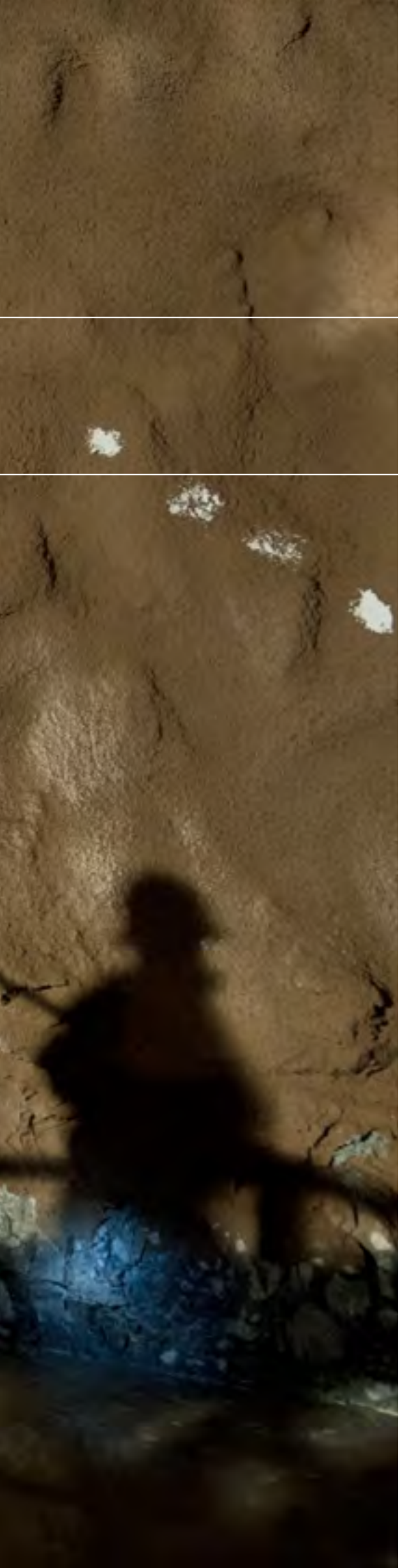
2012

Norad

RESULTS REPORT
Aid for natural resource management



PREFACE

The thematic area for this year's results report is aid for natural resource management. Natural resources are important for the developing countries' ability to combat poverty and create economic development, but many of these countries are struggling to realise the development potential their resources represent. In addition, it is becoming increasingly clear that the challenge of global warming is inextricably related to the extraction and use of natural resources.

Norway's own experiences within management of hydropower, fishing and petroleum resources have characterised the Norwegian state's development assistance for 60 years and have been an important part of Norad's work during our 50-year history.

There are many examples of countries in which natural resources do not become a means for combating poverty; instead, they enrich a small elite group. This is particularly the case with non-renewable resources such as oil, gas and minerals. Sound management of these natural resources requires, among other things, knowledge of the resource base as well as laws and regulations that provide predictable framework conditions for the industry, and at the same time safeguard the country's interests. Further, it requires government authorities with the will and capacity to negotiate good contracts and to ensure that rules are upheld. Transparency regarding the flow of income and processes for ensuring that the concerned parties are being consulted is also important for ensuring good management. The report contains examples of how aid for developing tax legislation and develop capacity in tax authorities and the civil society has led to increased revenues for the state.

Agriculture, fishing and forests are the natural resources that provide a direct income and livelihood for the majority of the people in developing countries. Increased productivity and sustainable utilization of these resources are a prerequisite for increasing food security and laying the foundation for local economic development. The results report shows examples of how Norwegian aid has contributed towards better utilization of resources through measures such as research, resource mapping, legislation development and new production techniques. It also includes examples of less successful initiatives where the desired outcomes could not be achieved because enough consideration was not given to the local circumstances or nature's limits to growth.

Global climate change worsens the problem of poverty through reduced crops and natural disasters. The poorest are hit the hardest. The report contains examples of aid that has contributed to climate adaptation, reduced deforestation and reduced greenhouse gas emissions.

Norad's results report is one of several contributions to greater transparency around results of Norwegian aid. The report is neither a research report nor a comprehensive evaluation of all Norwegian aid for natural resource management. It presents selected examples of results within this year's thematic area. The examples are based upon evaluations, research, and project reports as well as assessments by the Norwegian Foreign Service and Norad itself.

Oslo 11.12.2012
Villa Kulild
Director General

CONTENTS

The results report consists of two independent parts:

Part I: Norwegian aid for natural resource management
This part presents examples of results and lessons learned from aid for natural resource management: Fishing and agriculture, clean energy, initiatives for increasing state revenues from non-renewable natural resources, and sustainable use of forests.

Part II: Facts and figures
This part is not related to the main subject. It represents statistics that show what Norwegian aid is used for, and compares Norway with other donor countries. The statistics also show development trends in some of Norway's partner countries.

Foto: Ken Opprann

Park rangers in South Luangwa National Park conduct frequent patrols of the park. The patrols may take from one day to ten days. The rangers are often tipped off by the local communities about poaching. Poachers may use firearms to kill larger animals or lay snares in areas frequented by smaller animals. The patrol teams are equipped with AK-47 rifles, GPS and radio contact with the main office.

_Part 1

PART 1
NORWEGIAN AID FOR NATURAL RESOURCE MANAGEMENT

Norway's prosperity is largely a result of good management of natural resources: knowledge-based management of ocean resources, hydropower as the foundation for developing industry and prosperity, and later an internationally competitive oil and gas industry. Many countries are seeking advice and assistance from Norway in the area of natural resource management.

In this year's report on results of Norwegian aid, the theme is management of natural resources in a development perspective. The report describes approaches to exploitation and protection of natural resources and gives examples of results achieved through different approaches: From exploitation of resources to promoting economic growth, and to the current climate and forest initiatives that combine the need for reducing global greenhouse gas emissions with a poverty perspective.

Norad turns 50 this year. At the same time, it has been 60 years since the first aid project financed by the Norwegian government started in Kerala, India. It is therefore natural that the annual report includes some glimpses from the history of this thematic area.

Foto: Ken Opprann

1. INTRODUCTION AND THE MAIN MESSAGES

Exploitation of natural resources is an important factor in the significant growth experienced in recent years by African countries amongst others. Six of the world's ten fastest growing economies are in Africa, and for many of these countries their growth is due to the export of natural resources like oil, gas and minerals.[1] Exploitation of natural resources does not automatically lead to a better standard of living for the population as a whole. A great deal depends on how the resources are managed and how the income is distributed. In countries that are rich in oil, gas and minerals, weak management by the state and poor governance often result in increased inequality, unemployment, environmental degradation, and as an extreme consequence - armed conflict. Resources that can yield substantial income do not necessarily create many jobs. Therefore, the income must be invested in other sectors of the country in order to create progress for all. When a country's economy is highly dependent upon one raw material, the economy becomes vulnerable to fluctuations in the prices of raw materials.

Botswana is regarded as one of the few African countries that have so far been able to use their abundance of natural resources to benefit the people. In East African countries such as Mozambique and Tanzania, large gas reserves have been discovered which give these countries an important future source of income. Good management of the resources will be crucial for enabling the people to move up and out of poverty.

In addition, a number of countries are rich in renewable natural resources such as agricultural land, fish, forests or water reserves without experiencing widespread national economic growth. Particularly in Africa, there is great potential for developing agriculture. This is also among the most important sectors for food security and employment in developing countries. 75 per cent of the world's poor live in rural areas, and 65 to 80 per cent of people in developing countries rely on agriculture for their livelihood. Growth in agricultural industry will therefore have a direct effect on many people. The same is true for fishing: 95 per cent of the world's population that subsists on fishing lives in developing countries.

The great potential for income generation and poverty alleviation that lies in natural resources has made this area a central part of the Norwegian development cooperation over 60 years.

Box 1.1 Poverty alleviation is the goal of development cooperation

The main goal of development cooperation is **poverty alleviation**. The way to achieve this goal is to stimulate economic growth and social development. At the same time, Norway must help to ensure that the development is achieved within the critical load limits of environmental systems.

Economic growth is usually measured as the percentage of increase in a country's gross domestic product, after subtracting the effect of inflation. This is called real growth.

There is no equivalent way of measuring the use of natural resources and the proportion of a country's capital that this comprises. In June 2012, in the concluding declaration of the Rio+20 Summit, the world's nations decided that the UN should develop indicators to complement the measurement used today.

Economic development is improvement in the standard of living. The United Nations' *Human Development* Index is a common measure of such development.

Norway's experiences in natural resource management

Norway's economic growth stems largely from natural resources, particularly hydropower and petroleum, but fishing and mining have also played an important role. Management of natural resources through more than 120 years has been an essential factor in Norway's progress from a poor country built around primary industries to one of the richest countries of the world.

1 Study conducted by The Economist assisted by data from IMF. Presented in the article "A more hopeful continent. The lion kings? Africa is now one of the world's fastest-growing regions." The Economist, 6 January 2011

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Veronica Banda is chopping Gliricidia sepium, which is used for firewood. The tree grows fast and it is planted close to the houses. This is how farmers are prevented from cutting down other forest for firewood.

Foto: Ken Opprann

Norway's experiences must be seen in light of several historical conditions that only to a limited extent are present in developing countries today. The experiences cannot be transferred directly. When the international oil industry showed interest in the Norwegian continental shelf, Norway was already industrialised. The population was well-educated, there was a high level of research expertise, the work force was highly qualified and an entrepreneur tradition also existed. Employment rates were high, and the country was politically stable, with a democracy that had developed over more than 150 years. These factors prevented expectations of prosperity growth after the discovery of oil from becoming unmanageable for the state. There was plenty of capacity in public institutions. The state's most important source of income was taxation, and it was the state's responsibility to redistribute the revenues. Transparency around state revenues was also a part of the democratic system. The Norwegian state has had ownership rights to the offshore petroleum resources. Legislation and regulation of Norway's oil management were developed in these circumstances. Since 1969, when the Ekofisk oil field was discovered, petroleum management has progressed further, for instance, with regard to safety and environmental considerations.

