

NOMA 2013

Annual Report



Norad's Programme for Master Studies (NOMA)

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Introduction

Executive Summary

The NOMA Programme is in its final phase of implementation. This is reflected in the 2013 NOMA annual report, as the results achieved in the NOMA projects confirm that the projects are preparing for a future without NOMA funding.

Thirty-one projects received NOMA funding in 2013, with three additional projects also reporting as they had a no-cost extension. Twenty-two projects also received funding through the NOMA gender incentives scheme. 2013 was the final year of project implementation for ten of the projects, which means that a total of 20 projects had completed their association with the NOMA Programme by 2013.

In terms of results at output level, all the projects finalised in 2013 were successfully implemented in accordance with the activity plans defined at the outset of the project period. Looking at all the 33 NOMA projects with activities in 2013, the following outputs have been achieved: in 2013 only ten students were enrolled with NOMA funding, but this is according to plan since the programme is in its final phase. The total for the programme period is 2,028 students enrolled with NOMA funding, of which 42 per cent are female. 215 NOMA students graduated in 2013, adding to the total of 1,244 students already graduated from the programme. Of the graduates, 40 per cent are female.

Among the major outcomes throughout the programme period from 2007 to 2013 is the improved gender balance.

Master's degrees within academic disciplines that in some cases were non-existent prior to NOMA have been established at 28 institutions

of higher education in 18 countries in Africa, Asia and Latin America. Sixteen of the 20 NOMA projects which had been finalised by 2013 report that the Master's courses will continue to be offered either as dedicated Master's programmes or as part of Master's programmes already offered at the institutions.

Local ownership is assumed to be a premise for the sustainability of the Master's programmes. It is therefore promising that in 2013 the projects report good results for a key indicator of institutionalisation: for the first time the awarding of degrees was carried out either by the institution outside Norway – 81 per cent – or by both the institution outside Norway and the institution in Norway.

Another outcome is the share of graduated students reported as being employed in relevant positions upon graduation, e.g. 25 per cent are employed in the public sector and 28 per cent are employed in higher education institutions. In addition to the high percentage of NOMA graduates being employed in higher education institutions, the projects report that academic and administrative staff have received training through their participation in the NOMA projects. This way the necessary competence to sustain the Master's programmes in the foreseeable future has been secured, according to the institutions.

1 The NOMA Programme – General information

Norad's Programme for Master Studies – NOMA – is a programme for providing financial support to develop and run Master's degree programmes in the South through collaboration between local and Norwegian higher education institutions. The programme is financed by the Norwegian Agency for Development Cooperation (Norad) and managed by the Norwegian Centre for International Cooperation in Education (SIU). According to the agreement between Norad and SIU concerning the administration of the programme, Norad is responsible for the overall NOMA policy and for the guidelines regarding the management of the programme according to the instructions given by the Norwegian Ministry of Foreign Affairs (MFA). The NOMA Programme Document 2006–2010 defines the policy and guidelines for the administration of NOMA.

NOMA was established in 2006 following a comprehensive evaluation of its predecessor, the Norad Fellowship Programme (NFP). The total budget framework for the programme period 2006 to 2010 was NOK 343 million. In November 2008 an addendum to the agreement between Norad and SIU on the administration of the programme was signed, extending the programme period to 31 December 2014 and the budget framework by up to NOK 180 million.

NOMA-financed Master's programmes are open to all students, but only candidates from eligible countries may apply for a NOMA scholarship.

Three NOMA 'Main Calls for Applications' have been announced since the inception of the programme. The first call was issued in 2006, resulting in allocation of funding to 17 projects (the NOMA I 2006 portfolio), and the second in 2007 (the NOMA II 2007 portfolio), adding another 19 projects to the overall NOMA programme portfolio. In 2008 the third NOMA call for applications for the extended programme period 2010–2014 was announced by SIU, and eight new projects were allocated funding (the NOMA III 2010–2014 portfolio).

In 2014 the NOMA Programme will be phased out and replaced by The Norwegian Programme for Capacity Building in Higher Education and Research for Development (NORHED).

1.1 Programme objectives

The overall aim of the NOMA Programme is to contribute to the training of staff in all sectors in countries eligible for support from NOMA as well as in other selected countries through building capacity at Master's level in higher education institutions (HEI) in the South.

The objectives of the NOMA Programme are:

- To support the development of Master's programmes at higher education institutions in the South through close collaboration with higher education institutions in Norway, in accordance with national needs;

- To achieve, in a longer-term perspective, sustainable capacity at institutions in the South in order to provide the national workforce with adequate qualifications within selected academic fields of study;
- To stimulate South-South-North cooperation through supporting the development of regional Master's programmes;
- To improve gender equality in all programme activities;
- To strengthen and develop the expertise of Norwegian higher education institutions on integrating both global and developmental perspectives into their professional work.

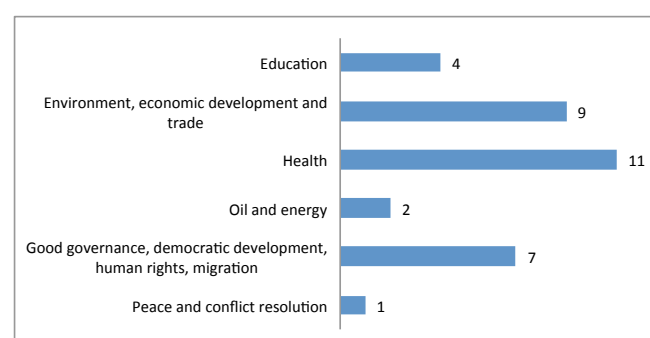
1.2 Thematic fields

Based on Norwegian priorities and on the identified needs of the cooperating countries in the South at the time when the NOMA Programme was initiated, the following were defined as thematic fields:

1. Education
2. Environment, economic development and trade
3. Gender
4. Health
5. HIV/AIDS
6. Oil and energy
7. Good governance, democratic development, human rights and migration
8. Peace and conflict resolution

Forty-four Master's programmes were established in six of the eight NOMA thematic fields in the period 2007–2010. There are main projects in all fields except two: gender and HIV/AIDS. However, many of the projects include Master's modules that address either one or both of these fields.

Figure 1: Number of NOMA projects 2013 within the thematic fields:



1.3 Geographical areas

Listed NOMA countries

Bangladesh, Bolivia, Malawi, Mozambique, Nepal, Nicaragua, Tanzania, Uganda and Zambia.

Other developing countries

Other developing countries are also included within the following country categories:

1. Countries that can further Norwegian contribution to peace and conflict resolution and that are relevant to the rebuilding of society after conflict: Angola, Ethiopia, Palestine, Sri Lanka and Sudan.
2. Countries whose expertise and capacity within higher education and research enable them to assist and cooperate with countries within the region that meet the criteria outlined above: Egypt, Indonesia, South Africa and Vietnam.

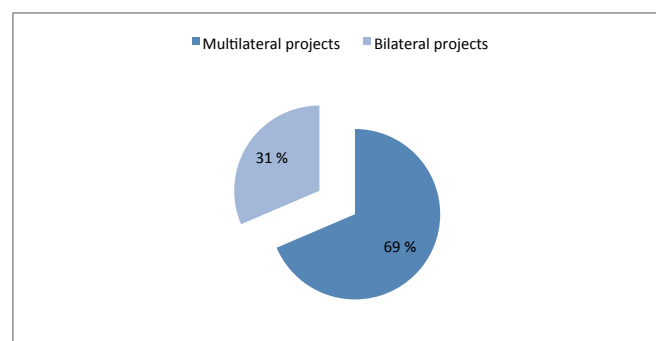
During the period 2006 to 2010 a total of 30 NOMA projects have been established in one of the listed NOMA countries. Ten projects are in countries furthering Norwegian contribution to conflict resolution and the rebuilding of society, and four are within countries of regional relevance.

1.4 NOMA Master's programme categories

The NOMA Master's programmes are divided into the following categories:

1. Bilateral Master's programmes are based on cooperation between two higher education partner institutions, one in the South and one in Norway.
2. Multilateral Master's programmes involve two main partner institutions, one outside Norway (IoN) and one in Norway (IiN), and additional partner institutions both outside and inside Norway. It is a requirement for multilateral NOMA programmes to have a minimum of two partner institutions outside Norway: one main partner and one additional partner.

Figure 2: NOMA Master's programme categories 2013



1.5 Status of project portfolio

Thirty-one projects received funding through the NOMA Programme in 2013. The projects are based at 19 different institutions of higher education in 16 countries in Africa, Asia and Latin America. In total, 11 Norwegian institutions of higher education are partners in the programme. 2013 was the final year with activities for ten of the projects. This includes three projects which have had a "No-cost extension" in 2013 (see section 2.1.4 for more information).

2013 was the last year of funding for 21 projects. Only five projects had been finalised by 31.12.2013, while 16 projects were given a "no-cost extension" for 2014.

Support has also been given to 22 projects in the NOMA portfolio under the NOMA Gender Incentives Scheme (see section 2.3 for more information). The NOMA Gender Incentives Scheme supports activities aiming to increase the proportion of women recruited and/or to retain them as NOMA students in the projects.

1.6 Annual reporting for 2013

The NOMA Programme has a two-tier reporting system:

- The IoN and IiN project coordinators jointly prepare and submit the Annual Project Report to SIU. The deadline was 3 March 2014. For projects funded through the NOMA Gender Incentives Scheme, an additional report was submitted. The projects that were finalised in 2013 have prepared a Final Report.
- Each partner institution prepares and submits an Annual Institutional Report to SIU. The deadline was 1 April 2014.

The 2013 Annual Report for the NOMA Programme is based on the information obtained from the reports mentioned above.

2 Results achieved by the NOMA Programme in 2013

Results and effects that can be attributed to the implementation of the NOMA Programme can to a certain extent be measured at output, outcome and impact level.¹ Immediate results or output in terms of what is produced or delivered through the programmes include the successful establishment of Master's programmes, the awarding of degrees at South partner institutions, and the total numbers of female and male students graduated.

Since the overall objective of the NOMA Programme is to provide the national workforce with adequate qualifications within selected academic fields of study and thus ease the shortage of qualified staff in public and private sectors in relevant fields, the production of NOMA graduates is the most direct and important result or output of the NOMA Programme activities.

The intermediate effects or outcomes of a project in relation to people and systems include the number of graduated students employed in relevant positions, the effect of improved expertise/competence within the area addressed by the Master's programme at partner institutions either in the relevant sector or in the job market, and enhanced academic and/or administrative institutional capacity.

The NOMA Annual Report 2013 is based on reporting from 34 projects located at 19 institutions of higher education in 16 countries in Africa, Asia and Latin America. It is difficult to assess the long-term impact/effects of the NOMA Programme at an aggregated level for all the countries and projects involved, as the underlying causes of development of any society are manifold and complex. When considering the relatively small size of the NOMA Programme in this context, an assessment of the potential impact of the programme would be even less meaningful. However, although it is difficult to predict the long-term effects, there are positive indications of improvement in societies participating in the cooperation, for instance through improved student gender balance and capacity-building at the partner institutions in the South. What is also relevant is the 67 per cent of NOMA students who are reported as being employed in relevant positions after graduation.

Ten NOMA projects were finalised in 2013. In terms of results at output level, all the projects have been successful in the sense that they have generally implemented the projects in accordance with the activity plans defined in the project documents, and they have produced the intended number of NOMA graduates. At outcome level the most obvious result is that the graduated students are employed within relevant institutions and sectors. Additionally, most of the finalised projects report that the continuation of the Master's programmes has to a large degree been secured, as these projects report that the Master's courses established through NOMA will continue to be offered at the South institutions, either as separate Master's programmes or as part of Master's programmes already offered at the institutions. They state

that they have the necessary resources, both in terms of faculty and infrastructure, to sustain the programmes in the foreseeable future.

However, as funding in general is crucial for the higher education sector in the South, a lack of funding continues to be mentioned as a threat to the long-term sustainability of Master's education.

2.1 NOMA students

2.1.1 Recruitment

In accordance with the general agreement on the administration of NOMA projects, the student recruitment process should be open, transparent and based on the principle of equitable access. Broad recruitment of NOMA candidates from the whole country or region where the Master's programmes are based is ensured by the following means:

- Public announcement of the NOMA Master's programme in the national media.
- An open and transparent process of selection of qualified candidates from diverse backgrounds.

Annual project reports and visits to partner institutions show that transparent and fair procedures for student recruitment to the NOMA Master's programmes have been established. In most projects the South partner institution(s) have taken responsibility for the whole recruitment process, while in some projects the Norwegian partner has been involved, e.g. as part of the admission committees.

However, since the NOMA Programme is at its final stage, only one project recruited NOMA-sponsored students in 2013.

2.1.2 Applicants

In 2013 only one NOMA project recruited students with NOMA funding, which explains the low number of applicants – 67 – this year. This development is according to schedule, as the NOMA Programme is in the final stage of project implementation.

The number of institutions requesting admission for their employees to the MSc courses offered by our School increased. In 2013 we had candidates from the Army (1), Navy (1), Pedagogic University (7), Ministry of Science and Technology (1), among others.

From the report NOMAPRO-2007/10049 Applied Marine Sciences for Sustainable Management of Natural Resources in Mozambique (Eduardo Mondlane University / University of Bergen)

¹ In line with international standards, such as the principles for results-based management in OECD countries, Norad defines results as output, outcome and impact.

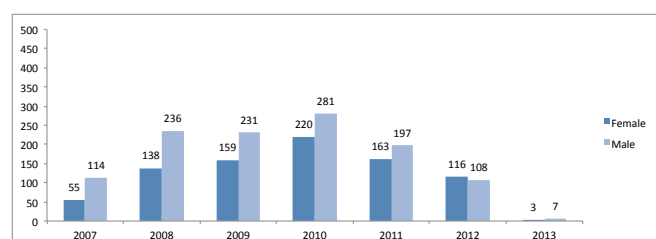
Table 1: Applicants to NOMA Master's programmes 2007–2013

Year	Male	Female	Total
2007	533	259	792
2008	555	286	841
2009	1,014	533	1,547
2010	1,385	749	2,134
2011	950	645	1,595
2012	345	223	568
2013	51	16	67
Total	4,833	2,711	7,544

Of the total number of applicants in 2013, 16 were female. The gender distribution amongst applicants was 24 per cent female to 76 per cent male. This is a negative development compared to previous years but should not be considered as a general trend since it only represents recruitment to one project².

