Spurring climate innovation through challenge funds

Nordic Development Fund

Nordic Climate Facility
Initiative by NDF

EEP
ENERGY AND ENVIRONMENT PARTNERSHIP
TRUST FUND / SOUTHERN AND EAST AFRICA

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Introduction

This publication explores innovation spurred by two challenge funds that are managed by the Nordic Development Fund (NDF). By using challenge funds as a financing instrument, NDF aims to incentivise and support climate change innovations. The findings are based on a study that looked into project proposals sent to the Nordic Climate Facility (NCF) and the Energy and Environment Partnership covering Southern and East Africa (EEP Africa) Trust Fund. The focus of this study was on the applications that have a Nordic partner.

The Nordic Climate Facility is a challenge fund set up in 2009 to finance early stage climate change projects in developing countries. NCF aims to build a portfolio of innovative business concepts that have been tested, proved viable and are ready to be scaled-up and replicated. Financing is provided for partnerships with at least one Nordic partner. Grants are between EUR 250,000 to 500,000.

EEP Africa is a multi-donor trust fund managed by NDF. The fund provides early stage grants and repayable grants between EUR 200,000 and 1 million to innovative clean energy projects, technologies and business models.

The impact of both funds has been well-documented. Since its inception, NCF has supported 1.4 million beneficiaries and 400,000 tonnes of CO_2e emissions are reduced or sequestered annually. NCF has committed EUR 32 million for 80 projects with EUR 24 million leveraged in co-funding. Since 2010, EEP Africa has provided over 900 000 households with clean energy access and it has created 8000 jobs. The fund has invested EUR 57 million into more than 200 projects and has leveraged over EUR 150 million.

This publication is the first time a systematic approach has been used to assess how NDF fosters innovation through these challenge funds. The publication delves into the concept notes submitted to NCF and EEP Africa and presents findings on what kind of innovative projects are submitted for the calls. The data used for this study has been collected from NCF calls 6, 7 and 8 and EEP Africa call 14.

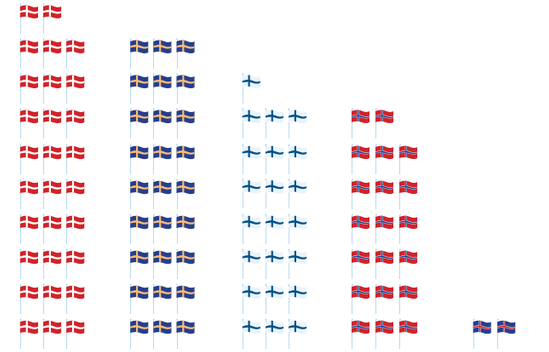
The publication is divided into three sections. We start by taking a look at the characteristics of the received applications, followed by an overview of technologies and implementation methods that are proposed. The second section takes a look at the projects that have been funded. The last chapter presents four case studies that showcase innovations on an individual project level.

Photo: Absolute Energy

The applications

In this section, we look at where the Nordic applicants come from, what type of organisations apply for funding and where the projects are proposed to be implemented in. We then move on to the proposed technologies and implementation methods. This section is based on 329 project proposals.

Who are the applicants?



Denmark
29%
TOTAL: 96

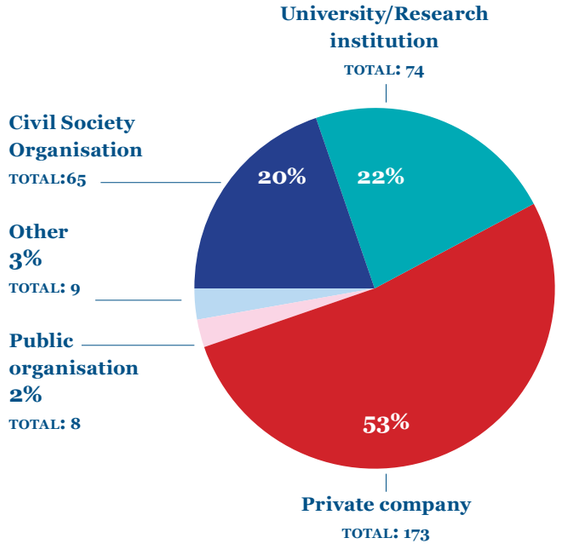
Sweden
27%
TOTAL: 87

Finland
22%
TOTAL: 73

Norway
20%
TOTAL: 65

Iceland
2%
TOTAL: 8

n= 329

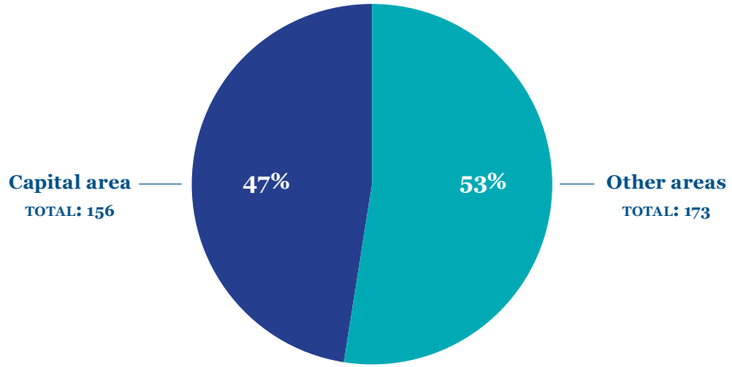


n= 329

Let's start by looking at some basic data on the applicants who have applied for funding from the challenge funds. The largest number of lead applicants are Danish (29%) and there have been almost as many applicants from Sweden (27%). The number of applicants from Finland (22%) and Norway (20%) follow closely behind. Organisations from Iceland have submitted 2% of the applications.

Over half of all applications (53%) have been submitted by private sector companies. This reflects the business focus of the challenge funds' calls. The second largest number of lead applications have come from universities and other research institutions (22%) followed closely by applications from civil society organisations (CSOs) (20%). Public organisations and others comprise a small share of all the applicants by lead partner type.

