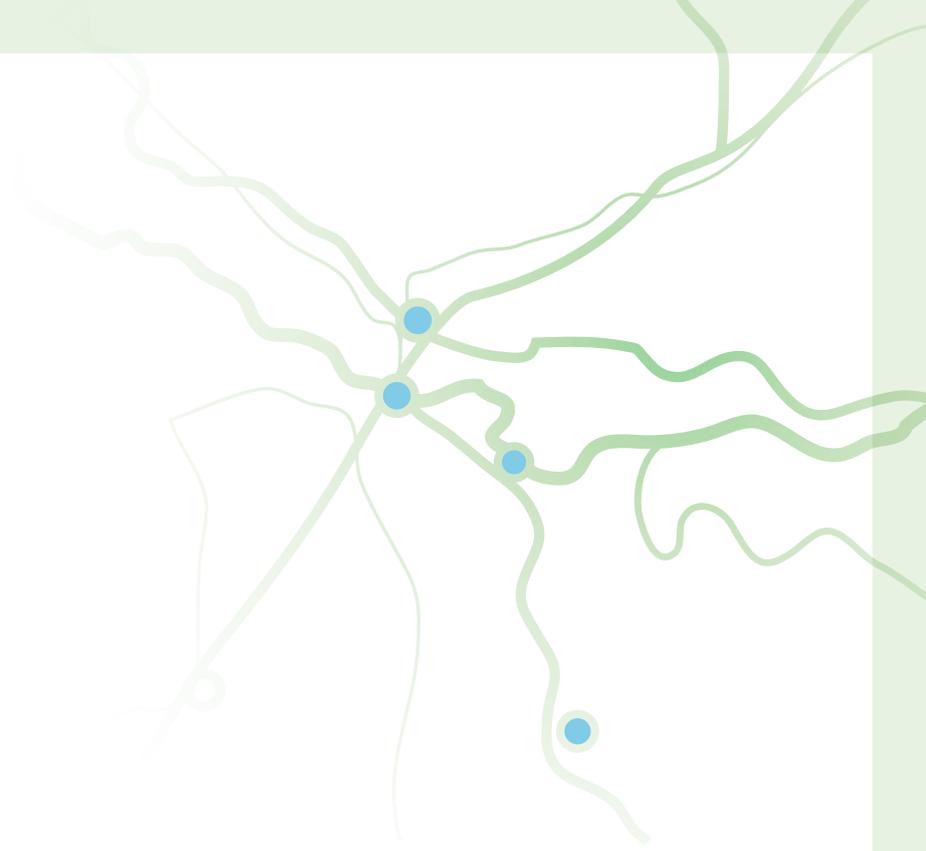


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Introduction

“The NUFU Programme has a recognised brand and is well known for its accomplishments in PhD education and research collaboration.”

Evaluation of NUFU and NOMA, 2010

The activities of Norway’s flagship Programme for Development, Research and Education, NUFU, has now come to an end after an impressive and successful two decades. The focus has been on international research and training collaboration with low and middle-income countries, and for many universities in Africa and Asia the programme has been nothing less than a door-opener to the world of international collaboration both in research and in higher education. Many of these universities are now equipped with a basic understanding of both how to initiate and to conduct international research collaborations and of how to apply for grants. What we see now is that these early adopters of the NUFU Programme are becoming leading institutions in their home countries, guiding other, younger universities into the international community of universities and other institutions of higher education.

Since its fledgling start in 1991 NUFU has grown to become a powerful programme spearheading collaboration on equal terms between universities in Norway and low and middle-income countries around the world, mainly in Africa and Asia but also in the Middle East and Latin America.

For all the collaborating institutions NUFU quickly became synonymous with an interesting cooperation that enabled the discovery of academic collaboration on an equal footing with a European university. Over the years I have heard so many academics testify to what their NUFU collaboration has meant for them: it has been a series of positive surprises!

The first surprise was to sit down and sincerely discuss how to go about a project and plan all the details including the budget in the North. This was distinctly different from receiving ‘orders’ from abroad on how to run the project. This type of local ownership has been a real game changer for the institutions involved.

The second surprise was the NUFU Programme’s strong emphasis on capacity development. So many research projects in low and middle-income countries have focused on research, leaving the local partners behind when the foreigners move on to do PhDs etc. based on the research they have produced together. This inclusiveness has been greatly appreciated, and it has also meant that the institution is able, in a sustainable way, to perform at a higher level than before.

The third surprise was to visit the Norwegian institutions and to witness the un-hierarchical interaction between professors and their students, in stark contrast to what many had experienced at their own institutions.

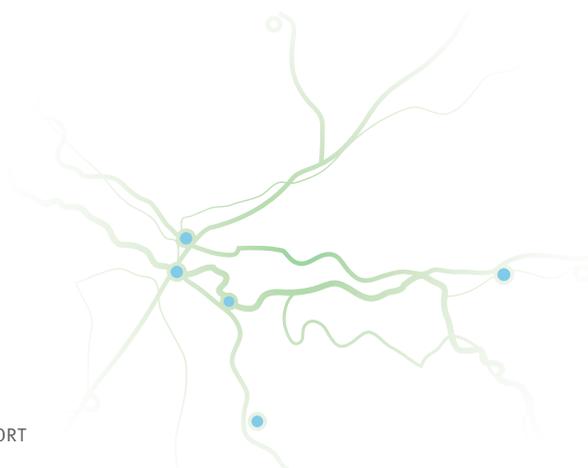
The fourth surprise has been the NUFU Programme’s strong emphasis on gender equity. This emphasis was not always appreciated initially, but after 20 years it is easy to see the results in this report: the proportion of female candidates at all levels is considerably higher than in other comparable programmes. This aspect has become increasingly appreciated and has contributed to development in general in the countries concerned.

The benefit for Norway and Norwegian institutions has also been important. Norwegian institutions of higher education now have first-hand contact with institutions in the global South. This is important for their understanding of global issues, for setting goals and targets and for communicating with Norwegian society at large.

The NUFU Programme is now coming to an end, but the positive impact of the NUFU Programme projects into the future. In the near future this means the completion of more PhDs, more publications, etc. In the longer term it means stronger universities better equipped to serve their nations and populations in their future development.

We say thank you to NUFU and welcome to its successor NORHED!

Prof. Thorkild Tylleskär
Chair of the Programme Board for the NUFU and NOMA Programmes



Executive Summary

Since 1991 the NUFU Programme has represented a major effort by Norway to build sustainable capacity and competence in research and research-based higher education in low and middle-income countries through close and mutual partnerships between academic institutions in the South and in Norway. There is no doubt that the programme has been a success both as regards scientific results and institutional capacity building in a number of countries.

In its fourth and last programme period (2007–2012) the NUFU Programme supported 69 projects in 19 countries in Africa and Asia with joint research, training of PhD and Master's students, the development of study programmes and courses, and training of technical and administrative staff. This Final Report presents the extensive results achieved by these projects in research, capacity building (with special emphasis on female participation) and institutional development.

Scientific results

The NUFU Programme 2007–2012 has been highly successful in conducting research and presenting results in scientific publications. The number of publications has been an important quantitative indicator of research activity within the programme, and peer-reviewed articles in particular are benchmarks of scientific quality in the projects. By 2012 the total number of reported publications from the projects had reached 2030 out of the 2117 that were expected at the outset of the projects. The number of peer-reviewed articles had reached 790 out of an expected 909. More publications will appear after the end of the programme period, and the targets will most likely be reached by 2013 or 2014. The projects have conducted high-quality research and have been successful in presenting their results in internationally recognised publications. The publication rates were significantly higher in 2007–2012 than in the previous NUFU programme period (2002–2006).



BETTERING BARLEY IN ETHIOPIA / The precursor to the NUFU project 'Seed Safety through Diversity' (2007–2011) started at the Norwegian University of Life Sciences (UMB). In her thesis in 2007, Dr. Fetien Abay addressed why Ethiopian farmers in the Tigray region never grow the recommended improved varieties of barley – the third most important crop in this very poor region. The key was to test the barley on the actual farms and not in testing facilities where conditions were much better. About 250 farmers in the region participated in the project. Results showed that for varieties to be adopted, they must be selected under real farm conditions. Dr. Fetien Abay showed that the highest yielding variety was a type called 'Himblil', selected by an 87 year old mountain farmer. His variety spread quickly once it became known by participating farmers, and was officially approved for cultivation in 2011. The farmers experienced increased crops through participation in the research project. The work was continued through the NUFU-funded project 'Seed Safety through Diversity', where Dr. Fetien Abay became Ethiopian coordinator. A cross between 'Himblil' and the most common type of barley in the region, 'Saesa', was in this project studied further. In 2012 two new varieties were approved. There are high hopes for the variety 'Fetina', which is ideal for baking; barley is about half the price of Ethiopia's national grain called teff. Photo: Dr. Fetien Abay (in the middle). On her right is Dr. Salvatore Ceccarelli, who visited the project in 2009. He is the former head of barley breeding at International Center for Agricultural Research in Dry Areas (ICARDA). Norwegian coordinator, Professor Åsmund Bjørnstad (left) and PhD student in the project, now Dr. Yemane Tsehaye (right). Names of the remaining three persons in the photo are unknown. (Photo: Mekelle University)

Impact for development

A major achievement of the NUFU Programme is its considerable impact on research capacity at partner universities in Africa and Asia within fields relevant to national development and poverty reduction. The programme has also increased the capacity and competency in publishing research results. This has enhanced the ability of the universities to have an impact on development.

Research results relevant to national development have also been communicated to policy-makers and other stakeholders. The projects have reported approximately 400 dissemination activities primarily targeted at the general public, policy-makers, the public and private sectors and NGOs. More than 1000 dissemination activities, in addition to publications, were primarily directed at a scientific audience. This indicates that researchers have prioritised the dissemination of research results relevant to national development to their peers in the scientific community, with a longer-term perspective on contributing to policy change and development.

Capacity development through PhD and Master's training

The NUFU Programme has achieved significant results in capacity building and institutional development at universities in the South, primarily through degree training at PhD and Master's levels. A total of 194 PhD students and 294 Master's students are expected to receive their degrees with funding from the programme, which is a highly satisfactory achievement. The recruitment goals at programme level have been reached, which is a key quantitative indicator of success in the NUFU Programme. In addition, many PhD and Master's students with funding from other sources have been involved in the projects and contributed to successful capacity building at the various institutions.

Increasing and sustaining institutional capacity

The NUFU Programme has achieved important results in training university staff in the South, with a significant impact being made on the universities' capacity for research and research-based higher education. Most PhD graduates and a substantial proportion of Master's graduates find employment at a higher education institution in their home country after being awarded their degree. The students have retained strong links to their home institutions throughout their studies, which has reduced the risk of a *brain drain*. At the same time, by being part of an international collaboration, the students have gained access to international research and education networks that have enhanced the chances of a successful outcome to their studies and research. This increased competence benefits their home institutions in terms of sustainable capacity for research and research-based education of an international standard.

In addition, many graduated Master's students and some PhD students become employed in the public or private sectors or by an NGO in their home country. Along with increased capacity at universities, such contributions to a highly qualified workforce for development constitute a significant result for the training provided through the NUFU Programme.

The South-South-North collaboration has also been highly beneficial to the participating Norwegian institutions. The NUFU Programme has contributed to close institutional partnerships, mutual research collaboration, student mobility in both directions, and *internationalisation at home* on Norwegian campuses.

Promoting female participation

The focus on gender equity and gender balance in the programme has yielded results, and the female participation rate in NUFU-funded projects, particularly at PhD level, is very impressive. The proportion of female graduates is remarkably high: 46 per cent at PhD level and 37 per cent at Master's level. In this way, the NUFU Programme has helped increase the proportion of female students and highly qualified academic staff at the universities in the South, with a positive impact on female participation and gender equality in academia and beyond.

The NUFU Programme 2007–2012 – Key figures

| |
|--|
| Total budget: Approximately NOK 400 mill. |
| Number of five-six year projects: 67 projects in 19 countries in Africa and Asia |
| Number of PhD students: 194 (46 per cent female) |
| Number of Master's students: 294 (37 per cent female) |
| Number of scientific publications: 2030 |
| Number of peer-reviewed articles in scientific journals: 790 |
| Number of other dissemination activities: 1446 |
| Number of courses and programmes established: 63 |
| Number of support staff members trained: 336 (38 per cent female) |

1. The NUFU Programme 2007–2012

For more than 20 years, the Norwegian Programme for Development, Research and Education (NUFU), has been developing sustainable capacity in research and research-based higher education in the South through academic South-South-North cooperation, with financial support from the Norwegian Ministry of Foreign Affairs and the Norwegian Agency for Development Cooperation (Norad). The programme has supported joint research, the training of PhD and Master's students, the development of study programmes and courses, the training of technical and administrative staff in the South, as well as the publication and dissemination of research results. The NUFU Programme has been managed by the Norwegian Centre for International Cooperation in Education (SIU) since 1991.

1.1 Programme objectives

The goal of the NUFU Programme 2007–2012 has been to support the development of sustainable capacity and competence for research and research-based higher education in developing countries relevant to national development and poverty reduction and to contribute to enhanced academic collaboration in the South and between South and North.

