Nordic Climate Facility (NCF)
Annual Review 2012

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The cover picture is from Vi-Skogen's integrated watershed management project in Kenya showing soil and water conservation methods.

1. INTRODUCTION

The Nordic Climate Facility (NCF) provides partial grant financing to encourage and promote technological innovations in areas susceptible to climate change in low-income countries. The facility is targeted at private as well as public organizations with relevant experience registered in Denmark, Finland, Iceland, Norway or Sweden, who together with a local partner can undertake to implement relevant climate related projects in one of more eligible countries. To date, NCF has launched to date three calls for proposals for innovative ideas, each within specific themes relating to climate change. The first projects were, as planned, completed in 2012.

NCF is financed by the Nordic Development Fund (NDF) and administered by the Nordic Environment Finance Corporation (NEFCO). The cumulative funding for NCF is EUR 18.21 million as of 31 December 2012 for three NCF Calls.

This review has been prepared by NEFCO. It summarizes and analyses the progress of the NCF during the year 2012. The report is divided into six main parts. The first main section (3.1) contains general information. The second section (3.2.1) outlines the progress of the First Call for Proposals (NCF1), which, during 2012, mostly consisted of project administration and monitoring with four completed projects. The third section (3.2.2) covers the administration and monitoring of the Second Call for Proposals (NCF2) with one practically completed project in 2012.

Fourth main section (3.2.3) discusses evaluation, selection and contracting of the Third Call for Proposals (NCF3) launched in late 2011, with the first agreement signed in 2012. Fifth part focuses on the institutional aspects of NCF administration as well as the co-operation and division of responsibilities between NEFCO and NDF. The final section contains discussion and conclusions.

2. Executive summary

Year 2012 was the third full operational year of NCF since the facility was launched in late 2009. During 2012, four NCF1 projects under the themes of water resources and energy efficiency were completed, and one NCF2 project under the themes of renewable energy and urban adaptation was practically completed. One NCF1 project was terminated due to the slow performance and two NCF1 agreements were amended to extend the implementation period to allow expected climate and development benefits to be achieved.

In general, the project implementation progressed well in 2012 for NCF1. In general, somewhat more challenges have been noted in the NCF2 projects than in those of NCF1. No terminations, however, are foreseen while some extensions are likely to be needed. Risks form an inherent part of the design of NCF, as special emphasis is put on innovativeness. As the implementation conditions and locations are challenging, some underperformance and/or additional challenges will emerge during the implementation of the NCF programme.

The total cumulative grant disbursements under NCF1 are EUR 3,220,340.00, i.e. 59% of the contracted amount of EUR 5,450,842. For NCF2, the total cumulative grant disbursements are EUR 1,115,629.68, i.e. 21% of the contracted amount of EUR 5,254,592.45.

The four completed NCF1 projects allow some preliminary impact assessments whereas it is too early for the on-going projects to assess the climate and development results in a detailed way.

The results and progress so far in on-going project indicate that the key NCF objectives of (i) facilitating exchange of technology, knowledge, know-how and innovative ideas between the Nordic countries and low-income countries in the field of climate change; (ii) increasing the low-income countries' capacity to mitigate and adapt to climate change; and (iii) contributing to sustainable development and the reduction of poverty can be met. It can also be concluded that NCF has provided additionality to existing climate financing through generating new projects and concepts and leveraging co-financing to the NDF grant funding. It should also be noted that NCF projects are almost equally divided between adaptation and mitigation projects.

For NCF3, launched in late 2011 under the theme of *Innovative low-cost climate solutions with focus on local business development,* a total of 128 pre-qualifications were received by 16 January 2012. Of the proposals, 69 were regarded as eligible and 30 were shortlisted based on the detailed evaluation. Twenty nine final applications were received, of which the thirteen highest scoring were selected for negotiations. The first NCF3 agreement was signed for a water harvesting project in Ghana, and negations progressed well for an additional ten projects by the end of the year. Draft agreements were prepared for six projects.

A challenging business theme, numerous clarifications and due diligence processes delayed the actual signing of the NCF3 agreements but this was, however, swiftly remedied in early 2013. Combining a business idea with climate and development benefits is challenging but not impossible. The concrete results are of course yet to be assessed.

No new call was launched in 2012 as the contract for external evaluation of the facility was signed in 2012 with the aim of finalizing the evaluation by summer 2013.

In addition to the large number of proposals received for NCF1-NCF3, the encouraging results from the first completed project and continuing interest from potential applicants for a new call support the need for this kind of funding.

3. PROGRESS ASSESSMENT

3.1. Progress towards achieving the overall NCF objectives

3.1.1. General

The main objectives of NCF as defined by the NDF Board are to: (i) facilitate the exchange of technology, knowledge, know-how and innovative ideas between the Nordic countries and low-income countries in the field of climate change; (ii) increase the low-income countries' capacity to mitigate and adapt to climate change; and (iii) to contribute to sustainable development and the reduction of poverty. NCF's purpose and objective is also to encourage testing and concrete concepts relating to climate change and, especially, to facilitate partnerships.

Expected results of NCF1 and NCF2:

1. Financing for pre-feasibility and feasibility studies for adaptation and mitigation projects
2. Financing for implementation of demonstration projects in the field of adaptation and mitigation that are likely to strengthen the development of suitable technologies for emerging markets
3. Supporting the development, dissemination and implementation of sustainable pilot projects to showcase the use of suitable technologies as viable alternatives to develop business-oriented initiatives
4. Adopting a monitoring and evaluation plan for each pilot project on the basis of the criteria and indicators already outlined in the project application formula and project documents in order to guarantee their efficient operation and to draw on lessons for the future
5. Developing strategies to disseminate suitable technologies for adaptation and mitigation

For NCF3, the expected results are similar with the exception of pre-feasibility and feasibility studies. Based on the lessons learned from NCF1-NCF2, it was decided not to provide funding for studies but only for concrete projects in NCF3.

3.1.2. Climate change mitigation and adaptation

NCF projects clearly facilitate the exchange of technology, knowledge, know-how and innovative ideas between the Nordic countries and the host countries related to climate change and increase their capacity to mitigate and adapt to climate change. NCF projects are almost equally divided between mitigation and adaptation. Some projects combine mitigation and adaptation elements.[1]

Greenhouse gas reductions in NCF projects are typically quite modest given the small scale of the projects as evidenced in completed NCF1 projects as well as progress reports from on-going projects. In some projects, however, emission reductions could be notable if successfully

[1] All projects have passed the NCF's climate screening criteria for mitigation and/or adaptation.NCF1 projects were assessed later, after the introduction of the NDF Climate Screening tool also to meet the criteria.

implemented, scaled up and replicated – again as evidenced e.g. by a completed NCF1 project on energy efficiency in Ethiopia.

For adaptation, defining concrete results and/or adaptation indicators is somewhat more challenging. Adaptation impacts are typically closely linked to development impacts. The impacts of climate change on socio-developmental issues, such as health, livelihood support, education, conflict and frequent droughts, are expected to increase and could lead to water shortages, increased risk of food shortages, the expansion of aridity as well as changes in the planting dates of annual crops.

The key adaptation benefits are linked for example to ensuring access to safe and affordable water for the beneficiaries, capacity building of the communities and partners involved, understanding potential adaptation measures that are crucial to the management of climate-related disasters, facilitating better planning for infrastructure development and improving preparedness for flood disaster prevention. The completed projects indicate concrete adaptation benefits linked e.g. to livelihood support. There are good indications that key NCF objectives can be met.

3.1.3. Development

All NCF projects have defined required development impacts, which, in most cases, are closely linked to adaptation and sometimes mitigation impacts. The development impacts of the NCF projects are typically linked to the creation of income, improvements in their nutrition and health, and access to safe water. All these elements are present in completed projects contributing to sustainable development and the reduction of poverty indicating that NCF objectives could be met.