2.1.3 Enrolment

In 2013 a total of 10 new students enrolled in the NOMA Programme. The significant decrease of enrolled students in 2013 is according to schedule, as most projects are in the final phase of the project period and are therefore not enrolling students with NOMA funding. Only one NOMA project enrolled students in 2013.

Figure 3: NOMA students enrolled 2007–2013

A total of 2,028 students with NOMA funding have been enrolled throughout the programme period 2007–2013³.

Of the five NOMA projects with the highest number of enrolled students (more than 80 students receiving NOMA scholarships throughout the programme period), four are within the health field. Two of the projects are in Tanzania, while the others are in Bangladesh, Uganda and Sri Lanka. A relatively large number of projects have enrolled a small number of NOMA students, of which seven projects belong to the NOMA 2010–2014 portfolio and have therefore enrolled few cohorts of students. The same goes for three of the NOMA 2006 projects that were finalised in 2011. Also worth noting is that among the projects with few students enrolled, five projects were within the energy/ petroleum field, two are within urban development, and two

within natural resource management. Fewer students were expected to be enrolled into these programmes, as the training requires access to infrastructure which is expensive.

2.1.4 Graduated NOMA students

There has been a steady increase in the number of graduates from the NOMA Programme, and in 2013 the programme saw a total of 1,244 graduates for the period 2009 to 2013. The peak of enrolment was in 2010, and it is therefore as expected that the peak of graduation was in 2012 (see figure 4). Hence the relatively low number of graduates in 2013.

The expected number of graduates in 2013 was 271 students, while the actual number of graduated students was 215. The project reports describe how some students are delayed compared with their original study plan. Their delay is mainly explained by other obligations related to work or family. Some also experience delays in relation to field work, and cases of delay caused by time-consuming graduation procedures at the institution have also been reported.

According to the project reports, a total of 208 students – about 10 per cent – discontinued their studies during the entire project period 2007 to 2013. In comparison, 61 per cent of the enrolled students have graduated. Table 3 shows the distribution of NOMA graduates per country. The graduates are listed in the country of the main partner institution in the South, although the students may have graduated from network partner institutions in other countries. Please note that the projects in Bolivia and Nicaragua, in addition to two projects in Uganda and one in Tanzania, have not yet had any graduates as their projects started in 2010 or later.

² The Master's programme in question is a technology programme which traditionally recruits fewer female students.

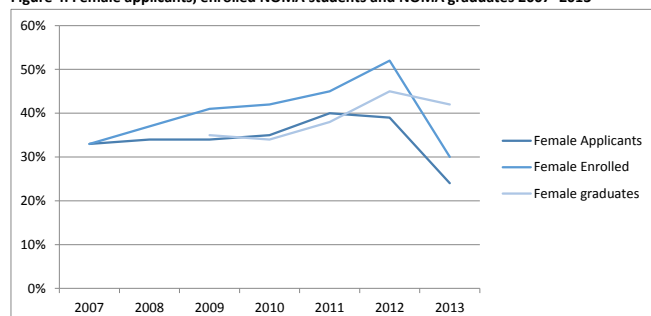
³ The number of self-financed students enrolled into the NOMA Master's programmes is not known, as this information has not been part of the information provided by the projects in the annual reports.

Table 2: Total number of graduated students per country 2007–2013

Country	Graduates	Projects
Angola	10	1
Bangladesh	171	4
Bolivia	0	1
Egypt	45	1
Ethiopia	56	2
Indonesia	22	1
Malawi	49	2
Mozambique	12	1
Nepal	184	7
Nicaragua	0	1
Palestinian territories	34	1
South Africa	15	1
Sri Lanka	161	4
Sudan	53	2
Tanzania	226	5
Uganda	92	6
Vietnam	64	1
Zambia	50	3
Total	1,244	44

According to figure 4, the percentage of female students in all categories (applicants, enrolled students and graduates) has grown steadily from 2007 to 2012. However, in 2013 we see a dip of female applicants and enrolled students. The dip must be seen in relation to the small selection of projects, as only one project recruited new students this year, not as a part of a trend.

It is worth noting the number of enrolled students compared to applicants, and the number of graduated students compared to enrolled students. In the first NOMA cohorts the percentage of enrolled female students was the same as the percentage of applicants. In 2013 the total enrolled student population consisted of 30 per cent female students, while the graduated student population consisted of 42 per cent female students.

Figure 4: Female applicants, enrolled NOMA students and NOMA graduates 2007–2013**Figure 4:** Female applicants, enrolled NOMA students and NOMA graduates 2007–2013

When comparing the total number of enrolled students to graduated students, 20 projects report that between 80 and 100 per cent of the enrolled students had graduated by the end of 2013. The eight NOMA 2010–2014 projects are in the final year of project implementation, and it is therefore natural that a small share of enrolled students have graduated in these projects. However, among the projects that were finalised in 2013 or before, nine projects report that fewer than 60 per cent of students had graduated by 2013. The number of graduates from these projects is expected to increase in 2014⁴.

2.1.5 No-cost extension to secure graduation of students

Making arrangements to secure the graduation of as many students as possible becomes increasingly important in the final phase of project implementation. Since many projects expressed worries that their students would not be able to graduate by the end of the project period, it was decided in 2012 to offer the projects the possibility to apply for a one-year no-cost extension. The no-cost extension enables the projects to budget for the costs directly related to the graduation of individual students who are delayed or are unable to complete their study by the end of the project period. No additional project funds have been allocated, but the projects have been allowed to transfer unused funds from what was originally the final year of the project period to the year of the no-cost extension.

In 2012 three projects were granted a no-cost extension for 2013. A total of six NOMA students benefitted from the no-cost extension in 2013, whereas three students were unable to finish.

Of the projects ending in 2013, fifteen were granted a no-cost extension for 2014. The expected outcome of this is that the total share of graduated students will increase. With the no-cost extensions for 2014, 280 students will have the opportunity to finish their studies.

2.2 Capacity-building

The NOMA Programme focuses on institutional development through cooperation between higher education institutions in the South and in Norway through specific Master's programmes. At the core of the NOMA Programme is the aim of securing sustainable capacity at institutions in the South to enable them to provide education at Bachelor's or Master's level to future students. This way the NOMA Programme aims to directly or indirectly provide the national or regional workforce with employees with adequate qualifications. Analysing the outcomes of the NOMA Programme therefore involves measuring the degree to which Master's students succeed in finding relevant employment after finishing their studies.

As illustrated in this report (see section 2.2.1) a considerable number of the graduated Master's students find employment in the public or private sectors or with NGOs in their home country, thus contributing to workforce development. However, even though the annual project reporting asks for information about the employment status of NOMA graduates, it is difficult to obtain reliable data. More importantly,

⁴ Three projects finalised in 2013 have agreed to report on students graduating in 2014, and another five projects have a no-cost extension in 2014.

quantitative data on employment status does not provide sufficient information about the impact the NOMA graduates have in their working environments. In order to better assess the effect of NOMA beyond the number of students graduated and their employment status, SIU has initiated a graduate tracer study of the NOMA graduates from the period 2009 to 2013 (see section 3.4).

In the context of sustainable capacity-building, even more important is the degree to which the projects have managed to secure the necessary academic and administrative expertise and capacity to sustain the Master's programmes in the future. Critical in this respect is the degree to which the Master's programmes are included in the strategic and financial plans of the South institutions. Sustainability implies that the institutional development established through the Master's programme cooperation can be maintained and continued after termination of the formal project and funding period. This requires the South partner institution to obtain and retain the necessary academic and administrative resources, it requires vital infrastructure to be in place, and it depends upon the continued funding to be secured through strategic plans.

2.2.1 Employment status of graduated NOMA students

Employment status after graduation was reported as being known for about 70 per cent of the students who had graduated by 2013⁵. While 25 per cent were employed by a public sector agency, 17 per cent were employed by their home higher education institution and 11 per cent by another higher education institution in their home country or in the region.

31 out of the 47 NOMA students that have graduated are employed at their home universities. 7 graduates are now pursuing a PhD either in their home country or abroad. Some of these have a leave of absence from the universities where they work. The remaining graduates are working in NGOs or government institutions or other institutions. All NOMA-DM graduates are currently employed in work consistent with their training and qualifications.

From the project report NOMAPRO-2006/10001 A Master of Science (M.Sc.) Degree Programme in Development Management (University of Ruhuna / Agder University College)

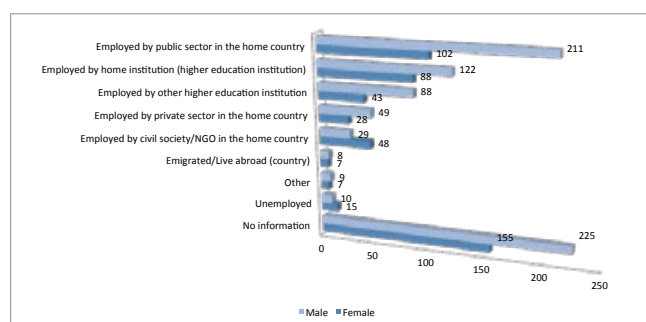
Also worth noting is the relatively low percentage of graduates who have emigrated/live abroad or are unemployed, reported as only 3 per cent in total. The small number of students who have emigrated and live abroad, could imply that challenges connected to brain-drain are either not critical to the NOMA Master's programmes or they are met with the necessary precautions. Some of the emigrated students are reported as pursuing PhD studies with connection to the NOMA projects, and that upon completion they will be employed at the home institution.

⁵ Since the information on employment status is provided by project coordinators, it is not expected that this information can be known for all students upon graduation.

One can also assume that the low number of unemployed graduates is due to the fact that the competence and capacity that the NOMA students have acquired through their studies is in demand and relevant at their home institution or in the local and regional labour markets.

Unfortunately the share of students who are registered with employment status unknown after graduation is relatively high (30 per cent). This category includes both those students who have no data registered and students whose employment status is unknown to the project coordinators. This underlines the importance of the findings in the NOMA and NUFU Graduate Tracer Study, where the employment situation of graduates from the two programmes is intended to be mapped out. For more information, see section 4.3.

Figure 5: Employment status after graduation 2007–2013



The employability of NOMA students is a strong indicator of the relevance of the competence and capacity attained as students on the different NOMA Master's programmes. As can be seen in figure 5, among the NOMA graduates that have been registered with data on employment status, the employment categories with the most NOMA graduates are "Employed by public sector in the home country", "Employed by home institution" and "Employed by other higher education institution". Many projects report that NOMA graduates who return to their former employer have been promoted to new positions and that the employers allow other employees to be recruited as Master's students.

In cases where employers are institutions of higher education, the employment of NOMA students implies increased capacity at these institutions. As long as the education offered is relevant to the development of the country or region, increased capacity within the higher education sector will have a positive impact on the development of the society in question.

One of the selection criteria for the NOMA projects was the relevance of the field of study to the development of the countries in question. As employees in the public sector, one can assume that the NOMA graduates take part in or have the opportunity to contribute to policy-making processes which can promote development in their home countries.

The services of the graduates have been highly valued by the Ministry of Health. The Secretary of the Ministry of Health requested the Postgraduate Institute of Medicine to commence a MD course in Biomedical Informatics so that the MSc graduates can go on to do the MD, and then be board certified as clinical informaticians. ... the request from the Secretary of the Ministry of Health to start a MD course to enable the graduates of the MSc course to become specialists in the field is recognition of the fact that the capacity development undertaken through the Health and Medical Informatics Asia Focus Project has fulfilled a national need in Sri Lanka. This also comes with a commitment from the government of Sri Lanka that it would be funded by the Government of Sri Lanka in the years to come, thus making the MSc and the MD sustainable projects.

From the project report NOMAPRO-2007/10043 Masters in Medical and Health Informatics: Asia Focus (University of Colombo / University of Oslo)

Based on the above, the impact of the NOMA Programme with regard to capacity-building can be considered to have contributed to local and regional development, as the graduated NOMA students are employed in positions relevant to the development of the countries in question.

2.2.2 Academic and administrative capacity-building

The collaboration between researchers and specialists on the NOMA Programme has resulted in one important outcome: capacity-building within academic disciplines which, prior to the collaboration, were in many cases non-existent at the institutions in the South. Funding available through the NOMA Programme has made such collaborations more inspiring and useful for the partners involved by exposing them to global best practices and quality standards.

One of the ways in which the projects contribute to capacity-building at the South institutions is through training of staff within the projects. This has mainly been done in two ways: faculty and staff from the South visit the Norwegian institutions to increase their knowledge about teaching and research methods and improve their analytical and administrative skills, and faculty from the Norwegian partners visit the institutions in the South to teach modules that require specialist expertise. Through co-teaching with the Norwegian faculty, the competence of the faculty at the South partner institutions has been strengthened. This way the use of guest lecturers from the North will not be required to run the Master's programmes in the future.

In many cases the aim of the NOMA projects has been to provide students with required Master's education to employ them as staff at the institutions. As mentioned in section 2.2.1, nearly 30 per cent of the students have been reported as employed by their home institution or by another institution of higher education in the region. This is an important outcome of the programme. However, to be able to take part in more advanced research and in teaching at Master's level, training at PhD-level is required.

Among the graduated students where 4 staff members of UDSM and 2 others who at finalization stage. These staff are expected to continue with PhD level and this will help UDSM to develop capacity required to continue with teaching and supervision of students in this programme smoothly. These staff also form part of a UDSM team for development and implementation of computer based health information system in the health sector in collaboration with the Ministry of Health and University of Oslo. By December, 2013, the UDSM team had successfully developed and implemented a new paper and computer based health information systems covering all health facilities (6000+), district (150+), and regions (25) countrywide.

From the project report NOMAPRO-2006/10010 Integrated Masters in Health Informatics – Tanzania and Ethiopia (University of Dar es Salaam / University of Oslo)

Training of candidates at PhD level is considered to be vital for the majority of the South partner institutions in order to meet long-term institutional needs and generate capacity-building. The projects report that faculty from the South partner institutions and graduated NOMA students have been offered scholarships through other schemes; most frequently mentioned is the NUFU Programme and the Quota Scheme. The students are enabled to pursue PhD studies, often at the Norwegian partner institution, which is aware of the capacity needed at the South partner institution and is committed to help to strengthen relevant competence. The synergy effects between the NOMA and NUFU programmes and the Quota Scheme in this respect have been reported as being significant by a great number of the institutions both in the South and in Norway.