The objectives of the fourth NUFU programme period have been:

- to contribute to the development of institutions in the South
- to produce knowledge in areas deemed relevant to goals and objectives at institutional and national level
- to educate new researchers
- to develop Master's and PhD programmes in the South
- to promote gender equity in research and academic cooperation
- to establish sustainable environments for research and research-based teaching
- to contribute to the enhancement of quality and relevance in research
- to establish regional academic networks within relevant discipline areas
- to present academic publications and research results
- to contribute to the internationalisation of institutions in the South and in Norway

1.2 Previous NUFU programme periods

NUFU was established in 1986/87 on the initiative of Norwegian universities as a standing committee on development research and education. The first five-year NUFU agreement was signed by the Ministry of Foreign Affairs and the Norwegian Council of Universities in 1991 and had a total budget of NOK 175 million. A second five-year agreement (1996–2000) was signed by the parties in 1995 with a budget of NOK 230 million. The agreement between Norad and the Norwegian Association of Higher Education Institutions (UHR) for the third NUFU programme period (2002–2006) was signed in 2001. The total budget for the third NUFU programme period (including additional agreements for South Africa, the Palestinian areas and Malawi) was

approximately NOK 365 million in addition to NOK 35 million for ongoing cooperation projects from the second programme period in 2001.

1.3 The fourth NUFU programme period 2007–2012

In January 2006 a frame agreement was signed by Norad and SIU for the fourth NUFU programme period with a total budget of approximately NOK 300 million. Fifty-three projects were selected by the NUFU Programme Board in 2006 to be supported in the five-year period 2007–2011. Of these, 31 were bilateral projects with one partner university in Africa or Asia and one in Norway, while 22 were network projects with two or more partners in the South¹. In addition, a number of shorter projects have been supported through the Supportive Measures and Supplementing Activities schemes, which are described below.

Concern for PhD students unable to complete their studies by the end of 2011 prompted Norad and SIU to sign an addendum to the NUFU agreement in 2010 that extended the time frame for the fourth NUFU programme period until 31 December 2012. Thirteen five-year projects were completed in 2011, while forty projects were granted a one-year extension of the project period to 2012, without additional funding for the extended project period. All the projects had been completed by the end of 2012.

Four additional contracts, all of them described below, have been signed on the basis of article 2.2 of the NUFU frame agreement. This article allows support to be given to separately financed activities within the area of higher education and research, directed towards certain thematic and/or geographical areas. Two of these contracts have been extended to 2013. The total budget for the NUFU Programme 2007–2013 has been approximately NOK 400 million, including the budgets for additional contracts signed under article 2.2.

1.3.1 Tanzania-Norway NUFU Programme

In 2007 the Royal Norwegian Embassy in Tanzania and SIU signed an agreement regarding the Tanzania-Norway NUFU Programme, and the Embassy provided NOK 25 million in funding for four bilateral cooperation projects between Tanzanian and Norwegian institutions of higher education and research for the period 2007–2011. The projects have been directed towards research and education activities within the thematic area *natural resource management in Tanzania*. The project period was extended until 31 December 2012, and all four projects were completed by the end of 2012.

1.3.2 NUFU Women's Rights and Gender Equality

Norad and SIU signed a contract in 2008 adding NOK 10 million to the NUFU Programme with the funds being earmarked for projects related to women's rights and gender equality. Two bilateral and three network projects were selected by the NUFU Programme Board for financial support from 2009, with a total budget of approximately NOK 21 million. Norad and SIU decided in 2012 to extend the NUFU Women's Rights and Gender Equality sub-programme until 31 December 2013, and all the five projects will be completed by the end of 2013.

¹ All the projects are presented in chapter 3.

1.3.3 NUCCOOP

The Norwegian University Cooperation Programme for Capacity Development in Sudan (NUCCOOP) was established in 2007 through a contract between Norad and SIU. The aim of the programme has been to contribute to the development of sustainable capacity at higher education institutions in South Sudan and to provide the workforce in the country with adequate qualifications. Seven projects were selected for support by the NUFU Programme Board in 2007 and 2008. In 2009 the NUFU Programme Board decided to support two additional infrastructure projects and one research training project. Funds were also allocated to the establishment and running of a NUCCOOP Office in Juba. The total NUCCOOP budget has been approximately NOK 67 million. Most of the projects have been extended until 31 December 2013.

In addition to the NUCCOOP-funded projects, the Royal Norwegian Embassy in Juba, South Sudan, has funded the construction of a Library and Information Science Training Centre at the University of Juba through a separate contract with SIU for the period 2010–2012.

1.3.4 Supportive Measures

The NUFU Supportive Measures (SM) scheme was introduced to secure sustainability of the competence in research and research-based education that had been built during the previous two cycles of support from the NUFU Programme. The aim of this scheme was to phase out cooperation projects that had been running for ten years with support from the Programme.

A total of NOK 16 million was granted to 17 two-year projects, and the last projects were completed in 2009. Most of the projects concentrated their efforts on continued research activities and on communicating research results. Results show that this extra support helped the projects increase the impact of their research in terms of making results known to an international scientific audience.

1.3.5 Supplementing Activities

The NUFU Supplementing Activities (SA) scheme has provided supplementary support to NUFU-funded projects. The aim was to support additional activities that were in line with the projects' objectives and to add value and contribute to the sustainability of the existing projects. Support has been granted to seminars and courses, publication and dissemination activities, scientific equipment, maternity leave and child care, and other measures that have enhanced the effect of the projects. From 2007 to 2011 a total of NOK 6 million was allocated to 44 SA projects.

1.4 The Programme Board

The Programme Board has been the decision-making body for the NUFU Programme and has been responsible for allocating funds to projects and activities under the programme as well as for monitoring the implementation on programme level.

From 1 June 2006 to 30 June 2010 the NUFU Programme Board consisted of six members from the Norwegian higher education sector, one member appointed by Norad, and one student member appointed by the Norwegian Student Union. A joint Interim Board for the NUFU Programme and Norad's Programme for Master Studies (NOMA) was appointed for the period from 1 July 2010 to 31 December 2011. The Interim Board consisted of four members from the Norwegian higher education sector,

two members appointed by Norad, and one student appointed by the National Union of Students in Norway. The Programme Board 2006–2010 and the Interim Board 2010–2011 were both chaired by Prof. Fanny Duckert from the University of Oslo.

A new joint Programme Board for the NUFU and NOMA Programmes was appointed for the period 1 January 2012 to 30 June 2015, with four members from the Norwegian higher education sector, one member appointed by Norad, and one student. The Programme Board is chaired by Prof. Thorkild Tylleskär from the University of Bergen.

1.5 Communication of results at programme level

1.5.1 Presentations of NUFU projects online and in SIU's magazines

As an integrated part of SIU's website siu.no, an online project database provides information on all projects supported by the NUFU Programme and other programmes managed by SIU. The database includes lists of publications, dissemination activities, and graduated students for each project.

Throughout the programme period SIU has been producing articles on NUFU-funded projects according to the Norad-SIU Communication Plan 2007–2011. Twenty-one project articles have been published in SIU's magazine *Global Knowledge* and the online magazine *Highlights*. All the articles are available at siu.no. Some of the articles have also been published at forskning.no, an online newspaper devoted to Norwegian and international research. In March 2013 *SIU-magasinet* presented a four-page article on the phasing-out of the NUFU Programme, including a commentary and highlights from four successful projects.

1.5.2 Thematic seminars

Norad and SIU organised two seminars in Oslo in 2009 and 2011 where research projects supported by the NUFU Programme were presented to a target audience primarily from Norwegian government agencies. The titles of the seminars were:

- *Universities as agents for recovery, democracy and good governance in post-conflict areas*, Oslo, 11 December 2009
- *Capacity building as a tool for meeting global challenges – focus on climate and energy*, Oslo, 27 January 2011

In addition, the Research Council of Norway and SIU organised the seminar *Global health – research for improved implementation* on 30–31 October 2008 in Bergen.

Similar seminars were held in Dar es Salaam in 2009 and 2010 with the aim of presenting research conducted by the four projects supported by the Tanzania-Norway NUFU Programme.

1.6 Conferences, seminars and institutional visits

1.6.1 Conferences and seminars

The international NUFU Programme conference for the fourth programme period was held in Lilongwe, Malawi, on 11–13 February 2009. The conference title was *Increasing the impact of higher education institutions in development processes*. The

conference was jointly organised by SIU and the University of Malawi and attracted more than 100 participants from Asia, Africa and Norway.

Three regional conferences for the NUFU and NOMA programmes were held in 2011–2012. The purpose of the conferences was to explore the concrete achievements and experiences from these two programmes while also looking at the way ahead after the completion of the programmes.

The conferences took place in the following cities:

- Dhaka, 27–28 September 2011 (for 30 NUFU and NOMA projects in Asia)
- Dar es Salaam, 15–16 November 2011 (for 44 projects in Southern Africa including Tanzania)
- Addis Ababa, 17–18 January 2012 (for 39 projects in Ethiopia, Uganda, Sudan, South Sudan and other regions)

The conferences, which were organised by SIU in collaboration with the University of Dhaka, the University of Dar es Salaam and Addis Ababa University, attracted almost 300 participants in total.

SIU also organised annual project coordinators' seminars in Norway in 2007–2010, covering subjects such as communication and dissemination, gender mainstreaming, and the added value of South-South-North networks. Several separate project coordinators' seminars have also been held for projects supported by NUCOOP and the Tanzania-Norway NUFU Programme.

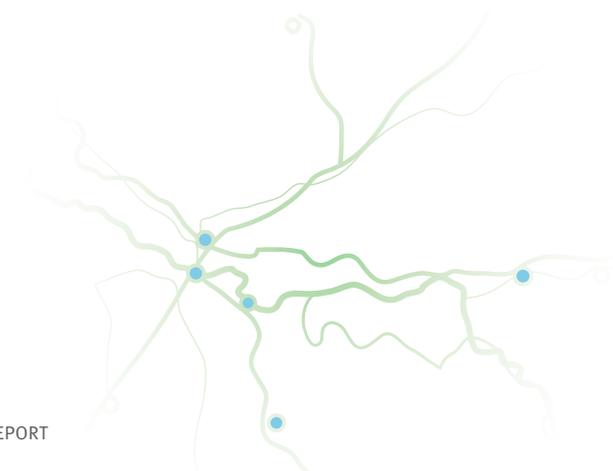
1.6.2 Institutional visits

SIU visited NUFU partner institutions in a number of countries in Africa and Asia during the period 2007–2012. Programme Board members and representatives from Norad participated in several of the visits. The main purpose of the visits has been to meet project participants, students and university management, to gain knowledge about the implementation of the projects and the institutions in general, and to discuss issues of relevance to project implementation.

1.7 Evaluation of the NUFU Programme

In accordance with the NUFU agreement between Norad and SIU, the NUFU Programme was subject to an external evaluation in 2009. Norad's Evaluation Department was responsible for a joint evaluation of the NOMA and NUFU programmes, carried out by the Danish consultancy company COWI. The evaluation report, which was presented in February 2010, concluded that the contribution by the NUFU and the NOMA programmes to capacity building in research and higher education had been significant; both widely recognised and highly valued. At the same time, the report presented a number of recommendations for improvements in programme design, management and administration.

Partly based on the evaluation report, the Ministry of Foreign Affairs and Norad have developed the Norwegian Programme for Capacity Development in Higher Education and Research for Development (NORHED), which will be implemented from 2013 and replacing the NUFU and NOMA programmes.



2. Results achieved by the NUFU Programme 2007–2012

2.1 Scientific quality and research capacity

2.1.1 Publication of research results

Most NUFU-funded projects have been based on a core element of research conducted in one or several sub-projects in collaboration between researchers and students in the South and in Norway. Producing publications has been a significant part of the project activity and an important quantitative indicator of research activity within the programme. Peer-reviewed publications in particular are benchmarks of scientific quality in the projects.

Figure 1: Number of publications per year in the NUFU Programme



The NUFU Programme has been highly successful in terms of research and presentation of research results. The total number of publications reported by NUFU-supported projects in 2007–2012 is 2030², which is 96 per cent of the expected 2117 publications according to the project documents³. The expected number of publications will most likely be reached by 2013 or 2014. Publishing scientific results takes time; findings are analysed and conclusions drawn in the final phases of the projects, and many results will not be published until after the project period has ended. The PhD students who had not completed their studies by the end of 2012 will prepare their final research papers and conclude their theses in 2013. Papers will be submitted to scientific journals even after the completion of PhD students' degrees. Several projects have listed additional papers expected to be published after 2012, although they had not been accepted for publication at the time of reporting.

Moreover, projects supported by NUFU Women's Rights and Gender Equality have been extended until the end of 2013 and will conclude the research and continue their publication efforts in 2013. This is to some extent also true for NUCOOP projects, although these are less focused on publication activity. For the NUFU Programme (except NUCOOP) a total of 1989 out of the expected 2036 publications (98 per cent) have been reported as having been published or accepted for publication.