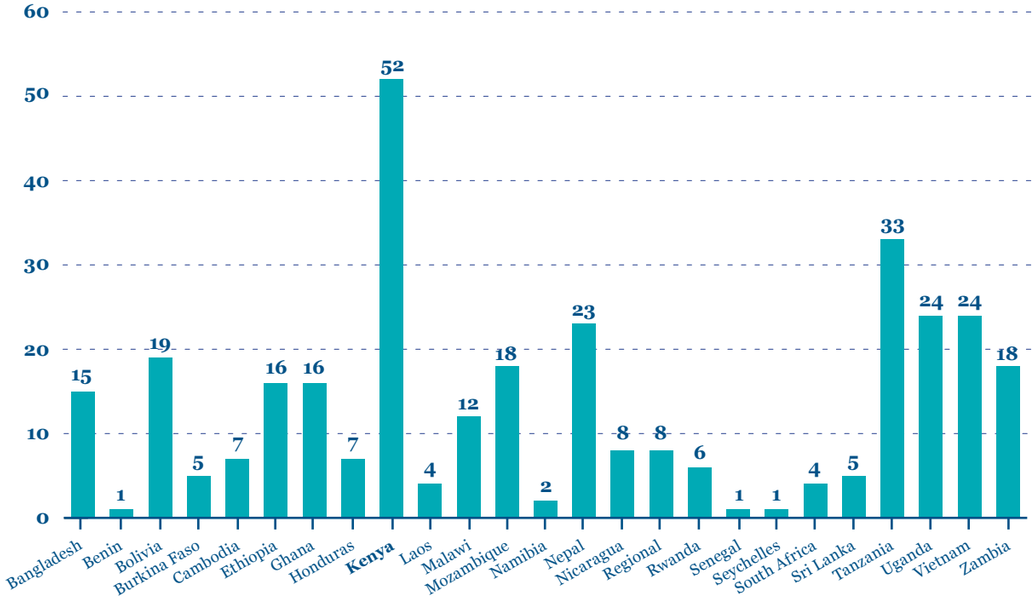
Where are the applicants based within the Nordic countries?



n= 329

We wanted to find out where the applicants are based within the Nordic countries. In order to do this, we looked at all the applications to find out if the lead partner was based in a capital area or any other area of a country. An interesting finding in the data is that most of the lead applicants (53%) are not based in the capital areas of their country, but in other cities or towns. 47% of the lead applicants were registered in a Nordic capital city or capital area.

Where are the projects proposed to be implemented?



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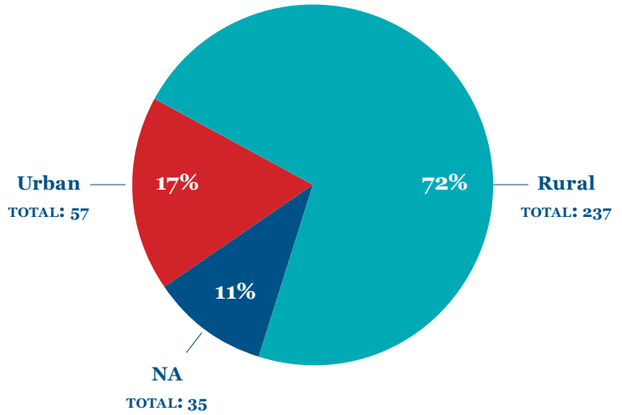


n= 329

There are 21 eligible countries[2] where an NCF project can be implemented and 15[3] for EEP Africa. The largest number of applications are proposed to be implemented in Kenya (52). These are followed by Tanzania, Uganda, Vietnam and Nepal. Together these five countries received almost half (47%) of all the applications. At the other end of the spectrum, eligible countries in West Africa received the fewest number of applications. On a country level, Senegal, Benin and Seychelles each have received only a single application in three NCF calls and one EEP Africa call.

A commonly heard argument is that the most innovative projects are first piloted in an urban setting due to the availability of infrastructure, support services and demand, which might be lacking in rural areas. We found that 72% of the projects were proposed to be implemented in rural areas and only 17% were proposed to be implemented mainly or only in urban settings. In 11% of the applications we were not able to determine where the projects were proposed to be implemented, or they were proposed to be implemented at sea.

2. Bangladesh, Benin, Bolivia, Burkina Faso, Cambodia, Ethiopia, Ghana, Honduras, Kenya, Laos, Malawi, Mozambique, Nepal, Nicaragua, Rwanda, Senegal, Sri Lanka, Tanzania, Uganda, Vietnam and Zambia

3. Botswana, Burundi, Kenya, Lesotho, Malawi, Mozambique, Namibia, Rwanda, Seychelles, South Africa, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe

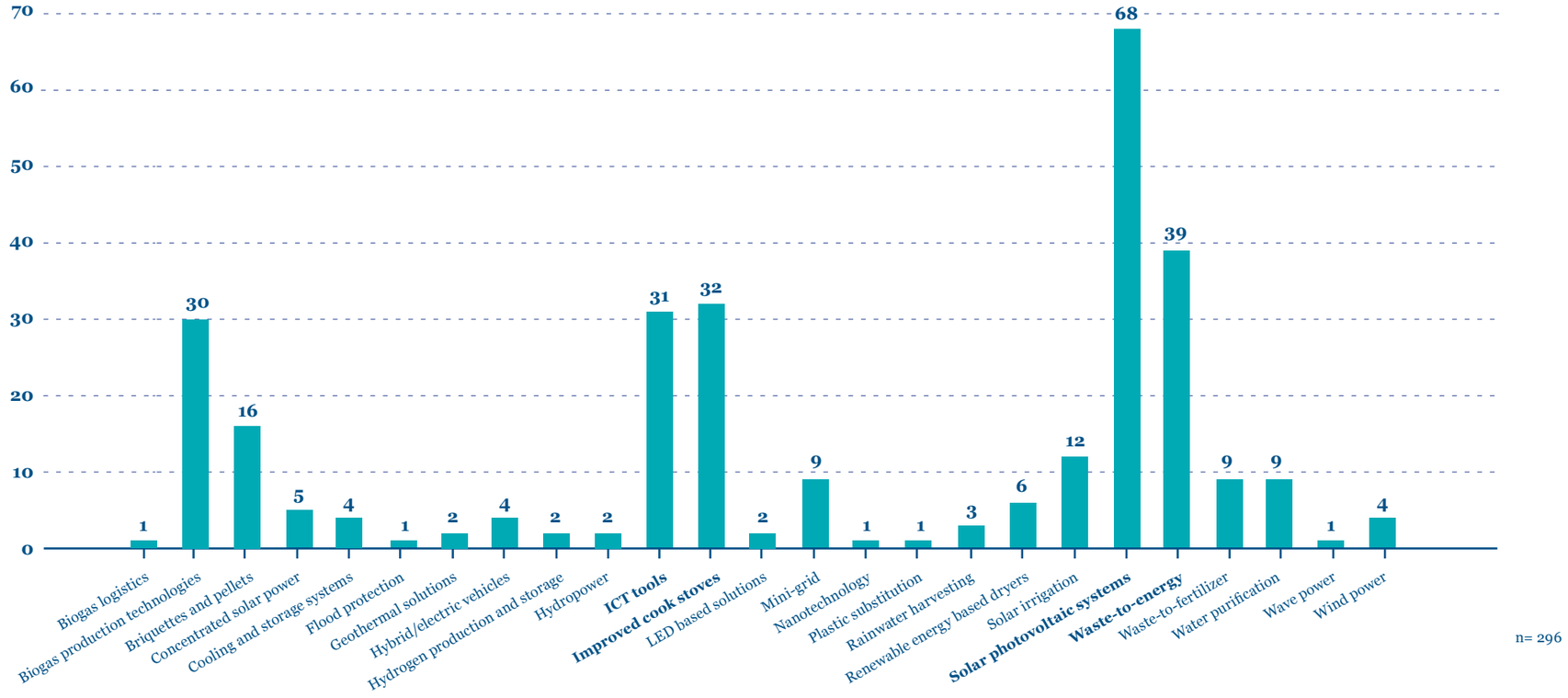
What technologies do we see in the applications?