The prospect of a future extended South/South and South/North cooperation is promising. Already regional cooperation has been well established throughout the project period ... The two Norwegian institutions are trying to recruit new intake of PhD-students through the Quota-program from the East African partners. Also for a number of years AHO has registered 2-3 graduate students (after the 3rd year) from Makerere to the regular Master's programme through an MoU between the two institutions based on the Quota-program. Currently all the PhD Quota-students at AHO come from the NOMA partner universities.

From the project report NOMAPRO-2007/10052 Master's Program in Urban Transformation and Sustainable Development (Makerere University / The Oslo School of Architecture and Design)

However, many projects report that the lack of sources for funding PhD training of staff is one of the most important threats to the long-term sustainability of the Master's programmes. In order to secure high-quality, research-based education, a greater effort in this regard is required.

As stated in the NOMA Programme Document, the academic and administrative responsibilities for the Master's programmes supported by NOMA shall gradually become the sole responsibility of the partners in the South. Critical to the continued existence of the Master's programmes are the skills acquired by administrative staff in both initiating and running the Master's programmes. Local adjustments to systems of administration of higher education programmes, such as reporting, evaluation and management procedures recognised by cooperating partner institutions, have in many cases been part of this process. Through strengthened administrative capacity, the institutions' ability to respond to requirements for international cooperation projects in general has been improved.

The projects report that the benefits from collaborating on the NOMA projects go beyond the capacity-building in the South, and that the partners have benefitted mutually. Being part of international collaboration projects such as NOMA has exposed the South partners as interesting partners in other academic and international projects. This has given them the opportunity to enter into new projects which can further enhance the academic quality of the institutions and provide them with new sources of funding.

The local and international visibility of the institute has been improved, for example the UDSM ranking had been higher in Africa for the past three years (2011, 2012 and 2013), there is no doubt that this is also partly contributed by the increased of the graduation rate for UDSM, internationalization of the UDSM postgraduate programmes and paper publications. In all those the NOMA programme at UDSM has also played a role.

From the project report NOMAPRO-2007/10057 Southern African Masters Programme in Mathematical Modelling (University of Dar es Salaam / University of Oslo)

As reported by some of the institutions and projects, managing a NOMA Master's programme has also made an indirect contribution to the development of the institutions by improving their international image and credibility, resulting in increased enrolment of foreign students and hence generating alternative sources of income through tuition fees. The aspect of internationalisation is also relevant for the Norwegian partners, which gain access to interesting fields of research through their South partners, and in some projects allow Norwegian students to acquire international experience. This is in line with one of the objectives of the NOMA Programme, as stated in the programme document, which is to strengthen and further develop the competence of Norwegian institutions of higher education to integrate global as well as developmental perspectives in their professional work.

The reputation that we have achieved as a centre for genetics education through the provision of these courses has made it possible to develop several international partnerships these include the International Genetics Education Network and the Indo-UK Genetics Education Forum. Both these organisations have partnered with us to conduct workshops and conferences in Sri Lanka. That has enabled us to create a rich academic environment for our students.

From the project report NOMA-2010/11622 MSc Medical Genetics (University of Colombo / University of Oslo)

The motivation of the Norwegian partners has the indirect consequence that it renders possible the participation of their students in national and international research projects relevant to their Master's theses, which can have a further impact on their future careers and employment.

In some projects competence has been further strengthened through the establishment of partnerships with private interests within the same sector as the relevant Master's programme. The projects invite business representatives as guest lecturers, which is thought to increase the relevance of the education to the students' future careers. The projects which have engaged partners in the private sector also experience some positive spin-offs. One example is that contact with relevant businesses that may be potential future employers for the graduates increases the students' chances of acquiring relevant employment after graduation. Demand for relevant competence also increases amongst businesses acquainted with the Master's programmes. This results in projects recruiting students amongst the employees of these businesses, and in businesses offering to pay for scholarships for already enrolled students. The funding of scholarships by private actors leads to a better economy within the programmes in general, subsequently strengthening the programmes and their sustainability.

Industrial visits provide avenue for employer and students interactions and thus potential employment can be earmarked. Attachment of students to solve a real world problem in the industry creates potential for employment. Promotion of Alumni network is key to future employment and feedback for program improvement to meet relevancy with changing technologies and needs for the business community.

From the project report NOMAPRO-2006/10021 Master Programme in renewable energy systems (Makerere University / Norwegian University of Science and Technology)

2.2.3 Local ownership and embedding of the Master's programmes

The awarding of degrees and the level of institutional responsibility for a Master's programme are important indicators in determining the degree of local ownership and institutionalisation of the Master's programme. Of the 215 students graduated in 2013, 81 per cent were awarded their Master's degrees by the higher education institutions in the South. This is a strong indicator of the institutionalisation of the Master's programmes at the South institutions. Also worth noting is that this percentage has grown steadily over the years of the NOMA Programme.

Figure 6: Project distribution by awarding institution 2013

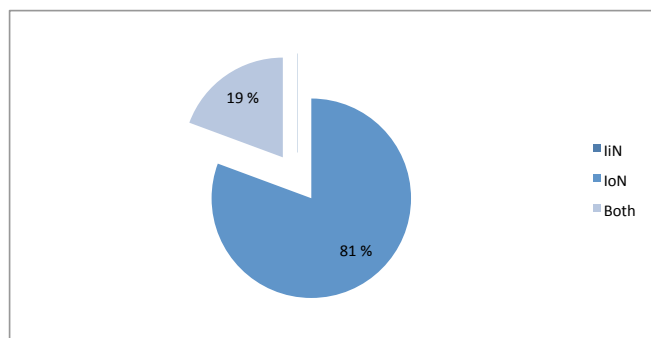


Figure 6 presents the distribution of projects by awarding institution outside Norway (IoN), institution in Norway (IiN) and both. For all the eight projects in the NOMA III 2010–2014 portfolio, a South institution is the degree-awarding institution. In previous years, five out of six projects with the Norwegian institution as the awarding institution are Master's programmes belonging to the NOMA I 2006 portfolio. For all these project reporting in 2013 there has been a transfer during the project period from the Norwegian institution to a South partner institution as the degree-awarding institution. As a result, none of the NOMA projects reporting in 2013 are based only on the awarding of degrees by the Norwegian institution.

Assuming that the awarding of degrees is a key indicator of local ownership, and that local ownership is a premise for the sustainability of the Master's programmes, the NOMA Programme can be said to have developed in line with the aims and objectives of the programme.

2.2.4 Institutional cooperation

A central element of the NOMA Programme is the cooperation between higher education institutions in the South and in Norway in developing the Master's programmes at institutions of higher education in the South. The greatest benefit of institutional cooperation is the strengthening of capacity at the institutions in the South, as described in previous sections.

As mentioned in section 1.4, 59 per cent of NOMA Master's programmes are multilateral projects, meaning that in addition to the Norwegian and the South main partners, there is one or more network partners in the South. In some programmes the network partners contribute with students, while others secure mobility in the programme or provide access to a wider range of academic and infrastructural resources. In

some of the multilateral projects, all the South partners play an equal role, and their ambition is to establish the Master's programmes at all institutions.

Mekelle University has started its own master programme in Development Studies organised as a campus based programme. KNUST started a master programme in 2012 as a blended programme with face-to-face sessions and e-learning as the DM NOMA programme is. A proposal to establish a master programme in Development Management will now be proposed at Mzumbe University, Dar es Salaam campus. At University of Ruhuna both curriculum and courses from the DM programme has been implemented in established programmes at the university.

From the project report NOMAPRO-2006/10001 A Master of Science (M.Sc.) Degree Programme in Development Management (University of Ruhuna / Agder University College)

The NOMA Programme Document emphasises that projects stimulating regional cooperation should be encouraged. Having more than one partner in the South could have a positive impact by strengthening the long-term sustainability of a Master's programme and making it less dependent on the Norwegian partner institution when the formal project cooperation has come to an end. Multiple network partners also have the potential to foster increased networking and South-South cooperation.

The NOMA programme has been very useful to develop future link and collaboration between Tribhuvan University and University of Bergen from 2014 onwards. ... [Also] regional partners from India and China have shown interest to collaborate with the programme beyond 2013. The collaboration will also lead to exchange of faculties, researchers and students of both institutions.

From the project report NOMAPRO-2007/10036 Regional Master program in Biodiversity and Environmental Management (Tribhuvan University/ University of Bergen)

The African partners have established and have got post-graduate Masters programmes in planning or urban design approved during the program period. These programmes have similar academic profiles and there should be several opportunities for a future cooperation with regard to common input, exchange of lecturers and examiners as well as in curriculum development.

From project report NOMAPRO-2007/10052 Master's Program in Urban Transformation and Sustainable Development (Makerere University/ The Oslo School of Architecture and Design)

However, despite the positive effects of cooperation between more than two institutions for some of the NOMA Programmes, the cooperation has been challenging, as the legal obligations and commitments at the network institutions have proved difficult to maintain and secure. In some cases this has resulted in the termination of the collaboration between the main partners and one or more network partners.

A negative effect of a terminated partnership can be that the main partners are unable to secure the continuation of the established study programme and the quality of the education offered. Another consequence is that the project partners are no longer entitled to information about students enrolled under the previous NOMA partnership at the former network partner institution. This is partly the reason for the absence of information about students' graduation and employment status. Another negative effect is the increased academic and administrative workload for the remaining partners.

For some of the multilateral NOMA projects the long-term goal was to establish joint Master's degree programmes. When establishing a joint degree the institutions involved must agree upon a common set of procedures for the recruitment and enrolment of students, student evaluation and other administrative procedures as well as on how to share the economic, academic and managerial responsibilities for the programme. For all NOMA projects aiming to establish joint degree programmes this process has been very challenging. No project has succeeded so far, although they have succeeded in establishing joint curricula and joint courses which will be run jointly or in parallel at the institutions.

2.3 Sustainability of the NOMA Master's programmes

The Annual Report focuses on the immediate results of the NOMA Programme. There are, however, a number of risk factors that may hamper the intended results both in the shorter and longer term. These factors can be found at different levels and involve different participants, yet the main responsibility for monitoring project activities, including financial management and ensuring zero tolerance towards corruption, lies with the partner institutions.

The factors described below are critical to the sustainability of the NOMA Master's programmes in the future. At this stage of project im-

plementation, ensuring the sustainability of the Master's programmes is the main focus. Hence, the most critical risks to be considered are those that may hamper sustainability.

2.3.1 Ensuring institutional capacity

The importance of ensuring necessary capacity at the South partner institutions cannot be emphasised enough. Without the right academic and administrative qualifications to run the Master's programmes, it is clear that the Master's programmes cannot be sustained. As described in section 2.2.1, 28 per cent of the graduated NOMA students have been employed by their home institution or by another higher education institution in the region. This number represents a significant contribution to the capacity of the higher education sectors in the relevant countries. In addition, the projects report that the necessary academic and administrative capacity among faculty has been secured through visits from faculty from the Norwegian partner, visits to the Norwegian or other network partners, and even through the academic network which has been established throughout the programme period.

However, many projects report that the lack of qualified staff with training at PhD level may pose a threat to the sustainability of the Master's programmes in the long run, since research-based education at Master's level requires faculty with training at PhD level. PhD training was not within the scope of the NOMA Programme in the first place, and this will most likely have an impact on the sustainability of the Master's programmes in the long run.

Also, with the relevant competence and experience obtained through the NOMA Programme, and with the international experience they have acquired, both graduates and faculty become attractive employees in the labour market, and there is a considerable risk that they will be offered jobs which will not in the same way promote development in their country or region. In this sense the sustainability of capacity at the institutions is fragile.

2.3.2 Ensuring continued relevance

In the project reports for 2013 many projects describe how they have carried out revisions of the Master's course curriculum; some because they require revisions to be carried out periodically, some because they have observed that the relevance of the courses that they offer has changed, and others because they are preparing to develop the courses in a new direction, e.g. online courses or online teaching materials, or more specialised/general courses. Whatever the reason, this is a way to meet a demand in the education market and to remain relevant to potential students. Fortunately, many projects report positive responses to this: they receive an increasing number of applications from students with private or other funding, and the employability of the NOMA graduates indicates that the skills they have acquired is relevant to employers in the region.

The Literacy and Learning programme is still highly relevant in the two countries. The programme has created a cadre of people with insight into literacy and learning, and the staff at the universities has been strengthened with some of the graduates from the programme. Many students have got promotion and are now teaching at colleges.

From the project report NOMAPRO-2007/10040 Master in Education. Literacy and Learning (University of Zambia/ Hedmark University College)

The relevance of the MSc programs we actually introduced at UDBS and AASTMT, has been confirmed by their success after funding for NOMA scholarships ended. The third post-NOMA cohort has been admitted at both institutions, with growing enrolment, although students now depend exclusively on private funding.

From the project report NOMAPRO-2007/10050 MSc in International Transport and Logistics for East Africa (Arab Academy for Science, Technology and Maritime Transport/ Molde University College)

Both the Ministry of Health as well as the Ministry of Community Development, Mother & Child Health requested the University to produce a cadre of Epidemiologists with immense skills in surveillance and especially with Outbreak Investigations. Given this is one competence that the NOMA master has been producing, this demand further highlights the immense relevance that exists.

From the project report NOMA-2010/12841 Master of Science in Epidemiology (University of Zambia/ University of Bergen)Molde University College)

One can claim that the relevance of some programmes is almost indefinite, based on the overwhelming need for qualified staff in certain sectors such as the health sector, for instance. For other programmes the relevance can change over time as society changes and develops. It is therefore important for the institutions to uncover new fields of research and to adapt curricula and teaching methods to keep the Master's programmes relevant. Some of the NOMA Master's programmes are good at reinventing themselves and thus strengthening the further relevance and sustainability of the programmes.

The university invited private and national companies to provide research projects for students. This was received well and enabled the interest of industry in the programme to be this raised interest and assured relevance of the courses undertaken

From the project report NOMA-2010/12562 Master of Science in Innovation and Industrial Development – Uganda (Makerere University/ Norwegian University of Science and Technology)

Although issues concerning the development of the societies affected by the NOMA Programme were relevant at the time of selecting projects for support, the cooperation scenario has since changed considerably. Increasingly the projects are concerned about issues related to the internationalisation of higher education in general, such as developing joint courses, mainstreaming courses, the harmonisation of semesters, methods for evaluation and ECTS; in other words questions of how to enhance the quality of higher education through international cooperation. The policy priorities set by the Norwegian authorities at the time when the NOMA Programme was established are perhaps not as relevant anymore, as new actors enter the stage of international cooperation.