Box 1.2 Elements in good natural resource management

- → The principle that resources shall be managed in line with the population's interests
- → Rule of law, including impartiality and predictability in management
- → Relevant and adequate laws and regulations
- → Regulating authorities with adequate expertise and capacity
- → Transparency around the management processes and revenues
- → Channels for dialogue and codetermination

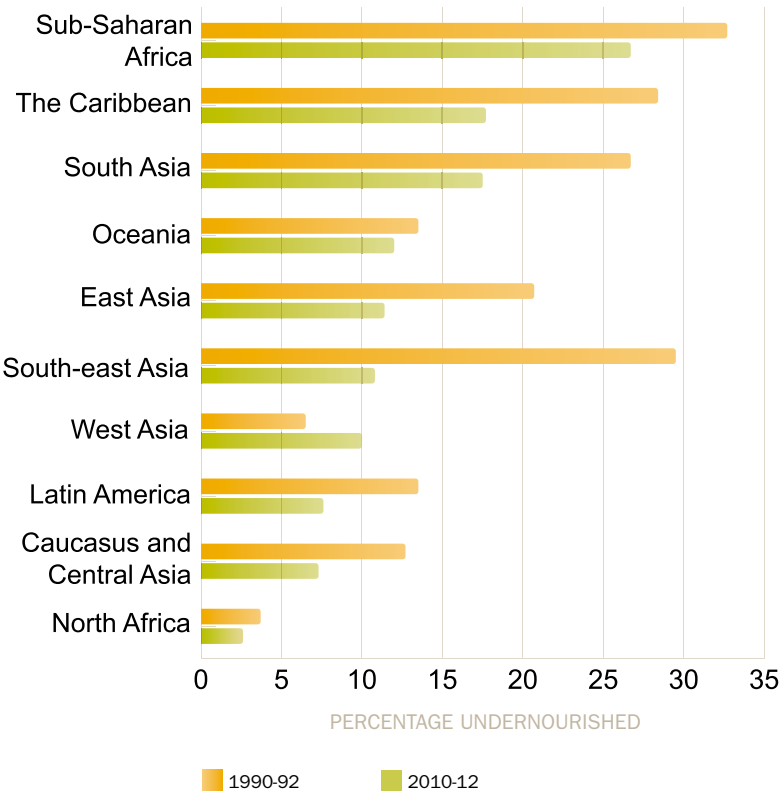
In most developing countries, few of these premises can be taken for granted, and the global framework conditions have changed since the Norwegian oil fields were discovered. This makes it necessary to relate Norway's experiences to the challenges faced by each country today. This approach lies at the core of Norwegian development cooperation in the field of oil and gas, and in areas such as taxation, fishing and hydropower. In recent years, our partner countries have expressed an increasing interest in how natural resources can contribute towards a desired social and economic development. The goal is to utilise the opportunities represented by natural resources, and at the same time, prevent possible negative consequences of a country's reliance on one or a few major natural resources.

Norway's development cooperation in the field of natural resource management has historically been balanced between emphasis on economic growth on one hand, and protection of the environment on the other. In the early phase of Norwegian aid, the perspective was almost exclusively one of economic growth. Now there is a greater balance between the two considerations, in addition to increased attention to climate considerations. Norway's emphasis on factors related to both growth and conservation is a reflection of our own nation's experiences. Norway has had a number of controversial debates and dilemmas in connection with addressing the environmental and social aspects of building large petroleum and hydropower plants. One experience that Norway brings to the dialogue with the partners is that discussions around real and difficult dilemmas have been managed in an open and inclusive way with strong interest and commitment from the civil society, the local communities concerned, business interests and the opposition in Norway's National Parliament.

The development challenge

A large part of the world's population has had a significant increase in prosperity in recent decades. From 1990 to 2008, glo-

FIGURE 1.1 SUB-SAHARAN AFRICA IS NOT GOING TO ACHIEVE THE GOAL OF HALVING HUNGER LEVELS BY 2015



Reference: Food and Agriculture Organization of the United Nations

South-East Asia has already achieved the goal of halving hunger levels. East Asia, Caucasus, Central Asia and Latin America are well on their way to achieving the goal. The regions with the poorest prospects are Sub-Saharan Africa, South Asia, West Asia and Oceania.

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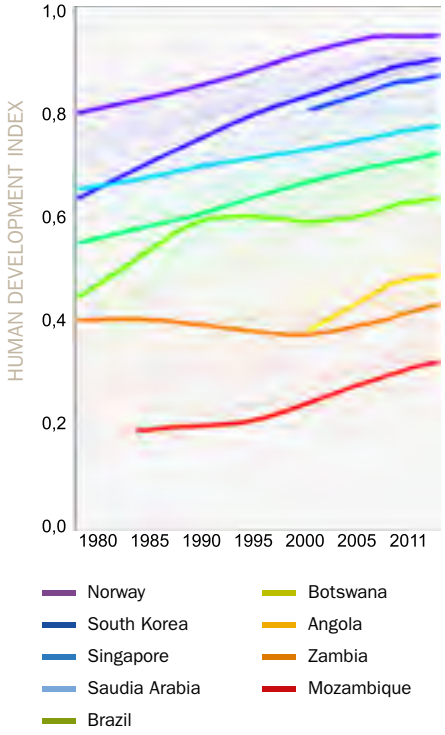
bal trade quadrupled. At the same time, trade between developing countries increased tenfold.
The increase in prosperity has a downside: progress has been unevenly distributed, and human-driven climate change is threatening to increase the average global temperature to a degree that will change the ecosystems fundamentally. This will hit the poorest countries the hardest.

FIGURE 1.2 NATURAL RESOURCE WEALTH DOES NOT AUTOMATICALLY LEAD TO ECONOMIC DEVELOPMENT FOR THE ENTIRE POPULATION



Reference: The United Nations Development Programme, UNDP

There is no automatic link between a wealth of resources and prosperity. In this sample Angola, Brazil, Botswana, Mozambique, Norway, Saudi Arabia and Zambia are rich in natural resources. Singapore and South Korea are countries with very few natural resources, but which score higher on the UN Human development index than countries that are richer in natural resources.

Sub-Saharan Africa and South Asia will not be able to achieve the Millennium Development Goal of reducing extreme poverty and hunger by half by 2015 although developing countries seen as a whole have already achieved the goal. Around one billion people do not have access to sufficient food and the hunger problem will increase with population strain in regions that are already poor. In addition to solutions that create growth for nations, there is also a need for solutions to provide the poorest people in these countries opportunities for income and food security.

It is paradoxical that countries with major deposits of valuable, non-renewable natural resources often experience worse economic and social development than countries with few such resources.[2] Often the wealth disappears from the country without benefiting its people. One example is Zambia, where copper exports accounted for almost 20 per cent of the country's GDP between 1998 and 2007 while tax revenue from copper constituted only 1.6 per cent of the total tax revenues.

In the primary industries of fishing and agriculture, productivity growth is an important challenge. Over-consumption that depletes the local resource base is a common problem. Smallholders in fishing and farming who mainly use their products for their own consumption are hit the hardest by environmental degradation, as they are the most directly dependent upon the locally available natural resources. The same applies to the 350 million poor people who live off forest resources.

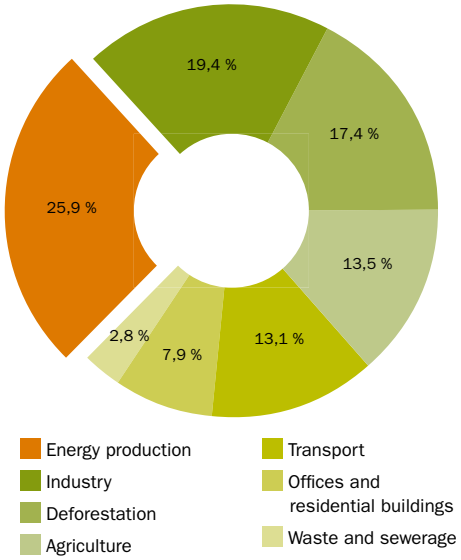
These challenges should not primarily be addressed by cultivating more land. According to the Food and Agriculture Organization of the United Nations, FAO, 80 per cent of the increase in the world's food production in future must be achieved through increasing productivity on existing land areas.[3] The reason is that 45 per cent of the global area that is not used for agriculture is covered by forest. To cut down the forest would lead to high greenhouse gas emissions and environmental degradation. Another twelve per cent of the potential agricultural areas are protected natural areas. To cultivate these areas would threaten biological diversity, including endangered animal and plant species. Increase in agricultural output must therefore take place through more effective agricultural methods, increased irrigation as well as methods that neither destroy the soil's nutrient content nor lead to erosion or drought. Barriers to productivity growth often include unclear or inequitable land tenure, lack of necessary inputs, and lack of access to markets.

2 See for instance Collier, Paul: The Political Economy of Natural Resources. Social Research Vol 77: No. 4: 2010
3 Food and Agriculture Organization of the United Nations, FAO World Agriculture: Towards 2015/2030. Summary Report

Electricity has been a driving force in the development of the western countries, as it is in developing countries today. Electricity is important for industry, business development, schools and health services. It is unlikely that the world will manage to wipe out poverty without ensuring global access to electricity. One of five people in the world is currently living without electricity. Use of wood and other biomass as fuel for cooking can have negative consequences for both people and the environment: indoor air pollution causes respiratory tract diseases and early death for up to two million people every year, most of them women and children. Collecting firewood can lead to deforestation and forest degradation. If the global climate challenge is to be resolved and climate goals are to be achieved, increasing demand for energy in developing countries and middle-income countries must to a greater extent be met with renewable energy and greater energy efficiency. The problem relates primarily to middle-income countries such as India and China. Only seven per cent of Africa's hydropower potential has been utilised. This creates both great opportunities and challenges: To attract capital, find cost-effective solutions, and weigh the need for energy against the consequences of energy expansion for the environment and local communities.