This chart on technologies provides a good overview of the variety of different technologies that are proposed to be used, promoted or sold within NCF and EEP projects. Because a single proposal can include more than one technology, the number of cases here is higher than that of the projects. There was a total of 112 projects that did not mention any specific technology in their proposal. These projects were most commonly in the agricultural and forestry sectors.

The single most common technology that we see in the project proposals is solar photovoltaic systems (n=68). This does not mean that solar PV systems are the main component in 68 projects, but that 68 projects mentioned that at least one of the project components deals with solar PVs. The second biggest category were technologies that are used in waste-to-energy conversion (n=39). Improved cook stoves (n=32) and different types of ICT tools (n=31) were also common among the applications.

ICT tools are an interesting category as they comprise a huge variety of solutions from payment systems to information services, onto monitoring systems and different kinds of platforms. All of these are somehow technology-reliant or -based even though the core for many of them can be in enabling a service.

We also ran a comparison between the different Nordic countries, but no significant differences emerged in terms of technologies apart from Iceland, that had a very small total number of applications and thus was not comparable.

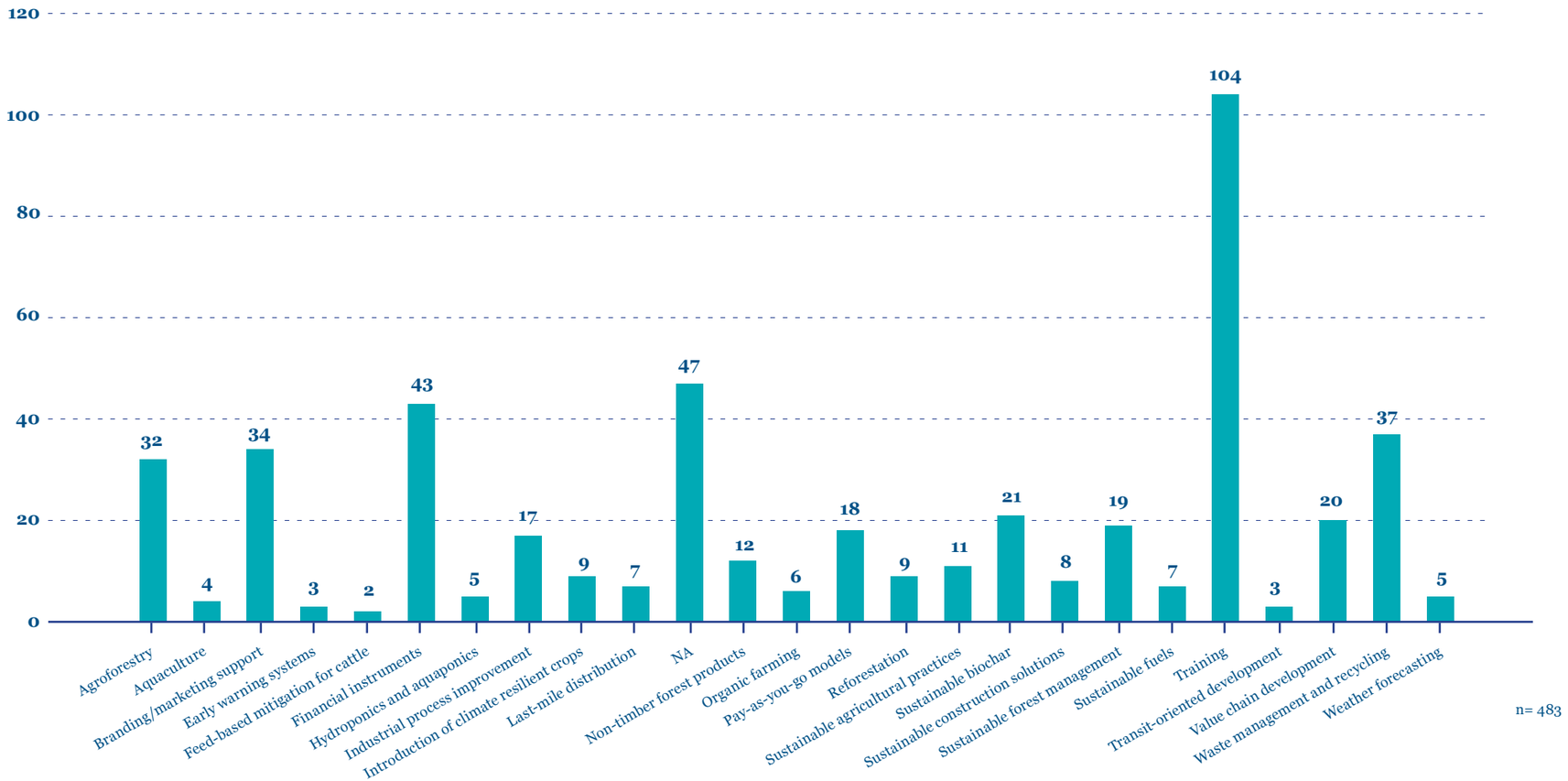


What methods are proposed for project implementation?

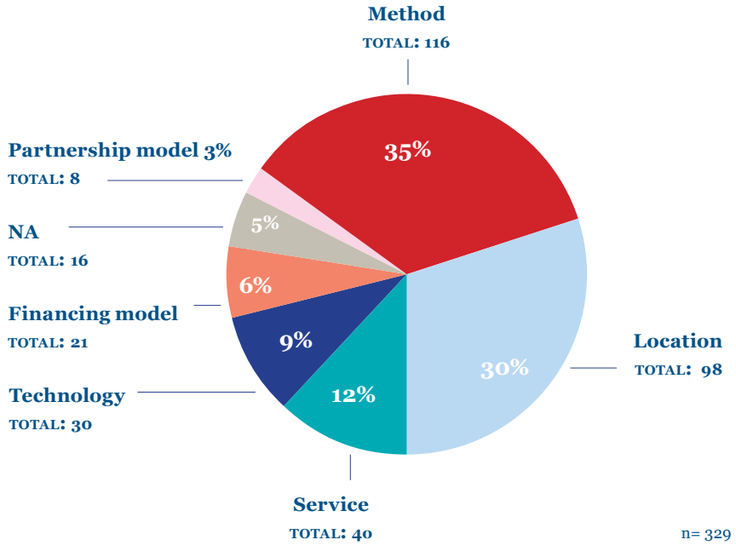
What do we mean by method? Categorising projects by their implementation method was a challenging task. In short, our aim was to capture the method or methods used in implementing a project. A method is not a particular technology or a service, but rather how these might be applied within a project. Based on the description in the applications, we ended up with 25 different categories for the projects' implementation method. For example, a project might propose to develop value chains and to make solar PVs available for a customer segment at a location that does not have functional markets for renewable energy technologies. We would consider this a project that has solar PV as the technology, and the methodology would be value chain development. In this example, the innovative aspect would more likely be the method than the solar PV technology.