3.2. Progress towards achieving specific calls

3.2.1. First call for proposals

Implementation of NCF1

NCF1 was launched in October 2009 with the focus on water resources and energy efficiency. Seven of the projects focus on climate change mitigation, six on adaptation and one on a combination of the two themes. Nine out of 14 projects are concrete investment projects, two are studies and three combine some concrete activities with studies, capacity building and strategy work.

The implementation of NCF commenced in late 2010 with the original final closing dates scheduled for spring 2013. In 2012, the key administrative tasks were related supervision and monitoring of NCF1.

Nine NCF1 projects were visited in 2012 – typically combining several projects or other activities in the region into one mission. Supervision was conducted – in addition to monitoring of the implementation progress – to gain a better understanding of how NCF projects can be

implemented in the field, how the partnerships work in practise and how NCF could be further developed and streamlined.

The progress on NCF1 can generally be described as good but with some delays due to normal project related issues. In some cases delays are caused due to difficulties obtaining local permits or licences.

Gaia Consulting's cook stoves project in Ethiopia, Solvatten's water purification project in Kenya, Hifab's energy efficiency project in Ethiopia, and Niras Natura's water harvesting project in Kenya were completed in 2012. The Solvatten project was partially re-designed in 2012, and another rural partner was added to Solvatten's water purification project in Kenya. This was due to the fact that sales were lagging behind and an experienced consultant was hired to support the partial re-design of the project.

The NCF1 disbursement rate was 59% of the total NCF1 contract value of EUR 5,450,842. This represents approximately a '20% delay' in the NCF1 implementation, as 20% of the funds can only be disbursed when the project has been successfully completed.

Of the on-going projects, Motiva Service's project in Nicaragua is progressing well but with some delays. Green Resource's charcoal project is also advancing albeit with delays. Four charcoal kilns were commissioned by the end of 2012 and a further eight are planned for installation. CARE's regional cook stove project in East Africa was registered as a CDM PoA in 2012 after long delays beyond the control of the grantee and the local partner. Actual cook stove activities have also commenced. The very low current value of carbon credits, however, may still have a negative effect on the planned activities, which would otherwise have major scaling-up potential. An extension and some other contractual changes will be required for the project.

DHI's water harvesting project in Ghana will be terminated due to the slow progress. DHI has agreed to prepare a report on the lessons learned for the project before reimbursement of direct costs. Vi-Skogen's watershed management project in Kenya is also progressing rather well. A short extension will be required for the project to be fully implemented.

The Raw Materials Group's (RMG) electronic scrap project concentrating on capacity building in Ghana is progressing satisfactorily. The main challenge is linked to the planned concrete output of the project, mobile training and dismantling buildings for scrap workers. RMG is facing challenges in the procurement of the building. RMG has been able to attract new partners to the project, i.e. major international electronics manufacturers.

Danish Red Cross water supply project in Kenya is progressing satisfactorily, and most of the Lifelink solar-based water supply systems were installed by the end of 2012. Reporting is lagging behind however. A short extension will be needed for the project.

Naps System (Benin), ORGUT (Kenya) and Diakonia (Bolivia) projects are also progressing satisfactorily and will probably be completed in spring 2013. A short extension may be needed for the projects in order to complete all the project activities.

In summary, out of fourteen NCF1 projects, four have been completed in practical terms, two are expected to be completed as planned, one will be terminated, and extensions of 3-6 months (or possibly more in some cases) will be needed for the remaining seven projects. While it is in some cases possible to implement a project in two years in challenging environments, as evidenced by some NCF1 projects, most projects would seem to require approximately 2.5 years for full completion.

Climate impacts

Gaia's Institutional Rocket Stove project in Ethiopia reached a saving of approximately 1,280 tonnes of CO_2 per year through a reduction in fuel wood usage at the institutions participating in the project. Fuel wood reductions in schools reached 56% and in universities and prisons 60%. Fuel wood savings as high as 90% were recorded by the users at the later stages of the project. On the adaptation side, the project reduces firewood consumption by 885 tonnes annually, equalling 28.5 hectares of natural forests in Ethiopia.

The demand-side management project on Ethiopia's power sector, developed by Hifab, could result in a saving of even up to 1 TWh/a of electricity in ten years if the recommendations are implemented. Direct CO_2 savings would be modest domestically, as the Ethiopian electricity generation is mainly based on hydropower. The main domestic benefits are reduced used of peak and stand-by diesel generators due to better use of the existing distribution networks and decreased outages at customer level. However, if the saved electricity (or part of it) were to be exported to neighbouring countries (Djibouti and Sudan) and replace oil and gas-based electricity generation there, CO_2 reductions would be notable.

The project also has some adaptation impacts, as the variation in rainfall is unpredictable and climate change may worsen the situation further. The chosen main intervention method for adaptation in the project was to increase energy efficiency awareness among Ethiopians and energy sector actors. Energy conservation from hydropower plants can also conserve water for other uses including irrigation, resulting in reduced vulnerability.

Solvatten's project focusing on providing safe water using solar energy in Kenya was anticipated to reduce charcoal usage by 30-50% in households. At the end of the project, a 48% reduction in charcoal usage was achieved. The total CO_2 emission savings for the project are therefore estimated up to 39,900 tonnes of CO_2 over the seven years. Before the project, a household consumed approximately 2.9 kg of charcoal per day, which decreased to approximately 1.5 kg after the introduction of the Solvatten device. On the adaptation benefits side, the project reduces the burden due to the impacts of climate change on water quality. The Solvatten Solar Safe Water Project ended up providing 2,592 households amounting to 13,000 people with access to safe drinking water for the next 7-10 years depending on the lifetime of the technology.

Ramboll Natura's adaptation project provided assistance for design and management of water harvesting technologies in Kenya. The adaptation benefits of the project were initially estimated at 15,000 beneficiaries in vulnerable communities in northern Kenya being supported to improve their ability to cope with increased irregularities in the rainfall pattern, increase their long-term food security and income diversification. The adaptation indicators identified in the project include

the amount of produced crops and vegetables in the water harvesting systems in relation to the rainfall, availability of water for household needs during dry periods and perceived benefit for women and resource-poor households in the project area.

The key activities were the construction of 49 trapezoidal bunds[2] to harvest water in arid conditions, leading to 48,200 m^2 of cultivated land as well as 704 micro-catchments being established. The experiences related to the micro-catchments are generally positive with a high seedling survival rate and growth as well as low investment costs (approximately EUR 0.5 per unit). The structures have worked well and the impacts will be seen in the next couple of years. The technology is simple and straightforward and easy to apply. The difficulty is linked to the acquisition of seedlings.

The trapezoidal bunds are more challenging considering their size and the amount of work needed in construction. The bunds do have a positive effect on resilience and adaptation to climate change (as discussed below in the development section).

While in most cases the climate benefits are yet to be fully quantified for on-going NCF1 projects, several projects show promising results. For example, the Vi-Skogen project in Kenya has planted 246,000 indigenous trees on farms and riverbanks with apparent adaptation and mitigation impacts. Green Resources has so far commissioned four effective charcoal kilns in Uganda with material climate benefits. The Motiva Service project's initial results indicate a potential for energy efficiency and CO_2 reductions in Nicaragua. ORGUT's project in Kenya has developed detailed climate modelling for Kenya with wide-ranging possibilities for utilization.