The climate and environmental challenge

FIGURE 1.3 HIGHEST GREENHOUSE GAS EMISSIONS FROM ENERGY PRODUCTION, INDUSTRY AND DEFORESTATION



Reference: The UN Climate Panel

These are human-driven greenhouse gas emissions measured in CO2-equivalents divided by activity in 2004

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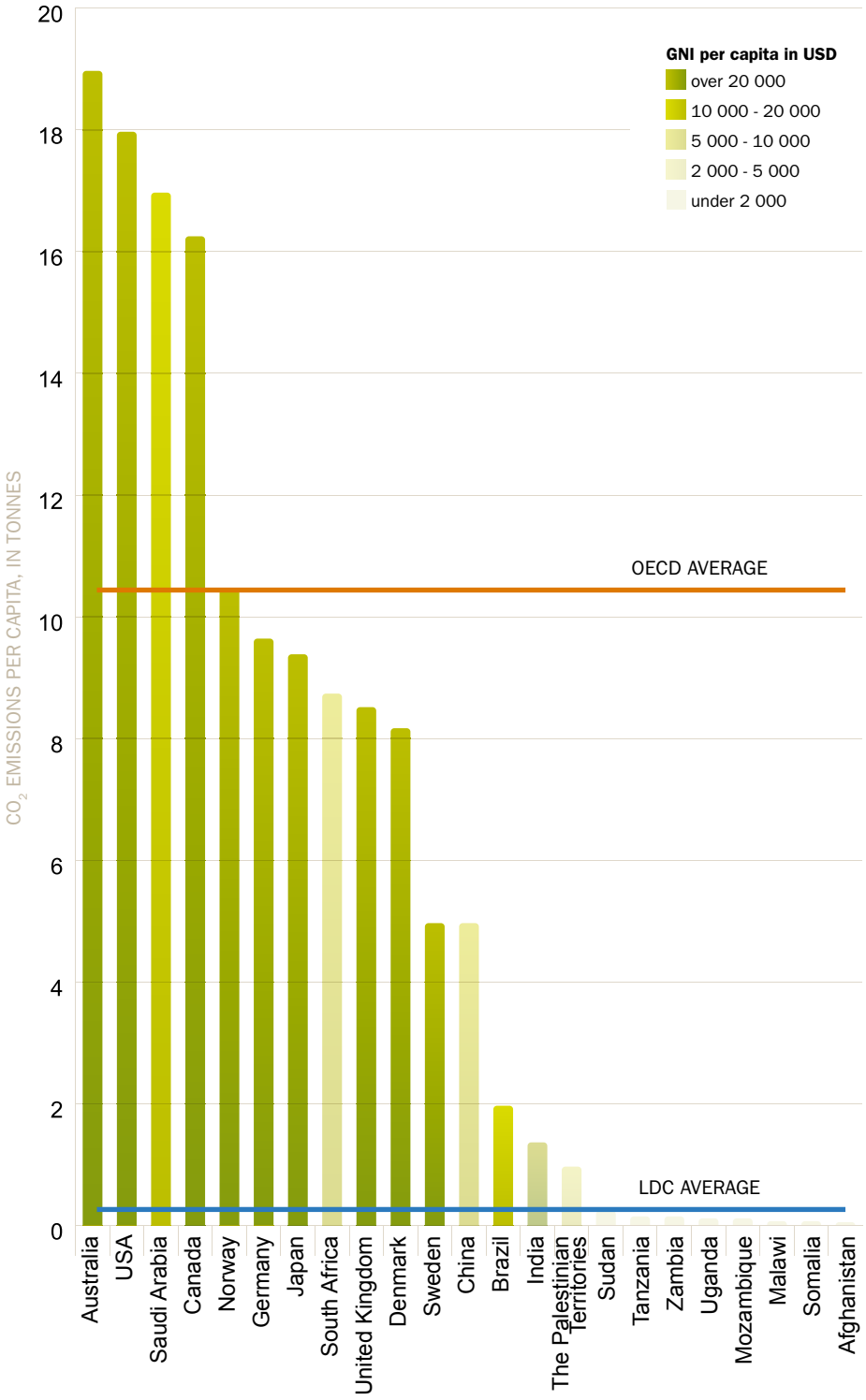
The global increase in prosperity and population growth is putting pressure on global natural resources, with global warming as a particularly great challenge. During the past 50 years, the world population has more than doubled, to seven billion. An increase of 2 billion people is expected in the coming 30 years.[4] The latest report on the world's environmental state from the United Nations Environment Programme, UNEP, shows that there has been significant progress in only four of the 90 environmental goals the world has set.[5] In several areas, there has been little progress or a negative trend. These include climate change, freshwater resources, fish stocks in the ocean, access to food, desertification, drought and endangered ecosystems. The negative ripple effects are unevenly distributed: climate projections show that it is the poorest countries that will experience the largest consequences in the form of drought, heavy rainfall, floods and rising sea levels, among other effects. These countries are poorly equipped to manage these changes. Poverty can also mean a threat to the environment. Use of natural resources that may be necessary for survival in the short run may in the longer term lead to deforestation, land degradation and use of polluting sources of energy.

These challenges place new demands on the development process in poor countries, and they have contributed to changes in the priorities of development policy. One of the important changes in Norway's development policy in recent years is related to measures for reducing deforestation, increasing access to clean energy and increasing adaptability to climate change, through initiatives such as more climate-smart food production.

The richest countries clearly have the highest greenhouse gas emissions per person and have had an emission intensive development until today (see figure 1.4).

Low- and middle-income countries are of the opinion that they should not pay for the rich countries' historical emissions by choosing climate-friendly alternatives at a

FIGURE 1.4 WEALTH AND GREENHOUSE GAS EMISSIONS ARE LINKED



Reference: World Bank

The figure shows that rich countries have the highest greenhouse gas emissions. The average emissions from OECD, consisting of 34 of the richest countries in the world, are far above those of the least developed countries (LDC). The challenge faced by the world is to stop climate change and prevent further loss of biodiversity, at the same time as low- and middle- income countries are given the opportunity of economic development and welfare.

4 United Nations Population Fund, UNFPA. «State of the world population» 2011

5 UNEP. «Global Environment Outlook 5». 2012

higher cost. Initial discussions on sustainable development created expectations that developing countries should make progress without causing damage to the environment. This expectation has persisted to some degree and has resulted in a crisis of confidence between poor and rich countries, particularly because countries that have historically been responsible for the environmental problems have continued to increase their consumption. This crisis of confidence is the main reason for the standstill in work for new global agreements to resolve the growing environmental and climate challenges. At the same time, the densely populated emerging economies are responsible for an increasing share of global emissions. If the current trend continues, the world's total greenhouse gas emissions will increase significantly by 2050 even if all OECD countries were to cut their emissions completely.[6] The emerging economies must also reduce their emissions. Therefore, it is important to find solutions that limit emissions as well as provide opportunities for further economic development. According to estimates, reduced deforestation, increased energy efficiency and a transition to cleaner forms of energy production could constitute a major part of developing countries' potential contribution to reducing greenhouse gas emissions by 2030 (see figure 1.5).

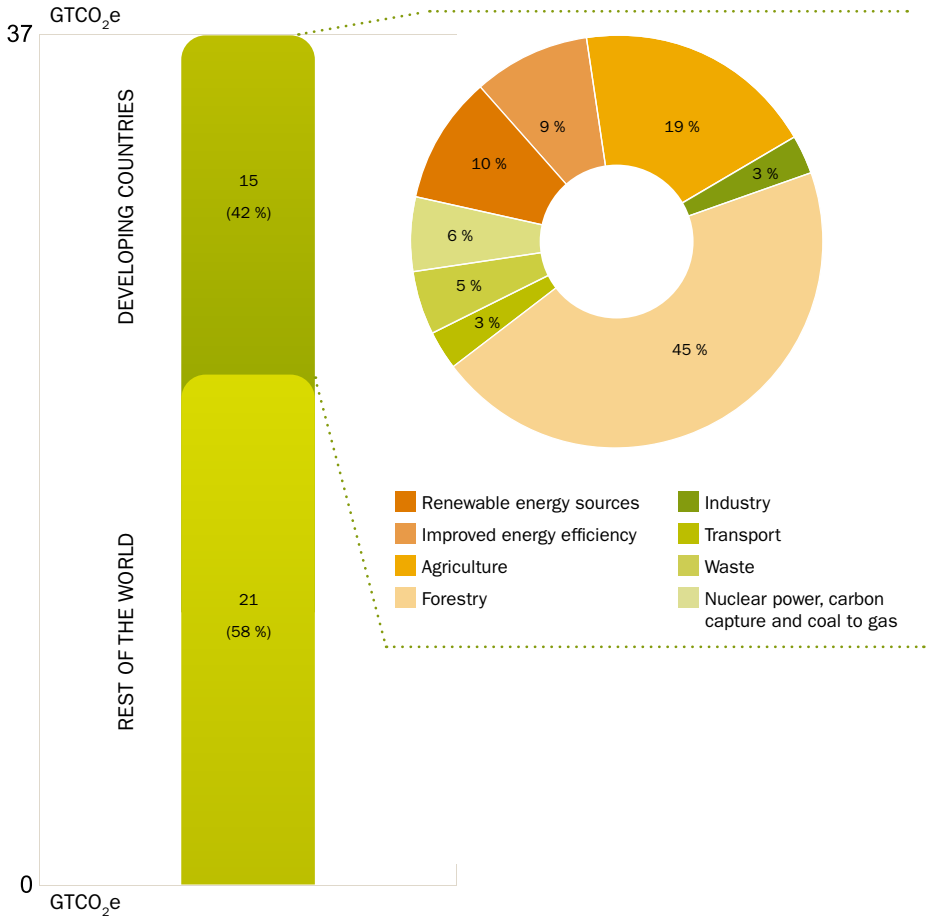
Global solutions are necessary

Norway alone is not able to solve global poverty and environmental challenges. Changed global conditions, with the financial crisis, climate change and new political dynamics, require solutions that all countries can agree on. This will have implications for Norwegian aid in the coming years. Norway works through multilateral organisations to arrive at global ground rules. In addition, substantial Norwegian aid funds are spent on multilateral organisations' global strategies for sustainable poverty alleviation. Such initiatives often produce better results than those Norway can achieve by itself.

Aid transfers are only a small part of the total flow of funds to developing countries. The aid must be used in a way that produces positive economic and social ripple effects. The developing countries themselves have the responsibility for laying the foundation for sustainable development. They must put in place political and institutional reforms and create conditions to encourage increased commercial investments. Aid to improve natural resource management may be effective for supporting such processes and triggering greater development effects.

FIGURE 1.5 DEVELOPING COUNTRIES COULD ACCOUNT FOR 42 PER CENT OF THE WORLD'S TOTAL REDUCTION IN CO2 EMISSIONS BY 2030

Global potential for reducing emissions by 2030 (Gigaton CO_2-equivalents)



Reference: The Norwegian Ministry of Foreign Affairs, based on McKinsey's Global Greenhouse Gas Abatement Cost Curve v 2.1

Developing countries here include Mexico, Brazil, India, the rest of Latin America, developing countries in Asia, and all of Africa. China, which alone accounts for 24 per cent of the global emissions, has been excluded. The figure shows that four priority sectors in Norwegian development cooperation – forestry, clean energy, energy efficiency and agriculture – stand for 82.5 per cent of the total potential reduction in emissions from developing countries.

6 OECD (2012), OECD Environmental Outlook to 2050: The consequences of Inaction, OECD Publishing

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MAIN MESSAGES

Exploitation of natural resources has led to positive economic and social development in countries as different as Norway and Botswana. For many countries, it is a challenge to manage their natural resources in a way that contributes to higher income and better living conditions. Based on 60 years of Norwegian aid for natural resource management and experiences from Norwegian and international development and environmental policy, Norad has highlighted some main messages in this results report:

Photo: ©FAO/A. Proto

Knowledge of available resources is a prerequisite for sustainable management. The research vessel EAF Nansen has mapped fish resources in African, Asian and Latin American waters since 1975.