The different implementation methods proposed in the projects were equally varied as the technologies. As with the technologies, a single project often proposed to employ more than one method in the project. For example, if a project proposal would suggest improving farmer livelihoods by providing training for better forestry practices and develop value chains, the project was tagged for three methods (sustainable forestry, value chain development and training).

Training was the most common single method present in the applications (n=104). The presence of some kind of a financial instrument (n=43) in a proposal was also common, even though very few projects were primarily dealing with rolling out or testing the feasibility of training or a financial instrument. Training and waste management & recycling were also the most common categories for most of the Nordic countries individually, with no significant differences between the Nordic countries.



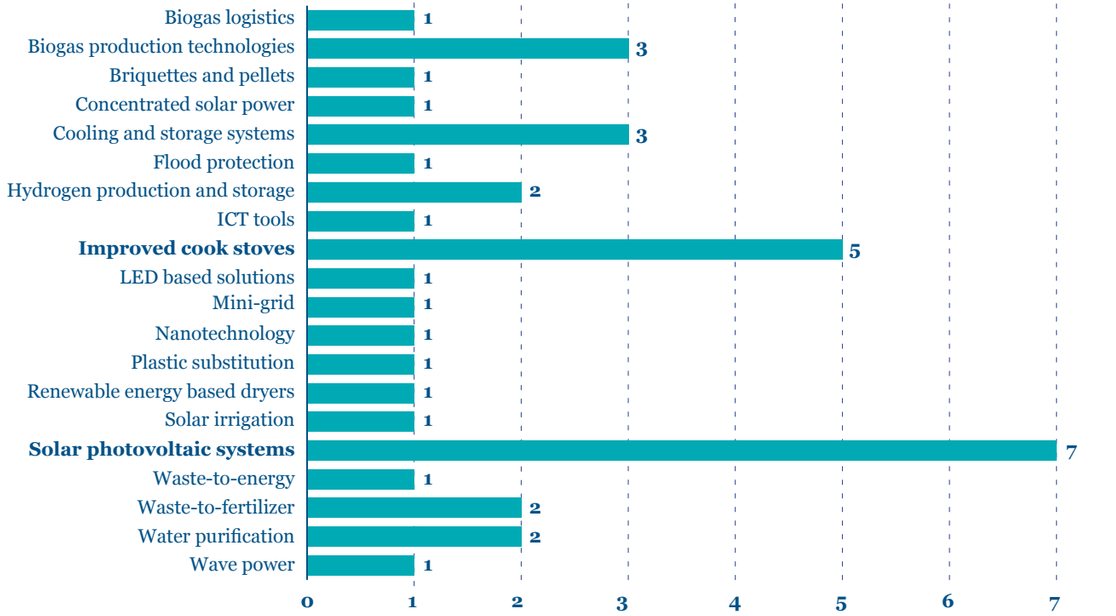
What is innovative in a proposal?



So, what was actually innovative in the proposals? While project proposals contain several components, all of the components are not necessarily considered innovative. We have used the information in the project applications to determine the innovative aspects in the proposals. Based on the data, we created six categories. In addition to technology and method, we have used service, partnership model and financing model as innovation categories. The sixth category is called location and includes projects that propose to replicate an already tested model in a new location. Each project was tagged for one of the innovation categories. In a small number of cases there was no indication about what was innovative. You can also see these cases in our chart.

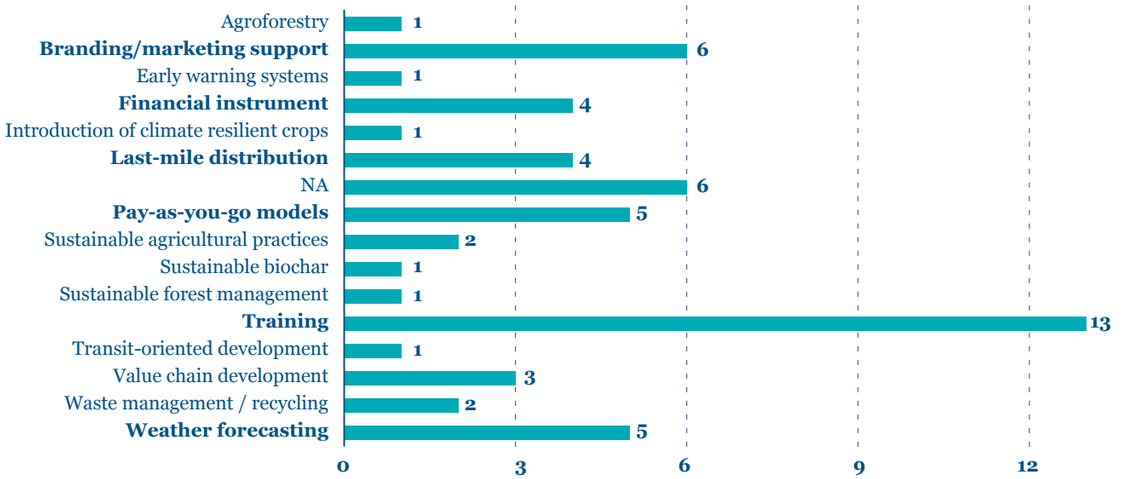
In over a third of all cases, method is considered to be the innovative aspect of the project. Interestingly, replication projects were the second most common type of projects in terms of their innovation. Even though there was a lot of variety in the different technologies proposed to be used in projects, technology was described to be the innovative component in a project only in 9% of the cases. We decided to look a bit deeper into these projects.

What technologies are proposed as innovative?



Technology was described to be the main innovation in 30 cases. These 30 projects had a total number of 37 technologies in their project descriptions. Solar PVs (n=7) and improved cook stoves (n=5) are the most common technologies that are included in these project proposals. Apart from these, the graph shows a great variety of different technologies.

What methods are proposed for innovative services?



n= 56

Our study methodology allowed us to also have a look at the presence of different methods in the project proposals. For projects where method is categorized as the innovative factor, training remains the most common component. Waste management and recycling, agroforestry, and branding and marketing support were the other most common methods in projects that had method as their innovation. Since applications may include several methods, this tells us more about what the common themes in the projects are rather than what the innovations are. For that, we had a look at the proposed methods when service is considered the innovative aspect in a project. You can see the table on this page.

Training remains the most common component (n=13) before branding and marketing support (n=6). These are followed by projects working on weather forecasting (n=5), pay-as-you-go models (n=5), last-mile distribution (n=4) and financial instruments (n=4). It is easy to imagine that projects with these components can focus on providing a service, rather than on a new technological innovation.