Table 1: Scientific publications per category

| Type of publication | Total |
|---|-------|
| Article published in scientific journal | 854 |
| Book | 79 |
| Chapter in edited volume | 310 |
| Refereed conference paper | 367 |
| Scientific report or working paper | 154 |
| Master thesis | 183 |
| PhD thesis | 83 |
| Total | 2030 |

2.1.2 Peer-reviewed articles in scientific journals

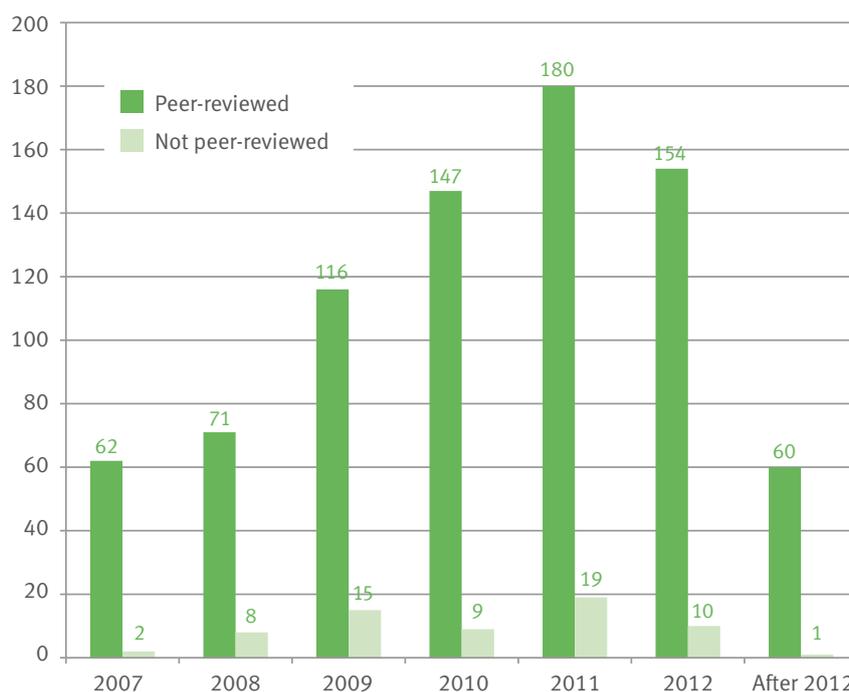
Although all categories of publications emanating from the NUFU projects are important indicators of scientific output and quality, articles subject to the peer-review processes of scientific journals serve as a particularly important indicator of the quality of research. Most projects have conducted high-quality research and have been successful in presenting their results in internationally recognised publications. The largest category of reported publications is articles published in scientific journals, and most of them are peer-reviewed. As displayed in figure 2, the total number of peer-reviewed articles from NUFU-funded projects has reached 790 out of an expected 909 (87 per cent). When leaving out NUCOOP-funded projects, 786 out of the expected 881 (90 per cent) articles are reported as having been published or accepted for publication.

As explained above, the total number of publications will increase after 2012. Peer-reviewed articles are required to adhere to a high standard of scientific quality, and findings are increasingly suitable for this type of publication after the PhD students have concluded their research. The expected number of peer-reviewed articles may thus be reached shortly after the end of the NUFU Programme.

² This includes 131 publications that have been reported as already accepted for publication after 2012.

³ The results presented in this report are based on Final Project Reports from each project, jointly prepared by the project coordinators in Norway and the South, and on separate Institutional Reports from all institutions participating in the programme.

Figure 2: Number of peer-reviewed articles published in scientific journals



Approximately 50 per cent of all peer-reviewed articles are published in open-access sources. Such publication channels are important because open-access publishing can contribute to making research results more available, especially benefiting students and researchers in developing countries.

The number of publications, including peer-reviewed articles, varies considerably between projects. There may be several reasons for lower publication rates in some projects, including delays in PhD studies (see chapter 2.3), students dropping out or other challenges in project implementation, and less focus on research than on (other) capacity building efforts in some projects. Moreover, the practice of granting PhD degrees based on dissertations consisting of research papers worthy of publication is still weak at many institutions, a fact that hampers and delays the publication of scientific articles.

However, there is a clear tendency of growing publication rates in the programme. The average number of peer-reviewed articles per project has increased from less than eight in the third programme period (NUFU 2002–2006) to more than 13 in projects that were completed in 2011 or 2012. The NUFU Programme has contributed to strengthening the focus at institutions in the South on publishing research results internationally in peer-reviewed publications. Participating universities in Africa and Asia report that the NUFU Programme has helped enhancing the capacity and competency in publishing research results, and that this benefits individual researchers in terms of their university careers, and improves of the quality, visibility and ranking of the institutions.

2.1.3 Institutional development and South-South-North cooperation

Improved research capacity at the institutions in the South is one of the most significant results of the NUFU Programme. As described in chapter 2.3, the capacity building among academic

and technical staff at the universities has resulted in stronger research environments and more potent institutions of research and higher education. It is evident from the project and institutional reports that the NUFU Programme has had a substantial impact on research capacity within fields relevant to national development and poverty reduction.

A core element of the NUFU projects is the close research collaboration between academic staff and students in the South and Norwegian researchers, and the importance of this mutual South-North research cooperation is emphasised by institutions in both Norway and the South. Networks of researchers and students from several countries in the South have been created or strengthened, and South-South-North collaboration has taken place through joint research, with results being presented in joint publications. Evidence of the close collaboration is the high degree of South-North co-authoring of scientific articles. Most peer-reviewed articles were co-written by researchers and/or students from both Norway and the South, and a large majority of the first authors were from Africa or Asia.

The South-South-North cooperation through the NUFU projects helped Ahfad University for Women (AUW) to be more competent in the area of research and research-based teaching. The exchange of ideas and the sharing of experiences among the different partners from South and North led AUW to rethink and make use of relevant research designs and methods to study issues of a similar nature. [...] Overall, the work carried out through the NUFU project collaboration helped AUW to build capacity not only in research but also in the management of similar projects.

From the Institutional Report from Ahfad University for Women, Sudan

Development-related research is one of two main strategic areas of research at the University of Bergen, and good and active collaboration with institutions in the South through NUFU projects has been of vital importance to this field of research at UiB. [...] South-South-North cooperation in research gives valuable comparative data and more complexity to research projects. [...] NUFU projects have given students from UiB valuable exposure to research environments in other parts of the world.

From the Institutional Report from the University of Bergen

Most projects report that the collaboration will continue or even be extended after the project has ended and that the partners will seek external funding for further cooperation in research and higher education, for instance from the Norwegian Programme for Capacity Building in Higher Education and Research for Development (NORHED).

2.2 Research impact and dissemination of results

2.2.1 Relevance to national development

One important aim of the NUFU Programme has been to produce knowledge in areas relevant to goals and objectives at institutional and national level. NUFU-funded projects have created research results relevant to development in areas such as natural resource management, agriculture, sustainable energy and environmental science, good governance, gender equality, language, education and health. Partner institutions in the South report that their participation in the NUFU Programme has enhanced their ability to be driving forces in developing their respective countries and regions, as well as in developing their own capacity as centres of higher education and research.

2.2.2 Dissemination activities in NUFU-funded projects

In addition to producing scientific publications of high quality, the projects should contribute to national development and poverty reduction by disseminating relevant knowledge through various channels. The NUFU-funded projects have

been encouraged to target different audiences, using a variety of dissemination activities and products ranging from conferences and seminars to exhibitions, film production, policy briefs and web communication (see table 2).

A total of 2468 dissemination activities were expected to be undertaken by the NUFU projects during the programme period, of which 1446 had been completed by the end of 2012 or planned for in 2013. A closer look at the expected dissemination rates reveals that many projects appear to have made unrealistic assumptions as to the number of dissemination activities they were able to complete in the project period; one project expected as many as 430 activities, but reported only five. Approximately one-third of all completed projects have reached the expected number of dissemination activities for their project, and some of them have far exceeded the planned number.

The projects have reported 1055 non-refereed conference and seminar presentations (in addition to 367 refereed conference papers reported as publications). This high number shows that the projects have actively shared and discussed research findings and analyses with colleagues in the scientific community, and it explains why 72 per cent of the reported dissemination activities were targeted at a scientific audience.

Findings should also be communicated to recipients outside the scientific community who may have the power or position to implement policy or develop better practices. The total number of reported activities primarily directed at policy-makers, public sector officials, NGOs, and private sector representatives amounts to 180. The general public has been the main target of 177 dissemination activities, while 17 were aimed at local communities.

Figure 3: Number of dissemination activities by target audience in the period 2007–2013

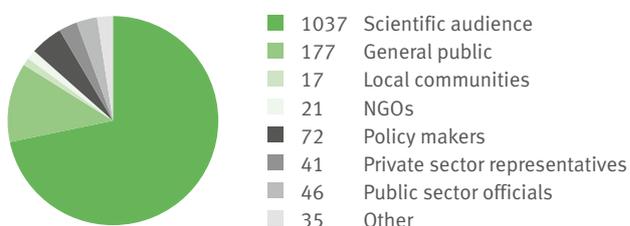
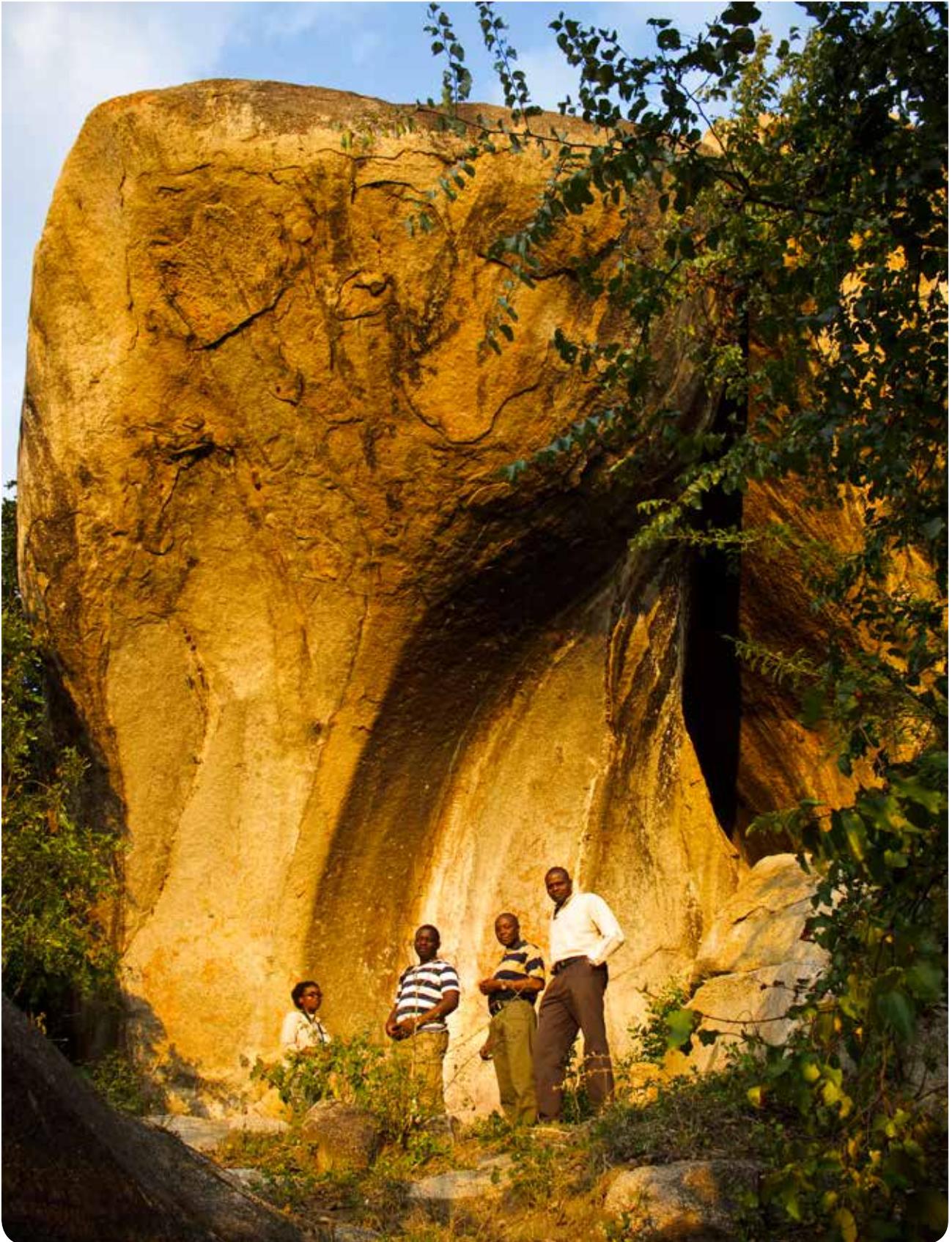


Table 2: Dissemination activities and products per year

| Dissemination activities | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 (planned) | Total |
|--|------------|------------|------------|------------|------------|------------|----------------|-------------|
| Conference/seminar presentation without refereed paper | 77 | 135 | 221 | 183 | 239 | 184 | 16 | 1055 |
| Exhibition | 2 | | 4 | 1 | 10 | 3 | | 20 |
| Film | | 2 | 4 | | 8 | | 1 | 15 |
| Leaflet | 4 | 1 | 1 | 1 | 2 | | | 9 |
| Media coverage | 7 | 6 | 15 | 13 | 19 | 21 | | 81 |
| Non-scientific report | 6 | 6 | 4 | 14 | 17 | 10 | 1 | 58 |
| Policy briefs | | 2 | 1 | 2 | 11 | 5 | 7 | 28 |
| Website | 8 | 4 | 8 | 2 | 8 | 2 | | 32 |
| Other | 28 | 10 | 24 | 36 | 33 | 10 | 7 | 148 |
| Total | 132 | 166 | 282 | 252 | 347 | 235 | 32 | 1446 |



RECORDING ANCIENT SECRETS / A team of archaeologists inspecting one of the ancient rock art sites in the Zimunya district of Zimbabwe. Professor Gilbert Pwiti (second from the right) coordinated the NUFU-funded project 'Archaeology and Traditions in Eastern Zimbabwe' (2007–2011). It involved archaeologists from the universities of Zimbabwe and Bergen, along with an anthropologist, breaking new ground in areas hardly investigated before. Through the documentation of 231 archeological sites and excavation of seven sites, this project added new knowledge to the chronology and cultural history of Eastern Zimbabwe, which again has wide implications for the interpretation of archaeology of Southern Africa. From left: Ancila Nhamo, Seke Katsamudanga, Gilbert Pwiti and Paul Mupira. (Photo: Eivind Senneset)

Academic institutions play a role not only in raising public awareness of the adverse impact of high amounts of UV radiation and black carbon, but also in generating the science-based information needed to make appropriate decisions at policy level. The project has [...] informed policy-makers in the government of Nepal, the general public through newspapers, and scientific personnel through scientific journals. As a result, a ministerial-level meeting was held in Kathmandu to discuss the impact of climate change in the high Himalayan region.