1 GOOD GOVERNANCE IS A PREREQUISITE FOR TRANSLATING WEALTH IN NATURAL RESOURCES INTO DEVELOPMENT FOR THE ENTIRE POPULATION

Good laws and institutions for the management of natural resources are a prerequisite for sustainable exploitation. This is also important for protecting biological diversity and contributing to equitable distribution of income. Weak institutions and corruption can cause countries that are rich in natural resources to perceive the resources as a curse rather than a blessing. Often an elite group distributes the profits and allows the capital to leave the country, or natural habitats are destroyed for short-term financial gain. For many decades, Norway has contributed to the development of laws and regulations for management of fisheries, hydropower, petroleum and national parks, among others. This has helped to increase capacity in government institutions such as tax authorities, petroleum ministries, national audit offices and wildlife management. Increased capacity has resulted in sounder management of natural resources in many developing countries. Norway's aid has helped to create transparency around income of the state and private companies. Norway has also supported freedom of the press and an active civil society for ensuring equitable distribution of wealth.

2 LASTING ECONOMIC AND SOCIAL DEVELOPMENT RELIES UPON A BALANCED USE OF NATURE

An important reason for development cooperation to develop clean energy, or initiatives to reduce deforestation, is to support growth strategies of the developing countries in a more sustainable way. One condition for the success of these initiatives is that they are profitable for the decisionmakers, or that they are made profitable. An example of making initiatives profitable is payment for reduced emissions and reduced deforestation. The same principle is applicable to local management: it must be in the people's interest to use the resources in a sustainable manner.

3 KNOWLEDGE OF THE RESOURCE BASE IS THE KEY TO INCOME AND SOUND MANAGEMENT

Knowledge of the nature and extent of available resources as well as the critical load limits of environmental systems is a prerequisite for utilising the income base and ensuring sustainability. Therefore, Norway supports mapping of land and sea resources and clarifying the ownership of these. This is important for support to fisheries, forest conservation, hydropower and petroleum activity. Research on resources has increased awareness of how these can be exploited more effectively and in a more sustainable manner. Determining the sea borders of African countries and mapping of fish resources in the oceans around Africa, Asia and Latin America are examples of the Norwegian contribution.

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4 CAPACITY BUILDING CAN YIELD INCOME THAT IS MANY TIMES LARGER THAN DEVELOPMENT ASSISTANCE

Sharing Norwegian experience in the area of petroleum and taxation shows that aid can have a catalytic effect: Relatively small contributions have yielded government revenues that are several times larger than the contribution. Through the history of aid, Norwegian expertise has been used, with varying success. To transfer expertise so that the effects are maintained after the Norwegian experts have left has been one of the largest challenges. One lesson from early infrastructure initiatives was that if there was a lack of will and expertise to continue the use and maintenance at the local level, the projects failed. Buildings and equipment were left standing as white elephants – symbols of failed development programmes. Today the focus is on sharing Norwegian experiences in natural resource management, and on developing national institutions. Where the Norwegian expertise has been requested and the cooperation has been long-term and adjusted to local conditions, aid has produced good results.

5 AID CAN TRIGGER COMMERCIAL INVESTMENTS IN DEVELOPING COUNTRIES

Commercial investments are necessary for development in many countries. For this, it must be profitable for commercial companies to invest in climate- and environment-friendly solutions. Aid can be used to provide good framework conditions for investment. One example is to reduce the investment risk in projects for developing clean energy or ecotourism.

6 CO-DETERMINATION OVER NATURAL RESOURCES MUST BE ENHANCED

The Norwegian forestry initiatives emphasise greater cooperation between local communities and national authorities. For instance, dialogue between local communities and authorities has led to demands for transparency in decisions related to the grant of concessions for logging. Many civil society representatives have had an important role in giving the local communities a voice in such discussions and in increasing transparency around the state's management of natural resources. Norwegian aid has contributed to increased local control over natural resources in several countries. Land rights are an important part of this work. Where local management is supported through aid, it is important to ensure that women participate in decision-making processes so that their needs are taken into consideration.

7 SUPPORTING WOMEN IS GOOD ECONOMICS

When women gain more control over natural resources, and have the same access as men to public benefits such as agricultural subsidies, productivity increases. The World Bank stated in its report on global development in 2012 that if, for example, female farmers in Malawi and Ghana gain the same access to fertilizer and other input factors as men have, maize yields will increase by almost one-sixth.[7] There is often an improvement in children's nutrition, health and education when women have greater control over resources. In order to strengthen women's position, several disparities must be dealt with at the same time:
Ownership rights, access to information and Co-determination, and access to education and health.

8 ELECTRICITY LEADS TO DEVELOPMENT

Access to electricity is a basic condition for social and economic development. Electricity can change lives and societies by providing opportunities for business and employment, education and better health services. Aid can provide incentives so that countries choose green electricity such as hydropower over more polluting sources of energy. On the other hand, building hydropower plants often has negative consequences for the environment, local biological diversity and local communities. Norway is contributing to transparency around the dilemmas, mapping of economic potential, and social and environmental consequences. Norway is also supporting democratic decision-making processes where different interests are heard.

It is important that development assistance for energy results in economic development in rural areas, where the majority of the world's poor live. The International Energy Agency estimates that 60 per cent of the contribution that is needed for ensuring energy for all will come from initiatives that are not linked to an electricity grid.

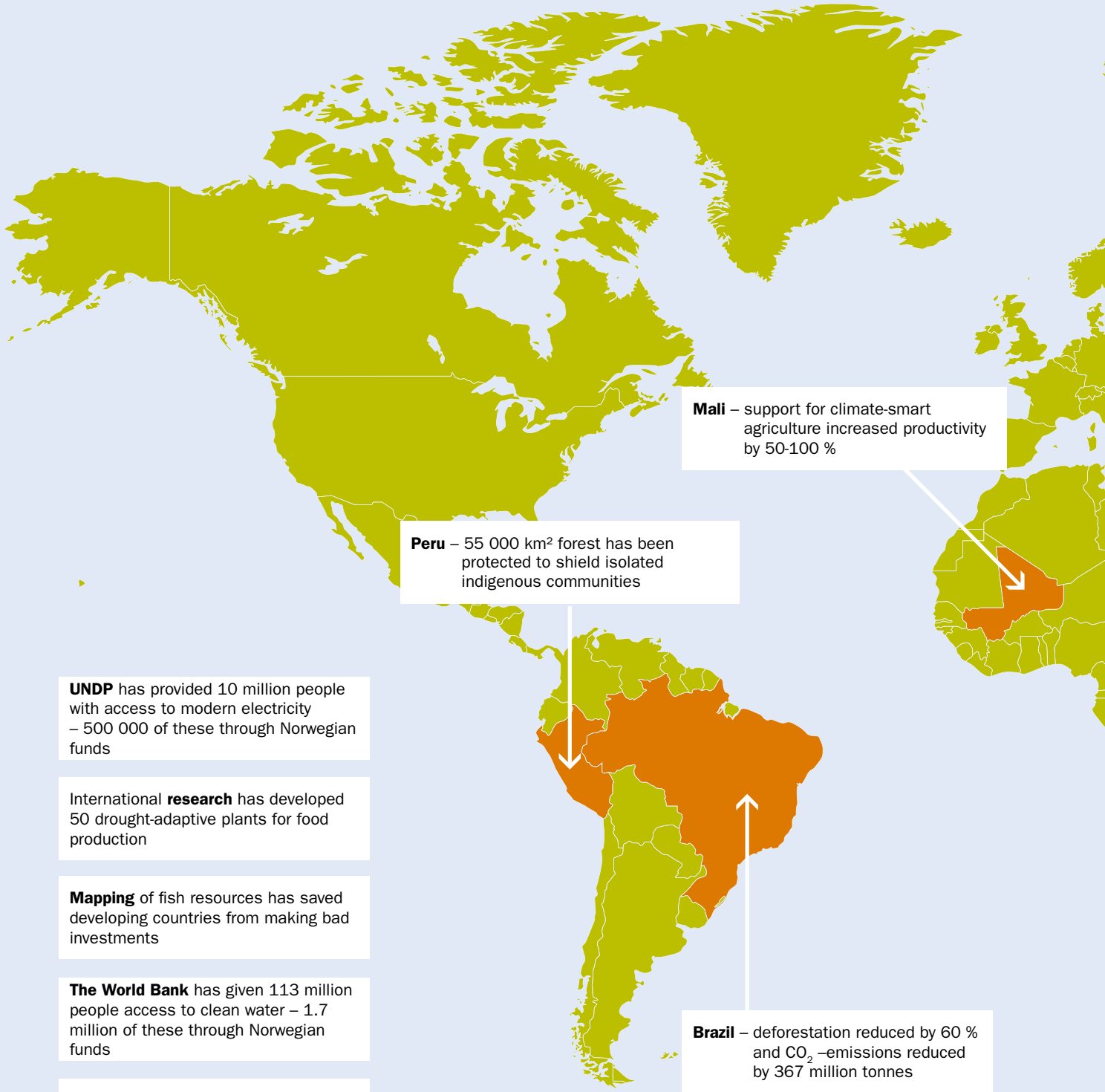
9 CLIMATE ADAPTATION IS WEALTH DISTRIBUTION

The climate change hits poor and vulnerable local communities the hardest, as they are most directly dependent upon what they produce. Norwegian development cooperation helps local communities to adapt and face consequences of the climate change. Climate-smart agriculture increases production while being more environmentally sustainable. Norway is also supporting agricultural research that, among other things, has developed climate-smart rice and wheat varieties. For successful introduction of new forms of agriculture or new plant varieties, it is important that equipment and methods are suitable for the local circumstances.

10 IINTERNATIONAL COOPERATION PRODUCES RESULTS

Support to multilateral organisations has contributed to significant reductions in CO_2 emissions and ozone-depleting substances. Such support has also helped to develop new grain and rice varieties that will provide food security for millions of people. Developing international regulations is also important. Support for African capacity in negotiating the agreement on genetic resources secured African countries control over a resource base that can have major development effects.