We also see six cases that have not received a categorisation for their method. These are labelled as NA. Most of these were proposing the use of ICT applications or mobile apps to solve a given issue. There was no direct indication about how the service provided with an ICT tool would actually be implemented and hence they have not been categorised for their implementation method.

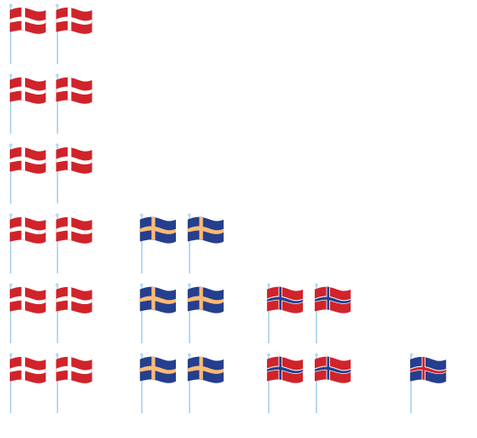
Photo: Morten B. Johansson / Forests of the World

Photo: Ignitia

Funded projects

In this section we look at projects that have been awarded funding. The funding decisions have not yet been done for EEP Africa's 14th round nor for NCF's 8th call. Therefore, this section comprises the projects that have been awarded funding from NCF 6 and NCF 7.

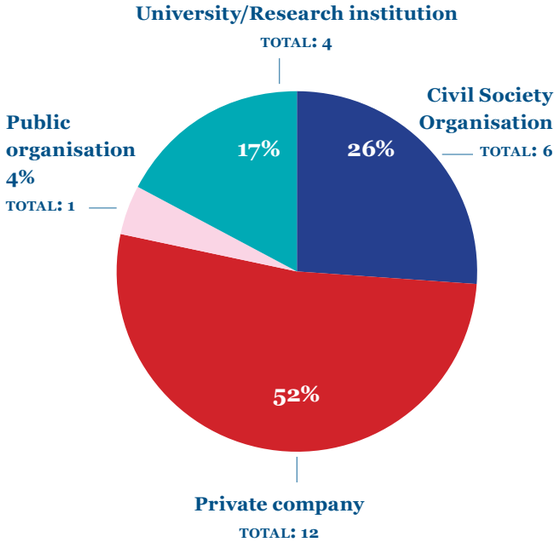
Country of lead Nordic partner



n= 23

We remember that the biggest share of applications were sent by Danish organisations. Respectively, Danish organisations have also been awarded the biggest share of projects. While 29% of all applications were from Danish organisations, a total of 52% of funded projects have a Danish organisation as the lead Nordic partner. At the same time, no Finnish organisation has been successful in winning grant financing under NCF calls 6 and 7.

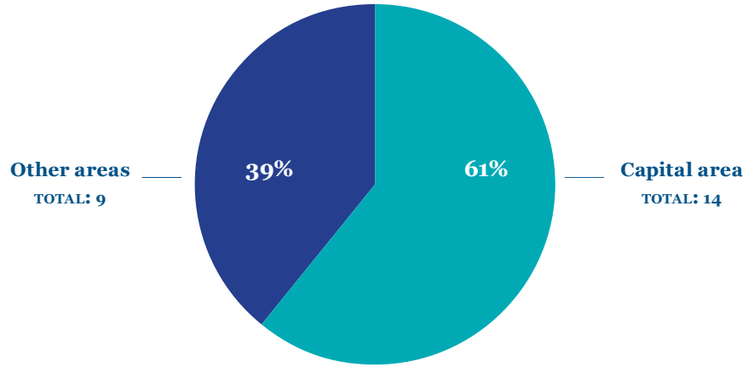
Organisation type of lead Nordic partner



n= 23

Private companies are the lead partner in just over half of the projects. CSOs are the lead partner in six projects and universities or research organisation lead four projects. This means CSOs have been slightly more successful at winning grant financing than their share of applications would suggest. Overall, there are no significant differences between the share of applications sent and share of projects funded between the different types of organisations.

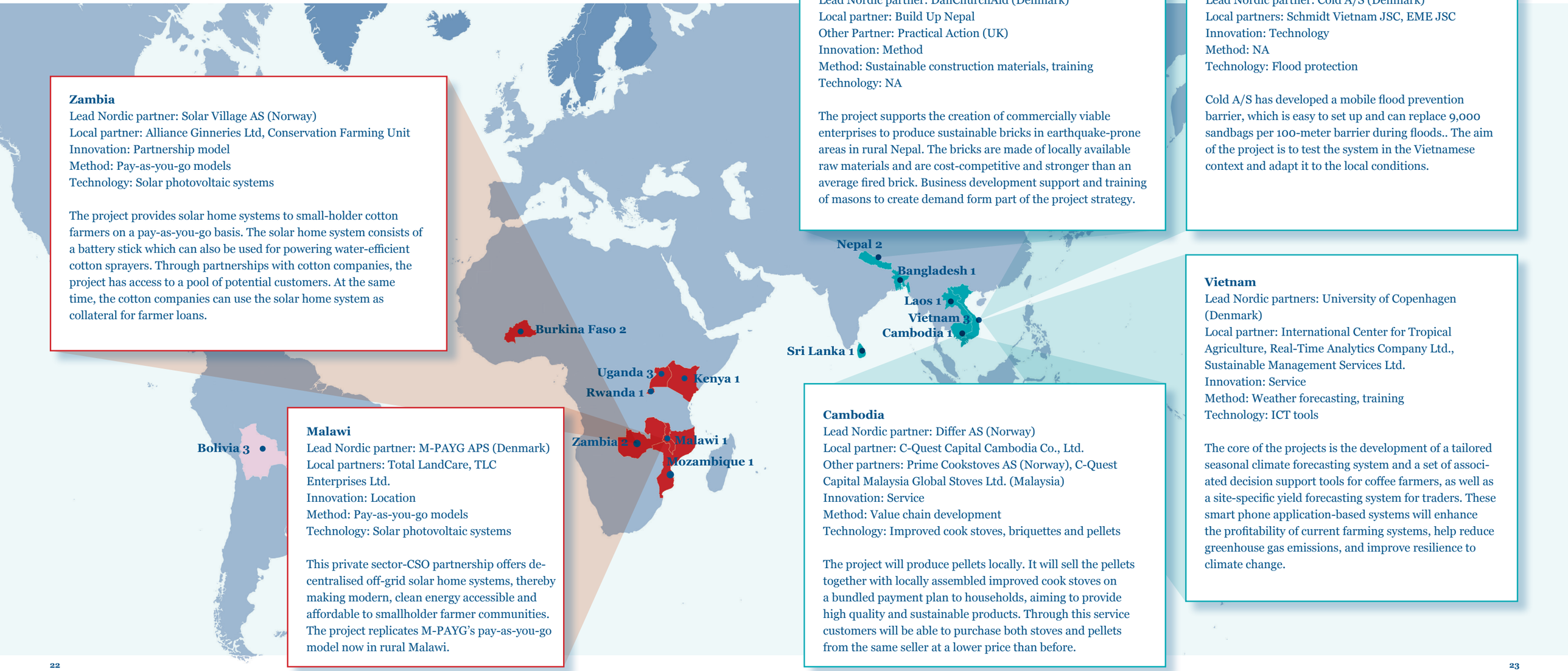
Where are the project leads within the Nordic countries?



n= 23

We can see that lead partners based in the capital areas of the Nordic countries have been more successful at winning grants than their share of applications would imply. While the majority of applications came from organisations that are based outside of the capital areas, the majority of projects have been awarded to organisations based in the capital areas of the Nordic countries.