Development impacts

Gaia's Institutional Rocket Stove project succeeded in reducing the time children spend collecting firewood by half due to a reduction in fuel wood consumption. The project also succeeded in reducing the expenditure on fuel wood by universities and prisons by approximately EUR 20,400 annually. In addition, the indoor air pollution was estimated to be reduced by approximately 50% after the installation of the Rocket Stoves. The project provided new income opportunities for 14 metal workers who were trained in stove production and business development.

The demand-side management project on Ethiopia's power sector by Hifab developed a list of actions that can include improving the trade balance in Ethiopia through increased incomes from power exports to neighbouring countries, improving the power quality for industry and the commercial sector, creating opportunities for private sector business activities (i.e. ESCOs and energy audits) and reducing the electricity bills for domestic customers. Labelling and increased demand for energy-efficient products can also result in the development of the domestic manufacturing industry.

Solvatten's Solar Safe Water project has provided 2,592 households (amounting to 13,000 people) with access to safe drinking water for the next 7-10 years, thereby improving health and hygiene (reduction in diarrhoea and infections) and helping people to perform better at work and

[2] In essence dams to capture rainwater

school. A total of 87 distributors were trained during the project and were able to make commission on sales of the Solvatten units. The Solvatten product also saves money and therefore increases the disposable income at household level. High current price of Solvatten units is seen as a challenge for larger scaling-up and replication, and considerable subsidies are still needed.

Ramboll Natura's adaptation project is a typical example of an adaptation project in which the development impacts are closely linked. The project does provide quite detailed preliminary economic impacts of the bunds. The monitoring report from the first growing season 2011-2012 shows that rainfall was low, well below the 'design rainfall' selected for the design of the water harvesting structures. In general, the trapezoidal bunds produced, on average during this first season, crops valued at roughly EUR 100 per bund. Under good management, there is an indication that the bunds could yield crops valued at EUR 470 per successful season. These figures can be compared with the average estimated cost of 375 EUR per hand-built bund and approximately 820 EUR per bund built by mechanized means. The returns are much higher than the returns per acre under rain-fed conditions in the arid and semi-arid lands of Kenya. The project therefore made a positive contribution to household income and food security.

The economic benefits anticipated from trapezoidal bunds in the proposal submitted to the NCF were estimated at EUR 400 per successful season with a long-term average of EUR 600 per year.

It should also be noted that the projects succeeded in working intensively with community groups dominated by women, the outreach being approximately 2,020 households with 13,500 persons including 200 school children.

As for climate benefits, the development benefits are yet to be fully quantified for on-going NCF1 projects, but several projects show promising results based on progress reports.

Innovativeness, partnerships and Nordic interest

As discussed in the NCF 2011 Annual Report, innovativeness, partnerships and Nordic interest are present in all NCF1 projects to varying degrees. In some cases, the Nordic partner's role has been somewhat limited with reduced incentives. This has apparently led e.g. to delayed reporting. In another case reduced input from the local partners have been noted. Some other challenges have also been noted in partnerships with limited impacts on project implementation.

Table 1. Summary of expected climate change and development impacts and status as of 31.12.2012.

Contract party	Name of project	Expected climate change impacts		Expected development impacts	Status as of 31.12.2012
		Mitigation impacts	Adaptation impacts		
Naps Systems Oy	Scaling the Solar Market Garden, Benin	26 t CO_2/a The conservative lifetime estimate is 15 years	Addressing water shortage and food insecurity via increased agricultural production	Creating income for rural farmers and overall improvement in their nutrition and health	Water tanks constructed and the photovoltaic support structures at 7 out of 8 sites have been finished; construction of fences around 5 sites completed and material acquired for the remaining 3 sites; installation of the photovoltaic systems completed at 4 sites, and irrigation systems shipped to 4 sites; test pumping on-going at the 8th site
Diakonia	Adapting to Climate Change in Bolivian Andean Communities Depending on Tropical Glaciers	n/a	Addressing the vulnerability of the glacier-dependent communities, especially related to water use and availability	Reducing communities' and municipalities' dependency on climate-related hazards	Stakeholders in both glacier-dependent areas are actively participating in developing adaptation strategies; database on climate variables developed for local water management and available for the community of national and international researchers; the Illimani and Sajama glaciers' historic rate of retraction measured; 16 research studies concluded by facilitating multidisciplinary information complemented by local knowledge for the elaboration of adaptation strategies
CARE Danmark	Fuel Efficient Stoves in East Africa: Reducing Emissions and Improving Livelihoods	Up to 177,000 t CO_2/a (for the five first activities; direct). Up to several million t CO_2 reduced (indirect) over the 21-year lifetime of the programme and subject to successful implementation and scaling up	n/a	Saving up to 300 m € (for buying charcoal) and up to 191,000 years of productive time (for collecting firewood) over the 21-year lifetime. Reducing indoor air pollution	NCF co-funded project manager and stove support facility manager recruited; the planned Clean Development Mechanism (CDM) Programme of Activities (PoA) has been expanded to Ethiopia and Sudan in addition to the East African Community; the host country approval letters received from Kenya, Uganda, Rwanda and Burundi; Tanzania, Ethiopia and Sudan still pending; validation and CDM registration successfully completed on 24.10.2012; the first stove activity identified to be implemented in Uganda
Gaia Consulting Oy	GHG Mitigation and Sustainable Development through the Promotion of Energy Efficient Cooking in Social Institutions in Ethiopia	5800 t CO_2/a Lifetime not specified but can be expected to be 5-10 years	n/a	Reducing fuel expenditure for universities and other social institutions; saving labour time for children; reducing indoor air pollution; Increasing income for stove producers	Project completed as planned with a key result of 256 institutional cook stoves out of 250 planned, distributed in Ethiopia; environmental awareness booklets completed and distributed; carbon finance assessment completed; final report submitted
Hifab Oy	Demand Side Management for Climate Change Adaptation for the Ethiopian Power Sector	Up to 20% reduction in electricity consumption in 10 years (indirect), i.e. approx. 1000 t CO_2/a if the expected recommendations can be implemented; emissions can be reduced considerably more if the saved energy is assumed to be exported to the neighbouring countries with high EF factors	Addressing water resources conservation and reducing food vulnerability	Creating a stronger power system less vulnerable to climate change	Purchase, shipment and installation of all analysing software and all the electricity meters (50 single-phase and 50 three-phase) completed; energy efficiency training in Finland completed; electricity metering, data collection and data analysis completed; two workshops organized in Ethiopia to review the results of the electricity metering; questionnaire regarding energy conservation completed; statistical analyses and training reports finalized; final report submitted