2.3.3 Ensuring financial sustainability

As mentioned in previous sections, the projects refer to issues of funding as critical to the sustainability of the Master's programmes. Some of the NOMA projects, which were finalised in 2011 and 2012, concluded that continued external funding was a prerequisite for the continuation of the Master's programmes (for more information, see section 2.4). Fortunately, the remaining projects discuss issues related to funding more as a general issue for the higher education sector in the countries in question, as it is a less prioritised sector in their limited national budgets.

Initially the programs were heavily dependent upon NOMA support, but gradually the university, the government and other stakeholders such as private employers and individual students are taking some responsibilities in offering scholarships to students who are enrolled in these programs. However, the problem of student sponsorship remains a major challenge in ensuring adequate uptake of students in the programs because of financial constraints facing the government and other potential donors,

Institutional report 2013 – Muhimbili University of Health and Allied Sciences

However, an unpredicted problem in this context is that the authorities in countries where some of the NOMA projects are based have raised tuition fees to such high levels that the student base for recruitment is

very limited: only students from privileged parts of society or students who manage to find sponsors for their studies can afford to pursue a Masters' education. Providing scholarships through schemes such as NOMA is critical in order to circumvent this problem.

The tuition fee was suddenly increased, and the amount of applicants to the programs in social sciences decreased dramatically. This is a threat to the sustainability of the program after 2013.

From the project report NOMAPRO-2007/10055 Community Psychology Master Program at Birzeit University (Birzeit University/ Norwegian University of Science and Technology)

Scholarships have also been critical to projects where regional mobility is central. Scholarships are required to allow students to undertake training or to complete either parts of or the whole Master's degree at regional partner institutions. However, many projects report that regional collaboration will continue, but the mobility of students may have to be cancelled and this has a negative impact on the quality of the education provided.

Students went for clinical placement in University of Free State in South Africa. They had training and hands on in managing obstetric emergencies ... They were introduced to monitoring labour using a Cardiotocography (CTG) and got a chance for a hands on practice with the women in labour. This is something they had only read about in text books. When they returned to Mulago Hospital, two of them working in the Labour ward were able to utilise these skills to operate the two CTG machines that had been brought into the unit.

From the project report NOMA-2010/13185 Regional master in nursing (Muhimbili University of Health and Allied Sciences/ Bergen University College)

In some cases it is reported that collection of tuition fees has brought revenue to their institutions. NOMA programmes which have established a good reputation manage to recruit students with financing from other sources, such as their employers or state agencies which see the need for the competence in question, either as full-time Master's students or by attending part-time courses alongside their job. The tuition fees paid by these students have provided these projects with a leeway, making it possible for them to further develop the programmes.

It was stressed at the start of the NOMA Programme that the aim should be to establish Master's programmes that could be economically self-sustained at the end of the project period. For some projects this has been difficult to achieve. The reasons for this are many. In some cases it has become clear towards the end of the project period

that the need to establish infrastructure for teaching or research was greater than anticipated. The only Master's programmes which are said to be unsustainable are those where students have taken most of the courses at the institutions in Norway, since scholarships are required to provide future students with this opportunity. Additionally, the design of these programmes has not had the necessary focus on strengthening the competence of faculty in the South, and hence, they are not ready to offer training at the South partner institutions. Fortunately, most projects have increasingly offered the courses at the South institutions, and although this may have had a negative effect on the international exposure of the students, it has had a positive impact on the sustainability of the Master's programmes.

The programme has successfully reached its target about capacity strengthening. Initially, UIB provided teaching of two modules in Bergen, contributed to teaching of three modules at MUHAS, and contributed with supervision of 5 students, who came to Bergen for a second period to write their dissertations. Gradually, all these contributions were faded out, until for the last two intakes all teaching and supervision of the entire programme has been taken care of by MUHAS.

From the project report NOMAPRO-2006/10020 Master of Arts Programme in Health Policy and Management (Muhimbili University of Health and Allied Sciences/ University of Bergen)

Accepting self-financing students or securing other scholarship funding is inevitable if the NOMA Master's programmes are to be sustainable. The probability of recruiting high-quality students to the Master's programmes increases as the students in the target group become familiar with the success of graduated NOMA students. This will also increase the scope for attracting self-financing students, and the programmes' long-term sustainability will be enhanced. Some projects are actively seeking cooperation with private actors, and other NOMA Master's programmes will continue with funding from other sponsors.

Relevant competence and quality have been achieved through the program, and all the partner institutions have necessary and competent staff to administer research and postgraduate teaching related to urban planning and design. However as postgraduate training – including Masters courses – is not a government sponsored activity within the university, financing must come from other sources, mainly from private grants or from the students themselves.

From the project report NOMAPRO-2007/10052 Master's Program in Urban Transformation and Sustainable Development (Makerere University/ The Oslo School of Architecture and Design)

Another way of securing financing is through the introduction of fee-based short courses based on the Master's programme. Both self-financing Master's students and the introduction of fee-based short courses involve a shift of some of the costs to the students. However, such strategies can pose a threat to equitable access for less privileged groups and to the quality of the education offered.

The MVP programme was further recommended by the Graduate school office at Kyambogo University, to restructure its mode of delivery to increase on the number of privately sponsored students. The MVP programme is now set to be offered at both part time level (3 years) and fulltime (2 years). Further to this, the courses are to be modularized to give chance to international students.

From the project report NOMAPRO-2007/10047 Master Programme in Vocational Pedagogy Uganda-Southern Sudan-Norway (Kyambogo University/ Oslo and Akershus University College of Applied Sciences)

An additional threat to the sustainability of the Master's programmes is that a few NOMA projects suggest that some of the students seeking scholarships are "fortune seekers" and that when receiving a scholarship the recipient should be committed to staying with the project or institution after graduation. In the projects in question, students have quit half way through their studies or left the institution after graduation, leaving the project with nothing left for their investment. A contract committing the graduates to stay for a period at least has been suggested as a way of mitigating this.

2.3.4 Institutional commitment

A commitment from the institutions involved is crucial to securing the long-term sustainability of a NOMA Master's programme in the form of guaranteeing continued strategic and financial support for the programme. Once a Master's programme is accredited and becomes part of the study programmes offered by the institutions, much of the

work has been done. However, its sustainability could be threatened by a change of management at the institution, for example, which in turn can lead to a change in priorities.

2.4 Finalised NOMA projects

By the end of 2013, 20 of a total of 44 projects in the NOMA portfolios had been finalised. SIU developed a final reporting format in which the projects were given the chance to draw some conclusions about the project period as a whole, and to answer questions about the future of the Master's programmes. Since almost half of the NOMA projects had been finalised by 2013, this section summarises some of the conclusions from these reports.

In 2009 and 2010 SIU allowed projects in the NOMA I and NOMA II portfolios to apply for funding for additional student cohorts. The call for applications was made as a response to requests from institutions participating in the NOMA Programme and was meant as a bridging arrangement awaiting the result of the evaluation of the NOMA and NUFU programmes. Of the 36 NOMA projects eligible for support at that time, 33 were given additional funding for one or two additional cohorts, and hence their project periods were extended.

The projects that did not get extensions were finalised in 2011. In 2012 they were followed by another seven projects, and in 2013 a total of ten NOMA projects were finalised.

The projects that were finalised in 2013 have managed to secure the continuation of the Master's programmes to a much higher degree than those in previous years. This could be caused by the length of the project period, which has been up to eight years for some of the projects ending in 2013. However, some projects ended after collaborating through NOMA for only five years.

Looking at the final report from these projects, some general conclusions may be drawn.

2.4.1 Projects finalised in 2011

One characteristic is shared by the three projects which were finalised after 4–5 years of collaboration. The collaboration was based on students travelling from the South institutions to the institution in Norway to undergo training there. The majority of the courses offered were taught only in Norway, and hence the focus on strengthening the capacity of faculty from the South partner institutions was weaker than in more sustainable NOMA projects. The mode of cooperation also made the projects much less cost-effective than other NOMA projects, offering scholarships to only a limited number of students

In the final reports it is stated that establishing sustainable Master's programmes at the South institutions was never the aim. The projects have had a positive influence on institutional capacity in the South by providing a basis for new collaborative projects or by incorporating some of the topics from the NOMA Master's programmes into the courses already offered at the institutions.

2.4.2 Projects finalised in 2012

Of the seven NOMA project which were concluded in 2012, five projects report that the NOMA Master's programmes have been established as regular programmes offered at the South institutions. One of the projects which failed to establish a sustainable Master's programme has established a Bachelor's programme within the relevant field, and the partners plan to continue the collaboration in order to secure the necessary expertise at PhD level and to establish a Master's programme in the near future. Those projects that have succeeded in establishing a Master's programme are optimistic about attracting prospective candidates for the Master's programmes, even without scholarships being offered.

Five of the projects report that some of the NOMA graduates have been employed as staff at the South institutions and that this helps secure the necessary competence at the institutions.

Most of the projects also report that the project partners will continue the collaboration beyond NOMA funding. In some cases the continuation of the collaboration is restricted to the South partners, and in many cases the South partners will include new South partners in the network.

2.4.3 Projects finalised in 2013

All the ten NOMA projects that ended in 2013 report that the Master's programme has been established at the South partner institutions. Six of these projects are multilateral, and of these four report that all partner institutions in the South have established the Master's programme. Two others report that modules from the programme have been incorporated in relevant programmes offered at the institution.

The project has successfully established the masters in Health Informatics programmes at the University of Dar es Salaam (UDSM) and University of Addis Ababa (AAU) respectively, whereas at the University of Gonder, the Health Informatics was included as a track of Master in Public Health.

From the project report NOMAPRO-2006/10010 Integrated Masters in Health Informatics – Tanzania and Ethiopia (University of Dar es Salaam/ University of Oslo)

Most of the projects state that graduates have been employed at the South partner institutions, and five of the projects underline that graduates have been given the opportunity to pursue training at PhD level through other means and that they have returned or will return to their home institution, thus helping to further strengthen the capacity. In one of the projects 17 graduates are pursuing PhD training.

This program has definitely been a success. Two cohorts of students have finished the program. UNZA now has an approved Master's program in Clinical Neuropsychology. 9 students has graduated, 10 have finished their work, completed their requirements in the second cohort and are awaiting graduation. 5 graduated students employed by UNZA. Two students from the first cohort are now in PhD programs, one at NTNU, the other at University of Cape Town. Both of them will continue as staff members at UNZA.

From project report NOMAPRO-2007/10046 Master of Science in Clinical Neuropsychology – Building expertise to deal with the Neuropsychological challenges of HIV-infection (University of Zambia/ Norwegian University of Science and Technology)

Two of the projects report that during the project period they have succeeded in recruiting twice as many students funded through other sources – either employers, the government or themselves – as students receiving NOMA scholarships. These and other projects are seeing significant interest among prospective students and have already enrolled new cohorts of students.

The interest in the programme are in fact overwhelming for both institutions in Zambia and Sudan such that we restrict enrolment to match the teaching staff available, as the number of teaching staff increase then the corresponding number of students can be recruited.

From the project report NOMAPRO-2006/10013 International Education and Development (Ahfad University for Women/ Oslo and Akershus University College of Applied Sciences)

As the M Ed in EESD program has been internalized as a University's regular program, self-funding students were enrolled in August 2012 and August 2013. ... When we called for application without the stipends, we received encouraging number of candidates.

From the project report NOMAPRO-2007/10037 Master Program in Environment Education and Sustainable Development (Kathmandu University/ Norwegian University of Life Sciences)

Also worth noting is that seven of these project report on other measures which have been taken to further strengthen their sustainability. Among these are revising the curriculum and converting the curriculum into e-learning or distance learning materials to increase accessibility to the education offered.

Two web based courses have been conducted one with the main contribution from Norway and the other with the main input from CIIT. The number of applicants have been high and stable even after the NOMA period. The input from liN has been highly valuable and future cooperation is between the same partners is viewed as important to further develop the program and secure sustainability.

From the project report NOMAPRO-2007/10041 Master program in Sustainable Water and Sanitation, Health, and Development (Tribhuvan University/ Norwegian University of Life Sciences)

2.5 Gender and other cross-cutting issues

As mentioned in section 1.2 the NOMA Master's programmes are within defined thematic fields. No Master's programmes were established in the fields of **Gender** and **HIV/AIDS**, but many of the projects include modules that address one or both, or other cross-cutting issues. This also applies to the field **Environment and climate change** and **Anti-corruption**.

2.5.1 Gender issues in the NOMA Programme

One of the main objectives of the NOMA Programme is to contribute to gender equality in education and to the empowerment of women. NOMA Master's programmes should encourage the enrolment of female candidates in order to reach 50 per cent female student participation through active recruitment strategies, gender perspectives, 'gender mainstreaming' and gender-relevant Master's programmes.

Even though some of the NOMA Master's programmes have attracted a large number of female applicants, the majority have struggled to reach the goal of 50 per cent female participation. A number of strategies, such as advertising campaigns specifically targeting female applicants, have been implemented by projects in the recruitment process. These are reported to have been successful policies for reducing the gender gap, but for most projects additional measures are needed in order to close the gender gap and to retain the female students enrolled on the Master's programmes.

To meet these challenges, the NOMA Gender Incentive system was developed partly based on findings and recommendations in a study by Prof. Manuh from the University of Ghana (2009) and on other sources such as Gender Balance in Research – Norway. Funding of NOMA Gender Incentive Activities was introduced as a supplement to projects supported by NOMA for the years 2011 to 2014. Twenty-five NOMA projects received additional funding from the scheme in 2013.

Table 3: NOMA Gender Incentive Activities supported

Recruitment of female students	Activities
Bridging/introductory courses	8
Sensitisation visits	8
Online / distance learning programme	4
Total	20
Retention of female students	
Gender award / publication grant	10
Maternity leave	7
Child care	5
Mentoring / career planning	14
Open category	6
Total	42
Working conditions, female students	
Accommodation and secure working environment	16
Fieldwork assistance	14
Total	30
Total activities	92

Table 3 shows that a total of 92 different gender activities are supported through the NOMA Gender Incentives scheme. Initiatives in the main category "Retention of female students" are the most frequent. However, accommodation and secure working environment is the single most supported activity, with 30 different initiatives.

Providing accommodation complete with appropriate amenities such as internet, power outage control, as well as security control all seem to have contributed to creating an academic environment that helps concentrate on core academics.