7 World Development Report 2012: Gender Equality and Development. World Bank, 2011



Mali – support for climate-smart agriculture increased productivity by 50-100 %

Peru – 55 000 km² forest has been protected to shield isolated indigenous communities

Brazil – deforestation reduced by 60 % and CO_2 –emissions reduced by 367 million tonnes

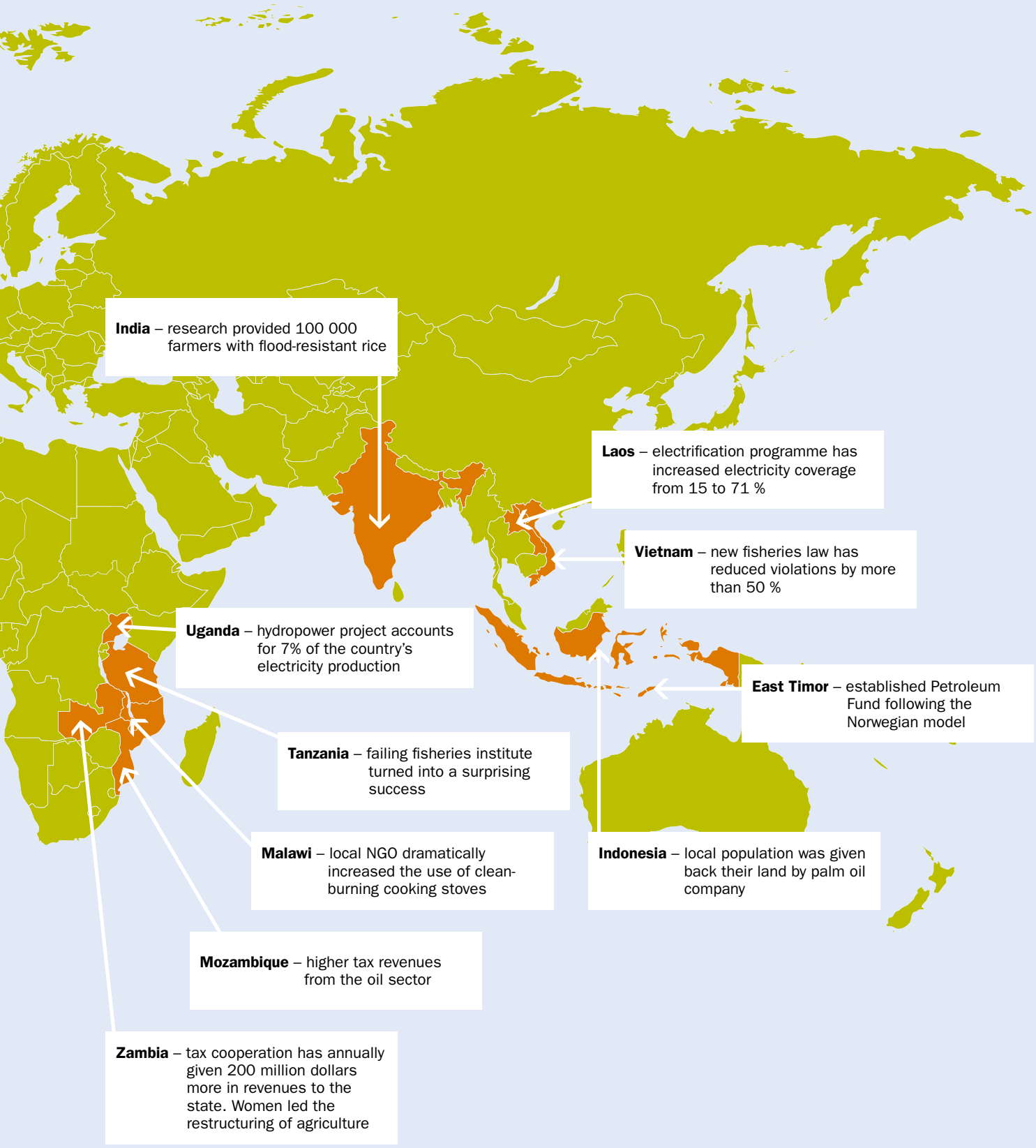
UNDP has provided 10 million people with access to modern electricity – 500 000 of these through Norwegian funds

International **research** has developed 50 drought-adaptive plants for food production

Mapping of fish resources has saved developing countries from making bad investments

The World Bank has given 113 million people access to clean water – 1.7 million of these through Norwegian funds

African countries negotiated better control over genetic resources


India – research provided 100 000 farmers with flood-resistant rice
Laos – electrification programme has increased electricity coverage from 15 to 71 %
Vietnam – new fisheries law has reduced violations by more than 50 %
Uganda – hydropower project accounts for 7% of the country's electricity production
East Timor – established Petroleum Fund following the Norwegian model
Tanzania – failing fisheries institute turned into a surprising success
Malawi – local NGO dramatically increased the use of clean-burning cooking stoves
Indonesia – local population was given back their land by palm oil company
Mozambique – higher tax revenues from the oil sector
Zambia – tax cooperation has annually given 200 million dollars more in revenues to the state. Women led the restructuring of agriculture

Fishing on a Kerala beach in 2006. The first Norwegian-financed aid project started here

2. HISTORICAL DEVELOPMENT – FROM KERALA TO CLIMATE

Norway's aid to natural resource management has changed during the past 60 years. This chapter describes aid for natural resource management from 1952 until the present. In the early phase, the focus was on industrialisation of fishing and agriculture to contribute to economic growth. Gradually, awareness of nature's limitations increased. Protection measures were introduced in order to conserve resources for future generations. The recognition that good governance and functioning government institutions are necessary for sound management of natural resources has affected the development cooperation in several areas, from nature reserves to petroleum management. It is also necessary that initiatives take into consideration local traditions for use of the natural environment and that the local people take part in decisions that concern their habitat.

Foto: Ken Opprann

1952 – 1980: From emphasis on economic growth to the rising awareness of nature's limitations

Aid for development of the fishing industry in Kerala in India started in 1952. This was the start of the Norwegian state aid.[8] The Kerala project, or Aid to India, was initiated in a period of great optimism for development when former colonies started to gain independence. The expectation was that aid should contribute to rapid economic growth and better living conditions by providing capital and technology and by expanding basic infrastructure and services, such as access to clean water and health services. The idea was that developing countries themselves should take over the projects and continue running them. As time passed, criticism was directed at the lack of awareness around the social changes created by aid, such as dependence and lack of sharing.

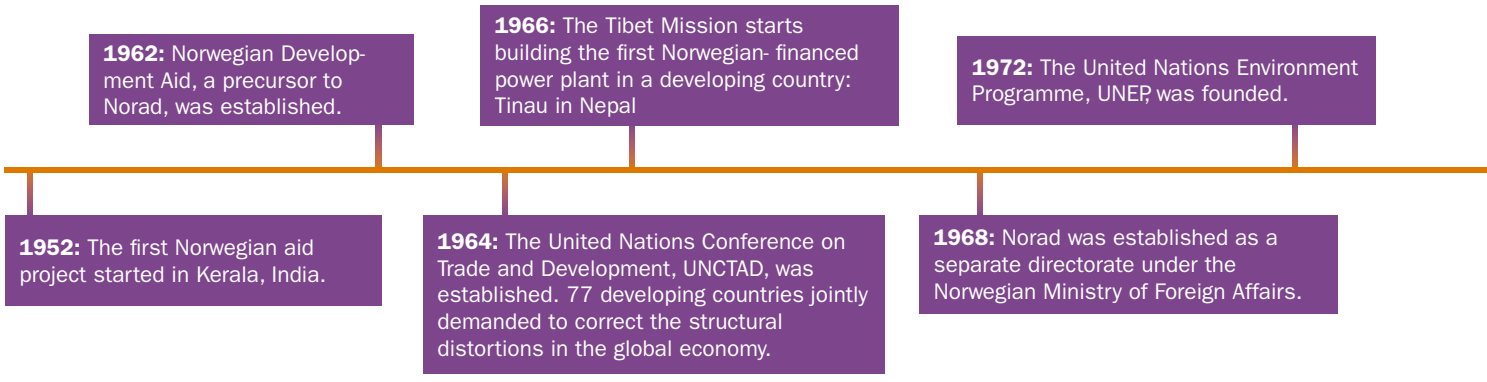
The Norwegian-Indian cooperation concentrated on local initiatives in order to improve the utilisation of fish resources and ensure better living conditions for the people in Kerala. Later the cooperation focused more on institutional development and marine research. Although Norway contributed significantly to marine research in the Kerala initiative, the danger of overfishing was not given much attention.[9] Industrialisation of fishing was largely successful but when the Norwegian-Indian cooperation ended, the overfishing problem reached its height in Kerala (see example 3.1).

In the 1960s, the Norwegian State's development assistance expanded to the East-African countries Tanzania, Uganda and Kenya, which had recently gained independence.[10] As with the Kerala project, Norway's aid to East Africa was intended to contribute to economic growth and expand services to ensure that basic needs of the people met. For over two decades Norwegian experts assisted Tanzania and Kenya with ensuring the supply of clean water, building up basic health and education services and improving agricultural techniques through integrated rural projects. Mapping and exploitation of the abundant natural resources was a priority. Norway also assisted with mapping the fish stocks offshore from a number of African, Asian and Latin American countries (see example 3.3).

In the1970s the focus on using aid to meet basic human needs continued. There was a large increase in grants for projects in road construction, hydropower and water supply. More funds were also spent on health, education and housing. Extensive individual projects were started in areas where there were special opportunities such as fisheries development at Mbegani in Tanzania (see example 3.2) and Turkana in Kenya, timber mills at Sao Hill in Tanzania and expansion of hydropower plants in Mozambique. Not all projects were successful. In Turkana, freezer storage for fish remained unused, which for many became a symbol of failed aid. At the same time awareness grew both in Norway and internationally that the western development model of using natural resources to achieve economic growth created environmental problems. In 1972, the first major international environment conference was held in Stockholm and the United Nations Environment Programme, UNEP, was established. In 1979, the environment minister at the time, Gro Harlem Brundtland, stated that it was a political goal to incorporate environmental considerations in development work, and the Ministry of the Environment became involved in Norway's development assistance. Most countries regarded environmental problems as a minor challenge compared to creating economic growth and combating poverty. This attitude was also widespread in most of the aid organisations. Protracted and extensive drought disasters in Africa in the 1970s and 1980s resulted in catastrophic famines and desertification. Norway was among the countries that started providing aid to combat the underlying problems at an early stage (see box 2.1).

8 Private initiatives via the mission already existed and Norway had given assistance to the UN for development work.
9 Simensen, J. 2003 1952-1975 Norway meets the third world. History of Norwegian Development Aid 1

10 These countries became independent respectively in 1961, 1962 and 1963.



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Box 2.1 The Desertification Convention and Norway's efforts against desertification

Desertification received international attention when drought in the savanna belt Sahel, south of the Sahara desert, led to a widespread famine in the 1970s and 1980s. Norway started the Sahel-Sudan-Ethiopia Programme (SSE) in 1985 to channel Norway's support to the south of Sahara, which was hit by severe drought, poverty and land degradation. Desertification, in addition to climate change and loss of biological diversity, was the main agenda at the Earth Summit in Rio in 1992. Two years later the UN Desertification Convention was established.