Where are the funded projects implemented?



Zambia
Lead Nordic partner: Solar Village AS (Norway)
Local partner: Alliance Ginneries Ltd, Conservation Farming Unit
Innovation: Partnership model
Method: Pay-as-you-go models
Technology: Solar photovoltaic systems

The project provides solar home systems to small-holder cotton farmers on a pay-as-you-go basis. The solar home system consists of a battery stick which can also be used for powering water-efficient cotton sprayers. Through partnerships with cotton companies, the project has access to a pool of potential customers. At the same time, the cotton companies can use the solar home system as collateral for farmer loans.

Malawi
Lead Nordic partner: M-PAYG APS (Denmark)
Local partners: Total LandCare, TLC Enterprises Ltd.
Innovation: Location
Method: Pay-as-you-go models
Technology: Solar photovoltaic systems

This private sector-CSO partnership offers decentralised off-grid solar home systems, thereby making modern, clean energy accessible and affordable to smallholder farmer communities. The project replicates M-PAYG's pay-as-you-go model now in rural Malawi.

Nepal
Lead Nordic partner: DanChurchAid (Denmark)
Local partner: Build Up Nepal
Other Partner: Practical Action (UK)
Innovation: Method
Method: Sustainable construction materials, training
Technology: NA

The project supports the creation of commercially viable enterprises to produce sustainable bricks in earthquake-prone areas in rural Nepal. The bricks are made of locally available raw materials and are cost-competitive and stronger than an average fired brick. Business development support and training of masons to create demand form part of the project strategy.

Cambodia
Lead Nordic partner: Differ AS (Norway)
Local partner: C-Quest Capital Cambodia Co., Ltd.
Other partners: Prime Cookstoves AS (Norway), C-Quest Capital Malaysia Global Stoves Ltd. (Malaysia)
Innovation: Service
Method: Value chain development
Technology: Improved cook stoves, briquettes and pellets

The project will produce pellets locally. It will sell the pellets together with locally assembled improved cook stoves on a bundled payment plan to households, aiming to provide high quality and sustainable products. Through this service customers will be able to purchase both stoves and pellets from the same seller at a lower price than before.

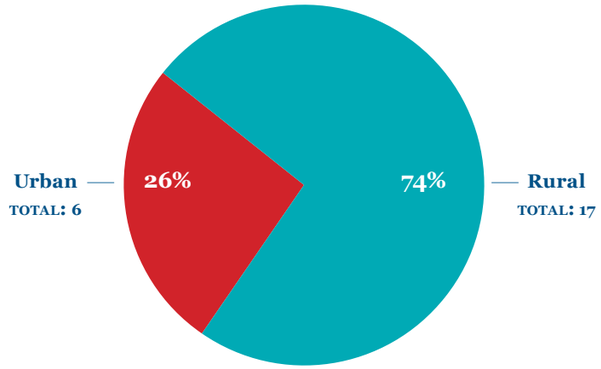
Vietnam
Lead Nordic partner: Cold A/S (Denmark)
Local partners: Schmidt Vietnam JSC, EME JSC
Innovation: Technology
Method: NA
Technology: Flood protection

Cold A/S has developed a mobile flood prevention barrier, which is easy to set up and can replace 9,000 sandbags per 100-meter barrier during floods.. The aim of the project is to test the system in the Vietnamese context and adapt it to the local conditions.

Vietnam
Lead Nordic partners: University of Copenhagen (Denmark)
Local partner: International Center for Tropical Agriculture, Real-Time Analytics Company Ltd., Sustainable Management Services Ltd.
Innovation: Service
Method: Weather forecasting, training
Technology: ICT tools

The core of the projects is the development of a tailored seasonal climate forecasting system and a set of associated decision support tools for coffee farmers, as well as a site-specific yield forecasting system for traders. These smart phone application-based systems will enhance the profitability of current farming systems, help reduce greenhouse gas emissions, and improve resilience to climate change.

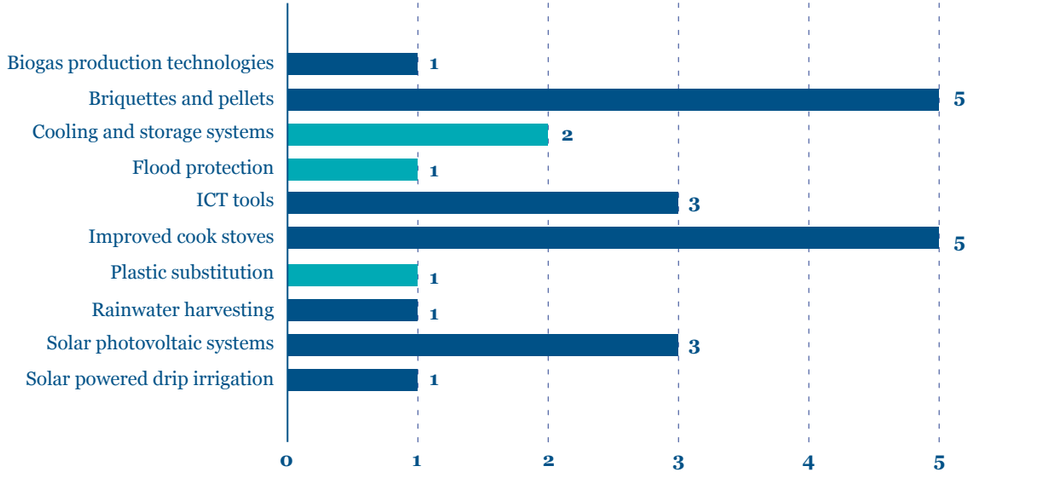
Most of the funded projects are implemented in rural areas



n= 23

The fact that forestry and agricultural projects feature commonly in the NCF 6 and NCF 7 funded projects is closely linked with the finding that about three quarters of the projects are implemented mainly in rural settings. The distribution reflects a similar distribution to what we saw in the applications. Broadly speaking, this also reflects the large share of rural populations in the countries where the projects are implemented.

What are the technologies in the projects that have received funding?