Contract party	Name of project	Expected climate change impacts		Expected development impacts	Status as of 31.12.2012
		Mitigation impacts	Adaptation impacts		
DHI	Climate-proofed water conservation strategies in Northern Ghana	n/a	Addressing water resource conservation and reducing vulnerability to water insecurity	Improving livelihoods of a population of over 30,000 beneficiaries who live in the White Volta River Basin	Establishment of a project office in the project area and recruitment of a project coordinator and assistant in February 2012; an inception meeting held in January 2012 to kick-start the project; partners meeting in March 2012 to finalize the inception report and the work plan; the selection of communities completed; a total of 7 communities have been identified; DHI completed a mission to Ghana in May; a revised project plan drafted; some activities, mainly training, implemented
Raw Materials Group AB	Energy efficient recycling of electric and electronic scrap, e -scrap, Ghana	To be defined during the project implementation but potentially up to 750,000 t CO_2/a (indirect) if the expected recommendations can be implemented	n/a	Improving livelihoods of approx. 10,000 workers currently involved in the e-scrap recycling activities	Continued training workshops and meetings with scrap dealers and workers to identify hazardous/toxic components in e-waste as well as valuable components; advising on prerequisites and conditions to attract higher market prices for recovered products; advocating for selected groups of workers to categorize scrap components and weigh material in order to establish a baseline scenario for the estimation of the climate footprint; presenting the NCF project at the EU Network on Implementation and Enforcement of Environmental Law Conference in UK; continued review of alternative solutions to the unsustainable practices of open burning of cables; preparing the design and cost estimates for the Ghana e-waste web page and mobile training centre, sourcing bidders and inviting and receiving bids for the centre and concluding that the only bid received was out of the budget; following intensive review and provision of professional comments and advice to the proposed New Hazardous Waste Control Bill in Ghana; completion of the Study on Policy Reform.
Danish Red Cross	Community based adaptation to climate change through environmentally sustainable water resource management in Isiolo District in Kenya	700 t CO_{2e}/a with a lifetime of up to 20 years	Addressing water resource conservation and reducing vulnerability to water and food insecurity	20,251 beneficiaries living in the target area will have improved access to safe water and 90% of them will have improved knowledge of hygiene and sanitation issues	Community members have been trained to form 8 community committees for the management of the LIFELINK system; MoUs have been signed with 8 communities in order to transfer formal ownership of the donated LIFELINK systems to the communities; 25 volunteer Participatory Hygiene and Sanitation Transformation instructors have been trained out of the planned 45 instructors; 6 sites equipped with LIFELINK systems; 2 other sites currently being constructed; the ninth and final site identified and drilling is expected to commence soon
ORGUT Consulting AB	Building Adaptive Capacity to Climate Change in Kenya	n/a	Building the adaptive capacity and water	Improving the understanding and knowledge of potential climatic variations and their implications for water availability and demand; improving water management	The regional climate modelling for Kenya completed by the UK Met Office Hadley Centre for the years 1950-2100; rainfall-runoff modelling completed for 6 catchment areas; development of Climate Change Adaptation Guidelines; Financial Management Training Module developed; six 'show case' Water Resources Users Associations (WRUAs) selected and supported with funding; support work on-going with Awach Kano and Naromoru WRUA's expansion of an additional four WRUAs.
Ramboll Natura AB	Providing Assistance for Design and Management of Appropriate Water Harvesting Technologies in Arid Lands of Kenya	n/a	Increasing resilience through improved water utilization techniques	Contributing to increased long-term food security, health state and income diversification for the estimated 15,000 beneficiaries	Contracts signed with all 5 of the planned communities; Detailed plans and design for 5 sites completed; The constructions of trapezoidal bunds completed with a total of 49 bunds at 5 sites; The constructions of 719 micro catchments completed and trees planted at 5 sites

Contract party	Name of project	Expected climate change impacts		Expected development impacts	Status as of 31.12.2012
		Mitigation impacts	Adaptation impacts		
Solvatten AB	Enhancing capacity for adaptation to and mitigation of climate change in Kibera, Nairobi	To be determined during the project implementation, but expected to be app. 5200 t CO_2/a with 40% reduction in firewood usage (direct); expected lifetime 5 years	Improving the capacity to adapt to deteriorating water quality	Improving livelihoods of appr. 15,000 people	2,592 Solvatten units have been distributed in Kenya: 1,292 in Kibera, Nairobi, and the other 1,300 in Meru, Mutomo and Mwingi; 87 distributors trained during the course of the project to promote and sell Solvatten and give training on hygiene and safe water handling; project completed substantially as planned
Vi Skogen	Mount Elgon Integrated Watershed Management Project, Kenya	n/a	Addressing land degradation and forest resource conservation	Improving livelihoods of appr. 7,000 households in the Mount Elgon water catchment area	6,940 households have been sensitized on soil and water conservation methods and 4,187 have adopted the methods; 5,295 households have been trained on improved crop production and 2,149 households have adopted the methods; 3,305 households have been trained on proper livestock management and 1,973 have adopted the practices; 7 Water Resource User Associations have been identified and trained on riverbank and spring protection; 13 sites along riverbanks and at 82 springs have been protected; 8 demonstration sites have been identified and are being developed for water harvesting and micro-irrigation; 2,505 households have adopted energy conservation devices and alternative energy utilization; 245,779 indigenous trees have been planted on farms and riverbanks, and as spring protection 343,065 metres of short-term trees have been established
Motiva Services Oy	Strengthening National Capacities on Energy Efficiency, Nicaragua	Expected to be approximately 3,150 t CO_{2e}/a (baseline to be established once the energy audits begin)	n/a	Increasing energy efficiency can lead to increased competitiveness and productivity	Reference Office for energy efficiency established; a study tour of Nicaraguan experts to Finland completed; all 60 quick-scan energy audits completed; comprehensive in-plant-assessments for energy efficiency started; the series of awareness-raising seminars on energy efficiency for Nicaraguan organizations and companies on-going; capacity building and train-the-trainers activities on energy efficiency completed; website for promoting energy efficiency set-up
Green Resources AS	The Bukaleba Charcoal Project, Uganda	15,000 t CO_2 /a; expected minimum lifetime 5 years	Reducing deforestation and addressing natural resources conservation	Improving livelihoods of app. 9,000 households	EIA reports have been completed and submitted to the National Environmental Management Authority for approval and certificates for both sites obtained; the first order of 4 Euro kilns commissioned and production started

Disbursement process

Disbursements are based on substantially met milestones (or in case of advance payments, on bank guarantees). Typically, the grant agreements specify several sub-milestones of an agreed main milestone, which is the basis of the payment. In some cases, partial payments have been made for the met sub-milestones when those could be clearly identified. This approach has allowed smooth continuation of the projects without a need to amend the agreements.

Dissemination

The NCF1 progress was mainly disseminated via updating the respective websites. A news item was also published on NDF's and NEFCO's websites on the first completed NCF project. In addition, a draft NCF dissemination plan was prepared by NEFCO. NCF was also introduced at various meetings and through presentations by NDF and NEFCO staff.

More dissemination activities could be carried out in order to meet the NCF objectives as well as to support replication and scaling up.

3.2.2. Second call for proposals

Implementation of NCF2

All 12 NCF2 grant agreements were signed by NEFCO at the end of 2011, with 2 projects countersigned by the Nordic partners in 2012. The implementation of 11 out of 12 NCF2 projects had started by 2012 with a total of 8 progress and financial reports received. Three out of 12 NCF2 projects are concrete investment projects, five are mainly studies and four combine concrete activities with studies, capacity building and strategy work. DHI's project in Viet Nam had not yet commenced as the agreement with the line ministry has been pending.[3]

The project implementation progressed as planned for most NCF2 projects (see Table 3 details). In general, somewhat more challenges were observed in the NCF2 implementation than those of NCF1. No needs, however, to terminate any of the projects have been identified. Extensions are likely to be needed for some projects in order to secure the climate and development benefits.

Due diligence processes were completed for all the NCF2 projects in 2012 except DHI's project. DD site visits took place in late 2011. A satisfactory due diligence is a condition of any payment. One of the lessons learned was that it may be beneficial to conduct due diligence visits before signing the agreements. Two supervision site visits linked to NCF2 activities were conducted in 2012.

The outcome of the second call letter was approved by MC and sent out to all NCF2 applicants.

[3] This was obtained in early 2013.

Climate impacts

Six out of twelve NCF2 projects are mitigation (renewable energy) projects, and the expected GHG emission reductions are typically quite modest due to the small scale of the projects, i.e. a few thousand tonnes per year if successfully implemented. KTH's project activities in Bolivia could lead to substantial emission reductions if the expected recommendations can be implemented and scaled up.

The key expected adaptation benefits are linked to capacity building of the communities and partners involved, understanding potential adaptation measures that are crucial to the management of climate-related disasters and facilitating better planning for infrastructure development and better preparedness for flood disaster prevention. The projects will also provide local and national authorities with the relevant tools to address the risk of floods in urban areas and establish early warning systems.