The Convention is little known and generally little prioritised. One of the reasons is that it was seen as Africa's convention, and that the causes of desertification have not been adequately researched and understood. Because of this, many initiatives, for instance planting of trees to stop desert expansion, failed. Such solutions ignored the natural, socio-economic and political reasons for the problem. Through its commitment to an area that had been regarded as a low priority, Norway was a pioneer country. The Norwegian programme SSE was criticised for lacking a detailed analysis of the problems in the area concerned and for giving priority to humanitarian aid projects and ineffective techniques instead of developing better suited solutions in collaboration with the local community.*

In the current strategy for implementation of the convention, the focus has changed to sustainable use of land to prevent land degradation and desertification (see example 3.6).

* Evaluation of the Sahel-Sudan-Ethiopia Programme. COWIconsult. Evaluation Report 2.92. 1992

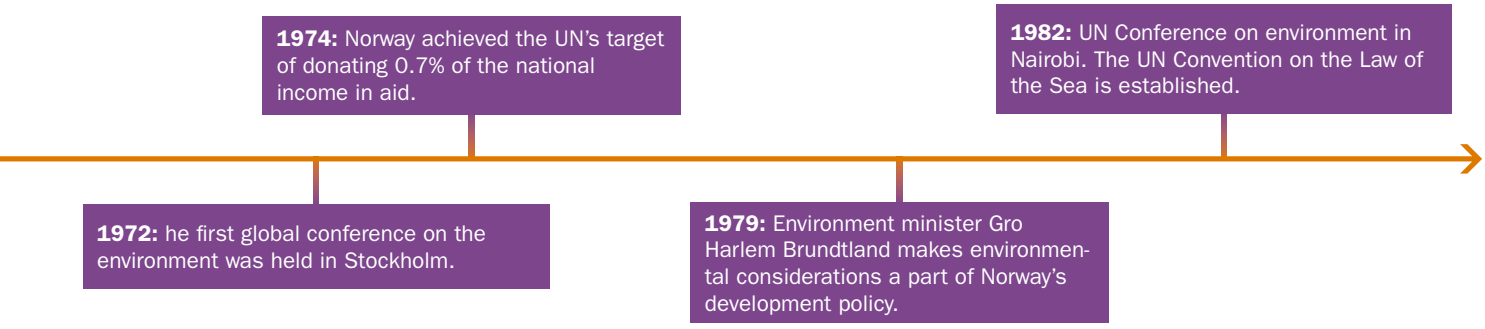
Box 2.2 Sustainable development

The Brundtland Commission defined sustainability in its report in 1987 as "development which fulfils the current needs without affecting the future generations' ability to fulfil their needs".

The 1980s: Sustainable development is placed on the agenda

In the 1980s, a period when donor countries emphasised macro-economic stability in partner countries, greater political attention was also directed at the environmental challenges that accompanied the economic growth. The UN established the World Commission on Environment and Development in 1983, with Gro Harlem Brundtland as the commission chair. The Commission's report, "Our Common Future", identified unsustainable production and consumption patterns in the western world as the most important cause of environmental degradation, and stated that it was necessary to use natural resources in a sustainable manner in order to achieve economic growth that was not at the expense of future generations. The concept of sustainable development was launched, also in Norway's aid policy. In 1984, an item was established in the aid budget with the purpose of assisting developing countries to build up environmental expertise and support environment-promoting initiatives. In 1984, the Willoch government started working on a Report to the Storting (Parlament) on aid and the environment, which was presented by the Brundtland government in 1987. The report advocated consideration of long-term resource management in all aid work.[11]

11 Parliamentary Report No. 34 1986/87: 72



In this period, Norway assisted with both financing and expert advice for management of national parks. Support was given to community-based natural resource management. The goal was to ensure sustainable management of natural areas worthy of conservation, and at the same time, to ensure that income from tourism contributed towards development and combating poverty locally. One such collaboration, with South Luangwa Area Management Unit in Zambia, was started in 1987. In 2012, the cooperation is being concluded, as in future the project will be run by the authorities without Norway's support. This collaboration was described in Norad's Results Report in 2007 and 2009. Populations of elephants and other animal species have increased, and thanks to the income from the national park, the area is experiencing economic growth and higher living standards, with expansion of schools and health services. (Also see text box 6.5, Ch. 6). One element of uncertainty around the phasing out of Norway's aid is whether the Zambian government is willing to prioritise wildlife management in future national budgets.

Norway's experience and knowledge of law regulation and public management of natural resources, particularly hydropower and petroleum, has been sought by many partner countries. A petroleum collaboration between Norway and Mozambique was initiated in 1983 and between Norway and Angola in 1987. The Norwegian Petroleum Directorate was the implementing party on the Norwegian side. An evaluation of the Norwegian petroleum-related assistance[12] in 2007 revealed that capacitybuilding had shown good results in countries that had just begun to extract their oil and gas resources, for instance Mozambique. The support was less successful for more established oil nations such as Angola. In addition, the evaluation pointed out that more emphasis should have been placed on the environmental challenges.

Populations of animal species in South Luangwa National Park have increased as a result of Norway's cooperation with the Zambian government.

Norway's aid in the 1980s also highlighted a dilemma between the developing countries' need for economic development and consideration for the environment. Large hydropower projects led to a significant increase in energy supply in many countries and the environmental awareness in these projects was greater than initiatives in the 1970s. Yet many of the projects were criticised for having negative social and environmental consequences, for example, criticism that development reduced biological diversity and water supply to the local people. An evaluation from 2007 of Norway's support to hydropower projects in Nepal and Mozambique between 1965 and 2006 concluded that building the infrastructure was successful but the environmental considerations were not systematically taken into account from the Norwegian side or by the partner countries.

The clash between growth and conservation became stronger when developing countries were affected by a debt crisis in the 1980s. We find examples in this period of donor countries cancelling the debt of developing countries in exchange for investments that protected the environment, for example, initiatives for combating deforestation or for ensuring protection of endangered species. This environment-focused debt relief was a minor part of a more significant debt cancellation that took place in this period.

12 Evaluation of the Norwegian Petroleum-Related Assistance : Case Studies Regarding Mozambique, Bangladesh, East Timor and Angola, Evaluation reports 1/2007, Norad

1983: The first petroleum cooperation in the Norwegian aid programme starts, with Mozambique.

1985: Norway initiates aid programme to combat desertification.

1987: World Commission on Environment and Development publishes the report *"Our Common Future"*.

1988: The UN Climate Panel is established.

1989: The Montreal protocol for reducing ozone-depleting substances comes into effect.

1991: Report No. 51 to the Storting (Norwegian Parliament): Environmental problems are the greatest challenge for the human race besides poverty alleviation.

1992: UN Summit on Sustainable Development concludes in Rio de Janeiro in Brazil. Global action plan, Agenda 21, for sustainable development.

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The 1990s: Global environmental solutions

The international development agenda of the 1990s prioritised support for good governance and emphasis on democratisation, rights and efficiency. National strategies for poverty and sector programmes became central. Environmental issues were a cross-cutting theme. Since then, it has become evident that sustainable use of natural resources was not ensured to a satisfactory degree in these plan processes.

In the early 1990s, environmental issues were high on the political agenda and support for environment and natural resource management increased[13]. Environmental problems such as climate change, depletion of the ozone layer, erosion of fertile land, deforestation, reduced biodiversity and pollution of air, water and land received great attention. At the same time, population growth created even greater poverty issues.

In this period, Norway started many environment-related aid initiatives in Asia with the logic that countries with a certain degree of economic growth could better benefit from Norwegian aid for the environment. In the poorest countries, few purely environmental efforts were initiated. Instead, the focus was on integrating environmental issues in other aid programmes.[14]

An evaluation from 1995 praised Norway for having improved the environmental aspect of the aid. However, the evaluation criticised the environmental work for being fragmented, with little anchoring in the recipient countries[15]. There was a lack of changes that were necessary for integrating environmental issues in the developing countries' national plans and government initiatives. The environmental activities largely con- sisted of individual programmes and projects, run by marginalised environmental administrations or project-based aid organisations[16].

In 2002, Norway phased out the special grant for environment and natural resource management because "the grant did not satisfactorily contribute to promoting integration of environmental considerations in other development work"[17].
In the 1990s, there was again extensive criticism of many hydropower plants, and it was documented that several of these had also led to environmental degradation. Because of international pressure, in 1991 the World Bank for the first time appointed an independent commission to examine a recently initiated dam project in the Narmada River in India. The power potential from regulating the river was very good and the development would provide cleaner drinking water. Large population groups needed to be moved and the impact on the natural environment was significant.

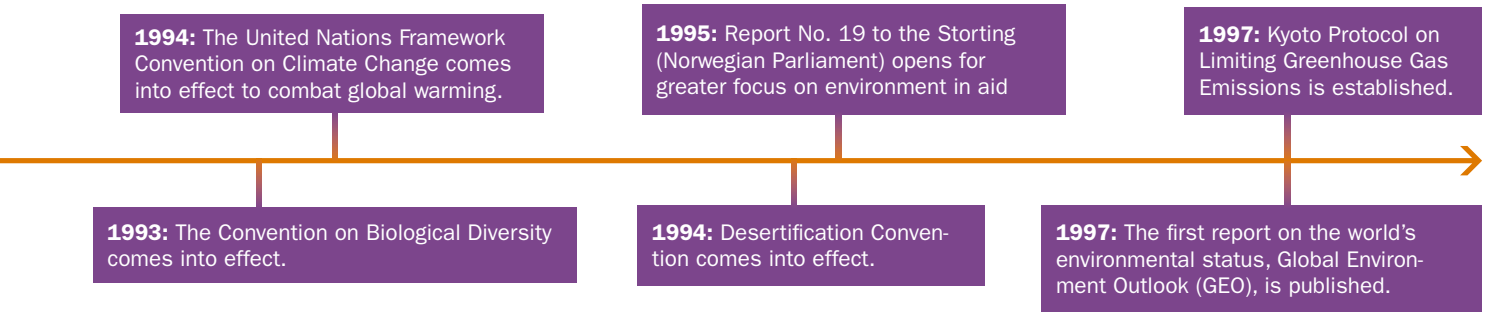
On the basis of this report the Norwegian government chose to withhold funds until the World Bank had prepared a more satisfactory plan for environment and population transfer[18]. Norway also initiated an extensive collaboration with the World Bank to increase environmental expertise in development cooperation.

The antagonism between the environmental movement and development agencies was intense in this period. This has gradually changed. Major partners in the aid sector are more heedful of the environment and an ever-increasing number of environment protection organisations are working for solutions that take account of the environment as well as of social and economic development.

13 Ruud, A.E., Kjerland, K.A. (2003) "1975-1989 Vekst, vilje og utfordringer". History of the Norwegian Development Aid 2.
14 ibid

15 UD, Evaluation Report, 5/95
16 Also see Norad's Results Report 2007: p. 59-63
17 Parliamentary Proposition No. 1 (2001-2002), chapter 3

18 Ruud, A.E., Kjerland, K.A. (2003) "1975-1989 Vekst, vilje og utfordringer". History of the Norwegian Development Aid 2.