From the Final Project Report of the project Spatial and Seasonal Variation in Solar Radiation and Aerosol Concentrations and Compositions in Urban and Rural Sites in Himalayan Region (Tribhuvan University, Nepal / Norwegian University of Science and Technology)

The research addressed demand-driven questions raised by the wildlife conservation authorities, and the project has therefore received maximum cooperation from key stakeholders. Research results have been communicated in peer-reviewed journals, policy briefs to policy-makers, and stakeholders' workshops involving community members. Research findings were also presented at conferences for professional associations involving wildlife conservationists and animal health professionals. Although policy changes as an application of the results of this project have not yet occurred, the wildlife conservation authorities are now ready to apply molecular methods to study wildlife population genetics and molecular forensic tools to investigate wildlife crime.

From the Final Project Report of the project Antelope Conservation and Application of Molecular Forensics in Investigating Wildlife Crime (Sokoine University of Agriculture, Tanzania / Norwegian School of Veterinary Science)

There is a need for many institutions to strengthen their ties with and channels of communication to policy-makers, the public sector, NGOs and the general public. However, researchers seem to prioritise the dissemination of research results to their peers in the scientific community, and they probably consider scientific publishing, together with capacity building in research and higher education at the universities, as their most important contributions to policy change and development. Strengthened research capacity in fields relevant to national development and poverty reduction and the publication of high-quality research results in international journals enhance the ability of the universities to have an impact on development. Such long-term perspectives on impact are essential when recognising the significant achievements of the NUFU Programme.

It is difficult to state with certainty today that the project has had a direct impact on policy change / development. However, the numerous publications and dissemination activities represent a rich documentation and analysis of children's everyday lives within extended families, local communities, and schools in Ethiopia. Both theoretically and empirically, besides being of value to researchers, the research-based knowledge represents a valuable resource for the further development of thinking and practice for policy-makers, educators and NGOs at local, national and even global levels.

From the Final Project Report of the project Children, Young People and Local Knowledge in Ethiopia and Zambia (Dilla University, Ethiopia / Norwegian University of Science and Technology)

The number of dissemination activities targeting an audience outside the scientific community may very well be higher than these numbers indicate, since the information may have been directed at complex audiences. Hence, if a conference was attended by hundreds of researchers and a few representatives of relevant authorities or professionals, for example, the activity is likely to have been reported as having a scientific audience. Other, more informal forms of dissemination or policy dialogue, as well as the general level of attention generated around the project, may not be reported at all. This may be because they are not considered significant by the report authors, or because they do not fit into the categories in the reporting format. Several project reports refer to such instances of informal dissemination and policy dialogue, while other projects describe engagement with local communities or professional groups through initiatives contributing to development on a smaller scale. Some projects describe concrete cases where their research has had ramifications for national and regional development.

2.3 Capacity building at NUFU partner institutions

The overall goal of the NUFU Programme has been to build sustainable capacity and competence for research and research-based higher education in developing countries. The most important means to achieve this goal has been to provide training at PhD and Master's levels to academic staff and prospective staff at partner universities in the South⁴ and thereby contribute to the development of the institutions by strengthening environments for research and research-based education. The degree training has been an integrated part of all NUFU-funded projects, and a substantial part of the research is carried out by students.

The NUFU Programme has also funded the establishment of new degree courses and programmes as well as training of administrative and technical staff.

2.3.1 Training of PhDs and Master's students

A substantial share of the funds in the NUFU cooperation was earmarked for PhD fellowships. Table 3 displays the number of PhD students involved in the NUFU-funded projects from 2007 to 2012. In addition to students funded by NUFU, PhD students with funding from other programmes such as the Quota Scheme and the Research Council of Norway have been reported by a number of projects.

Table 3: Number of PhD students involved in NUFU/NUCOOP-funded projects 2007–2012



| Funding of fellowships | NUFU projects | NUCOOP projects | Total |
|--------------------------------|---------------|-----------------|-------|
| NUFU/NUCOOP | 211 | 8 | 219 |
| The Quota Scheme | 39 | 1 | 40 |
| The Research Council of Norway | 7 | 2 | 9 |
| Self-financing | 7 | 0 | 7 |
| Other financing | 33 | 0 | 33 |
| Total | 297 | 11 | 308 |

For the entire programme period, a total of 219 PhD students have been reported as being funded by NUFU, including eight students funded by NUCOOP. According to the original project plans, it was expected that 213 PhD students would receive fellowships from the NUFU Programme. A total of 25 PhD students have discontinued their studies within the same period. Consequently, 194 NUFU-funded PhD students have graduated or are expected to graduate by 2013/2014, of which as many as 46 per cent are female. It is not uncommon at academic institutions that some students do not complete their studies for various reasons. The number of students that have graduated or will graduate with support from the Programme is therefore highly satisfactory.

The NUFU Programme has also supported scholarships for Master's students pursuing their degrees at the South partner

institutions. Table 4 displays the total number of Master's students involved in NUFU-funded projects in this programme period, including students funded by other sources.

Table 4: Number of Master's students involved in NUFU/NUCOOP-funded projects 2007–2012



| Funding of scholarships | NUFU projects | NUCOOP projects | Total |
|---|---------------|-----------------|-------|
| NUFU/NUCOOP | 270 | 44 | 314 |
| Norad's Programme for Master Studies (NOMA) | 14 | | 14 |
| The Quota Scheme | 56 | | 56 |
| The Research Council of Norway | 3 | | 3 |
| Self-financing | 27 | 3 | 30 |
| Other financing | 29 | | 29 |
| Total | 399 | 47 | 446 |

For the entire programme period, a total of 314 Master's students have been reported as being funded by the NUFU Programme, including 44 students funded by NUCOOP. Only 20 Master's students have discontinued their studies in the period 2007–2012. Consequently, 294 students have completed or will complete a Master's degree with support from the NUFU Programme, of which 37 per cent are female. The number of students that have received or will receive a Master's degree with support from the Programme exceeds the projected number of 271 Master's students. These results show that the NUFU Programme has been highly successful in training Master's as well as PhD students.

Synergies with other funding programmes have been important for many of the projects in the NUFU Programme. A number of projects combine NUFU funding with financial support from other sources such as the Quota Scheme and the NOMA Programme. The synergies with the Quota Scheme has been of particular importance to several projects as they have allowed the projects to secure funding for a larger number of students from the South partner institutions involved in the projects. This has strengthened the capacity building effect of the projects.

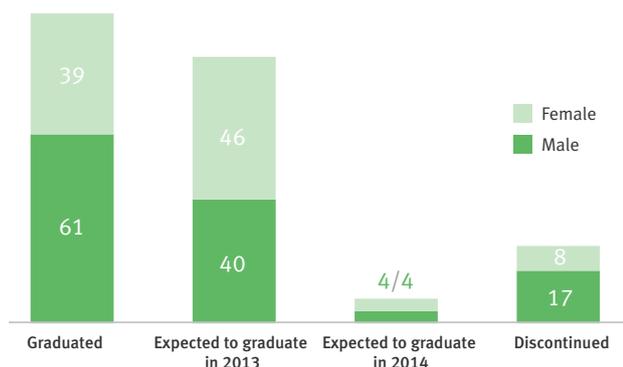
2.3.2 Completion of studies

One of the risks to a successful outcome of the programme has been that the PhD and Master's students were unable to complete their studies within the project period. There are various reasons for delays in students' studies, such as late recruitment, slow admission procedures, delays in fieldwork and research, childbirth/child care and illness. As a means to ensure the completion of the degrees of PhD and Master's students, SIU and Norad permitted projects to extend until the end of 2012. In 2011 most institutions reported that the students were closely followed up on to ensure that they graduated within the extended time frame. Despite these efforts, almost half of all the PhD students funded by NUFU were not able to graduate before 2013 or 2014.

⁴ In the NUCOOP Programme training at diploma, bachelor, Master's and PhD level has been supported.

Figure 4 below displays the status of the NUFU-funded PhD students by the end of 2012.

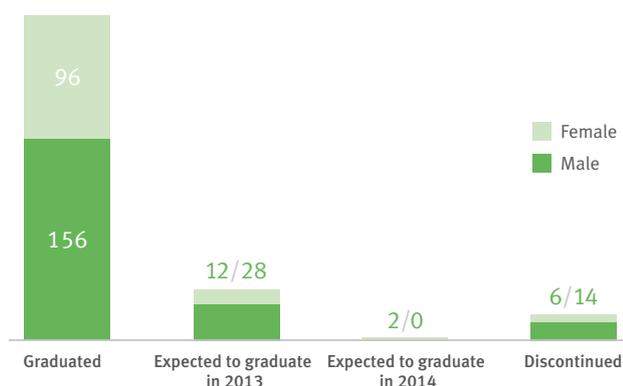
Figure 4: Status of NUFU-funded PhD students



The table shows that 100 NUFU-funded students⁵ completed a PhD degree by the end of 2012, which is 52 per cent of the total number (discontinued students not included). It is unfortunate that a large proportion of the PhD students were not able to complete their studies by the end of the project period. The finalised projects cannot fund students after 2012, and only 13 of these students are part of projects that will continue in 2013. Lack of funding from the NUFU Programme is certainly a risk to the completion of PhD degrees. However, the institutions are aware that they must secure alternative funding for the completion of individual students' degrees in 2013 and 2014. The delay is not critical since the majority of the students that have not completed their degrees are expected to graduate in 2013, and it can be expected that most or all of them will complete their degrees.

At Master's level a total of 252 students are reported as having graduated by the end of 2012⁶, which is 80 per cent of the enrolled students (see Figure 2). The majority of the remaining 42 Master's students are expected to graduate by the end of 2013.

Figure 5: Status of NUFU-funded Master's students



2.3.3 The sandwich model

PhD students supported by the programme have often been enrolled in sandwich models that combine study both at home and in Norway. Data from project reports show that the PhD students retain strong links to their home institutions throughout their studies. The majority of the NUFU-funded PhD students spend some time in Norway during their studies, but the stays tend to be of a short duration except for the 71 students who receive their degrees in Norway.

The training of individuals at PhD level has provided greater opportunities for the University of Malawi to participate in international/regional cooperation; this also facilitates publishing in internationally refereed and high-impact journals. Retention of qualified staff through sandwich programmes is very high. The utilisation of a well-designed network project involving partner institutions in the North ensures high-value PhDs, competitive publishing and access to international networks and research collaborations.

From the Final Project Report of the project Capacity Building in Water Sciences for Improved Assessment and Management of Water Resources - NUFUPRO-2007/10079 (University of Malawi / University of Oslo)

Students who receive their degrees from an African or Asian university, while also including stays in Norway for research, supervision and coursework, have spent an average of six months at a Norwegian partner university. Only a few of these students have stayed more than one year in Norway.

Mobile students may benefit from accessing laboratories or attending courses in Norway or at regional network institutions for shorter or longer periods of their studies. Close interaction between PhD students and supervisors across partner universities, whether in Norway, in the South or by electronic means, has been at the core of the South-South-North cooperation on which the NUFU Programme is based. By being part of an international collaboration, the students gain access to international research and education networks that may improve the chances of a successful outcome to their studies and research. This increased competence will benefit their home institutions in terms of sustainable capacity for research and research-based education of an international standard.

Data from the project reports shows that most of the mobile PhD students have or will become employed at their home institution in the South after graduation. Also, the majority of the PhD students who are awarded their degree in Norway will return, or have already returned, as employees at their home institution in the South. This shows that the mobile students' strong links to their home countries have lowered the risk of a *brain drain* from the countries in the South. The international mobility of the NUFU-funded PhD students has therefore helped increase the level of expertise and international experience among the academic staff at the South partner institutions.

The South-South-North collaboration is also highly beneficial to the participating Norwegian universities. Through close

⁵ This includes 27 PhD students reported as being expected to complete in 2012 by projects that were finalised in 2011.

⁶ This includes 6 Master's students reported as being expected to graduate in 2012 by projects that were finalised in 2011.

institutional partnerships, research collaboration and student mobility in both directions, the NUFU Programme has contributed to an increased level of international cooperation with Africa and Asia at these institutions. Several institutions in Norway report that participation in the NUFU Programme has improved the relevance and quality of the research and research-based teaching at their institutions. The NUFU collaboration has clearly benefitted Norwegian students, both those who have conducted fieldwork and research through the projects, and others through *internationalisation at home*.

We also want to put emphasis on the capacity-building that has been taking place in the faculty at the Norwegian University of Life Sciences (UMB). Around 50 per cent of the academic staff has been involved in this project [...]. This has built international capacity among the staff at UMB and the Norwegian Centre for Science Education. An offspring of this cooperation is the exchange of student teachers carrying out teaching practice in Malawi.