From the project report NOMAGEN-2010/12841 Master of Science in Epidemiology (University of Zambia/University of Bergen)

The Gender Incentive Activities have enormously assisted in both retention of female students as well as recruitment of new ones. There were no female applicants in the Master of Science in Informatics programme in the previous cohort. However, through the gender incentive programme there has been a change.

From the project report NOMAGEN-2011/10045 Health and Information Systems – Two integrated programmes at the University of Malawi (University of Malawi/University of Oslo)

2.5.1.1 Effects of the Gender Incentive Activities in 2013

NOMA projects are asked to report on how gender issues are incorporated into their Master's Programme activities. All projects receiving support from the NOMA Gender Incentives scheme in 2013 report genuine concern and commitment to reaching a gender balance in their recruitment and in retaining female students.

For the 25 NOMA projects that received funding from the NOMA Gender Incentive Activities in 2013, much of their gender-related focus has been on mentoring/career planning and fieldwork assistance in relation to the students' work, as well as on accommodation and a secure working environment. The activities are reported to have been significant in allowing female students to finish their studies.

The six female students who could not finish their studies due to gender related problems were identified and given the financial support to complete their dissertation.

From the project report NOMAGEN-2011/10010 Integrated Masters in Health Informatics – Tanzania and Ethiopia (University of Dar es Salaam/University of Oslo)

NOMA female students while conducting field research in the remote mountain areas were supported with guides for extra security.

From project report NOMAGEN-2011/10036 Regional Master program in Biodiversity and Environmental Management (Tribhuvan University/University of Bergen)

In the past the reports have shown that institutional commitment and affirmative action together with additional funding of gender-related activities in the projects have contributed to development in the area, e.g. the realisation of the aim of gender awareness and the empowerment of women in all aspects of the educational activities in the NOMA Programme. The 2013 reports are no exception. In essence, the effect of the NOMA Gender Incentives scheme seems to go beyond an increase in the number of female students.

The encouraging picture painted in the above report extracts is reflected in figure 4, showing that the total number of female students enrolled in the NOMA Programme has increased steadily every year since the programme started, from 33 per cent in 2007 to 52 per cent in 2012. A possible explanation for a slight decrease in the number of female student in 2013 can be found in section 2.1.2.

When comparing the figures for female applicants, recruited NOMA students and NOMA graduates from 2007 to 2013, a positive trend can be observed. As gender is a cross-cutting issue in the NOMA Programme, projects have been encouraged to promote recruitment, enrolment and retention of female students in the programme. For many projects, strategic enrolment procedures where qualified female applicants are given priority, have had great effect, as have incentives to retain female students through arrangements which enable them to participate as students to a greater extent than what is normal in this context (see section 2.3). Female students' completion rates have so far been approximately the same as male students' completion rates.

Amongst all the students who were originally scheduled to graduate in 2013 or before, 67% of the female students had graduated compared to 68% of the male students.

The gender support has been successful for mainly in encouraging female candidates in their academic activities. It has helped in continuity/retention of the female candidates. After this award was made available, we have not had female candidate drop-outs which was the case earlier.

From the project report NOMAGEN-2011/10037 Master Program in Environment Education and Sustainable Development (Kathmandu University/ Norwegian University of Life Sciences)

2.5.2 HIV – Aids

Three NOMA projects list HIV/AIDS under their programme objectives, one project within the field **Education** and two within the field **Health**. In addition to this, many projects have HIV/AIDS-related subjects in their curriculum, and several Master's theses discuss these issues.

HIV/Cooperation/synergy: There was some synergy between the NOMA and NUFU project at the School of Medicine and the MSc Clinical Neuropsychology in the School of Humanities as all the projects were looking at different aspects of HIV and have had opportunity to share information among themselves.

From the Institutional report 2013 – University of Zambia

Based on the data collected by the students of the first and second cohort it has been possible to compare the performance of HIV positive individuals on neurocognitive functioning based on Zambian norms. This will be useful in clinical management of HIV positive patients as specific areas of neurocognitive functioning can be measures and management can be recommended

From the project report NOMAPRO-2007/10046 Master of Science in Clinical Neuropsychology – Building expertise to deal with the Neuropsychological challenges of HIV-infection (University of Zambia/Norwegian University of Science and Technology)

2.5.3 Environment and climate change

The thematic field of twelve NOMA projects is **Environment**. In addition, five projects describe how climate change has been treated as an issue in the Master's programmes, in the curriculum or as the subject of Master's theses. Overall, the NOMA projects are aware of these issues, but they are not relevant to the Master's programmes.

Climate change and environmental issues has been an important part of the curriculum in the master programme and has been addressed in that respect. Quite a number of master's thesis have been related to these topics, e.g. waste management, forest management, issues related to mining companies or natural resource management. The nature of the programme being on-line has also limited travelling and pollution connected to travelling.

From the project report NOMAPRO-2006/10001 A Master of Science Degree Programme in Development Management (University of Ruhuna/ University of Agder)

The project partners through their love for mitigating climate change have initiated new project(s) such as the Nordic Climate Facility (NCF) project between Makerere and NorgesVel which assigns the renewable energy students to do research in related areas of the NCF project. The said project is focusing on local entrepreneurship and business development within renewable energy.

From the project report NOMAPRO-2006/10021 Master Programme in Renewable Energy system (Makerere University/ Norwegian University of Science and Technology)

The students' theses topics are very much focused on generating knowledge related to biodiversity assessment, and environmental issues as affected by climate change. Students have focused their research in the areas which are of high environmental concern in terms of environment, such as in the protected areas, tree line in the Himalayas, agricultural practice and food security, etc.

From the project report NOMAPRO-2007/10036 Regional Master program in Biodiversity and Environmental Management (Tribhuvan University/University of Bergen)

The transport sector is an important source of climate gas emissions, and one of many solutions to that is better logistics, so Yes, this project can be expected to have effects on climate. However, such effects are impossible to observe or attribute to any single factor directly. So, we do not claim that we have made much of a difference – yet.

From the project report NOMAPRO-2007/10050 MSc in International Transport and Logistics for East Africa (Arab Academy for Science, Technology, and Maritime Transport/ Molde University College)

Environmental issues including global climate change have been focused in the teaching part of the project and several of the theses are also in one form or another dealing with sustainable urban development, and these activities will make a difference and have an impact on future graduate teaching, and hopefully a positive effect generally.

There is evidence that some of the city authorities have adopted recommendations of student theses on matters regarding climate change. For example, Kampala Capital Authority has adopted recommendations regarding solid waste management and recycling made by one student in his thesis.

From the project report NOMAPRO-2007/10052 Master's Program in Urban Transformation and Sustainable Development (Makerere University/The Oslo School of Architecture and Design)

2.5.4 Anti-corruption

SIU includes in its yearly work plan an assessment of risks to SIU's own work, including strategies for mitigating these risks. SIU has also established "Guidelines for handling of irregularities". The implementation of the programmes is monitored according to agreements with Norad, and SIU acts promptly on all information regarding irregularities of any kind.

3 NOMA activities at programme level

3.1 The NUFU and NOMA Programme Board 2012–2015

A Programme Board for NOMA and NUFU was established for the period 2012–2015, replacing the interim board that served during 2010–11.

Some of the main tasks of the Programme Board are to monitor the implementation of the two programmes, to contribute to the dissemination of results and experiences from programme activities, and to help create a strong focus on sustainability in the remaining programme phases.

In 2013 the Programme Board held one meeting: 23 May 2013 at SIU

The Programme Board decided to hold the scheduled meeting for 23 October 2013, per capsulam. Orientations and the annual plan and budget for the NOMA Programme 2014 were circulated electronically to the Programme Board members for approval.

Table 4: Members of the Programme Board for the NUFU and NOMA programmes:

Members	Deputy members
Professor Thorkild Tylleskär – Chair University of Bergen	Associate Professor Frank Lindberg University of Nordland
Associate Professor Sidsel Roalkvam – Deputy Chair University of Tromsø	Associate Professor Mette Mo Jacobsen Senior Adviser, Norwegian Association of Higher Education Institutions
Associate Professor Marit Nesje Norwegian School of Veterinary Science	Associate Professor Anne Ryen University of Agder
Professor Lennart Wohlgemuth University of Gothenburg Appointed by Norad	Sissel Volan Appointed by Norad
Elisabeth Kathleen Ofstad Norwegian Student Organisation	Erin Nordal Norwegian Student Organisation
	Professor Torbjørn K. Nielsen Norwegian University of Science and Technology

3.2 NOMA project coordinator seminar in Indonesia

To address the issue of local anchoring and sustainability in the final phase of the NOMA Programme, the Programme Board for the NUFU and NOMA programmes decided in its meeting on 13 October 2012 to organise a project coordinator seminar. Project coordinators from NOMA projects in the Asian region and their partners in Norway were defined as the target group for the seminar. Countries to be included were: Nepal (7 projects), Bangladesh (4 projects), Sri Lanka (4 projects), Palestine (1 project), Vietnam (1 project) and Indonesia (1 project). Of these projects, six had ended their project period and could share their experiences, while 12 were in the final project phase.

Based on the above decision, a NOMA Project Coordinator Seminar for NOMA projects in the Asian region took place in Yogyakarta, Indonesia from 11 to 13 February 2013. The seminar was jointly organised by the Norwegian Centre for International Cooperation in Education (SIU) and

the Universitas Gadjah Mada (UGM). The venue for the seminar was the University Club UGM Hotel.

As the NOMA Programme is entering into its final phase, an important indicator of sustainability is that the Master's programmes established with support from NOMA continue to be part of the study programmes offered at the partner institutions in the South after the completion of the project period. The main objective of the seminar was therefore to offer an opportunity for the project coordinators to meet and discuss central issues related to the phasing out of the NOMA projects with regard to securing the sustainability of the established Master's programmes, but also to help the projects to manage the final project phase.

The three-day-long seminar programme included presentations of the projects' main achievements and challenges and two workshops focusing on cross-border partnerships and networking beyond NOMA and strategies for securing long-term sustainability for the NOMA Master's programmes.

3.3 NOMA and NUFU Graduates Tracer study

As a follow-up of the evaluation of the NOMA and NUFU programmes in 2009, and based on the advice/request of the NUFU and NOMA Programme Board, it was decided to conduct a Graduate Tracer study.

The purpose of the study is to map the whereabouts of the NOMA and NUFU Master's graduates, their experiences from the studies and the value of their acquired competence in their current work situation.

The NOMA and NUFU Graduate Tracer study incorporates a survey which in December 2013 was distributed to more than 2,000 scholarship recipients and self-funded students in the NOMA and NUFU programmes, as well as qualitative interviews with a small number of graduates in the three countries with a high concentration of NOMA and NUFU projects and students: Tanzania, Nepal and Uganda. In addition, project coordinators have been asked to share their views on institutional capacity.

3.3.1 Preliminary results

In total, 844 students have answered the survey. Among these, 86 per cent received scholarships through the NOMA Programme and 9 per cent through the NUFU programme. 5 per cent were self-financed. 62 per cent of the respondents were male, and 32 per cent were female.

Two of the central issues to be answered through the graduate tracer study are the relevance of the competence that the students have obtained through their Master's education and whether this competence is employed in their home country or region, and an assessment of the potential impact. As shown in the tables below, the preliminary results show promising numbers (please note that only graduated students answered the two questions, so the actual sample is 699).

Table 5: Respondents obtained employment relevant to the Master's education

	Frequency	Percent
Yes	437	51.8
Partly	150	17.8
No	42	5.0
Total	629	74.5

Table 6: Country where the respondents are currently employed

	Frequency	Percent
In my country of origin	427	50.6
South America	3	0.4
North America	8	0.9
Southern Africa	26	3.1
Eastern Africa	52	6.2
Western Africa	5	0.6
Northern Africa	1	0.1
Middle East	2	0.2
Southern Asia	38	4.5
South-East Asia	30	3.6
Central Asia	1	0.1
Oceania	1	0.1
Europe	24	2.8
Other	18	2.1
Total	636	75.4

The final report for the graduate tracer study will be presented to Norad and the Programme Board by November 2014.

3.4 Communication of results at programme level

The Norad-SIU Communication Plan expired in 2011, and the level of communication activity related to the NOMA Programme declined accordingly. In 2013 it was limited to two articles:

SIU Magasinet 1/2013: [Fruktbart samarbeid innan fiskeri](#)

SIU Magasinet 1/2013: [Første bok om malawisk politikk](#)

3.4.1 Presentations of NOMA projects online

SIU's website (www.siu.no) provides general information about the NOMA Programme as well as specific information for programme participants. Most of the articles published on SIU's website are distributed through SIU's newsletter to target groups. As an integrated part of the website, SIU's online project database provides information on all projects supported by the NOMA Programme and other programmes managed by SIU. The database includes lists of students for each project.

4 The NOMA Programme at country level

This section provides an overview of the progress made by the NOMA projects in terms of their expressed goals and objectives. The summaries are based on the 41 Annual Project Reports for 2012 for the NOMA I, II and III project portfolios. The projects are presented according to the geographical areas stated in the NOMA Programme Document 2006–2010:

- Listed NOMA countries.
- Countries that can further Norwegian cooperation on peace and conflict resolution and rebuilding society after conflict.
- Countries with expertise and capacity within higher education and research.

This section presents brief summaries of the projects. For more information about the projects and summaries of the Master's theses of NOMA graduates, please visit SIU's project database:

<https://espresso.siu.no/projects/?program=noma&lang=en>

4.1 Listed NOMA countries

Bangladesh

Integrated Master's Programmes (M.Phil.) in Public Health Research in Asia (Bangladesh, Nepal, Bhutan, India and Pakistan) (2006–2013)

Project ID: NOMAPRO–2006/10011

This is a multilateral project with the Bangladesh Institute of Health Sciences and the University of Oslo as the main partners. The main aim of the programme is to develop capacity to deal with challenges in developing countries with regard to non-communicable diseases such as diabetes, cardiovascular disease and mental health. The programme has a strong regional presence and recruits students from Bangladesh, Nepal, Bhutan, India and Pakistan. The programme started in 2008, somewhat later than planned. So far a total of 93 students, of whom 39 are female, have been enrolled. In 2013 five students graduated, and 32 students in total have graduated from the project. The project has a no-cost extension in 2014.