From 2000 to the present: Poverty alleviation, environment and climate seen as a whole

For a long time, Norway has been providing extensive development assistance directed at management of several types of natural resources such as agriculture, fishing, energy, forests and oil. A characteristic feature of aid since the year 2000 has been an expansion and upgrading of such efforts, with more emphasis on environment and climate. In 2011, 26 per cent of the sector-divided Norwegian aid, a little over NOK 5 billion, went to natural resource management[19]. The forest initiative, along with the commitment to production of clean energy, accounted for 68 per cent of all Norwegian aid for management of natural resources in 2011. Brazil was the largest recipient, with NOK 1 407 million (see figures 2.1 and 2.2).

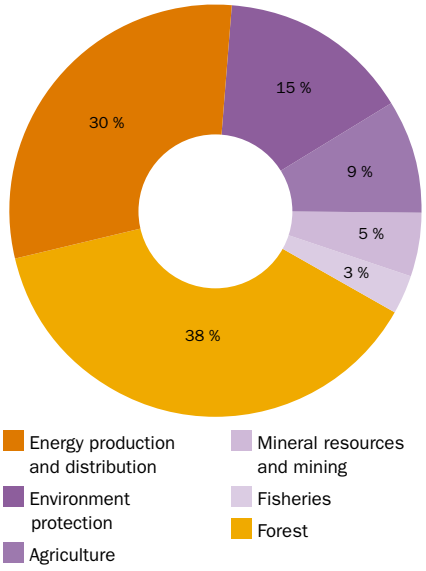
With a global goal of keeping the earth's average temperature rise below 2 per cent while at the same time reducing global poverty, renewable energy has become an increasingly important tool in development policy. Norway has been supporting energy projects, particularly hydropower projects, for many years. In 2007 a decision was made to increase Norway's focus on energy. The initiative for clean energy in development work was launched, and energy became a priority area for Norway's development cooperation. In 2011 the Norwegian energy and climate initiative Energy+ was launched. There is also a greater emphasis on the partner countries' ability to attract climate financing.

Increased awareness of the link between climate change and poverty, as well as increased recognition that rich countries, too, must contribute to protecting tropical forests as a means of preventing global climate change, form some of the background for Norway's climate and forest initiative. In 2007, the Norwegian Government decided to grant NOK three billion annually in the aid budget for the international work to reduce emissions from deforestation and forest degradation. The main goals are to:

1. **Contribute to ensuring that reduction of deforestation and forest degradation are included in a new international climate regime**. At the climate negotiations in Cancun in 2010, countries agreed to reduce emissions from deforestation and the concept REDD+ was introduced: Reducing

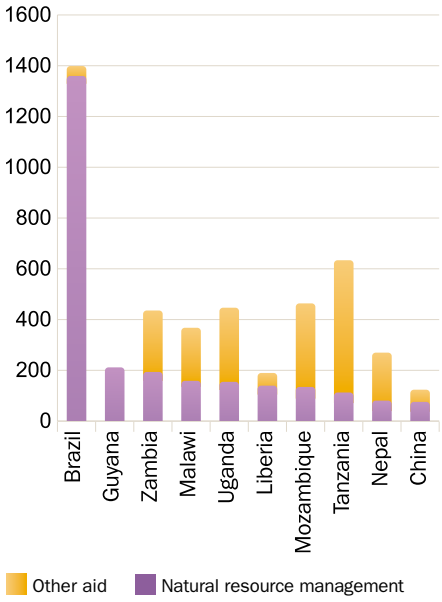
19 Norad's aid statistics. The total sector-divided aid in 2011 was NOK 19 519 million. Of this NOK 5 168 million was spent on natural resource management.

FIGURE 2.1 MOST FOR FOREST AND ENERGY



Norwegian aid for natural resource management 2011
Reference: Norad

FIGURE 2.2 BRAZIL IS THE LARGEST RECIPIENT OF AID FOR NATURAL RESOURCE MANAGEMENT



Norwegian aid for natural resource management 2011
Reference: Norad

2000: The UN Millennium Development Goals are passed.

2005: The programme Oil for Development is launched.

2007: Norway's climate and forest initiative is announced at Bali climate conference.

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Box 2.3 Green economy and green development

Report to the Storting (White Paper) 14, *Towards greener development*, describes green economy as «growth in income and employment run by public and private investments, which reduces carbon emissions and pollution, enhances energy and resource efficiency and prevents loss of nature's diversity and ecosystem services».

The report presents development as the process of creating a socially inclusive economic growth and combating poverty in developing countries, with reduced strain on the natural resources that are an essential requirement for long-term welfare..

Reference: Report to the Storting (White Paper) 14. 2010-2011: Towards greener development.

Emissions from Deforestation and Forest Degradation. The plus symbol represents sustainable forest management, increase in the forests' carbon capture and conservation of forest and biological diversity.

2. **put in place early measures to reduce emissions from deforestation and forest degradation in developing countries** until a new climate agreement is signed after 2012.
3. **Contribute to preserve natural forests** to ensure that forests are able to bind carbon.

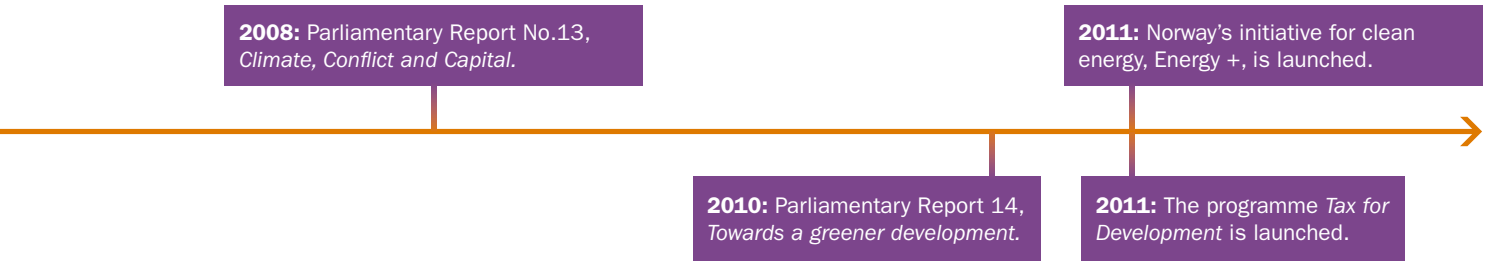
An upscaling of Norwegian efforts for agriculture and food security is also on the way, with increasing emphasis on the need for climate adaptation, in addition to potential for reduction in greenhouse gas emissions from agriculture (see examples 3.6 and 3.7).

To enhance economic growth in developing countries, these countries must secure a rightful part of the income from natural resources. The programme Tax for Development was launched in 2011. The programme contributes to put in place fair and stable taxation systems and works with several countries where natural resources are a central part of the income basis (examples 5.2 and 5.3). Efforts under Oil for Development (example 5.1) also lay great emphasis on generating income.

The programme *Oil for Development* was established in 2005. At that time Norway had already been contributing for several years with transfer of expertise in petroleum management to developing countries. Oil for Development introduced a broader approach that emphasises economically, socially and environmentally sound management of petroleum resources.

Clearly defined and internationally recognised maritime boundaries outside the Norwegian coastline have been necessary for Norway's right to use natural resources such as fish, oil and gas. This has been the foundation of Norway's economic and social development, which made it possible to enforce legislation to protect the ocean off the Norwegian coast. Therefore, Norway has started the continental shelf programme to ensure the same rights for developing countries (see box 2.4).

Norway works with capacity development so that developing countries are able to increase their income from natural resources and use this income to reduce poverty. The Norwegian aid is used for development initiatives where environmental considerations are integrated, initiatives to prevent climate change and initiatives that can enable developing countries to adapt to climate change. Global challenges such as curbing greenhouse gas emissions, improving living conditions for the world's poorest and access to energy, require that there is expertise and a willingness to invest in the private sector. Therefore, Norway gives financial support and technical guidance to companies that wish to invest in developing countries. Through the state's investment fund for business activity in developing countries, Norfund, aid funds are used to attract commercial investments in developing countries.

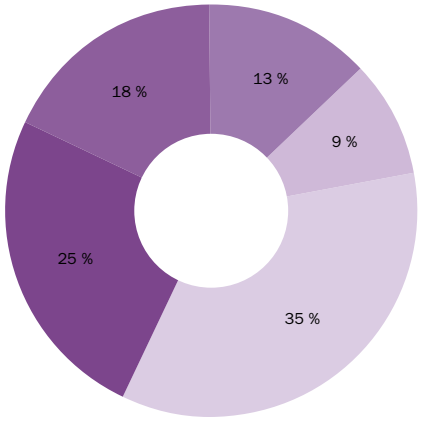


Box 2.4 The Continental Shelf Initiative: Cooperation to define maritime

According to the UN Law of the Sea Convention, a coastal state automatically has jurisdiction over the continental shelf 200 nautical miles out from the coastal baseline. Many countries have shelves that stretch far beyond this limit. Before a coastal state can have the outer limits of its continental shelf defined beyond 200 nautical miles, it must submit this claim to the UN Commission on the Limits of the Continental Shelf. The claims must be supported by technical data. The process of gathering and analysing data and preparing the submission for the Commission is demanding and expensive. Through the Continental Shelf Initiative Norway is using aid funds and experience from mapping of its own maritime boundaries to assist developing countries in this task.

In 2010 the focus of efforts was on a collaboration project of countries in West Africa: Mauritania, Senegal, Gambia, Guinea, Guinea-Bissau, Cape Verde and Sierra Leone. The Norwegian efforts are led by the Ministry of Foreign Affairs and managed by Norad. The Norwegian Petroleum Directorate, the Norwegian Mapping Authority and GRID-Arendal contribute with top level expertise. Proposition for baselines pursuant to the Law of the Sea Convention has been completed and the required data on the seabed conditions outside the coast from Mauritania to Sierra Leone have been gathered. Through training technical staff the coastal states have gained greater expertise in handling and analysing data. Collaboration between neighbouring countries has a number of advantages, for instance, in the form of cost efficiency and establishment of closer political and technical dialogue over country borders for management of resources at sea. It is expected the countries' claims will be ready in 2013/2014.

FIGURE 2.3 MOST AID THROUGH MULTILATERAL ORGANISATIONS AND PUBLIC SECTOR IN RECIPIENT COUNTRIES



Reference: Norad's aid statistics

35 per cent of the Norwegian aid funds for management of natural resources in 2011 went to the public sector in recipient countries. This includes the forest initiative in Brazil, collaborations in relation to Oil for Development and Tax for Development (see chapter 8) and different initiatives for building capacity to manage natural resources in a good manner. 25 per cent of the aid, NOK 1 290 million, was given through multilateral organisations (see detail in chapter 7).