There are no actual combination projects in NCF2 that address both mitigation and adaptation. However, all mitigation projects can generate some adaptation benefits – typically by reducing deforestation.

All projects have passed the NCF's climate screening criteria for mitigation and/or adaptation.

Development

All NCF2 projects are expected to generate development benefits. Typically, the projects can lead to savings in energy costs in low-income communities; improved indoor air quality, especially for women and children; new employment opportunities; and reductions in poverty and built capacity. Adaptation projects can protect vulnerable developing societies, promote stability and contribute to urban environmentally sustainable development. While not a prominent feature of NCF2 projects, several of them also address cross-cutting issues such as gender mainstreaming.

Innovativeness, partnerships and Nordic interest

Innovativeness and partnerships between Nordic and local partners are seen as one of the key expected NCF results. Innovative elements can be found in all NCF2 projects to varying degrees. Innovativeness was defined in the NCF guidelines as a diffusion of technologies and practices that are new to a given context. In most projects, there are elements that are new to the local context.

Reykjavik Geothermal's involvement in geothermal project in Rwanda and the planned micro-distillery for cooking fuel in Ethiopia are for example the first of a kind in the host countries. Gaia Consulting's project is very innovative in that it aims to redirect remittance flows to renewable and energy-efficient appliances in Bolivia. The Norges Vel project in Uganda is innovative in taking a holistic view on renewable business development. Aalborg University is planning to integrate climate change considerations into Strategic Environmental Assessment in Viet Nam.

The key implementation responsibility varies between projects, and a more balanced role by the various partners has been sought in NCF2 based on the lessons learned from NCF1.

As in NCF1, a strong Nordic partner is involved in every NCF2 project, even though the actual involvement does vary, and in most cases it is too early to assess how the partnerships with the local partners have worked in practise.

Limited actual Nordic partner interest may be evident in some projects, but e.g. the management components are likely to be important to the success of the projects.

In general, a good amount of transfer of Nordic expertise can be expected in the NCF2 implementation whereas technology transfer is not as well presented in this call as in NCF1. Co-operation between Nordic and local partners appear to function well with one exception

Table 2. Summary of expected NCF2 climate change and development impacts and status as of 31.12.2012.

Contract party	Name of project	Expected climate change impacts		Expected development impacts	Status as of 31.12.2011
		Mitigation impacts	Adaptation impacts		
Gaia Consulting Oy, Finland	Financing sustainable energy through remittances flows, Bolivia	Up to 36,300 t CO_2/a (direct) over the 15 years of operating life of RE and EE devices	n/a	The low-income population in Bolivia benefits from sustainable and efficient energy solutions and savings in energy costs; capacity building and the business model is reinforced to expand services and sell sustainable energy/energy-efficient household devices to the lower income population; most of the outputs of the project benefit women as their time spent on collecting firewood and other energy sources is reduced	Working relationships with the national authorities related to remittances and energy policies and relevant international organizations established; the approach of the project was further developed with a refined work plan including monitoring of CO_2 emission reductions; investigations into Bolivian renewable energy and energy-efficient markets and a micro-finance scene; recruitment of a local project manager; the market research conducted; interests, awareness and existing remittance patterns among receivers and senders studied
Stockholm Environment Institute, SEI, Sweden	Demonstrating the Feasibility of Locally Produced Ethanol for Household Cooking, Ethiopia	Implementation of 1,000 stoves will potentially result in up to 2,900 tCO_2 /a (direct) with a lifetime of up to 7 years	Mainly mitigation with reduced pressure on forest areas	Improved indoor air quality in 1,000 households; household income savings in 1,000 households; employment generated: 12 new jobs created during the project period; time saved in 1,000 households; children have more time for education; women's and children's health improved in 1,000 households; reduced pressure on forest areas	The contract with the distillery supplier has been signed with expected delivery in December; the procurement has followed World Bank guidelines; all subcontracts between the Gaia Association and the other local partners have now been signed; 7 safety manuals produced; baseline socioeconomic analysis tools developed
Norges Vel, Norway	Sustainable renewable energy businesses in Uganda	Potentially up to 8,400 t CO_2/a (direct) for the RE projects	n/a	New employment opportunities; the total number is estimated at 57; communities will benefit from affordable, clean and stable energy access; if 200 people benefit from each of the 30 projects estimated above, this will be a total of 6,000 people	Annual networking event arranged at Makerere University in September focused on renewable energy business development in Uganda; several stakeholders (entrepreneurs, SMEs, financing institutions, authorities, universities, private sector and others) joined with a total of 77 participants in the event; two MSc students are involved in incubator activities; mechanical workshops (5) near Kampala are mapped; some delays with the HPS pilot unit; the unit is installed and in operation; the remaining three will be ordered and implemented if the first plant shows to be successful
DHI Water and Environment, Denmark	Building technology in urban flood & inundation forecasting to be	n/a	To provide technology and expertise transfer, an operational flood risk early warning system applied to a pilot area in Ha Noi City	Early warning technology will allow future city infrastructure planning to adapt to climate change, abate urban flood and inundation effects, which will contribute to urban environmental sustainable development; the project has high replicability to other cities in Viet Nam	The grantee has obtained the missing Vietnamese ODA approval; agreement with the line ministry pending

Contract party	Name of project	Expected climate change impacts		Expected development impacts	Status as of 31.12.2011
		Mitigation impacts	Adaptation impacts		
	applied for operational early warning system in the Ha Noi City, Viet Nam		and to mitigate climate-related inundation risks; the technology will also facilitate better planning for infrastructure development and better preparedness for flood disaster prevention in coming years		
Norwegian Institute for Water Research (NIVA), Norway	Climate Resilient Action Plans for Coastal Urban Areas, Sri Lanka	n/a	The project focuses on urgent needs of the Sri Lankan coastal cities in adapting to climate change through disaster risk management also addressing solutions to the drainage of excess rainwater; to ensure effective planning processes for climate change adaptation at communal level, the project will disseminate the obtained results to provincial and national levels and raise awareness and make sure that the relevant national policies, plans and strategies are in line with the local climate change adaptation needs	Expertise through technology transfer from the Nordic countries will strengthen the Sri Lankan planning education to respond to climate change and its disaster management; other coastal cities will benefit from expertise to improve the safety of urban environments and life quality of the inhabitants; knowledge of areas at risk may increase the investments in safe areas and thus ensure long-term economic development; the scaling-up of the locally gained experiences to higher levels offers the possibility to implement similar activities in all coastal cities in Sri Lanka where 70% of the urban population lives, thus contributing to sustainable urban development in the country	Manual for improved wastewater handling completed; options for the coastal green belt developed; rainfall and temperature data for storm water drainage and sanitation system analysed; compilation of GIS data on various scales (urban, regional, national) and to build up a knowledge management centre for climate change adapted planning is on-going
Finnish Red Cross, Finland	Strengthening the resilience of people living in high risk urban and semi urban areas to weather-related disasters.	n/a	Capacity building for the communities and partners involved and an understanding of potential adaptation measures are crucial in the management of climate-related	Reduced loss of income and livelihoods by enhancing resilience; education: children are directly affected by ill health caused by floods together with the difficulty of reaching schools during urban floods, which causes interruptions to their education; gender mainstreaming will be a cross-cutting issue in all the activities to empower women, promoting them as leaders and powerful agents	Due to the organizational and financial difficulties of the Mozambican partner, FRC proposed to shift those activities to Malawi in the Lilongwe area; compared with the original plan, the number of beneficiaries benefitting from the project is bigger and the activities justified; the original project in Salami, Malawi, has been started with seminars