MSc sandwich programme within the petroleum sector in Asia and Africa (2006–2012)

Project ID: NOMAPRO–2006/10028

This is a bilateral project with the Bangladesh University of Science and Technology (BUET) and the Norwegian University of Science and Technology (NTNU) as the main partners in collaboration with the University of Stavanger (UoS) as an additional partner. There is high demand for petroleum graduates both in Africa and Asia, and the aim is to provide students with the necessary knowledge and skills for employment in the private and public sectors. The first two semesters

of the programme take place in Norway, at NTNU or UoS, while the two final semesters take place at BUET. The programme started in August 2007 and was finalised in 2012. A total of 28 students, of whom three are female, were enrolled into the programme. Of these, 24 students had graduated by the end of the project period, five of them in 2012.

Joint regional programme for Master's degree in journalism, media and communication (2007–2012)

Project ID: NOMAPRO–2007/10053

This is a multilateral project with the University of Dhaka and Oslo University College as the main partners, in collaboration with the Pathshala South Asian Institute of Technology, College of Journalism and Mass Communication and the University of Punjab. The project aims to strengthen capacity in the field of professional journalism and communication in relation to processes of democratisation, good governance and the understanding of human rights and processes of migration. The programme started in September 2008 and was finalised in 2012. A total of 52 students, of whom 22 are female, have been enrolled. Fifty students in total have graduated from the project, of whom 24 graduated in 2012.

Master's in Public Policy and Governance (MPPG) (2007–2012)

Project ID: NOMAPRO–2007/10042

This programme is a multilateral project with North–South University and the University of Bergen as the main partners, in collaboration with Tribhuvan University. One of the major objectives of the programme is to analyse policies used in NGO poverty reduction, programmes such as microcredit, the government's Poverty Reduction Strategy Paper (PRSP), policies on the environment, health and education, women and empowerment, and local democracy. The programme involves close collaboration with the government of Bangladesh and attracts an increasing number of students from the civil service. The programme enrolled the first group of students in 2008, and 2012 was the last year of the project period. A total of 67 students, of whom 29 are female, were enrolled. In total, 64 students had graduated by the end of the project period, 23 of them in 2012.

Bolivia

Master's in Educational Technologies and Digital Resources (M.Ed.Tech.)/Maestria en Tecnologías Educativas y Recursos Digitales (M.Ed.Tec.) (2010–2014)

Project ID: NOMA–2010/13848

This is a multilateral project with the Universidad Privada del Valle in Bolivia and the University of Bergen as the main partners. Universidad

EAFIT, Colombia is an additional partner. The aim of the programme is to train professionals in teaching and research using information and communication technologies (ICT). The initial plan was to start up in August 2010, but the Master's programme was not approved by the Bolivian authorities until 2011. Since the programme was formally accredited in 2011 both a 1st and 2nd cohort were admitted in 2012 with a total of 38 students, 24 of whom are female. They are expected to graduate in 2014.

Malawi

Health and Information System – Two integrated programmes at the University of Malawi (2007–2013)

Project ID: NOAMPRO–2007/10045

The project is a bilateral cooperation between the University of Malawi and the University of Oslo. The project consists of two tracks: a Master's in Informatics, Information Systems Specialisation and a Master's in Public Health, Information Systems Track. The aim is to develop and enhance management capacity in the public health sector in Malawi and the region. Through collaboration between the two programmes, some of the candidates will acquire specialist expertise in managing the country's health informatics systems. Most of the students have been granted leave by their employers to complete the Master's degree and write their thesis in connection with their work. While the Master's programme in Public Health started as planned in 2008, the Informatics programme was delayed, and the first cohort was enrolled in 2009. So far a total of 48 students, of whom 20 are female, have been enrolled. Of these, four students were enrolled in 2012, in the fifth cohort of the project. Eleven students have graduated from the programme. The project has a no–cost extension in 2014.

Mozambique

Applied Marine Sciences for Sustainable Management of Natural Resources in Mozambique (2007–2013)

Project ID: NOMAPRO–2007/10049

This is a bilateral project involving Eduardo Mondlane University and the University of Bergen. The programme integrates Marine Sciences disciplines to build knowledge on environmental sustainability, fisheries and aquaculture management, and integrated coastal zone management. Three new courses have been developed in the South, and the degree will be awarded by Eduardo Mondlane University. So far a total of 29 students, of whom 16 are female, have been enrolled. Twelve students in total have graduated from the project, four of them in 2013. The project has a no–cost extension in 2014.

Nepal

Master's programme in Conflict, Peace Building and Development (2006–2013)

Project ID: NOMAPRO–2006/10019

This is a multilateral project with Tribhuvan University and the Norwegian University of Life Sciences as the main partners in collaboration with the University of Ruhuna and Eastern University in Sri Lanka. The overall objective of the programme is to contribute to higher–level capacity–building in conflict management, peace–building and development in order to assist with the rebuilding and long–term development of war–torn communities and regions in Nepal and Sri Lanka. The Master's programme started in September 2007. The first two semesters are taught at Tribhuvan University, while the third and fourth semesters are taught in Sri Lanka. Tribhuvan University has institutionalised the programme as an independent department: the Department of Conflict, Peace and Development Studies under the Faculty of Humanities and Social Sciences, which provides a stable foundation for the sustainability of the programme. So far a total of 68 students, of whom 28 are female, have been enrolled. Six students graduated in 2013, and 48 students in total have graduated from the project. The project has a no–cost extension in 2014.

Master of Engineering in Electrical Power Engineering (2007–2012)

Project ID: NOMAPRO–2007/10039

This is a bilateral project involving Kathmandu University and the Norwegian University of Science and Technology. The project started in August 2008 and has recruited students from Nepal and Zambia. The objective of the project is to develop a sustainable Master's programme in power engineering in Nepal, so that the programme can continue to produce quality engineers for Nepal and other developing countries where the development of the power sector is crucial to the development of the country. The number of female undergraduates in electrical power engineering is very low, and it has been a challenge to recruit female candidates to the Master's programme. The first cohort consisted of only male students, but the project successfully recruited four female students in the second cohort (out of 11 students in total). A total of 21 students have been enrolled, and 20 students have graduated from the project. The project was finalised in 2012.

Regional Master's programme in Biodiversity and Environmental Management (2007–2013)

Project ID: NOMAPRO–2007/10036

This is a multilateral project with Tribhuvan University and the University of Bergen as the main partners. Three institutions in India (Kumaon University and Jawahar Lal Nehru University) and China (China Academy of Social Sciences) are involved as network partners. The programme aims to equip students with the management and practical skills required for preserving biodiversity and simultaneously developing society. The programme recruited its first students in March 2008 and has enrolled students from Nepal, China and India. The students spend one semester in Norway, but both teaching and thesis supervision have been carried out jointly to ensure knowledge sharing and research collaboration between the North and the South. So far a total of 41 students, of whom 18 are female, have been enrolled. In total 26 students have graduated from the project, one of them in 2013. The project has a no–cost extension in 2014.

Master's programme in Environment Education and Sustainable Development (2007–2013)

Project ID: NOMAPRO–2007/10037

The programme is a multilateral project with Kathmandu University and the Norwegian University of Life Sciences as the main partners, in collaboration with the University of Dhaka and Oslo and Akershus University College of Applied Sciences. The programme aims to enhance the capacity for developing teacher training programmes in the areas of environment and sustainable development. The subjects incorporate several different disciplines, and the programme will help to meet the demand for qualified teachers and teacher educators in this field. The programme started in August 2008. So far a total of 62 students, of whom 43 are female, have been enrolled. Thirteen students graduated from the project in 2013. The project has a no-cost extension in 2014.

Master's programme in Sustainable Water and Sanitation, Health and Development (2007–2013)

Project ID: NOMAPRO–2007/10041

This is a multilateral project with Tribhuvan University and the Norwegian University of Life Sciences as the main partners. The PK-COMSATS Institute of Information Technology in Pakistan is involved as a network partner. The programme aims to train students in the fields of environmental engineering, public health and community development in order to facilitate improvements to water and sanitation systems in Nepal and Pakistan. The programme started in November 2008. So far a total of 59 students, of whom 28 are female, have been enrolled. Six students graduated in 2013, and 45 students in total have graduated from the project. The project has a no-cost extension in 2014.

Master of Science in Technology and Innovation Management – Nepal (2010–2014)

Project ID: NOMA–2010/13643

This is a bilateral project between Tribhuvan University and the Norwegian University of Science and Technology. The low levels of competitiveness and limited participation by academia in industrial development are considered major obstacles to the national goal of rapid industrialisation of Nepal, and the long-term goal of this programme is to help alleviate this situation. The programme started in August 2010. So far a total of 27 students, of whom six are female, have been enrolled. One student discontinued in 2013.

Nicaragua

Master's programme in Intercultural Communication and Media Studies (2010–2014)

Project ID: NOMA–2010/13431

The programme is based on a bilateral cooperation project between the University of the Autonomous Regions of the Caribbean Coast of Nicaragua and Oslo and Akershus University College of Applied Sciences. The aim of the project is to strengthen the capacities of

journalists and communicators working in the multicultural context of the Autonomous Regions of Nicaragua for developing an intercultural social communication process that promotes gender equality, development with identity, participatory democracy and the effective exercise of human and autonomic rights. The Master's programme started as planned in September 2010. So far a total of 32 students, of whom 17 are female, have been enrolled.

Tanzania

Integrated Master's in health information systems – Tanzania and Ethiopia (2006–2013)

Project ID: NOMAPRO–2006/10010

The programme is a multilateral project involving the University of Dar es Salaam and the University of Oslo. The University of Gondar and Addis Ababa University, both in Ethiopia, are additional partners. The aim is to address the human resource crisis in the health sector in the cooperating countries, particularly in the areas of health information systems, health management and ICT. The programme is run as three independent, but integrated, Master's programmes at the three South universities. It started in October 2007. All teaching takes place in the South, and each participating institution manages and coordinates its own Master's programme activities, while the coordination and management of the three programmes are mainly provided by the University of Oslo. So far a total of 103 students, of whom 26 are female, have been enrolled. Ten students graduated in 2013, and 78 students in total had graduated by the end of the project period in 2013.

Master's programme in Health Policy and Management (2006–2013)

Project ID: NAMAPRO–2006/10020

This is a multilateral project involving the Muhimbili University of Health and Allied Sciences and the University of Bergen, with University of Dar es Salaam in Tanzania, University of Western Cape in South Africa and the University of Oslo as additional partners. The programme started in October 2007. The main objective of the programme is to improve quality and equity in health and healthcare for disadvantaged population groups. So far a total of 44 students, of whom 19 are female, have been enrolled. Eight students graduated in 2013, and all 44 students had graduated by the end of the project period in 2013.

Sandwich programme for M.Med and MSc degrees in clinical medicine (2006–2013)

Project ID: NOMAPRO–2006/10032

This is a multilateral project with the Muhimbili University of Health and Allied Sciences and the University of Bergen as the main partners. Addis Ababa University, Ethiopia, and the Christian Medical Centre, India, are additional partners. The aim is to develop programmes in clinical medicine where these are lacking or in need of academic strengthening at the two major medical teaching institutions in Tanzania and Ethiopia. The programme started in September 2007. So far a total of 58 students, of whom 18 are female, have been enrolled. Eleven

students graduated in 2013, and 41 students in total have graduated from the project. The project has a no-cost extension in 2014.

Southern African Master's programme in Mathematical Modelling (2007–2013)

Project ID: NOMAPRO-2007/10057

This is a multilateral project with the University of Dar es Salaam and the University of Oslo as the main partners. There are as many as 11 additional partners, and the programme has enrolled students from Tanzania, Malawi, Uganda, Mozambique and Zambia. The programme provides training in advanced mathematical techniques in pure and applied mathematics relevant to epidemiology, pollution control, ecology conservation, environmental change, economics and industrial development. A new curriculum has been developed and implemented as planned. The number of students enrolled in the programme is higher than expected, and approximately one third of the students are NOMA-funded. So far a total of 42 NOMA students, of whom 17 are female, have been enrolled. Fifteen students graduated in 2013, and 38 students in total have graduated by the end of the project period in 2013.

Regional Master's in nursing (2010–2014)

Project ID: NOMA-2010/13185

This is a multilateral project with the Muhimbili University of Health and Allied Sciences and Bergen University College as the main partners. Makerere University, Addis Ababa University and the University of Bergen are additional partners. The main aim of the programme, which was established in 2010, is to develop sustainable MSc programmes in clinical nursing specialisations at the collaborating partner institutions. So far a total of 110 students, of whom 57 are female, have been enrolled. In 2013 twelve students graduated, and 29 students discontinued their studies.

Uganda

Master's programme in renewable energy systems (2006–2013)

Project ID: NOMAPRO-2006/10021

This is a multilateral project with Makerere University and the Norwegian University of Science and Technology as the main partners. Mekelle and Addis Ababa Universities in Ethiopia are additional partners together with the University of Malawi, Eduardo Mondlane in Mozambique and the University of Dar es Salaam in Tanzania. The Master's programme is based at Makerere University and the University of Dar es Salaam. The aim of the programme is to train students in the sustainable energy sector in order to meet the future needs of the region. It started in May 2008 at Makerere and in June the same year at the University of Dar es Salaam. So far a total of 84 students, of whom 28 are female, have been enrolled. Eleven students graduated in 2013, and 35 students in total have graduated from the project.

Master's programme in Urban Transformation and Sustainable Development (2007–2013)

Project ID: NOMAPRO-2007/10052

This is a multilateral project with Makerere University and the Oslo School of Architecture and Design as the main partners. Five other higher educational institutions in both the South and the North are participating as additional partners. The aim of the programme is to address the challenges of urban development, urban poverty and urban sustainability in East Africa. The programme started in September 2008. The students enrolled in the projects, who are from Ethiopia, Tanzania, Uganda and Kenya, have selected topics for their projects relevant to urban challenges in their home countries. So far a total of 32 students, of whom 11 are female, have been enrolled. Three students graduated in 2013, and 18 students in total have graduated from the project.

Master's programme in Vocational Pedagogy Uganda–Southern Sudan–Norway (2007–2013)

Project ID: NOMAPRO-2007/10047

This programme is a multilateral project with Kyambogo University and Oslo and Akershus University College of Applied Sciences as the main partners. Upper Nile University is involved as a network partner. The objective is to provide students with functional knowledge, skills and values for all types of work that are essential to development in their respective countries. By making research visits to both schools and workplaces, the students have obtained a clear understanding of how vocational education relates to working life. The start of the programme was delayed for six months due to problems such as strikes and changes in the top management of the universities' governing bodies, but was officially launched in February 2009. The programme is well established, and attitudes towards vocational education have changed tremendously. So far a total of 61 students, of whom 32 are female, have been enrolled. One student discontinued in 2013. Forty-eight students have graduated so far. The project has a no-cost extension in 2014.