From the Final Project Report of the project Broadening access into a socially responsible science and technology education – NUFUPRO-2007/10070 (University of Kwazulu-Natal / Norwegian University of Life Sciences)

2.3.4 Institutional development

In addition to the training of academic staff members, the NUFU Programme has supported other measures to contribute to institutional development at the partner institutions in the South. These measures include support for the development of educational programmes and courses at Master's and PhD level, as well as short-term training of technical, administrative and other support staff.

A number of NUFU and NUCOOP-funded projects report that they have successfully established courses and degree programmes. By the end of the programme period, 63 courses and programmes at Master's and PhD level have been reported as

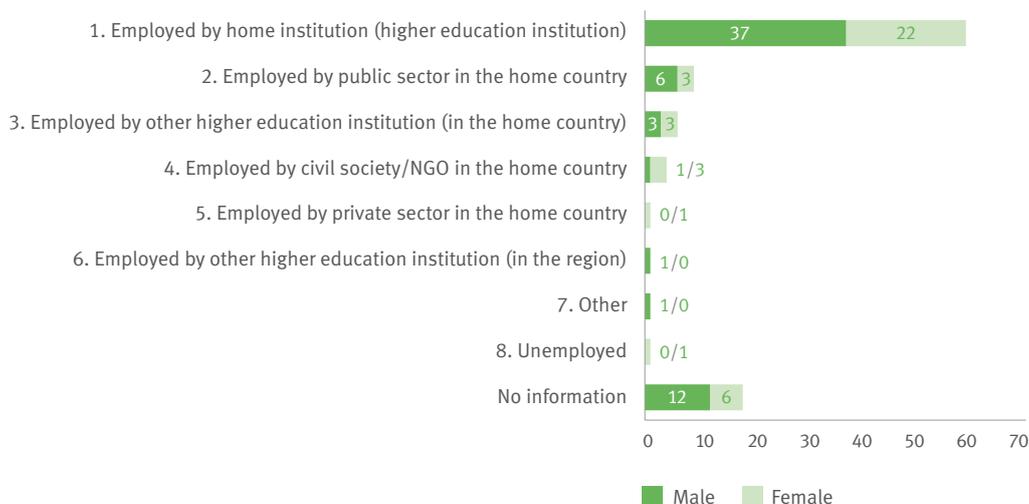
being started by 21 different projects⁷. The majority of these are courses; 22 of them at PhD level and 27 at Master's level. The aim is that these courses and programmes will continue to be part of the education programmes at the South institutions in the future. Several projects report that the students educated with support from NUFU have contributed to the development of the courses and programmes, and that they have become lecturers for the next cohort of students. As such, the establishment of courses and programmes has contributed to securing the long-term sustainability of the higher education competence built up at the institutions.

To increase the capacity and competence among employees at the institutions in the South, the NUFU Programme has also supported short-term training of technical, administrative and other support staff at partner institutions in the South. A total of 336 staff members received training between 2007 and 2012. Among those were 146 technical and 96 administrative staff members. The remaining 94 were staff members in other categories such as research assistants, lecturers, as well as storytellers in a folklore project in Uganda. The duration of the training has in most cases been between one day and three months. Thirty-eight per cent of all staff that have received training with support from NUFU have been female staff members.

2.3.5 Sustainability of capacity and competence

The establishment of sustainable environments for research and research-based teaching in the South has been one of the main objectives of the NUFU Programme. According to the NUFU Programme Document, PhD students funded through NUFU should be staff or prospective staff of the participating institutions, thus ensuring that the enhanced competence and capacity will contribute to the development of the institutions in the South. However, a risk factor is that PhD candidates seek employment elsewhere and that the competence built up through the NUFU-funded projects is not sustained at the institutions. Thus, a key indicator of a sustainable outcome of the NUFU Programme is the students' employment status after graduation.

Figure 6: Employment status of graduated PhD students



⁷ It is difficult to compare these numbers with the original expected results of the projects, since the project documents do not specify how many courses and programmes each project planned to establish.

As presented in figure 6, 59 of the 100 students who had graduated by 2012 were reported as being employed at their home institution. In addition, six graduates were employed by another higher education institution in their home country after graduation. Fourteen graduates were employed by the public sector, private sector or by civil society/NGO in their home country.

The share of PhD graduates that are employed at a higher education institution in their home countries is most likely higher than indicated above, since most of the students registered with *no information* were permanently employed by their home institution when enrolled. Moreover, 74 per cent of PhDs that have not yet graduated are already employed or are expected to be employed by a higher education in their home country. This shows that the programme's objective of training PhD students for increased capacity building at the institutions in the South has been very successful.

Figure 7 displays the reported employment status of the 252 Master's students who completed their degrees by the end of 2012.

It is not surprising that the proportion of graduated Master's students employed at their home institution is lower than among PhDs. While students recruited for PhD programmes with support from NUFU should be staff or prospective staff at their home institution, this has not been a precondition at Master's level.

Approximately 20 per cent of the 252 graduated Master's students are employed at their home institution, and another 17 per cent are employed at another higher education institution in their home country. These results show that the education of Master's students has also contributed to increasing the level of competence of the academic staff at higher education institutions in the South.

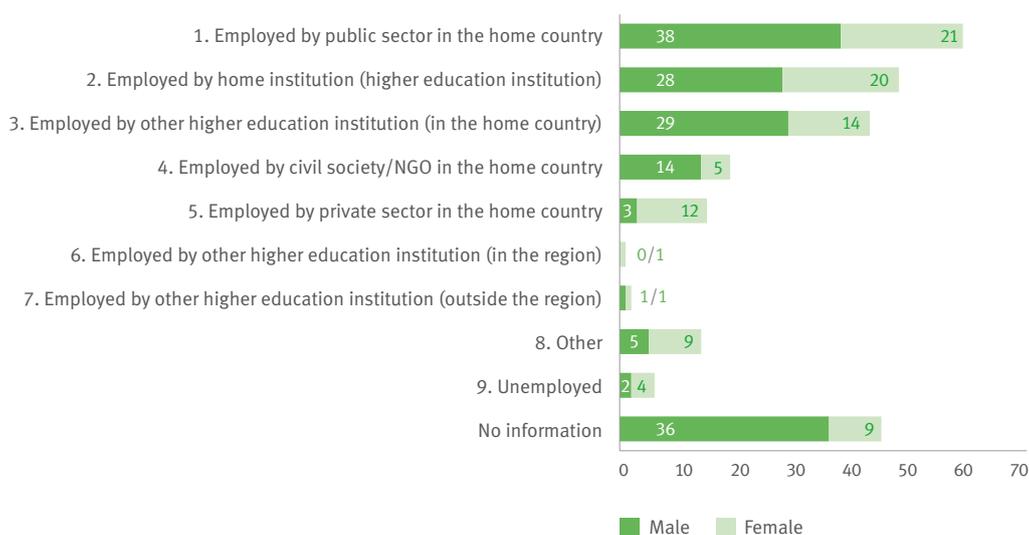
The new PhD holders are all employed by and working at their home institutions. This will improve teaching processes at their respective higher education institutions and elsewhere in their respective countries. The experience they have gained through theoretical and practical activities during their PhD course of study has enabled them to advise and produce quality MSc and PhD students. Furthermore, they can also undertake independent research activities. Our network project has also brought students from Eastern Africa together, and they have now developed close scientific ties to benefit any future regional research and development activities.

From the Final Project Report of the project Afro-alpine 'sky islands' genetic versus taxonomic biodiversity, climate change, and conservation – NUFUPRO-2007/10058 (Addis Ababa University / University of Oslo)

Several institutions in the South report that the potential loss of qualified academic staff continues to pose a major risk to the long-term sustainability of the competence and capacity built up through participation in the NUFU Programme. Some institutions report that the PhD students have a bond agreement that requires them to serve as employees at the home institution for a certain period of time. This may limit the risk of losing staff in a short-term perspective. The employment market is highly competitive in many countries, and NGOs often represent an attractive alternative career path for academic staff. NGOs and other agencies often offer higher salaries than higher education institutions. The ability of the institutions in the South to retain students as staff therefore continues to be a main indicator of the programme's long-term impact and success in terms of institutional capacity building.

The low number of unemployed students at both Master's and PhD level proves that the education provided and the competence of the students is relevant for the labour market in the

Figure 7: Employment status of graduated Master's students



South. Moreover, only one PhD and one Master's student are reported as having emigrated/living abroad, and both of them discontinued their studies. The results displayed in figures 6 and 7 indicate that a large proportion of the graduated Master's students and even some PhD students become employed in the public or private sector or by a NGO in their home country. Even though not all students become employed at their home university, one may consider the contribution to a highly educated workforce in the home country as a successful effect of the programme as well, especially since the main objective of the programme is to develop competence relevant to national development and poverty reduction. Along with increased capacity at universities, such contributions to a qualified workforce for development may prove to be a significant result of education provided through the NUFU Programme, particularly at Master's level.

In 2012 one of our graduated PhD students was appointed director of the Occupational Health and Safety Authority (OSHA) in Tanzania. We have discussed with her how to support the work of OSHA by providing new research information and by establishing a close relationship between OSHA and Muhimbili University of Health and Allied Sciences (MUHAS). This gives Tanzania a very special opportunity to make improvements to the working environment in factories and workplaces. OSHA needs competent persons in the field of occupational health, and we have discussed how its employees can benefit from the teaching taking place at MUHAS. This will eventually lead to improved working conditions in Tanzania.

From the Final Project Report of the project Occupational respiratory diseases among male and female workers in dusty industries in Tanzania – NUFUPRO-2007/10166 (Muhimbili University of Health and Allied Sciences / University of Bergen).



HIV-SPECIALISTS IN HIGH DEMAND / In a country struggling with an extreme HIV epidemic, the University of Zambia is educating neuropsychologists to deal with the huge demand of professionals. "It is a myth that HIV in Africa was caused by poverty. On the contrary, it first took off amongst those with relatively good education and resources – in the 1970s and 80s – before preventive programmes were started," professor Knut Fylkesnes from the University of Bergen says. He was the Norwegian coordinator for the NUFU-funded project 'Strengthening HIV-related interventions in Zambia: cooperation in research and institution capacity building' (2007–2011). The project increased the academic capacity at UNZA in the field of community health and HIV prevention. The university now offers Africa's only Master's degree in the field. (Photo: Susan Johnsen)

2.4 Gender equality in the NUFU Programme

The NUFU Programme Document 2007–2011 included a renewed focus on gender equality, in line with the priority given to women and gender equality in Norwegian development cooperation. Bridging the gender gap in academia is a global challenge, shared by the partner institutions in Norway and the South.

Gender equality in the NUFU Programme has been pursued by promoting *gender balance* among project participants, with a particular focus on recruiting female PhD students; by supporting projects with a particular *thematic focus* on women’s rights and gender equality in their research; and by stimulating *gender mainstreaming* in all programme activities.

2.4.1 Gender balance among students and staff

The gender balance among students is a key indicator of success as regards gender equality in the NUFU Programme, and recruitment of female PhD students in particular has been strongly encouraged. A financial bonus for projects that managed to recruit women to constitute at least 40 per cent of their PhD students was introduced in 2007. A total of 32 NUFU projects received this reward.

SIU has implemented several other measures to ensure a continued focus on female participation in NUFU-funded projects, such as the publication of the booklet *Gender Matters*, and through additional financial support from the Supplementing Activities scheme for maternity leave and the provision of child care to female PhD students.

The focus on gender equality and gender balance at PhD level has yielded results. As shown in chapter 2.3, 46 per cent of PhD graduates are female, compared to only 23 per cent in the third period of the NUFU Programme (2002–2006). This is a very impressive achievement, considering that the projects are implemented in countries where the level of education is considerably lower among women than men. The female recruitment base for PhD studies among university staff or prospective staff is very often low, and there are a number of barriers to women pursuing PhD degrees.

It is also interesting to note that fewer female PhD students have discontinued their studies compared to male students. This may indicate that the continued focus on female participation, additional NUFU support to students giving birth, as well as increased awareness of gender issues at the institutions, has resulted in a lower female drop-out rate. As such, the NUFU Programme may have contributed to lowering the threshold for women to pursue a degree in higher education.

The share of women among Master’s students funded by NUFU was lower than among PhD students. Thirty-seven per cent of Master’s graduates are female, compared to 50 per cent in 2002–2006. This shows that continued focus on recruiting and facilitating for female students at all levels is necessary to strengthen gender equality at universities in the South.

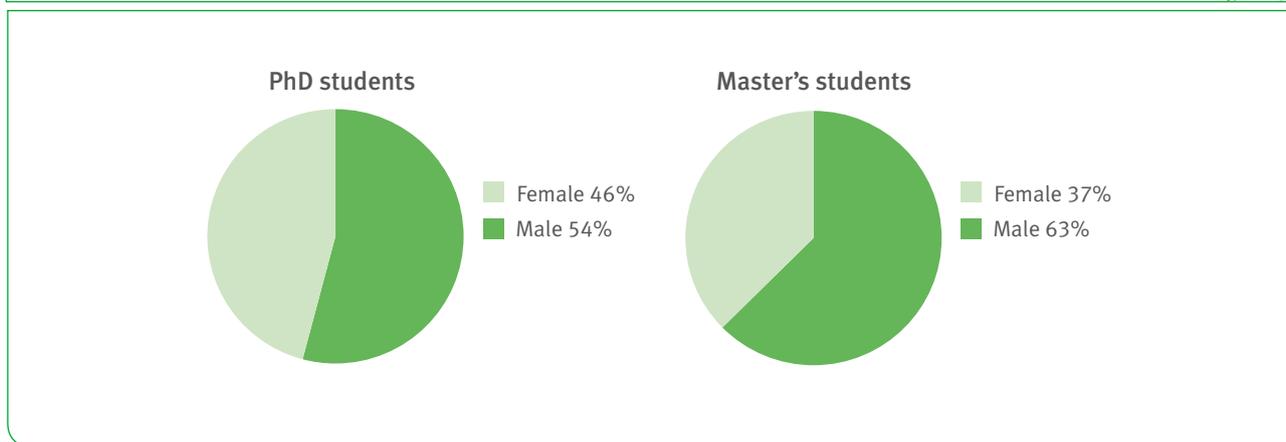
The proportion of female project coordinators in the projects has been 37 per cent, with a slight difference between coordinators in Norway (41 per cent) and the South (32 per cent). The proportion of female academic staff involved in NUFU-funded projects is probably considerably higher than the average percentage of women among university staff in many countries⁸.