Contract party	Name of project	Expected climate change impacts		Expected development impacts	Status as of 31.12.2011
		Mitigation impacts	Adaptation impacts		
	Malawi		disasters; there is a need for timely communication of early warning system information, as well as increased knowledge by users of appropriate actions to take in order to reduce the loss of human life and property	of change; environmental sustainability: the project will focus on informal settlements in urban areas where climate change impacts severely on women and children through urban flooding and work to improve lives in the informal settlements	
COWI A/S, Denmark	GIS tool for urban adaptation to climate change and flood risk, Mozambique	n/a	Providing local and national authorities with the relevant tools to address the risk of floods in urban areas	Preventing disasters and their consequences is crucial to protect vulnerable, developing societies and promote stability; Reliable information is essential for improved disaster prevention and preparedness	Topography scanning, data collection and data analysis have been completed, and reporting to be completed in early October; GIS Tool building on-going including two completed 3-week training sessions (March and August 2012) and workshop in Maputo with all training sessions now completed; the technical part of the GIS Tool and guideline development has so far been the main focus
The Danish Centre for Environmental Assessment (DCEA), Aalborg University, Denmark	Adapting Urban Construction Plans to Climate Change in Vietnam by the use of Strategic Environmental Assessment, Viet Nam	n/a	Climate change and sea level rises are likely to have negative impacts on urban development and infrastructure construction; by integrating climate considerations into urban planning, the project responds to the needs for a proactive and holistic assessment of the potential climate impacts on urban areas, infrastructure and communities	The literature indicates that climate change will be affecting urban living, e.g. heat waves, cyclones, sea level changes, and more severe droughts and flood events; these risks will grow with increased population density and poorly planned urban developments; it is important to start experimenting and testing with new approaches to the mainstreaming of climate change adaption into urban planning as early as possible	ODA Approval was obtained on 19 July 2012; the line ministry's (Ministry of Construction) approval was granted on 2 November 2012; implementation has commenced; 7 pilot areas have been chosen
Pöyry Management Consulting Oy, Finland	Enhancing sustainable energy supply for tea factories in Rwanda and	Total CO_2 emission reductions in the 6 tea factories included in the project could amount to 6,000-8,000 tons/a	n/a (with some adaptation impacts)	Poverty reduction in rural areas in the vicinity of the tea factories due to increased employment opportunities; less time spent on fuel wood collection by women; minimal depletion of natural forests around the tea factories; increased awareness of renewable energy technologies	All tea factory reports have been finalized; the final report, 'Enhancing sustainable energy supply for tea factories in Rwanda and Uganda' is being finalized

Contract party	Name of project	Expected climate change impacts		Expected development impacts	Status as of 31.12.2011
		Mitigation impacts	Adaptation impacts		
	Uganda	(indirect)		and their application possibilities; contribution to rural electrification; improved competitiveness of tea factories in world market due more energy-efficient processes; better image for tea marketing due to CO_2-free processes	
FCG Finnish Consulting Group Ltd, Finland	Promoting Renewable Energy Technologies for Enhanced Rural Livelihoods, Nepal	Improved water mills and better cook stoves will potentially generate up to 450 tCO_2/a over a lifetime of 10 years and the ICSs potentially up to 7000 tCO_2/a over a lifetime of 6 years	Mainly mitigation; the project also contributes to adaptation; activities include scaling up and implementing non-conventional irrigation systems in water-stressed areas, improving water mills for multiple uses, and promoting clean and low-carbon energy technologies	The proposed activities will take place in remote hill and mountain communities; IWM will allow farmers to process their grains more easily; use of renewable energy and appropriate technology will increase local incomes and employment, and local infrastructure development, leading to enhancement of livelihoods	Establishment of the regional project office and team mobilization; local service providers identified; baseline data information collected on improved water mills (IWM), improved cook stove (ICS) and sites for Hydrams; demand for ICS reviewed and 178 ICSs constructed; suitable IWMs identified and selected; awareness raising carried out in various media (continuous)
Reykjavik Geothermal ehf, Iceland	Karisimbi Geothermal Prospect, Rwanda	A 10 MW plant could potentially generate up to 60,000 t CO_2/a (direct) over a lifetime of up to 25 years (scope of the project reduced in 2012 to management of the drilling phase based on the agreement with the local partner)	n/a	The project is Rwanda's first geothermal energy project opening up a new low-cost energy source in the country; an initial 5-10 MW project would increase Rwanda's power supply by anywhere from 6 to 12%, paving the way for bankable large-scale expansion; potential multiplication effects are also considerable, and access to low-cost power can render previously uncompetitive economic sectors viable; increased stability in the electric grid (i.e. reduction of brownouts and blackouts) can vastly increase efficiency and lower costs	Contract negotiations completed with the local partner; focus shifted to project management part of the drilling phase; preoperational work on-going
Royal Institute of Technology (KTH), Department of Energy Technology, Sweden	Urban and industrial waste to energy-promoting sustainable development in Bolivia	Potentially up to 200,000 t CO_2/a (indirect) if the expected recommendations can be implemented with a lifetime of up to 20 years	Mainly mitigation project with some urban adaptation benefits through a reduction of the organic contamination of the scarce water resources in the region	Transfer of expertise in the waste management sector and reduced need for landfills will give economic benefits for the municipalities; job creation through the implementation of a waste-to-energy scheme. Over 19,000,000 m^3 of natural gas could be substituted	The Draft reports on waste management and characterization in La Paz and El Alto and technical possibilities for transforming waste into biogas in La Paz and El Alto completed; techno-economic feasibility study completed

Disbursement process

Disbursements are, as in NCF1, based on substantially met milestones (or bank guarantees). A conservative approach has been followed, i.e. the costs of the project would also exceed the cumulative payments (i.e. payment can be less than stipulated in the agreement). Rather detailed financing reporting has been required especially in NCF2. There appears to be some room to relax some of the requirements with no major risks based on the lessons learned.

Dissemination

As for NCF1, NCF2 progress was disseminated via updating the respective websites. The NCF2 newsletter was also published in two versions, first with 8 projects and finally the revised version with all 12 projects. These newsletters ware distributed to the relevant NDF and NEFCO stakeholders, in various seminars and meetings and made available electronically.

3.2.3. Third call for proposals

Objectives and expected results

In principle, the NCF3 objectives under the theme of *Innovative low-cost climate solutions with focus on local business development* remained the same as those in NCF1 and NCF2 with one key difference: only concrete investment project were allowed in NCF3 in order to secure a tangible climate and development benefits based on the lessons learned from the previous calls. Some studies were financed in NCF1 and NCF2 with uncertain, concrete outcomes.

The theme allows project ideas from sectors that could not have had a call of their own. This is expected to provide more insights into climate solutions offered beyond the sectors already targeted during the first two calls (water resources, energy efficiency, renewable energy and urban adaptation). Projects should also demonstrate low lifetime costs and locally implementable and sustainable business ideas. It is expected that the projects will encourage local business development in addition to climate change benefits.

Selection

For NCF3, the pre-qualification selection criteria were already discussed in detail in the 2011 Annual Report. Some modifications were made in order to encourage presentation of new concepts compared with NCF2. Somewhat more weight was given to the project concept, feasibility, implementability, sustainability and replicability aspects, and slightly less emphasis was given to previous experience.

Some modifications were also made to the final scoring in NCF3. As discussed in the previous Annual report, emphasizing previously demonstrated sector and country experience of the applicants may conflict, to some extent, with the aim of receiving innovative projects from applicants with new ideas (but, on the other hand, may increase the project risks). In NCF3, the scoring for technical capacity was, however, reduced and the scoring for project concept, feasibility and innovativeness was increased.

Table 3. NCF3 Final Application Evaluation Criteria.