Master of Science in Innovation and Industrial Development – Uganda (2010–2014)

Project ID: NOMA-2010/12562

This programme is a bilateral project with Makerere University and the Norwegian University of Science and Technology. Low levels of competitiveness and limited participation by academia in industrial development are considered major obstacles to the national goal of rapid industrialisation of Uganda, and the long-term goal of the programme is to help alleviate this situation. The original plan was to start the first intake of students in 2010, but it was delayed for one year due to the accreditation process, hence the first cohort of students was enrolled in 2011. The second cohort of 15 students, of whom six were female, was enrolled in 2012. The students expected to graduate in 2013 were still sitting examinations when the project report was written.

Develop and deliver cooperative regional Master's programmes in "Nutrition, Human Rights and Governance" (2010–2014)

Project ID: NOMA-2020/13528

This is a multilateral project with Makerere University and the University of Oslo being the main partners. Kyambogo University in Uganda, Stellenbosch University in South Africa and Oslo and Akershus University College of Applied Sciences are additional partners. The aim of the programme is to link nutritional sciences with principles of human rights, especially economic, social and cultural rights. Fourteen of the 18 students enrolled in the programme are female.

Zambia

Master of Science in Clinical Neuropsychology – Building expertise to deal with the Neuropsychological challenges of HIV infection (2007–2012)

Project ID: NOMAPRO-2007/10046

This programme is a bilateral project between the University of Zambia and the Norwegian University of Science and Technology. The programme aims to provide students with an understanding of a wide variety of neurological disorders and specifically the neuropsychological effects of the HIV virus. The first year of study consists of theoretical education, while in the second year the emphasis is on clinical internships, clinical neurological assessment and independent research. The programme started in October 2008. So far a total of 21 students, of whom 11 are female, have been enrolled. In total, nine students have graduated from the programme.

Master's in Education, Literacy and Learning (2007–2013)

Project ID: NOMAPRO-2007/10040

This is a multilateral project with the University of Zambia and Hedmark University College as the main partners. The University of Namibia participates as a network partner. The programme aims to train qualified professionals with relevant expertise in promoting and improving literacy and learning in schools in Southern Africa. Despite the delayed start to the programme, NOMA students were recruited at the beginning of 2009. So far a total of 42 students, of whom 20 are female, have been enrolled. In total, 33 students have graduated, 12 of them in 2013. The project has a no-cost extension in 2014.

Master of Science in Epidemiology (2010–2014)

Project ID: NOMA-2010/12841

This is a multilateral project with the University of Zambia and the University of Bergen as the main partners. The University of Malawi is an additional partner. The aim of the project is to improve the quality/effectiveness of health and healthcare in low-income countries through a training programme that focuses on developing solid epidemiological qualifications. The first intake of students was in April 2011 as originally planned. No students enrolled in the project in 2013, but seven students graduated, and one student discontinued.

4.2 Countries that can further Norway's cooperation in peace and conflict resolution and in rebuilding society after conflict

Ethiopia

Master's programme: Urban development and urban challenges in East Africa (2007–2012)

Project ID: NOMAPRO-2007/10054

This is a bilateral project involving Addis Ababa University and the Norwegian University of Science and Technology. The project started in 2009 and was finalised in 2012. The programme's objective is to train professionals in the field of urban planning and development. The emphasis is on the livelihoods of the urban poor, the informal urban economy, land tenure issues and public participation in urban development and management. The recruitment of female students has been a challenge for the programme, as a low number of female candidates apply. In total 16 students, of whom four are female, have been enrolled. By the end of the project period eight students had graduated and two had discontinued their studies.

MASTMO MSc programme in Mathematical and Statistical Modelling (2007–2013)

Project ID: NOMAPRO-2007/10048

This is a bilateral project involving Hawassa University and the Norwegian University of Science and Technology. The programme aims to provide students with a broad understanding of mathematical modelling, numerical analysis and probability and statistics. The focus is on the applied potential of mathematical sciences. In 2008 six staff members from Hawassa University, including one female, enrolled at NTNU in order to obtain the necessary qualifications to start the programme in Hawassa. The MASTMO MSc programme was officially launched in October 2010. So far a total of 54 students, of whom seven are female, have been enrolled. 21 students graduated in 2013, and 46 students in total have graduated by the end of the project period in 2013.

Palestinian Territories

Community Psychology Master's programme at Birzeit University (2007–2013)

Project ID: NOMAPRO-2007/10055

This is a bilateral project between Birzeit University and the Norwegian University of Science and Technology. The programme's objective is to train psychologists equipped with multi-disciplinary knowledge for working in local communities, schools, organisations and hospitals. The start of the programme was delayed for one year due to the formal accreditation process of the Palestine Ministry of Education, but managed to recruit students in 2009. So far a total of 34 students, of whom 32 are female, have been enrolled. Thirty-four students have graduated from the project, 10 of them in 2013.

Sri Lanka

Development of Master's studies at the University of Moratuwa, with emphasis on environmental and industrial projects (2006–2013)

Project ID: NOMAPRO-2006/10005

This is a bilateral project involving the University of Moratuwa and Telemark University College. The programme started in December 2007. The aim of the project is to train process development professionals so that they can initiate changes within the industrial development framework. The quality of the programme is confirmed by the fact that employers/companies encourage and support the participation of their employees. The demand for M.Sc. engineers is high, and all graduates to date have been gainfully employed. Almost all teaching is provided by local staff, ensuring the sustainability of the programme. So far a total of 53 students, of whom 23 are female, have been enrolled. Sixteen students graduated in 2013, and 36 students in total have graduated from the project. The project has a no-cost extension in 2014.

Master of Science in Development Management (2006–2013)

Project ID: NOMAPRO-2006/10001

This is a multilateral project with the University of Ruhuna and Agder University as the main partners. Additional partners are the Kwame Nkrumah University of Science and Technology in Ghana, Mzumbe University in Tanzania, Mekelle University in Ethiopia and Makerere University in Uganda. The aim of the programme is to address sustainable development through education and research. The programme, which is an online programme, started in August 2007. As the programme is effectively internet-based, it has proved easier for women to participate. So far a total of 48 students, of whom 26 are female, have been enrolled. Six students graduated in 2013, and 45 students have graduated by the end of the project period in 2013.

Master's in Medical and Health Informatics: Asia Focus (2007–2013)

Project ID: NOMAPRO-2007/10043

This is a multilateral project with the University of Colombo and the University of Oslo as the main partners. The Hanoi School of Public Health is an additional partner. The aim of the programme is to strengthen the field of medical and health informatics in Sri Lanka and the region. The Ministry of Health recognised the programme and released 29 of its employees to follow the programme in 2009, all with fully paid leave for two years. After graduation these students were guaranteed employment at the Ministry of Health in positions where they can contribute directly to ongoing health informatics projects within the health services in Sri Lanka. The initial plan was to enrol six NOMA-funded students, but the arrangement with paid leave allowed a larger number of students to be admitted. The number of female students remains low, however, mainly because of a lack of female candidates applying for the programme. So far a total of 89 students, of whom seven are female, have been enrolled. In 2013 sixteen students graduated from the project, and in total 72 students have graduated.

MSc Medical Genetics (2010–2014)

Project ID: NOMA-2010/11622

This is a multilateral project with the University of Colombo and the University of Oslo as the main partners. The National Academy of Medical Sciences in Nepal is an additional partner. The aim of the project is to cater to the need for manpower within Medical Genetics in Sri Lanka and the region by offering education at Master's level in Clinical Genetics and Genetic Diagnostics, producing qualified graduates with the relevant knowledge, skills and attitudes to work as clinical and laboratory geneticists. The programme started in August 2010. So far a total of 26 students, of whom 20 are female, have been enrolled. In total 10 students have graduated from the project.

Sudan

International Education and Development (2006–2013)

Project ID: NOMAPRO-2006/10013

This is a multilateral project with Afhad University for Women and Oslo and Akershus University College of Applied Sciences as the main partners. The University of Zambia is an additional partner. The aim of the programme is to address issues related to education, gender, HIV/AIDS and development within multicultural and multi-ethnic societies. The programme started in August 2007. Teaching is conducted at all three collaborating universities, giving the students a range of experiences both from the North and the South. Fieldwork is conducted in the student's own country, and each student has two supervisors: one from the South and one from Norway. So far a total of 46 students, of whom 33 are female, have been enrolled. Seven students graduated in 2013, and 41 students in total have graduated by the end of the project period in 2013.

Development of Master's programmes in physical and chemical oceanography at Red Sea University, Sudan (2007–2012)

Project ID: NOMAPRO–2006/10038

The programme is a bilateral one involving Red Sea University and the University of Bergen. The programme started in August 2008 and was finalised in 2012. The programme trains students in basic and advanced theories in physical and chemical oceanography and provides training in data analysis, modelling, global information systems and remote sensing. The first cohort of students spent two semesters in Bergen. However, the programme has gradually been transferred to Sudan as planned. Teaching is now conducted by graduates from the first cohort in collaboration with staff from the Geophysical Institute at the University of Bergen. A total of 11 students, of whom two are female, were enrolled. All students had graduated by the end of the project period, 8 of them in 2012.

4.3 Countries with expertise and capacity within higher education and research

Egypt

MSc in International Transport and Logistics for East Africa (2007–2013)

Project ID: NOMAPRO–2007/10050

This is a multilateral project with the Arab Academy for Science, Technology and Maritime Transport (AASTMT) and Molde University College as the main partners. The University of Dar es Salaam is involved as a network partner. The main objective of the programme is to train students for positions in the transport sector in their East African home countries. The students are from Kenya, Zambia, Malawi, Rwanda, Tanzania, Uganda, Mozambique and Sudan. The programme was postponed due to the accreditation process and commenced in January 2009. So far a total of 45 students, of whom 19 are female, have been enrolled. One student graduated in 2013, and 45 students in total have graduated from the project.

Indonesia

Graduate programme in Democracy Studies (2006–2013)

Project ID: NOMAPRO–2006/10007

This is a bilateral project with Gadjah Mada University and the University of Oslo as partners. When the Master's programme started in September 2007 it began as a multilateral Master's programme and was running well. But in 2010 the NOMA project and the associated NUFU project at the University of Colombo were terminated because of long-standing major challenges with regard to communication, academic cooperation and institutional commitment. The aim of the Master's programme is to enhance knowledge and research on contextual issues of democracy, human rights and conflict resolution. The programme is firmly institutionalised at UGM and relies primarily on local expertise. So far a total of 44 students, of whom 19 are female, have been enrolled. Six students graduated in 2013, and 22 students

in total have graduated from the project. The project has a no-cost extension in 2014.

South Africa

Strengthen and Deliver Cooperative Master's Level Programmes in Higher Education Studies (2006–2013)

Project ID: NOMAPRO–2006/10034

The programme started in January 2008 as a multilateral project with the University of the Western Cape and the University of Oslo as the main partners and Makerere University in Uganda as an additional partner. The aim of the programme is to contribute to the strengthening of higher education in Africa. The programme initially made steady progress. However, major challenges concerning Makerere University began to arise in 2009, and in 2010 the cooperation with the university was terminated. Since 2011 the project has continued as a bilateral project. So far a total of 58 students, of whom 18 are female, have been enrolled. Two students graduated in 2013, and 16 students in total have graduated from the project. The project has a no-cost extension in 2014.

Vietnam

MSc in Fisheries and Aquaculture Management and Economics (FAME) (2006–2013)

Project ID: NOMAPRO–2006/10029

This is a multilateral project with Nha Trang University and the University of Tromsø as the main partners. The University of Chittagong in Bangladesh, Shanghai Fisheries University in China and the University of Ruhuna in Sri Lanka are additional partners. The aim of the programme is to provide students with knowledge and skills to meet the need for human resources in fisheries economics and aquaculture in Vietnam and other developing countries. The Master's programme started in August 2007 and was finalised in 2012. A new Master's programme in resource and agricultural economics has been established at Nha Trang University as a continuation of the NOMA Programme. In total 68 students, of whom 36 are female, have been enrolled. Sixteen students graduated in 2012, and 64 students in total have graduated from the projectdd

Appendices

4.4 NOMA projects by country

Bangladesh

Integrated Masters Programs (M.Phil.) in Public Health Research in Asia (Bangladesh, Nepal, Bhutan, India and Pakistan)

PROJECT ID: NOMA-2006/10011

MAIN PARTNERS: Bangladesh Institute of Health Sciences, University of Oslo

ADDITIONAL PARTNERS: Baquai Medical University, Kathmandu University, Ministry of Health

CATEGORY: Multilateral Master's programmes: 2006–31.12.2013 (No-cost extension)

TOTAL ALLOCATION: NOK 11,832,554

Ethiopia

MASTMO – MSc Programme in Mathematical and Statistical Modelling

PROJECT ID: NOMA-2007/10048

PARTNERS: Hawassa University, Norwegian University of Science and Technology

CATEGORY: Bilateral Master's programmes: 2007–31.12.2013

TOTAL ALLOCATION: NOK 4,501,416

Bolivia

Master in Educational Technologies and Digital Resources (M.Ed.Tech.)