The substantial proportion of women among coordinators and students is also reflected in the publishing of research results. Female project participants contributed as authors or co-authors of 63 per cent of peer-reviewed articles, while male participants contributed to 83 per cent of the articles. As shown above, 38 per cent of support staff that have received training in the projects are female. The female participation rate in NUFU-funded projects, particularly at PhD level, is very impressive. The results show that the NUFU Programme has contributed to an increased proportion of female students and highly qualified academic staff at the universities in the South, thus having a positive impact on female participation and gender equality in academia and beyond.

2.4.2 Gender mainstreaming

Several NUFU-supported projects have a strong thematic focus on gender which, in some but not all cases, is reflected in the project title (see chapter 3). In addition to a number of projects supported from 2007, the five projects supported by NUFU Women’s Rights and Gender Equality from 2008 all had a special research focus on gender-related issues.

Figure 8: Gender balance among PhD and Master’s students



⁸ At Addis Ababa University, for instance, females comprised only 13 per cent of academic staff in 2012 (Academic Staff Profile, Office of Academic Staff Affairs, Addis Ababa University, 2012).

Moreover, the NUFU Programme has aimed to achieve gender mainstreaming in all projects supported by the programme. The projects were initially required to make a plan for the integration of gender perspectives in their project design. SIU and the Programme Board have followed up by implementing a number of measures with the aim of promoting gender mainstreaming in the programme.

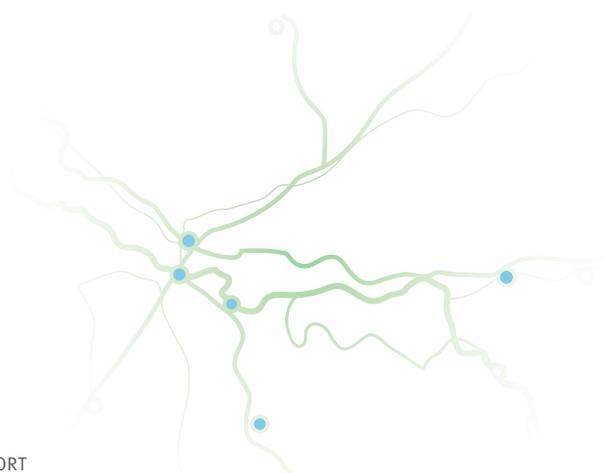
Based on input from discussions on gender issues at the NUFU Programme conference in Malawi in 2009 as well as at the NUFU project coordinators' seminar the same year, the NUFU Programme Board commissioned a study on gender mainstreaming in the NUFU Programme. The report from the study, which was conducted by Prof. Takyiwaa Manuh, Director of the Institute of African Studies at the University of Ghana, stressed that a true implementation of gender mainstreaming requires multidimensional strategies. The report suggested a number of concrete actions that could be taken by projects, institutions, the Programme Board and programme administrators to achieve gender mainstreaming.

In 2010 SIU published the booklet *Gender Matters*, which presented advice on and examples of how to better integrate gender issues in South-South-North university cooperation projects in research and education. The booklet was based on recommendations from Prof. Manuh's report and other sources, but it also drew on programme-based experiences to provide practical suggestions of how to mainstream gender into research and education activities.

It is difficult to measure the results of these efforts, but the constant focus on gender mainstreaming in the NUFU Programme has helped raise awareness of gender issues throughout the implementation of the programme.

This project has favoured the female gender in terms of both the quality and quantity of their participation. Three out of the five graduate students are female. [...] The students involved in the project are being coached for jobs in the department. The result will be a considerable increase in the number of female academics – something that will, in turn, be significant in encouraging female students to enter not only the academic profession but other fields of activity that offer greater rewards, in boosting the enfranchisement of women in the workplace and in leadership roles, and in encouraging a move towards greater empowerment and freedom of choice.

NUFUPRO-2007/10210: The Role of Ugandan Folklores as Repository of Traditional Wisdom (Makerere University, Uganda / University of Bergen).



3. NUFU-funded projects 2007–2012

This chapter presents all NUFU and NUCOOP-funded projects 2007–2012 sorted by country and main partner institution in Africa or Asia. In this programme period there were a total of 69 projects of five-six years duration; 40 bilateral and 29 network projects, in addition to a number of shorter projects. Some projects funded by NUCOOP and NUFU Women's Rights and Gender Equality continue until the end of 2013. The projects were located at 34 main partner institutions in 19 different countries in Africa and Asia and were implemented in cooperation with 11 main partner institutions in Norway.

Bangladesh

The University of Chittagong

Ecology, Behaviour and Conservation of Some Wildlife of Bangladesh (NUFUPRO-2007/10108)

The project aimed to improve conservation initiatives concerning endangered and semi-endangered species through research and education in the area of natural science.

Norwegian partner: Norwegian University of Science and Technology

Network partners: None

Project period: 2007–2012

Allocation: NOK 3 014 000

The University of Dhaka

Assessment of microbial pollution and diversity of Escherichia coli and Shigella in freshwater resources in Bangladesh (NUFUPRO-2007/10063)

The project focused on the issue of pollution of freshwater resources by examining the characteristics of Shigella and E. Coli bacteria. The main objective of the project was to establish a long-term collaboration with the University of Bergen and strengthen capacity building at both institutions in this field.

Norwegian partner: University of Bergen

Network partners: None

Project period: 2007–2012 (second funding period)

Allocation: NOK 3 500 000

China

Tibet University

Trans-Himalayan University Network for Education and Research (THUNDER) – Tibet University and Tribhuvan University (NUFUPRO-2007/10215)

The objective of the project was to facilitate capacity building at the School of Engineering and School of Arts at the partner universities. The project had a multidisciplinary focus on conservation of Tibetan architecture and art, conservation and development of housing and settlements, and sedimentation and sustainable hydropower.

Norwegian partner: Norwegian University of Science and Technology

Network partners: Tribhuvan University (Nepal)

Project period: 2007–2012

Allocation: NOK 5 980 000

Ethiopia

Addis Ababa University

Afro-alpine 'sky islands': genetic versus taxonomic biodiversity, climate change, and conservation (NUFUPRO-2007/10058)

The objective of the project was to conduct research on plant species and their genetic diversity as well as their responses to past climate change. The project also aimed at building up a barcoding database coupled with DNA banks in four African countries.

Norwegian partner: University of Oslo.

Network partners: National Museums of Kenya (Kenya), Sokoine University of Agriculture (Tanzania), and Makerere University (Uganda)

Project period: 2007–2012 (second funding period)

Allocation: NOK 6 000 000

Biotechnology and microbial diversity of Ethiopian soda lakes (NUFUPRO-2007/10069)

The project aimed to survey the Ethiopian alkaline soda lakes using a combination of ribosomal gene surveys, environmental genomics and culture-dependent methods. A second objective was to utilise the genetic resource in these unique habitats for biotechnological applications.

Norwegian partner: University of Bergen

Network partners: University of Western Cape (South Africa)

Project period: 2007–2012

Allocation: 5 550 000

Constructions of Gender in the Formal and Informal Sector in Ethiopia (NUFUPRO-2007/10090)

The objective of the project was to develop new empirical and theoretical knowledge on gender discourses and practices in the formal and informal sector in Ethiopia. In addition, the project aimed to increase the awareness of the importance of taking gender relations into account in policy development as well as knowledge production.

Norwegian partner: University of Tromsø

Network partners: None

Project period: 2007–2011 (second funding period)

Allocation: NOK 2 878 000

Ethiopian Malaria Prediction System (EMAPS) (NUFUPRO-2007/10121)

The project combined new population-based malaria transmission information with climate and land use variability data to develop an early warning system to predict malaria epidemics in Ethiopia.

Norwegian partner: University of Bergen

Network partners: Arba Minch University and National Meteorological Agency of Ethiopia

Project period: 2007–2012

Allocation: NOK 3 500 000

Studies of molecular epidemiology, clinical epidemiology and immunology of tuberculosis in pastoral communities and their livestock in Ethiopia (NUFUPRO-2007/10198)

The project's objective was to investigate molecular epidemiology, immunology, genetic, environmental, and sociocultural factors that contribute to infection/disease due to *M. tuberculosis* and *M. bovis* among pastoralists and their livestock.

Norwegian partner: University of Oslo

Network partners: None

Project period: 2007–2012

Allocation: NOK 3 500 000

Dilla University

Children, Young People and Local Knowledge in Ethiopia and Zambia (NUFUPRO-2007/10084)

The project aimed to generate knowledge about children and young people's role in economic, social and cultural (re-)production in different contexts: within households, networks of relatives, local communities and schools as well as in the wider society.

Norwegian partner: Norwegian University of Science and Technology

Network partners: University of Zambia

Project period: 2007–2012

Allocation: NOK 4 934 600

Hawassa University

Environmental Impact Assessment and Management of Lake Resources (NUFUPRO-2007/10115)

The project's objectives were to safeguard sustainable use of the lake resources of the Ethiopian Rift Valley lakes and rivers; to identify sources contributing to environmental contaminant loads and assess their short and long-term environmental impact; and to strengthen the educational capacity and increase the competence within environmental sciences and management of natural resources at Hawassa University.

Norwegian partner: Norwegian University of Life Sciences

Network partners: None

Project period: 2007–2012

Allocation: NOK 3 500 000

Legumes and rhizobia in southern Ethiopia: Evaluation, management and utilization of biodiversity of the microsymbiont for sustainable agriculture (NUFUPRO-2007/10144)

The project aimed to investigate unexplored biodiversity resources and to develop an innovative utilisation of leguminous plants and their plant growth promoting bacteria in sustainable agriculture. The goal was to promote new ways of increasing production and enhancing awareness of the environment.

Norwegian partner: Norwegian University of Life Sciences

Network partners: None

Project period: 2007–2012

Allocation: NOK 3 497 550

Mekelle University

Seed Safety through Diversity (NUFUPRO-2007/10189)

The overall goal of the project was to improve productivity and food security through seed security and access to quality seed in the Tigray region through participatory methods as a model for locally relevant research. The project's research focused on the use of improved varieties of Ethiopian barley by farmers.

The goal was to provide farmers with a wider span of relevant variety choices addressing their real constraints.

Norwegian partner: Norwegian University of Life Sciences

Network partners: None

Project period: 2007–2012

Allocation: NOK 3 437 500

Women and food science: together towards national visibility (NUFUGe-2008/10265)

The project aimed at contributing to food security through the study of existing food sources used by women, improving on them, and training qualified scientists in food sciences and post-harvest technology.

Norwegian partner: Norwegian University of Life Sciences

Network partners: Hawassa University (Ethiopia) and Sokoine University of Agriculture (Tanzania)

Project period: 2008–2013 (NUFU Women's Rights and Gender Equality)

Allocation: NOK 5 175 500

Ghana

The University of Ghana

Globalization and Changes in the Cultures of Survival and Care in Ghana: From Capacity Building to Policy Dialogue (NUFUPRO-2007/10129)

The project's main objective was to carry out cultural research and expand knowledge on norms, beliefs and practices regarding care of vulnerable groups, including infants, children, pregnant and nursing mothers, the elderly, the sick and the sexually active in an era of escalating HIV/AIDS transmission.

Norwegian partner: University of Bergen

Network partners: None

Project period: 2007–2011 (second funding period)

Allocation: NOK 3 399 770

Indonesia

Gadjah Mada University

The Role of Democracy in the Context of Power and Conflict in Indonesia and Sri Lanka (NUFUPRO-2007/10209)

The project's main objective was to conduct comparative research on the role of democracy in the context of power relations and conflict in Indonesia and Sri Lanka. The project aimed at strengthening the capacity of public service-oriented research and research training in democracy, power and conflicts.

Norwegian partner: University of Oslo

Network partners: None

Project period: 2007–2012

Allocation: NOK 5 800 000

Madagascar

The University of Tulear

Human Resources Development in Madagascar (NUFUPRO-2007/10136)

The main objective was to teach the fundamentals of pollution prevention and to increase the environmental knowledge base for students, staff and academic personnel at the University of Tulear and at the University of Stavanger. The project's research focused on treatment methods for domestic and industrial wastewater.

Norwegian partner: University of Stavanger

Network partners: None

Project period: 2007–2012

Allocation: NOK 3 500 000

Malawi

The University of Malawi

Capacity Building in Water Sciences for Improved Assessment and Management of Water Resources (NUFUPRO-2007/10079)

The main objectives of the project were to enhance basic research in water resources (surface and groundwater) under present and changing environments (e.g. land use and climate change), and to strengthen the competence and exchange of knowledge amongst the institutions involved.