Subject for evaluation	Scoring
Project approach, business aspects and innovativeness	Up to 40 points
Climate change relevance and climate change impacts	Up to 25 points
Sustainability, development impacts and local commitment	Up to 20 points
Project management and cooperation arrangements, and capacity of applicant, local partner and other partner	Up to 15 points
Total	Up to 100 points

A total of 126 pre-qualification applications were received by the closing of NCF3 on 16 January 2012. This represents a 27% reduction compared with NCF2, most probably due to the challenging business theme. All eligible pre-qualification applications were evaluated independently by NEFCO and NDF. The 69 applications considered eligible for Phase I were scored, and the 30 highest scoring pre-qualification applications were eventually shortlisted and invited to submit a final application. The table below summarizes the outcome of Phase I.

The key reasons for non-eligibility were missing Nordic applicant, too low turnover, missing co-financing, non-eligible local partner, very limited role of the Nordic applicant and/or late submission.

Table 4. Outcome of NCF3 Phase I by Nordic countries.

Country	All proposals	Eligible proposals	Shortlisted proposals
Denmark	31	23	13
Finland	18	16	4
Iceland	2	1	1
Norway	24	16	7
Sweden	29	13	5
No Nordic country	24	0	0
Total	**128**	**69**	**30**

Table 5. Outcome of NCF3 by host country.

Host country	All proposals	Eligible proposals	Shortlisted proposals
Bangladesh	3	2	1
Bolivia	8	3	3
Burkina Faso	6	4	2
Cambodia	3	2	1
Asia multi-country	2	2	1
Ethiopia	8	4	1
Ghana	7	6	4
Honduras	2	2	0
Kenya	15	6	1
Africa multi-country	6	5	3
Laos	2	2	0
Malawi	1	1	1
Malawi, Mozambique	1	1	0
Maldives	2	1	0
Mozambique	5	3	2
Nepal	11	5	2
Nicaragua	3	1	0
Pakistan	6	1	0
Rwanda	4	1	0
Senegal	4	2	1
Sri Lanka	3	3	1
Tanzania	5	3	2
Uganda	6	1	0
Multi-NCF country	1	0	0
Vietnam	5	5	2
Vietnam and Nepal	2	1	1
Zambia	2	1	0
Zimbabwe	5	1	1
Total	**128**	**69**	**30**

Invitations to submit the final application were sent to the shortlisted applicants on 8 March 2012 and the Final Application Guidelines were finalized and submitted on 26 March 2012. The applicants had the chance to ask clarifying questions, for which a Question & Answer document was prepared in collaboration between NEFCO and NDF. This was sent to all applicants on 17 April 2012. The questions were linked to technical details concerning the application. No major policy issues were included in the Q&A.

Out of 30 shortlisted pre-qualification applications, 29 final applications were received by the set deadline of 7 May 2012.

All eligible final applications were independently evaluated by NEFCO and NDF teams. Despite the considerable experience gained in NCF1 and NCF2, scoring was still somewhat laborious and time-consuming as it was quite 'scientific', transparent and detailed. Some increased discrepancy was also noted between the NDF and NEFCO scorings compared with the previous calls. As in previous calls, the evaluation of the potential climate change impact proved more challenging for adaptation projects than for mitigation projects.

For possible future NCF calls, further streamlining of the evaluation process should be considered based e.g. on a few key main criteria.

Table 6. Outcome of the NCF3 Final Application phase.

Nordic country	Shortlisted pre-qualifications	Received final applications	Highest ranking applications	Placed on a reserve list
Denmark	13	12	6	3
Finland	4	4	2	1
Iceland	1	1	0	0
Norway	7	7	2	1
Sweden	5	5	3	0
Total	**30**	**29**	**13**	**5**

NDF's climate screening tool was used for the second time in NCF3.

The 13 highest ranking applications were selected for contract negotiations based on the Management Committee's approval on 6 June 2012, with five projects placed on a reserve list. The following host countries[4] were included in the highest ranking applications: Bolivia, Kenya, Tanzania, Uganda, Rwanda, Burkina Faso, Ghana, Bangladesh, Cambodia, Laos and Nepal.

[4] There are two multi-country projects: Cambodia and Laos, and Kenya, Tanzania and Rwanda.

Table 7. Highest ranking NCF3 applications.

Contract party	Name of project	Host country	Status as of 31.12.2012
Viegand & Maagøe, Denmark	NAMA and Innovative Energy Optimisation in the steel sector in Bangladesh	Bangladesh	Two rounds of negotiations completed; applicant has faced challenges in selecting pilot sites in Bangladesh
Renewable Energy Capital Sweden AB	Introduction of Solarus Solar Photovoltaic-Thermal (PVT) Technology to Bolivia	Bolivia	Two rounds of negotiations completed; applicant facing challenges in local co-financing
University of Copenhagen, Denmark	Promoting cañahua in the Andean highland: a highly nutritive crop with a great market potential, adapted to extreme climatic conditions	Bolivia	Two rounds of negotiations completed
Danish Technological Institute, Denmark	Ecological Food Processing Unit, Burkina Faso	Burkina Faso	Two rounds of negotiations completed; grant agreement drafted
Nordic Agency for Development and Ecology, Denmark	Building carbon-trading business capacity for organized smallholder farmers in Cambodia	Cambodia	Two rounds of negotiations completed; grant agreement drafted
Finland Futures Research Centre, University of Turku, Finland	Scaling up low carbon household water purification technologies in the Mekong Sub Region, Cambodia, and Lao PDR	Cambodia and Lao PDR	Two rounds of negotiations completed; grant agreement drafted
C. F. Nielsen A/S, Denmark	Biomass Green Briquette Fuel (GBF) Production (BidiePa) under Kitchen Efficiency Programme	Ghana	Two rounds of negotiations completed; grant agreement to be drafted
Pöyry Management Consulting, Finland	Pilot Project: Efficiency Enhancement and Entrepreneurship Development in Sustainable Biomass Charcoaling in Ghana	Ghana	First round of negotiations completed (delay due to eligibility concerns)
SINTEF, Norway	Rain Water Harvesting (RWH) for resilience to climate change impact on water availability in Ghana	Ghana	Negotiations completed; grant agreement signed
Niras Natura AB, Sweden	Business Development Closing the Rural-Urban Nutrient and Carbon dioxide Cycles	Kenya	Two rounds of negotiations completed; grant agreement drafted
Vi-Skogen, Sweden	ADAPTea: Climate Change Adaptation for FAIRTRADE Tea Producers in East Africa	Kenya, Tanzania, Uganda and Rwanda	Two rounds of negotiations completed
DanChurchAid (DCA), Denmark	Mainstreaming climate-smart agriculture in solar irrigation schemes for sustainable local business development in Malawi	Malawi	On reserve list
Danish Forestry Extension – DFE, Denmark	Developing low cost community based innovative solutions to mitigate and adapt with climate change while creating viable local business solutions	Nepal	Two rounds of negotiations completed; grant agreement drafted
Norges Vel, Norway	From Waste to Local Business Development and Vigorous Soil	Tanzania	Two rounds of negotiations completed; grant agreement drafted
Gaia Consulting Oy, Finland	Sustainable charcoal business development in Tanzania	Tanzania	On reserve list

Contract party	Name of project	Host country	Status as of 31.12.2012
NIRAS A/S, Denmark	Appropriate Wastewater Solutions for East Africa	Uganda, Kenya, Tanzania and Rwanda	On reserve list
Salsnes Filter AS, Norway	Low Cost Biogas Technology for Farmer (LCBF)	Viet Nam	On reserve list
Gaia Solar A/S, Denmark	Low Cost Solar Kiosks (Solar battery charging kiosks in Mozambique using an innovative business model and a new modular and mobile technology)	Mozambique	On reserve list

Despite the business theme, adaptation was well represented in the highest ranking proposals: three are thus adaptation projects and a further four projects are combinations. One additional project (water filter project) has also some adaptation impacts even though it has been classified as a mitigation project.