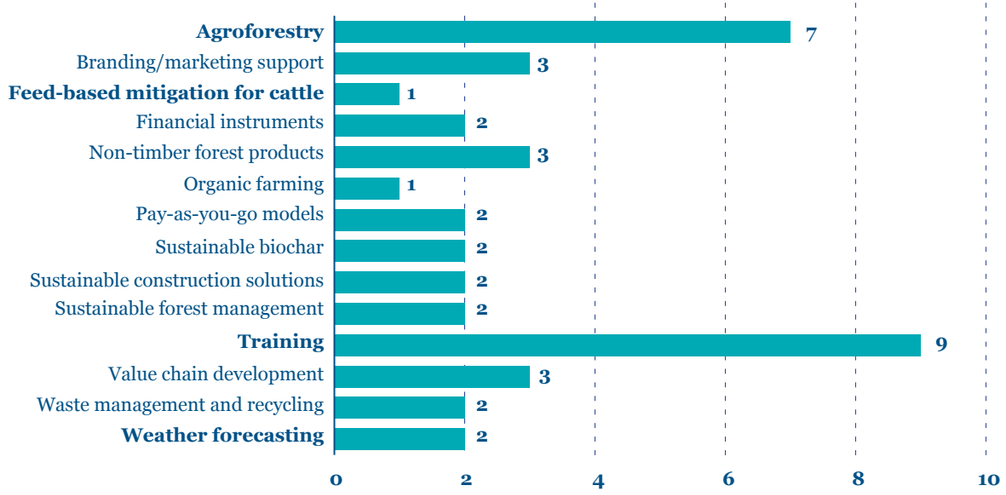


n= 23

The technologies used in the funded projects can be seen here. The four projects that are highlighted with a green colour are the projects where technology was deemed to be the innovation in the project. Two of them are working on solar cooling, one on plastic solutions and one on a flood protection technology.

Other technologies of funded projects included five improved cook stove projects and five projects that have a component of briquettes and pellets. The innovation aspect of these projects has varied and includes the service they are providing, the method used or the location.

What methods are used in projects that have received funding?

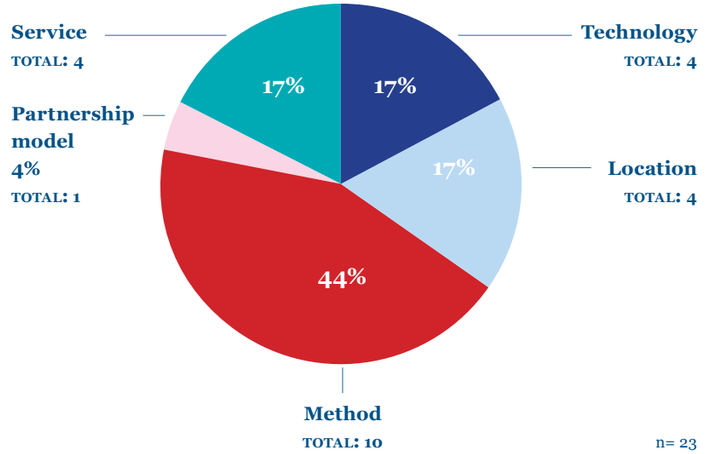


n= 41

Looking at the methods of the funded project, we see that training remains a common component. In addition, apart from the large number of agroforestry projects, we see a variety of different methods. A considerable share of weather forecasting projects have been funded (2 out of 5 applications) and the same goes for feed-based mitigation for cattle (1 out of 2). On the other hand, only two projects that have a waste management/recycling component in them have been funded compared with 37 such project proposals.

Organizing projects by method does not always tell us what the projects are actually aiming to doing. Rather, it gives us an overview of the kind of approaches that are being employed.

What is innovative in the funded projects?



n= 23

So, what is innovative in the projects that have received funding from NCF? In 44% of the funded projects, the method was described as the key innovative part of the project. Method was the most common innovation category in all the applications, but the proportion is even higher in the funded projects. While technology innovations comprised 9% of all the applications, their share is 17% of the funded projects.

We also see that a lot of innovation is not actually technology-driven per se, but the innovation lies rather in how to make the technologies work in a given context, or how to provide a product or service in an accessible and affordable manner to improve lives. The four projects that provide innovative services, focus on providing a service that has previously been unavailable or unaffordable for the targeted customers. For example, this category includes two projects that provide weather forecasting services for small-holder farmers. While generating the forecasts themselves might require technology and plenty of computing power, the core of the project is providing a service at an affordable price to end-users, rather than producing the forecasts themselves. The two other service projects have an innovative delivery model for distributing briquettes or pellets to ensure continued sustainable use and sourcing.

Photo: Ignitia

Project examples

Photo: NDF

Probiotic bacteria for sustainable agricultural development

Innovation category: Method
Method: Feed-based mitigation for cattle
Technology: NA

Lead Nordic partner: Biosa Danmark ApS
Local partner: Biotop SRL
Nordic lead partner country: Denmark
Country of implementation: Bolivia
Project start date: 1 August 2018
Project end date: 31 January 2021

About the project

The project aims to demonstrate the potential of using probiotic bacteria, a type of microorganisms, to improve productivity of dairy farming. Smallholder farmers will test the use of probiotics in:

• Dairy cows' diets, which is expected to improve the animals' productivity and health. Probiotics also enhance cows' digestion, leading to reduced methane emissions (a potent greenhouse gas).

• Cow manure, which can then be transformed into bio-fertiliser which can be sold. Treating cow manure with probiotics also leads to reduced greenhouse gas emissions.

Innovation

The use of probiotics in agriculture is limited and the method is not widespread in Bolivia. Furthermore, the project will create commercial alliances between the private sector and small-scale producers.

Impacts

• **Reduced greenhouse gas emissions**. 1,600 tonnes of CO_2e reduced per year at project closure. With additional scale-up investments in the future, the reductions could reach 25,000 tonnes CO_2e/year.

• **Increased income for smallholder farmers.** The farmers' income is expected to grow by 15% due to increased milk quality and yields, and reduced veterinary costs.

• **Increased soil quality.** Bio-fertilisers based on probiotics have a positive impact on soil fertility and reverse soil erosion.

Photo: Ignitia

Localised weather forecasts for smallholder farmers

Innovation category: Service
Method: Weather forecasts
Technology: ICT tools

Lead Nordic partner: Ignitia AB
Local partner: Orange Burkina Faso
Lead Nordic partner country: Sweden
Country of implementation: Burkina Faso
Project start date: 1 November 2018
Project end date: 31 October 2020

About the project

The project will offer localised weather forecasts to smallholder farmers in Burkina Faso. Weather forecasts allow the farmers to make better-informed decisions that improve their agronomical practices, increase their yields and maximise their profits.