Norwegian partner: University of Oslo

Network partners: University of Botswana and University of the Western Cape (South Africa)

Project period: 2007–2012

Allocation: NOK 5 698 000

Child Welfare and Gender in Comparative Social Work (NUFUPRO-2007/10085)

The aim of the project was to develop a sustainable network for cooperation in research and education in comparative social work. The project's objective was to improve social work practices by engaging in comparative research that focused on the representation of social problems related to childhood, gender and welfare.

Norwegian partner: University of Nordland

Network partners: San Carlos University (Guatemala), University of Havana (Cuba), University of KwaZulu-Natal and University of the Western Cape (South Africa)

Project period: 2007–2012

Allocation: NOK 6 000 000

Democracy Consolidation in Malawi (NUFUPRO-2007/10099)

The overall objective of the project was to contribute to the consolidation of democracy in Malawi. The sub-objectives were to build and increase the research capacity in both institutions and to promote knowledge sharing between the two partner institutions within this subject field.

Norwegian partner: University of Bergen

Network partners: None

Project period: 2007–2011

Allocation: NOK 3 175 950

Lungwena health, nutrition and agriculture research project (NUFUPRO-2007/10149)

The project's aims were to directly address the problems of poverty and ill health in rural areas of Malawi by analysing the impact of the agricultural, nutritional and poverty reduction initiatives introduced in the first phase of the NUFU project on food security, health and poverty.

Norwegian partner: University of Oslo

Network partners: None

Project period: 2007–2012 (second funding period)

Allocation: NOK 2 220 000

MaLEX: Malawian Lexicon Project (NUFUPRO-2007/10151)

The main objective of the project was to apply modern empirical methods from computational linguistics and lexicography in order to facilitate the creation of language tools designed to fit in with the educational system in Malawi.

Norwegian partner: Norwegian University of Science and Technology

Network partners: None

Project period: 2007–2012

Allocation: NOK 1 800 600

Improving access and quality in maternal health care in Sub-Saharan Africa (NUFUGe-2008/10013)

The main objectives of this project were to conduct multi-disciplinary action research on how to reach the millennium development goal on maternal mortality reduction in some of the poorest performing countries in Africa: Malawi and Tanzania.

Norwegian partner: University of Oslo

Network partners: University of Dar es Salaam (Tanzania)

Project period: 2008–2013 (NUFU Women's Rights and Gender Equality)

Allocation: NOK 5 560 000

Mozambique

Eduardo Mondlane University

Establishing MSc Programs in the Petroleum Sector at African Universities (NUFUPRO-2007/10120)

The project's objectives were to establish MSc education at Eduardo Mondlane University in Petroleum Geoscience, to establish a geophysical research centre in Mozambique, and to improve collaboration between the partner universities.

Norwegian partner: Norwegian University of Science and Technology

Network partners: None

Project period: 2007–2011

Allocation: NOK 2 183 500

Ore Forming Potential of the Tete Complex and Sustainable Management of Mineral Deposits in Mozambique (NUFUPRO-2007/10167)

The project's overall objective was to equip Mozambique with human capital to study, characterise and exploit its mineral wealth from a shared perspective of environmental as well economic considerations.

Norwegian partner: Norwegian University of Science and Technology

Network partners: None

Project period: 2007–2012

Allocation: NOK 3 266 000

Small Scale Concentrating Solar Energy Systems (NUFUPRO-2007/10190)

The project's general objective was to contribute to capacity building in the field of solar energy at African Universities.

Norwegian partner: Norwegian University of Science and Technology

Network partners: Addis Ababa University (Ethiopia) and Makerere University (Uganda)

Project period: 2007–2012 (second funding period)

Allocation: NOK 6 000 000

Standardization and Harmonization of Cross-border Languages (NUFUPRO-2007/10225)

The aim of the project was to develop, harmonise and standardise cross-border languages found in Mozambique and Zimbabwe, which have been broken up by political boundaries.

Norwegian partner: University of Oslo

Network partners: University of Zimbabwe

Project period: 2007–2012

Allocation: NOK 5 753 000

Nepal

Tribhuvan University

Education, Research and Training for Sustainable Management of Natural Resources in Himalayan Watersheds (NUFUPRO-2007/10109)

The research focus of this project was restorative land management and agricultural diversification, incorporating cultivation of non-timber forest products, such as medicinal and aromatic plants.

Norwegian partner: Norwegian University of Life Sciences

Network partners: Kabul University (Afghanistan), Kathmandu University (Nepal) and Karakorum International University (Pakistan)

Project period: 2007–2012 (second funding period)

Allocation: NOK 5 274 000

Governance Matters: Assessing, Diagnosing, and Addressing Challenges of Governance in Nepal (NUFUPRO-2007/10130)

The project's objective was to improve the capacity for teaching and research on governance at the Central Department of Public Administration (CDPA) at Tribhuvan University.

Norwegian partner: University of Bergen

Network partners: None

Project period: 2007–2011

Allocation: NOK 2 970 000

Spatial and Seasonal Variation in Solar Radiation and Aerosol Concentration and Compositions in Urban and Rural Sites in Himalayan Regions (NUFUPRO-2007/10193)

The project's objectives were to establish a network of solar radiation measurements in the Himalaya region, to investigate potential use of solar energy in Nepal and China, and to establish an air pollution measurement laboratory in Nepal.

Norwegian partner: Norwegian University of Science and Technology

Network partners: Tibet University (China)

Project period: 2007–2012

Allocation: NOK 5 996 100

Palestinian areas

Birzeit University

Enabling Local Voices: The Gender and Development Forum (NUFUGe-2008/10185)

The purpose of the project was to examine the role of Palestinian women as recipients and providers of relief under occupation and increased economic sanctions. The research focused on how women play out their different roles under changing conditions of complex emergencies.

Norwegian partner: University of Bergen

Network partners: None

Project period: 2008–2013 (NUFU Women's Rights and Gender Equality)

Allocation: NOK 3 500 000

South Africa

The University of KwaZulu-Natal

Broadening access into a socially responsible science and technology education (NUFUPRO-2007/10070)

The main objectives of the project were to encourage joint research on various aspects relating to how more learners can be given access to science and technology education and to explore new ways of making science and technology education more relevant to learners with various backgrounds and interests.

Norwegian partner: Norwegian University of Life Sciences

Network partners: University of Malawi, University of Pretoria (South Africa) and University of Zambia

Project period: 2007–2012

Allocation: NOK 6 000 000

The University of Pretoria

Productive Learning Cultures II (NUFUPRO-2007/10176)

The project aimed to provide academic support to research conducted at doctoral level and to support methodological training for PhD students, especially in the domain of qualitative research. The research was organised around two main themes: Indigenous knowledge systems and flexible learning through digital technologies (ICTs).

Norwegian partner: University of Bergen

Network partners: University of Malawi and University of Zambia

Project period: 2007–2011 (second funding period)

Allocation: NOK 5 353 300

The University of Stellenbosch

Research and capacity building to address the diagnostic and therapeutic challenges in tuberculosis (NUFUPRO-2007/10183)

The overall objective of the project was to contribute towards early diagnosis and improved treatment of tuberculosis.

Norwegian partner: University of Bergen

Network partners: University of Copenhagen, Statens Serum Institut (Denmark), All India Institute of Medical Science (India), Tribhuvan University (Nepal), National Institute for Medical Research, Mwanza Medical Research Centre (Tanzania), and University of the Western Cape (South Africa).

Project period: 2007–2012

Allocation: NOK 5 980 000

The University of the Western Cape

Capacity building and research in sub-Saharan Africa to promote survival among HIV-exposed infants (NUFUPRO-2007/10074)

The project's aim was to increase the capacity of researchers in sub-Saharan Africa in the conduct of randomised clinical trials (RCT). The research, primarily RCTs, also aimed to improve the survival rates of HIV-exposed infants.

Norwegian partner: University of Bergen

Network partners: None

Project period: 2007–2011

Allocation: NOK 3 499 400

South Sudan (NUCOOP)

Bachelor programmes in vocational and technical teacher education Southern Sudan-Uganda-Norway (NUCOOP-2007/10005)

The project's main objective was to establish a programme for vocational teacher education in South Sudan. The project was finalised in 2012 without the formal cooperation of a partner in South Sudan.

Norwegian partner: Oslo and Akershus University College of Applied Sciences

Network partners: Kyambogo University (Uganda)

Project period: 2007–2012 (NUCOOP)

Allocation: NOK 7 430 000

The University of Bahr-el-Ghazal

Capacity Building in the Field of Mental Health in South Sudan (NUCOOP-2007/10007)

The project aimed to develop research, teaching and clinical competence in the field of mental health at the University of Bahr-el-Ghazal.

Norwegian partner: University of Oslo

Network partners: Ahfad University for Women (Sudan), University of Stellenbosch (South Africa) and SINTEF Health Research.

Project period: 2007–2012 (NUCOOP)

Allocation: NOK 5 700 000

Building advanced research capacity in Northern and Southern Sudanese universities (NUCOOPRE-2009/11027)

The project has provided training in research skills in the field of mental health research in Sudan and South Sudan.

Norwegian partner: University of Oslo

Network partners: Ahfad University for Women (Sudan)

Project period: 2009–2011 (NUCOOP)

Allocation: NOK 500 000

Guest house at the University of Bahr-el-Ghazal (NUCOOPIN-2009/10602)

The project established a guest house in Wau to accommodate visiting project partners as well as university teachers and staff who repatriated to South Sudan.

Norwegian partner: University of Oslo

Network partners: None

Project period: 2009–2011 (NUCOOP)

Allocation: NOK 1 386 322

The University of Juba

Education and Sustainable Development in a Post-Conflict Southern Sudan (NUCOOP-2007/10002)

The project's objectives were to contribute to capacity building in the field of education by establishing a Master's programme in Multicultural and International Education.

Norwegian partner: Oslo and Akershus University College of Applied Sciences

Network partners: Ahfad University for Women (Sudan)

Project period: 2007–2013 (NUCOOP)

Allocation: NOK 8 695 907

Post-war Livelihood and Environment Studies (NUCOOP-2007/10003)

The project's objectives were to strengthen the capacities of the University of Juba and to carry out joint research on issues that are crucial to post-war revival of the agricultural and live-stock sectors and to environmental rehabilitation.

Norwegian partner: Norwegian University of Life Sciences

Network partners: None

Project period: 2007–2013 (NUCOOP)

Allocation: NOK 7 300 000

Juba University Library Automation Project (NUCOOP-2007/10008)

The project's objective was to establish a library service for research and education with relevant scholarly literature. To ensure sustainability, the project included training of librarians and other personnel.

Norwegian partner: University of Bergen

Network partners: Makerere University (Uganda) and Oslo and Akershus University College of Applied Sciences

Project period: 2007–2013 (NUCOOP)

Allocation: NOK 7 627 660

Teaching basic sciences in laboratories and by field studies (NUCOOP-2007/10013)

The project's objectives were to equip three teaching laboratories for teaching, to equip a repair and maintenance workshop, to develop good teaching programmes for the laboratories, and to train teachers and technicians from South Sudan in Bergen.

Norwegian partner: University of Bergen

Network partners: None

Project period: 2007–2013 (NUCOOP)

Allocation: NOK 7 568 000

Capacity Building in Southern Sudan: Educating Librarians for the Future (NUCOOP-2008/10001)

The project's main objective was to support capacity building in South Sudanese institutions of higher education by educating librarians, especially female, to various levels of librarianship.

Norwegian partner: University of Bergen

Network partners: Oslo and Akershus University College of Applied Sciences, Norwegian University of Life Sciences, University of Bahr-el-Ghazal (South Sudan), University of Oslo, Upper Nile University (South Sudan) and Makerere University (Uganda)

Project period: 2008–2013 (NUCOOP)

Allocation: NOK 7 322 000

Guest house and teaching facilities at the University of Juba (NUCOOPIN-2009/11101)

The aims of the project were to build a guest house for visiting staff and a new teaching laboratory for basic science.

Norwegian partner: University of Bergen

Network partners: None

Project period: 2009–2013 (NUCOOP)

Allocation: NOK 5 228 858

Building a library and information science training centre in Juba University (NUCOOPX-2009/10501)

The project has constructed a new library and information science training centre at the University of Juba.

Norwegian partner: University of Bergen

Network partners: None

Project period: 2009–2012

Allocation: NOK 2 570 000 (funded by the Royal Norwegian Embassy in Juba)

NUCOOP Office

A NUCOOP coordinating office was established to assist all NUCOOP-funded projects in terms of logistics, travel arrangements, meetings and other practical matters as well as to facilitate improved communication between project coordinators, partners and the Royal Norwegian Embassy in Juba.

Norwegian partner: None

Network partners: None

Project period: 2010–2012 (NUCOOP)

Allocation: NOK 1 422 344

Sri Lanka

The University of Ruhuna

Developing an entrepreneurial university based on local opportunities and knowledge (NUFUPRO-2007/10102)

The project's objective was to build upon local knowledge and opportunities to develop an entrepreneurial region in the southern part of Sri Lanka.

Norwegian partner: University of Nordland

Network partners: None

Project period: 2007–2012

Allocation: NOK 3 270 987

Eastern University

Post-crisis recovery: researching and teaching across boundaries (NUFUPRO-2007/10172)

The project's main objective was to enhance the universities' contribution to Sri Lanka's on-going processes of peace building, recovery and development in more effective, more proactive and more meaningful ways.