PROJECT ID: NOMA-2010/13848

MAIN PARTNERS: Universidad Privada del Valle, University of Bergen

ADDITIONAL PARTNER: Universidad EAFIT

CATEGORY: Multilateral Master's programmes, project period: 2010–2014

TOTAL ALLOCATION: NOK 5,171,875

Graduate program in Democracy Studies

PROJECT ID: NOMA-2006/10007

PARTNERS: Gadjah Mada University, University of Oslo

CATEGORY: Bilateral Master's programmes: 2006–31.12.2013 (No-cost extension)

TOTAL ALLOCATION: NOK 11,091,429

Egypt

MSc in International Transport and Logistics for East Africa

PROJECT ID: NOMA-2007/10050

MAIN PARTNERS: Arab Academy for Science, Technology, and Maritime Transport, Molde University College

ADDITIONAL PARTNER: University of Dar es Salaam

CATEGORY: Multilateral Master's programmes: 2007–31.12.2013

TOTAL ALLOCATION: NOK 9,000,000

Malawi

Health and Information Systems – Two integrated programmes at the University of Malawi

PROJECT ID: NOMA-2007/10045

PARTNERS: University of Malawi, University of Oslo

CATEGORY: Bilateral Master's programmes: 2007–31.12.2013 (No-cost extension)

TOTAL ALLOCATION: NOK 6,750,000

Master of Arts in Political Science at the University of Malawi

PROJECT ID: NOMA-2006/10017

PARTNERS: University of Malawi, University of Bergen

CATEGORY: Bilateral Master's programmes: 2006–31.12.2013

TOTAL ALLOCATION: NOK 4,441,546

Mozambique

Applied Marine Sciences for Sustainable Management of Natural Resources in Mozambique

PROJECT ID: NOMA-2007/10049

MAIN PARTNERS: Eduardo Mondlane University, University of Bergen

CATEGORY: Bilateral Master's programmes: 2007–31.12.2013 (No-cost extension)

TOTAL ALLOCATION: NOK 6,711,494

Nepal

Master Program in Environment Education and Sustainable Development

PROJECT ID: NOMA-2007/10037

MAIN PARTNERS: Kathmandu University, Norwegian University of Life Sciences

ADDITIONAL PARTNERS: University of Dhaka, Kathmandu University, Oslo University College

CATEGORY: Multilateral Master's programmes: 2007–31.12.2013 (No-cost extension)

TOTAL ALLOCATION: NOK 8,193,157

Master program in Sustainable Water and Sanitation, Health and Development

PROJECT ID: NOMA-2007/10041

MAIN PARTNERS: Tribhuvan University, Norwegian University of Life Sciences

ADDITIONAL PARTNERS: COMSATS Institute of Information Technology

CATEGORY: Multilateral Master's programmes: 2007–31.12.2013 (No-cost extension)

TOTAL ALLOCATION: NOK 8,893,056

Master programme in Conflict, Peace building and Development

PROJECT ID: NOMA-2006/10019

MAIN PARTNERS: Tribhuvan University, Norwegian University of Life Sciences

ADDITIONAL PARTNERS: University of Ruhuna, Eastern University

CATEGORY: Multilateral Master's programmes: 2006–31.12.2013 (No-cost extension)

TOTAL ALLOCATION: NOK 11,928,570

Regional Master program in Biodiversity and Environmental Management

PROJECT ID: NOMA-2007/10036

MAIN PARTNERS: Tribhuvan University, University of Bergen

ADDITIONAL PARTNERS: Kumaon University

CATEGORY: Multilateral Master's programmes: 2007–31.12.2013 (No-cost extension)

TOTAL ALLOCATION: NOK 8,407,250

Master of Science in Technology and Innovation Management – Nepal

PROJECT ID: NOMA-2010/13643

MAIN PARTNERS: Tribhuvan University, Norwegian University of Science and Technology

CATEGORY: Bilateral Master's programmes, project period: 2010–2014

TOTAL ALLOCATION: NOK 4,500,000

Nicaragua

Master Programme in Intercultural Communication and Media Studies

PROJECT ID: NOMA-2010/13431

MAIN PARTNERS: University of the Autonomous Regions of the Caribbean Coast of Nicaragua, Oslo and Akershus University College of Applied Sciences

CATEGORY: Bilateral Master's programmes, project period: 2010–2014

TOTAL ALLOCATION: NOK 3,359,700

Palestinian territories

Community Psychology Master Program at Birzeit University

PROJECT ID: NOMA-2007/10055

MAIN PARTNERS: Birzeit University, Norwegian University of Science and Technology

CATEGORY: Bilateral Master's programmes: 2007–31.12.2013 (No-cost extension)

TOTAL ALLOCATION: NOK 5,665,480

South Africa

Strengthen and Deliver Cooperative Masters Level Programmes in Higher Education Studies

PROJECT ID: NOMA-2006/10034

PARTNERS: University of the Western Cape, University of Oslo

CATEGORY: Bilateral Master's programmes: 2006–31.12.2013

TOTAL ALLOCATION: NOK 11,250,000

MSc Medical Genetics

PROJECT ID: NOMA-2010/11622

MAIN PARTNERS: University of Colombo, University of Oslo

ADDITIONAL PARTNERS: NP-National Academy of Medical Sciences

CATEGORY: Multilateral Master's programmes: 2010–2014

TOTAL ALLOCATION: NOK 5,994,000

Sudan

Sri Lanka

A Master of Science Degree Programme in Development Management between University of Agder, University of Ruhuna, and a network of partner universities in Africa

PROJECT ID: NOMA-2006/10001

MAIN PARTNERS: University of Ruhuna, University of Agder

ADDITIONAL PARTNERS: Kwame Nkrumah University of Science and Technology, Mzumbe University, Mekelle University, Makerere University

CATEGORY: Multilateral Master's programmes: 2006–31.12.2013

TOTAL ALLOCATION: NOK 11,903,516

Development of master studies at University of Moratuwa, with emphasis on environmental and industrial projects

PROJECT ID: NOMA-2006/10005

PARTNERS: University of Moratuwa, Telemark University College

CATEGORY: Bilateral Master's programmes: 2006–31.12.2013 (No-cost extension)

TOTAL ALLOCATION: NOK 6,344,186

Masters in Medical and Health Informatics: Asia Focus

PROJECT ID: NOMA-2007/10043

MAIN PARTNERS: University of Colombo, University of Oslo

ADDITIONAL PARTNERS: Hanoi School of Public Health

CATEGORY: Multilateral Master's programmes: 2007–31.12.2013 (No-cost extension)

TOTAL ALLOCATION: NOK 8,525,000

International Education and Development

PROJECT ID: NOMA-2007/10013

MAIN PARTNERS: Ahfad University for Women, Oslo and Akershus University College of Applied Sciences

ADDITIONAL PARTNERS: University of Cape Town, University of Zambia

CATEGORY: Multilateral Master's programmes: 2006–31.12.2013

TOTAL ALLOCATION: NOK 11,914,021

Tanzania

Integrated Masters in Health Informatics – Tanzania and Ethiopia

PROJECT ID: NOMA-2006/10010

MAIN PARTNERS: University of Dar es Salaam, University of Oslo

ADDITIONAL PARTNERS: Addis Ababa University, University of Gondar, Gondar College of Medical Sciences, Muhimbili, University of Health and Allied Sciences, Addis Ababa University

CATEGORY: Multilateral Master's programmes: 2006–31.12.2013

TOTAL ALLOCATION: NOK 11,530,299

Master Programme in Health Policy and Management

PROJECT ID: NOMA-2006/10020

MAIN PARTNERS: Muhimbili University of Health and Allied Sciences, University of Bergen

ADDITIONAL PARTNERS: University of Dar es Salaam, University of the Western Cape, University of Oslo

CATEGORY: Multilateral Master's programmes: 2006-31.12.2013

TOTAL ALLOCATION: NOK 10,283,399

Sandwich programme for MMed and MSc degrees in clinical medicine

PROJECT ID: NOMA-2006/10032

MAIN PARTNERS: Muhimbili University of Health and Allied Sciences, University of Bergen

ADDITIONAL PARTNERS: Addis Ababa University, Christian Medical Centre

CATEGORY: Multilateral Master's programmes: 2006-31.12.2013 (No-cost extension)

TOTAL ALLOCATION: NOK 11,897,099

Southern African Masters Programme in Mathematical Modelling

PROJECT ID: NOMA-2007/10057

MAIN PARTNERS: University of Dar es Salaam, University of Oslo

ADDITIONAL PARTNERS: University of Zambia, University of Malawi, Eduardo Mondlane University, Makerere University, University of Dar es Salaam

CATEGORY: Multilateral Master's programmes: 2007-31.12.2013

TOTAL ALLOCATION: NOK 8,342,750

Regional Master in Nursing

PROJECT ID: NOMA-2010/13185

MAIN PARTNERS: Muhimbili University of Health and Allied Sciences, Bergen University College

ADDITIONAL PARTNERS: Makerere University, Addis Ababa University, University of Bergen, Bergen University College

CATEGORY: Multilateral Master's programmes: 2010-2014

TOTAL ALLOCATION: NOK 6,000,000

Master Programme in Renewable Energy system

PROJECT ID: NOMA-2006/10021

MAIN PARTNERS: Makerere University, Norwegian University of Science and Technology

ADDITIONAL PARTNERS: University of Dar es Salaam, Eduardo Mondlane University, University of Malawi, Addis Ababa University, Mekelle University, Ethiopia

CATEGORY: Multilateral Master's programmes: 2006-31.12.2013

TOTAL ALLOCATION: NOK 12,000,000

Master Programme in Vocational Pedagogy Uganda-Southern Sudan-Norway

PROJECT ID: NOMA-2007/10047

PARTNERS: Kyambogo University, Oslo and Akershus University College of Applied Sciences

CATEGORY: Bilateral Master's programmes: 2007-31.12.2013 (No-cost extension)

TOTAL ALLOCATION: NOK 8,718,628

Master's Program in Urban Transformation and Sustainable Development

PROJECT ID: NOMA-2007/10052

MAIN PARTNERS: Makerere University, The Oslo School of Architecture and Design

ADDITIONAL PARTNERS: Addis Ababa University, University of Nairobi, Jomo Kenyatta University of Agriculture and Technology, The Oslo School of Architecture and Design, Norwegian University of Science and Technology, Ardi University

CATEGORY: Multilateral Master's programmes: 2007-31.12.2013

TOTAL ALLOCATION: NOK 6,008,185

Develop and deliver cooperative regional Master Programmes in "Nutrition, Human Rights and Governance"

PROJECT ID: NOMA-2010/13528
MAIN PARTNERS: Makerere University, University of Oslo
ADDITIONAL PARTNERS: Kyambogo University, Stellenbosch University, Akershus University College
CATEGORY: Multilateral Master's programmes: 2010–2014
TOTAL ALLOCATION: NOK 5,922,759

Master of Science in Innovation and Industrial Development – Uganda

PROJECT ID: NOMA-2010/12562
MAIN PARTNERS: Makerere University, Norwegian University of Science and Technology
CATEGORY: Bilateral Master's programmes: 2010–2014
TOTAL ALLOCATION: NOK 4,500,000

Master of Science in Epidemiology

PROJECT ID: NOMA-2010/12841
MAIN PARTNERS: University of Zambia, University of Bergen
ADDITIONAL PARTNERS: MW-College of Medicine
CATEGORY: Multilateral Master's programmes: 2010–2014
TOTAL ALLOCATION: NOK 6,000,000

Zambia**Master in Education. Literacy and Learning**

PROJECT ID: NOMA-2007/10040
MAIN PARTNERS: University of Zambia, Hedmark University College
ADDITIONAL PARTNERS: University of Namibia
CATEGORY: Multilateral Master's programmes: 2007–31.12.2013 (No-cost extension)
TOTAL ALLOCATION: NOK 8,942,062

Master of Science in Clinical Neuropsychology – Building expertise to deal with the Neuropsychological challenges of HIV-infection

PROJECT ID: NOMA-2007/10046
PARTNERS: University of Zambia, Norwegian University of Science and Technology
CATEGORY: Bilateral Master's programmes: 2007–31.12.2013
TOTAL ALLOCATION: NOK 3,505,733

4.5 Number of NOMA projects at institutions in Norway in 2013

Norwegian universities:	NOMA projects
Norwegian University of Life Sciences	3
Norwegian University of Science and Technology	6
University of Agder	1
University of Bergen	7
University of Oslo	9
5	26

Norwegian university colleges:	NOMA projects
Oslo and Akershus University College of Applied Sciences	3
Bergen University College	1
Hedmark University College	1
Molde University College	1
Telemark University College	1
The Oslo School of Architecture and Design	1
6	8

4.6 Number of NOMA projects per country, institution and partner category 2007–2014

Country	NOMA projects per institution	Main partner outside Norway	Network partner	Total
Bangladesh	Bangladesh Institute of Health Sciences	1	0	1
	University of Dhaka	0	1	1
	Total	1	1	2
Bhutan	Ministry of Health	0	1	1
	Total	0	1	1
Bolivia	Universidad Privada del Valle	1	0	1
	Total	1	0	1
Colombia	Universidad EAFIT (Economía, Administración, Finanzas, Ingeniería y Tecnología)	0	1	1
	Total	0	1	1
Egypt	Arab Academy for Science, Technology, and Maritime Transport	1	0	1
	Total	1	0	1
Ethiopia	Addis Ababa University	0	6	6
	Hawassa University	1	0	1
	Mekelle University	0	2	2
	University of Gondar (Gondar College of Medical Sciences)	0	1	1
	Total	1	9	10

Ghana	Kwame Nkrumah University of Science and Technology	0	1	1
	Total	0	1	1
India	Christian Medical Centre	0	1	1
	Kumaon University	0	1	1
	Total	0	2	2
Indonesia	Gadjah Mada University	1	0	1
	Total	1	0	1
Kenya	Jomo Kenyatta University of Agriculture and Technology	0	1	1
	University of Nairobi	0	1	1
	Total	0	2	2
Malawi	College of Medicine	0	1	1
	University of Malawi	2	2	4
	Total	2	3	5
Mozambique	Eduardo Mondlane University	1	2	3
	Total	1	2	3
Namibia	University of Namibia	0	1	1
	Total	0	1	1
Nepal	Kathmandu University	1	2	3
	National Academy of Medical Sciences	0	1	1
	Tribhuvan University	4	1	5
	Total	5	4	9
Nicaragua	University of the Autonomous Regions of the Caribbean Coast of Nicaragua	1	0	1
	Total	1	0	1
Pakistan	Baqai Medical University	0	1	1
	COMSATS Institute of Information Technology	0	1	1
	Total	0	2	2
Palestinian territories, occupied	Birzeit University	1	0	1
	Total	1	0	1
South Africa	Stellenbosch University	0	1	1
	University of Cape Town	0	1	1
	University of the Western Cape	1	1	2
	Total	1	3	4
Sri Lanka	Eastern University	0	1	1
	University of Colombo	2	0	2
	University of Moratuwa	1	0	1
	University of Ruhuna	1	1	2
	Total	4	2	6
Sudan	Ahfad University for Women	1	0	1
	Total	1	0	1

Tanzania	Ardi University	0	1	1
	Muhimbili University of Health and Allied Sciences	3	1	4
	Mzumbe University	0	1	1
	University of Dar es Salaam	2	4	6
	Total	5	7	12
Uganda	Kyambogo University	1	1	2
	Makerere University	4	3	7
	Total	5	4	9
Vietnam	Hanoi School of Public Health	0	1	1
	Total	0	1	1
Zambia	University of Zambia	3	2	5
	Total	3	2	5
Zimbabwe	National University of Science and Technology	0	2	2
	Total	0	3	3



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