Innovation

Ignitia's proprietary forecasting model relies on algorithms leveraging remote-sensing techniques, satellite datasets and real-time lightning data in order to predict tropical weather events down to a 3 km range and with 84% accuracy. Highly reliable and localised weather forecasts will be sent directly to farmers' mobile phones through an SMS-based subscription model. The message includes a 48-hour forecast that details the likelihood, timing and intensity of rainfall.

Impacts

- **Improved productivity.** The risk of crop loss due to weather-related events is reduced, increasing the potential of greater harvests and improved food security.

- **Increase in economic productivity.** Farmers can increase their post-harvest incomes through more informed decision-making and achieve productivity gains through the adoption of new practices and technologies.

- **Adaptation to climate change**. Better-informed decisions and planning will help reduce the risk of crop loss and increase the farmers' climate resilience.

Photo: Juteborg

Sustainable raw material for plastic products

Innovation category: Technology
Method: Waste management and recycling
Technology: Plastic substitution

Lead Nordic partner: Juteborg AB
Local partner: Esquire Accessories Ltd
Other partners: Inclusive Business Sweden, JuteLab International (Sweden)
Nordic lead partner country: Sweden
Country of implementation: Bangladesh
Project start date: 1 October 2018
Project end date: 31 December 2020

About the project

The project aims to test the concept of commercial production of jute fibre reinforced plastic granule in Bangladesh. The technology creates the possibility to replace up to 50% fossil fuel-based plastic with jute fibre in the production of plastic products. Jute is a natural fibre material grown in Bangladesh. The project will also validate a farmer-to-factory jute supply chain model, which aims to ensure traceability of jute and give fair price for the jute farmers.

Innovation

The technology combines virgin plastic granules with jute fibre to develop a new product i.e. jute fibre reinforced plastic granule (JutePP). JutePP granules are an innovative alternative to oil-based plastic. The technology offers the plastic industry a new and more sustainable raw material.

Impacts

- **Reduced CO_2 emissions.** 18,500 tonnes of CO_2e emission reductions are expected during the lifetime of the project's mitigation investments. Annual emissions reductions are expected to reach circa 1000 tonnes of CO_2e.

- **Validated jute supply chain model.** A new farmer-to-factory supply chain model will be validated to assess how a jute certification process could be established in future.

- **Increased income to the jute farmers.** The farmer-to-factory jute supply chain model will increase farmers' incomes.

- **Improved soil productivity.** Soil quality is improved by the organic fertilisation provided by jute cultivation.

Photo: Ocean Excellence

Solar-powered cooling systems to reduce fish spoilage

Innovation category: Technology
Method: Value chain development
Technology: Cooling and storage solutions

Local partner: Institute for Development of Fisheries and Aquaculture (IDEPA)
Other partners: Rare Inc. (USA), Samey ehf. (Iceland)
Nordic lead partner country: Iceland
Country of implementation: Mozambique
Project start date: 1 August 2017
Project end date: 31 January 2020

About the project

The project will develop and pilot a cost-effective and sustainable cold storage solution for small-scale fisheries in Mozambique to address the issue of spoilage and reduce fish waste throughout the value chain. It will bring cold storage to areas in Mozambique where they have previously been unavailable. Furthermore, the project aims to assess how to make the technology applicable, affordable and how it could be produced locally in Mozambique.

Innovation

The cold storage solution uses brine (water with high salinity level) as the refrigerant fluid. It has a lower freezing temperature than water and is a more efficient alternative to the energy-consuming production of ice. The cold storages can be powered with solar and wind. The unit will be specifically designed and prototyped to fit small-scale fishing vessels.

Impacts

- **Enhanced catch value and efficiency by reducing spoilage.** Currently 25% of the catch is discarded due to spoilage, with even more of the catch having a decreased value due to inadequate preservation.

- **Increased incomes of small-scale fisheries.** The fisheries are expected to experience increased income with the same effort as before using a cooling system.

- **Reduced overfishing in reserves and other fragile areas.** It is presumed that diminished spoilage of fish catch reduces overfishing.

Annex 1 – Study methodology

This study is based on a sample of project proposals submitted to the Nordic Climate Facility (NCF) and Energy and Environment Trust Fund covering Southern and Eastern Africa (EEP Africa) that have had a lead partner from a Nordic country. The data has been collected from proposals submitted to NCF calls six, seven and eight, and from EEP Africa call 14. In total, the sample was 329 proposals, 305 under NCF and 24 under EEP Africa. Only proposals that have passed the eligibility screening have been reviewed. The study also looked into projects that have been granted financing. NCF 8 and EEP Africa 14 projects had not been selected for funding at the time this study was carried out. Therefore, the sample for the funded projects consists of 23 projects that have been contracted at the time of writing for NCF 6 and NCF 7.

The data has been collected directly from the applications and is therefore reflective of the applicants' own views of their project proposals. The aim has been not to make interpretations of the applications, but to rely on the information provided by the applicants. The accuracy of the information in the proposals has not been separately verified nor have we assessed the feasibility of implementing the projects for the purposes of this study.

Based on the applications' project descriptions, categories were created for the identified technologies and methods. All projects were then tagged for the technology and/or method category that they were proposing to utilise. Many projects combine various technologies and methods for project implementation and therefore a project can be tagged for more than one technology or method category.

The method captures most key aspects of the projects apart from technology. Therefore, an individual project may incorporate a wide range of methods. As an example, the methods tagged for one project can cover financial schemes such as pay-as-you-go, delivery models such as last mile distribution, or thematic focal areas such as sustainable fuels. This large variety in methods posed clear methodological challenges for this study. All data was captured and the findings reflect an overview of the occurrence of implementation methods and technologies.

Six innovation categories were developed to describe what is innovative in a project proposal. The categories used were: technology, service, financing model, partnership, methodology or location. The location category was used for replication projects; in other words, projects that were proposing to introduce a known approach in a new geographic area. Each project proposal was assigned one innovation category. We have used our best judgement to select the innovation category we found to be the most accurate based on the descriptions in the applications.

Sometimes it was challenging to identify the technology, method and/or the innovation category since the concept notes were not always clear in what they were proposing to do. In these cases, we made our best effort to interpret the information provided. Fortunately, these cases were limited in number. When the application has not provided any clues on what the project is proposing to do in terms of technology, method and/or innovation, no category has been assigned for the unclear aspect.

The categorisation between urban and rural projects was also done according to the description in the project proposals. When a project was proposed to be implemented at sea or no indication was given, not applicable (NA) was used. If the project was only or mainly implemented in urban areas it was marked as an urban project. In all other cases, the project was labelled as implemented in a rural setting.

Each call has a theme and that has likely had an impact on the types of applications that are submitted. This impact has not been assessed in this study. While the limitations of the methodology prevent us from knowing if a proposed concept would truly be innovative, it does give an overview of the different types of innovations that are spurred by these challenge funds.

Photo: Differ

The Nordic Development Fund is a joint Nordic development financing institution that supports climate-related projects in Africa, Asia and Latin America.

Cover photo: Absolute Energy

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