The minimum co-financing requirement for NCF3 was 20%, and the average share of the 13 highest ranking projects is 46%.[5] The share of co-financing is 30% in NCF2 and 39% in NCF1. All projects have a local financing component.

Contracting

Contract negotiations with the 13 highest ranking applicants were initiated in August 2012 by conducting individual telephone conferences and/or meetings in Helsinki when feasible in order for NEFCO to obtain more information from the applicants in particular on business aspects of the proposal and to attend to applicants' questions regarding the grant agreement template and to provide them with further guidance.

In NCF3, NEFCO produced the first drafts of the grant agreements, unlike in the first two calls, in order to secure consistency and efficiency based on lessons learned from the first two calls. Some minor clarifications were also made to the NCF3 grant agreement template approved by the NCF MC. The grant agreement template developed for NCF1 has been found to be working well and only a limited number of project-specific modifications have been needed.

The contracting phase dominated the activities throughout autumn 2012, leading to one signed agreements with SINTEF, Norway, for a water-harvesting project in Ghana by the end of the year and the preparation of additional six GA drafts.

In general, the third call proved more challenging than NCF1 and NCF2. This was due, especially, to the fact that the presentation of business aspects has not been fully solid in some projects and numerous clarifications have been sought. Furthermore, in some cases, agreeing on concrete, measurable milestones with the applicants further complicated the negotiations.

[5] The share would be 27% if one project with major co-financing is excluded

It was found to be important to complete the due diligence process for most projects before the potential signing of the grant agreement can take place due to the higher risks in NCF3. This also had an impact on the signing of the grant agreements.

The Ministries of Finance in the host countries and other key stakeholder were informed by letter of the approved NCF financing with no enquiries received from the local authorities.

Due diligence

All NCF projects would need to pass the due diligence process including a site visit. Successful due diligence is a condition of any disbursement. The site visit plan was drafted in parallel with the grant agreement negotiations outlining the tasks to be shared between NEFCO and NDF, depending on type of the projects and the challenges and taking into account possible other on-going activities in the host countries in order to ensure cost-effectiveness.

Based on the lessons learned from NCF1 and NCF2, as discussed *e.g.* in the 2011 Annual report, it was found important from a project administration point of view to conduct a detailed due diligence review, including a visit in the host country for the NCF3 call for most NCF3 projects, before the signing of the Grant Agreements – especially due to the challenging requirement that the NCF3 projects are to generate sustainable local business, which in turn requires sufficient local back-up from both local partner(s) and authorities. Towards the end of the year adjusted approach in DD was clarified, and the contract negotiations with the applicants and the remaining due diligence site visits were accelerated swiftly thereafter.

4. ORGANIZATION AND ADMINISTRATION

4.1. Financial administration

The Funds Administration Agreement between NEFCO and NDF has been amended twice since the launch of NCF with total funding of EUR 18.21 million[6] for the whole current NCF programme.

4.2. Management

In accordance with the Funds Administration Agreement, the bulk of the implementation, administration and monitoring work related to NCF have been carried out by NEFCO. As before, all final decisions and approvals related to NCF programme have been taken by the NCF Management Committee chaired by NDF. The informal NCF Working Group consisting of relevant experts from NEFCO and NDF met as necessary to discuss on-going activities.

An external evaluation of NCF started in 2012 with ToR developed by NDF for the assignment and carried out by the Nordic Consulting Group, Norway.

[6] Including accrued interest of EUR 209,744.

4.3. Reporting

As before, NEFCO prepares NCF MC Minutes and quarterly reports. In 2012, NEFCO also prepared the annual report (Grant Report) covering the year 2011. A template for the NCF project completion report was developed for NEFCO to fill in for all completed projects.

Project reporting is based on the progress and financial reports by the grantees inked to milestones. In addition, a brief NCF Project Summary Report will be prepared by the grantees.

5. DISCUSSION AND CONCLUSIONS

By the end of 2012, the NCF had been implemented as planned with some delays. Out of fourteen NCF1 projects under the theme of water resources and energy efficiency, four had been completed in practice, one terminated and nine were progressing well with some delays and challenges including some challenges between the partners in some of the projects. Most projects are expected to be completed as planned by summer 2013. While the implementation period of two years is in fact possible for some projects based on NCF1 experiences, typically a period of 2.5-3 years would seem to be more feasible.

The total cumulative grant disbursements under NCF1 are EUR 3,220,340.00, i.e. 59% of the contracted amount of EUR 5,450,842.

For NCF2 with the theme renewable energy and urban adaptation, 11 out of 12 selected projects were under implementation by 2012. One remaining project is missing the final local approval[7]. In general, more challenges have been noted in the NCF2 projects than in those of NCF1, but on the other hand no terminations are foreseen at the end of 2012. Some extensions are likely to be needed. The total cumulative grant disbursements under NCF2 are EUR 1,115,629.68, i.e. 21% of the contracted amount of EUR 5,254,592.45.

Taking into account the short implementation period, the innovative nature of the programme, the challenging project countries, and new partnerships, some delays, further challenges and possible underperformance can be foreseen in the continued implementation of the NCF programme.

For NCF3, the first agreement was signed in 2012 and for the rest of the selected projects agreements are expected to be signed in early 2013[8]. NCF3 attracted slightly less interest than the previous calls – apparently due to the demanding business theme. The challenging theme was also noted in contract negotiations, and numerous clarifications were sought.

It is still too early to draw any final conclusions on the success of NCF in general. Only four NCF1 projects have been completed, and reporting of concrete climate and development results is still

[7] Approval was obtained in spring 2013.
[8] All NCF3 agreements, a total of 14, were signed by 1.7.2013.

limited. Most projects are under implementation, and impacts of the more advanced projects are still being reported.

All four completed projects, however, do show tangible climate and development benefits, albeit small in absolute terms. Similarly, progress reports from the on-going NCF1 and NCF2 indicate that concrete results will be achievable. It therefore seems likely that the key NCF climate and development objectives could be met.

Administration of a relatively large number of small projects requires more resources than fewer large projects with a similar total budget. The applied detailed and transparent, two-stage evaluation process of proposals by two independent teams also adds to the costs. Despite improvements and lessons learned from NCF1 and NCF2, the evaluation process of NCF3 was still considered somewhat laborious and time-consuming though otherwise smooth. Further streamlining of the evaluation processes and possible concentration on fewer indicators could be considered for possible future calls.

NEFCO's administrative costs were kept in line with the estimated costs both cumulatively and in 2012 indicating that it is in fact possible to administrate small projects at reasonable costs when using effective, streamlined procedures and taking all lessons learned and experiences swiftly into account. No major needs to change the administrative processes have been identified. Further dissemination activities and increased NCF visibility are suggested in order to support replication of NCF project ideas.

In general it can already now be concluded that NCF has provided clear additionality to existing climate financing through generating new projects and concepts and leveraging co-financing to the NDF grant funding. As most climate funding is geared towards mitigation, it should be noted that NCF projects are almost equally divided between adaptation and mitigation projects – including the NCF3 project proposals. NCF3 has also shown that combining a business idea with climate and development benefits is challenging but not impossible. The concrete results are of course yet to be assessed. NCF has also improved Nordic visibility evidenced e.g. by continued interest for NCF funding. NCF has further fostered new North-South partnerships.

In addition to the large number of proposals received for NCF1-NCF3, the encouraging results from the first completed project and the continued interest from potential applicants for a new call support the need for this kind of funding also in the future.