Norwegian partner: Norwegian University of Science and Technology

Network partners: None

Project period: 2007–2011

Allocation: NOK 3 443 500

Sudan

Ahfad University for Women

Gender, generation and social mobilisation: Challenges of reproductive health and rights among vulnerable groups in Ethiopia, Sudan and Tanzania (NUFUPRO-2007/10126)

The main objective of this project was to produce new knowledge on how societal challenges of poverty, war and HIV/AIDS influence processes of marginalisation and exclusion from health systems and care services in Sudan, Tanzania and Ethiopia.

Norwegian partner: University of Bergen

Network partners: Addis Ababa University (Ethiopia), University of Dar es Salaam, Institute of Social Work, Muhimbili University of Health and Allied Sciences (Tanzania), and Bergen University College (Norway)

Project period: 2007–2012 (second funding period)

Allocation: NOK 5 643 000

Gender Equality, Education and Poverty (GEEP) (NUFUGe-2008/10221)

The project addressed key issues in relation to gender equality, equity, education and poverty in South Sudan and South Africa.

Norwegian partner: Oslo and Akershus University College of Applied Sciences

Network partners: University of the Western Cape (South Africa)

Project period: 2008–2013 (NUFU Women's Rights and Gender Equality)

Allocation: NOK 3 989 000

Tanzania

Muhimbili University of Health and Allied Sciences

A comprehensive school and health system-based approach to adolescent health promotion in South Africa and Tanzania (NUFUPRO-2007/10051)

The project's objective was to improve the evidence base for effective health promotion among school-aged adolescents in sub-Saharan African settings and to strengthen research capacity and higher education within the field of health promotion.

Norwegian partner: University of Oslo

Network partners: Centre for Educational Development in Health (Tanzania) and University of Limpopo (South Africa)

Project period: 2007–2012

Allocation: NOK 4 482 500

Mzumbe University

MU-AUC Research Collaboration: Governance, Gender and Scientific Quality (GGSQ) (NUFUPRO-2007/10160)

The project aimed to explore the monetary and non-monetary parts of the pay packet from a gender perspective. The overall aim was to produce detailed knowledge of the Tanzanian pay packet. The project focused on how to utilise ICT for decreased information asymmetry, on increased opportunity to participate in political decision-making and on improving public services.

Norwegian partner: University of Agder

Network partners: None

Project period: 2007–2012

Allocation: NOK 3 400 000

Sokoine University of Agriculture

Antelope Conservation and Application of Molecular Forensics in Investigating Wildlife Crime (NUFUPRO-2007/10060)

The project's main objective was the enhancement of research capacity in biodiversity conservation in Tanzania by increasing competence in the assessment of the social ecology and population structure and population genetics of large antelopes.

Norwegian partner: Norwegian School of Veterinary Science

Network partners: None

Project period: 2007–2012

Allocation: NOK 3 493 600

ZOOTOX-2007-11: Collaborative research in environmental toxicology and zoonotic diseases in the Human – Domestic animal – Wildlife interface areas of Eastern and Southern Africa – A South-North Veterinary Network (NUFUPRO-2007/10224)

The general objective of this project was to study impacts of important zoonotic diseases and pollution of water bodies in the human – domestic animal – wildlife interface in Eastern and Southern African countries.

Norwegian partner: Norwegian School of Veterinary Science

Network partners: Eduardo Mondlane University (Mozambique), Makerere University (Uganda), University of Pretoria (South Africa), University of Zambia, and University of Zimbabwe

Project period: 2007–2012 (second funding period)

Allocation: NOK 5 758 500

Assessing the impact of forestland tenure changes on forest resources and rural livelihoods in Tanzania (NUFUTZ-2007/10226)

The main objectives of this project were to train postgraduate students in the field of Forest Resource Assessment and Management, and to assess the impact of forestland tenure changes on forest resources and livelihoods in Tanzania.

Norwegian partner: Norwegian University of Life Sciences

Network partners: None

Project period: 2007–2012 (Tanzania-Norway NUFU Programme)

Allocation: NOK 5 379 642

EKOSIASA: The Political Ecology of Wildlife and Forest Governance in Tanzania (NUFUTZ-2007/10228)

The overall objective of the project was to contribute to improved governance of wildlife and forest resources in Tanzania through applied research and capacity building in political ecology.

Norwegian partner: Norwegian University of Life Sciences

Network partners: None

Project period: 2007–2012 (Tanzania-Norway NUFU Programme)

Allocation: NOK 5 415 000

Integrating Livelihoods and Multiple Biodiversity Values in Wetlands Management in Tanzania (NUFUTZ-2007/10229)

The project's main objective was to enhance integration of livelihoods and multiple biodiversity values in wetlands management to improve the contribution of wetland resources to wellbeing while maintaining their integrity.

Norwegian partner: Norwegian University of Life Sciences

Network partners: None

Project period: 2007–2012 (Tanzania-Norway NUFU Programme)

Allocation: NOK 5 423 000

Empowering Women to Participate in the Higher Level of Fruit and Vegetables Value Chain through Production of Dried Products (NUFUGe-2008/10181)

This project aimed to combine research and development to empower women through the establishment of women-managed businesses in the fruit and vegetable value chain and to generate information that will facilitate further development of women-managed enterprises.

Norwegian partner: Norwegian University of Life Sciences

Network partners: None

Project period: 2008–2013 (NUFU Women's Rights and Gender Equality)

Allocation: NOK 2 879 000

Tumaini University

Registry-based reproductive health research in Northern Tanzania (NUFUPRO-2007/10179)

The project's objectives were to sustain a working system for medical birth registration at KCMC hospital and to provide a database for research on the reproductive health of women (e.g. fertility patterns, health in pregnancy, birth care and interventions, and reproductive outcomes).

Norwegian partner: University of Bergen

Network partners: None

Project period: 2007–2012 (second funding period)

Allocation: NOK 3 500 000

University of Dar es Salaam

Alternative Energy for Sustainable Development, Environmental Protection and Poverty Reduction in Tanzania (ESEPRIT) (NUFUPRO-2007/10059)

The project's main objective was to contribute towards improved, reliable and sustainable access to local energy resources and environmental protection for socio-economic development.

Norwegian partner: Norwegian University of Science and Technology

Network partners: None

Project period: 2007–2012

Allocation: NOK 3 364 000

Language of Instruction in Tanzania and South Africa (LOITASA) (NUFUPRO-2007/10143)

The project's main objective was to throw light on the learning potential of children when taught in a familiar language in contrast to being taught in a foreign language.

Norwegian partner: University of Oslo

Network partners: University of the Western Cape

Project period: 2007–2012 (second funding period)

Allocation: NOK 5 995 000

Occupational respiratory diseases among male and female workers in dusty industries in Tanzania (NUFUPRO-2007/10166)

The broad objective of this project was to explore occupational health among male and female employees in Tanzania and to be able to recommend strategic interventions for improved health, increased productivity and reduced poverty.

Norwegian partner: University of Bergen

Network partners: None

Project period: 2007–2012 (second funding period)

Allocation: NOK 3 114 188

Coastal fisheries of Tanzania: the challenges of globalisation to resource management, livelihoods and governance (NUFUTZ-2007/10227)

The overarching objective of this project was to improve the knowledge base for management and governance of the coastal fisheries resources of Tanzania by addressing priority knowledge gaps through research collaboration and academic capacity building.

Norwegian partner: Norwegian University of Life Sciences

Network partners: None

Project period: 2007–2012 (Tanzania-Norway NUFU Programme)

Allocation: NOK 5 345 488

Uganda

Kyambogo University

Capacity building in teacher education for children with disabilities and special needs (NUFUPRO-2007/10078)

The main objective was to establish the Faculty of Special Needs & Rehabilitation at Kyambogo University and the Kenya Institute of Special Education as high-quality institutions for research on education for learners with disabilities.

Norwegian partner: University of Oslo

Network partners: Kenya Institute of Special Education

Project period: 2007–2012

Allocation: NOK 3 830 000

Makerere University

Cultural Heritage for Social Development: Training, Research and Archiving in Ethnomusicology (NUFUPRO-2007/10095)

The project aimed at strengthening and developing the collaboration in ethnomusicology between the music section of the Department of Music, Dance and Drama at Makerere University and the Grieg Academy (Music Department) at the University of Bergen.

Norwegian partner: University of Bergen

Network partners: None

Project period: 2007–2012

Allocation: NOK 2 920 750

Essential nutrition and child health in Uganda (NUFUPRO-2007/10119)

The project's objectives were to study the effect of multiple micronutrient supplementations on growth, morbidity and mortality among HIV-infected children in Uganda, and to conduct a facility-based intervention to increase male involvement in antenatal care and the prevention programme of mother-to-child transmission of HIV.

Norwegian partner: University of Bergen

Network partners: None

Project period: 2007–2011 (second funding period)

Allocation: NOK 3 495 000

Gender, poverty and social transformation in Uganda (NUFUPRO-2007/ 10127)

The project's main objective was to generate knowledge on the gender dimensions of poverty and social transformation in Uganda with key focus on maternal health and care, sexuality, HIV/AIDS, food and general household provisioning, humanitarian assistance, local government services delivery and poverty reduction initiatives.

Norwegian partner: University of Tromsø

Network partners: None

Project period: 2007–2011

Allocation: NOK 3 498 000

Reintegration of female ex-child soldiers in Eastern Africa: Religious, ethical and practical perspectives (NUFUPRO-2007/10180)

The project aimed at developing knowledge of how religious communities can develop new methods for reintegration of female ex-child soldiers by drawing upon religious traditions as a strategic means of transition out of violent conflicts.

Norwegian partner: School of Mission and Theology

Network partners: Tumaini University (Tanzania)

Project period: 2007–2012 (second funding period)

Allocation: NOK 3 045 000

The Role of Ugandan Folklores as Repository of Traditional Wisdom (NUFUPRO-2007/10210)

The project's objectives were to preserve valuable cultures in forms that are easily accessible to a large number of people and to create a database of instructional material that can be used at various levels of education.

Norwegian partner: University of Bergen

Network partners: None

Project period: 2007–2012

Allocation: NOK 3 493 413

Value Addition for Traditional Ugandan Food for Improved Health and Nutrition (NUFUPRO-2007/10221)

The project's objective was to improve the nutrient value and quality of traditional Ugandan foods, namely sweet potato-based weaning foods and obushera, thus improving the health of the new generation of Ugandans.

Norwegian partner: Norwegian University of Life Sciences

Network partners: None

Project period: 2007–2012

Allocation: NOK 3 490 000

Vietnam

The National Institute of Animal Husbandry

Improved productivity and meat quality of beef cattle production in Vietnam, Laos and Cambodia (NUFUPRO-2007/10050)

The project's objectives were to contribute to the improvement of beef cattle productivity and beef quality and to strengthen cooperation between the three countries in the region (Vietnam, Laos and Cambodia) in the field of animal science.

Norwegian partner: Norwegian University of Life Sciences

Network partners: Hanoi Agricultural University and Hue Agricultural and Forestry University (Vietnam), National University of Laos and Royal University of Agriculture (Cambodia)

Project period: 2007–2011

Allocation: NOK 6 000 000

The Research Institute for Aquaculture NO.3

Coastal Modelling and Fish Health, Phase II (NUFUPRO-2007/10086)

The project aimed at building competence in the fields of coastal modelling and fish health through the education of PhD and Master's students and the engagement of staff at the two institutions.

Norwegian partner: University of Bergen

Network partners: None

Project period: 2007–2012 (second funding period)

Allocation: NOK 3 417 330

Zambia

The University of Zambia

Strengthening HIV-related interventions in Zambia: Co-operation in research and institution capacity building (NUFUPRO-2007/10196)

The project's objectives were to offer research training at the Master's and PhD levels to strengthen institutional research capacities and to generate knowledge on effective HIV interventions and related equity, accessibility, trust and quality questions including impact of HIV on mortality, fertility and mental distress.

Norwegian partner: University of Bergen

Network partners: None

Project period: 2007–2011 (second funding period)

Allocation: NOK 3 498 000

Zimbabwe

The University of Zimbabwe

Archaeology and Traditions in Eastern Zimbabwe (NUFUPRO-2007/10062)

The project's objective was to build competence in the field of archaeology and cultural heritage management at both main participating institutions. The project aimed to improve the understanding of social processes during the late Stone Age and early to late Iron Age in Eastern Zimbabwe.

Norwegian partner: University of Bergen

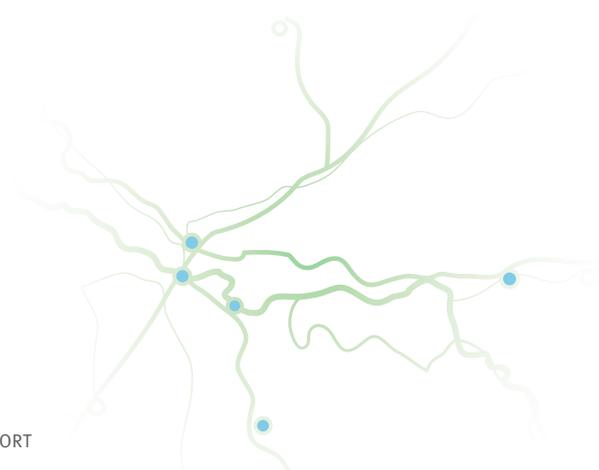
Network partners: None

Project period: 2007–2011 (second funding period)

Allocation: NOK 3 417 499

Norwegian main partner institutions

Norwegian School of Veterinary Science
Norwegian University of Life Sciences
Norwegian University of Science and Technology
Oslo and Akershus University College of Applied Sciences
School of Mission and Theology
University of Agder
University of Bergen
University of Nordland
University of Oslo
University of Stavanger
University of Tromsø





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