18 per cent of the aid was channelled through civil society organisations. The initiatives are often combined with advocacy to change the policy or legislation in a direction that protects natural resources and improves living conditions for the people. The civil society has also played an important part when it comes to increasing transparency around the state's management of natural resources and in particular how the income from these resources is used.

2012: A follow-up meeting after Rio Summit on sustainable development Rio+20 has been held.

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The way ahead

How aid is shaped in future will depend upon factors such as which development goals the global community sets after the deadline to achieve the UN Millennium Development Goals ends in 2015. Discussions around the new goals, sustainable development goals, have already commenced. In addition, an important conference on development efficiency in Busan in South Korea in 2011 presented a number of guidelines as to how the global community should work with development and assistance. The Busan Declaration highlights the need for extensive global partnership where the growing economies and South-South Cooperation are important in the international work for creating development and economic growth. Aid is only one of the tools in development work which should be used strategically to release a larger flow of capital in other ways. The role of the private sector in economic growth and the fight against corruption and illegal capital flight has been highlighted. Developing countries also have a duty to take responsibility for resource mobilisation and reforms in the private and public sector.

In addition, the international climate negotiations and follow-up of the 2nd Rio Conference on Sustainable Development, held in June 2012, will also have an effect. In June 2012 leaders of the world nations met again in Rio to review the status 20 years after the first Rio summit in 1992, and to lay a common foundation for the way ahead. Expectations for a conclusive political outcome from the conference were low. The outcome document from Rio+20 is a compromise text which, to a large extent, sums up the status of negotiations in other forums. This is a reflection of the crisis of confidence between poor and rich countries which was described in the introductory chapter.

2015: This is the year when the UN's Millennium Development Goals are to be met. In 2012 two of the eight goals have been achieved; several goals will not be achieved. New goals for the period after 2015 are under preparation.

The initiative against deforestation and forest degradation makes up 38 per cent of Norway's aid for natural resource management.

Photo: Walter Silva

EXAMPLES OF RESULTS OF NORWEGIAN AID

The report divides aid for natural resources into four areas, which have been discussed in separate chapters:

- Chapter 3: Agriculture, fishing and the right to food
- Chapter 4: Clean energy
- Chapter 5: State revenues from non-renewable natural resources
- Kapittel 6: Sustainable use of forest and other environmental resources

Chapter 7, in addition, presents some examples of how one can illustrate the volume of Norway's share in the results that have been achieved through multilateral organisations such as the UN and the World Bank.

Assessment of results

In order to measure the results of aid, one needs first a good description of the issue which one is seeking to resolve through an initiative, for instance, deforestation per year. The goal should be formulated clearly so that it is possible to test whether it has been reached or not. One example is how much reduction in deforestation is expected after the initiative has been completed. When assessing the results, the following factors also count:

Measuring the effect of the goods and services that were delivered: Goods and services that are delivered, for example published research, a conservation plan or completed training, are necessary but not sufficient results. Effects of the provisions must be measured: have CO_2 emissions gone down, has biodiversity gone up or has income of the concerned groups increased? Examples in the report focus on the effect of provisions.

Cause & effect: In order to achieve a result, for example, that holes in the ozone layer start to close up, it may be difficult to attribute the entire result to one single organisation or one initiative. Even though it may be difficult to demonstrate the link between a service such as training, and the effect of the service, it is often possible to show the likelihood of how aid has contributed towards a greater result. The example of the forest initiative in Brazil shows that most of the credit for achieving the results goes to the government. Additionally, other factors such as changes in raw material prices have played a role. The example shows that in any case it is likely that Norway's contribution has played a role in the country's policy development, and thereby helped reduce deforestation (see example 6.1).

Quality of result reporting: Norway sets out clear requirements in regard to result reporting. In addition to the partners' own reporting, independent investigations and evaluations, research as well as field visits and talks with other participants who have information about the partner or the initiative may provide information about the results. In the report, examples of results are based upon as many of these different sources as possible.

3. AGRICULTURE, FISHING AND THE RIGHT TO FOOD

A characteristic feature of the poorest countries is that primary industries are the most important source of income for the majority of the population. Support for development of primary industries to help with poverty alleviation, sharing and economic development has been an important part of Norwegian development cooperation since aid to India started in 1952. Climate change imposes new demands on the people whose livelihood depends on agriculture and fishing, and this affects Norwegian aid. Support for climate-smart agriculture, the right to land and natural resources, and equal rights for women and men are elements of the Norwegian development cooperation that are expected to increase in the coming years. The same applies to support for enhanced understanding of how climate change affects fishing and fish farming. This chapter shows examples of Norwegian development assistance to agriculture and fishing. It begins with the very first Norwegian-financed aid project in Kerala in India, continues with fishery legislation in Vietnam, and ends with climate-smart agriculture in Zambia.

Access to adequate and safe food is a human right, pursuant to the International Convention on Economic, Social and Cultural Rights (Art. 11). Agriculture and fishing shall provide a livelihood to people in rural areas and along the coast while poor consumers in the cities shall be able to afford food. Today around one billion people do not have sufficient food.

Photo: Ken Opprann

Description of the issue

Development of primary industries is central in the work toward reaching the UN's Millennium Development Goal number one: to reduce by half the number of people faced with extreme poverty and hunger by 2015. Sub-Saharan Africa and South Asia are not going to achieve the goal. Developing countries as a whole have already achieved the goal, mainly because of increased prosperity in China and India. With a rising population in the world and generally higher living standards, demand for fish and agricultural products is expected to rise. According to the UN's forecasts, the world population will increase to nine billion by 2050. As a result, food production needs to be increased by 60 per cent in the same period.

Climate change in the form of rising temperatures and greater variation in water level and salt content will affect the migration of fish stocks, shift the balance in the ecosystem and have consequences for fish farming. More extreme weather, drought and floods will damage agricultural crops. The poorest are hit the hardest by the uncertainty associated with a poor catch and poor crops, and among the poorest, women are more vulnerable. Today, among Africa's small-scale farmers, women are responsible for 70-80 per cent of the food production that goes to local consumption. Despite their central role in food supply, women seldom own land and are dependent upon their male relatives to gain the right to use land. Therefore, many women choose not to invest in land. Lack of ownership also renders women unable to open their own bank accounts or join agricultural cooperatives and farmer organisations. Uncertain circumstances around land rights mean that that female farmers usually do not have access to the government's agricultural initiatives, for example subsidised seed, fertilisers, advice and information.

In terms of value, half of all the fish which is traded internationally comes from developing countries. Of the people who earn their livelihood from fishing, 95 per cent live in developing countries, mainly carrying out small-scale fishing and small-scale fish farming. Half of these are women. Today 30 per cent of the world's sea fish stocks are overexploited and 57 per cent fully exploited. Sustainable development of the wild fish resources, including a reduction in illegal fishing and less loss in the catch and in the value chain, is important for making protein-rich food available. Maintaining freshwater fishing and fish farming is also fundamentally important to help provide food to large population groups; 94 per cent of the world's freshwater fishing takes place in developing countries. Fish farming is most common in Asia.

The increased global demand for agricultural products for food and biofuel has contributed to increased industrial agricultural production and increased foreign investments in developing countries.
Through large-scale acquisition or lease of land that has no clear legal status, this trend has been described by a number of researchers and advocacy groups as resource robbery or land grabs (see Facts Box 3.1).

Box 3.1 Land grab

Land grab is an expression used for a trend in the 2000s where commercial, often foreign, investors take over ownership or disposition rights of land areas and natural resources in developing countries. In many cases such take-overs can take place without clarifying the ownership status of the land. The process is often characterised by lack of information, transparency and consultation with the local population which lives on the land or uses it. The trend has been seen in relation with increased demand for biofuel, increased interest in investments in forest and commercial agriculture as well as trade of carbon quotas. The expression is often also used for agreements entered into with full transparency and in line with the government's policy, as in many cases it is doubtful whether local interests have been adequately looked after.

Agriculture is a major contributor to climate change and reduced biodiversity through emissions and deforestation. Therefore, agriculture is receiving more attention in climate negotiations and the concept of climate-smart agriculture has been launched. Climate-smart agriculture involves adapting food production to a warmer and more variable climate (see examples 3.6 and 3.7) as well as reducing CO_2 emissions. The African Union is promoting increased national investments in climate-smart solutions through the Comprehensive Africa Agriculture Development Programme (CAADP) which includes the subject of climate and environment.

Goals

Increased food production, protecting rights related to agricultural areas and access to pasture resources are important goals in the Norwegian aid. The Norwegian aid for primary industries emphasises:

- → Strengthening formal and real rights of small farmers, particularly women
- → Increased access to markets and increased investments from the private sector
- → Better nutrition and living conditions for the poor among the population
- → Ensuring optimal and sustainable exploitation of the resources
- → Strengthening of public and local management
- → That developing countries fulfil international obligations within fisheries management and management of ecosystems in water

Instruments

Norway receives requests for assistance in many areas where Norway has gained international acknowledgment, particularly research and management of fisheries and fish farming. Collaboration between Norway and developing countries in the fisheries sector has in the past 15-20 years been related first and foremost to management, education and research. An evaluation[20] in 2009 concluded that this development cooperation has been successful, but that the results were more visible at national level in developing countries than among the poorest in these countries. Norway's agricultural assistance also supports climate-smart agriculture, agricultural research, agriculture that reduces deforestation and poaching, and initiatives that reduce non-sustainable use of resources on uncultivated land and nature reserves.

20 Evaluation of Norwegian Development Co-operation in the Fisheries Sector. Norad Evaluation Report 6/2008, Norad Evaluation Department January 2009

TIL INNHOLD ↑

EXAMPLE 3.1 FISHERY PROJECT IN KERALA LED TO OVERFISHING BUT PROVIDED LESSONS FOR FUTURE AID

Norway's first aid project has been criticised a lot but it helped create the basis for a modern Indian fishing fleet. The initiative also highlighted the importance of ensuring sustainable management of natural resources. This affected the next generation of aid initiatives.

Photo: Ken Opprann

Fishing on a Kerala beach, almost sixty years after aid to India started..

Why: A wish to modern fisheries

The fisheries project in Kerala, India started in 1952 which was Norway's first state aid project[21]. India had experienced a major famine in 1951 and Norway wished to help increase the country's food supply. Through negotiations Norway and India reached an agreement for fisheries cooperation in the state of Kerala. The project had four goals:

- → To improve the proceeds of the Indian fishermen through transfer of technology such as by fitting motor engines in boats and providing new types of boats and nets
- → Sale of fish was to be organised increasingly through the fishermen's own cooperatives
- → To improve health conditions by building water plants, latrines and health centres
- → To work for a higher standard of living for people of the area

How much: Contributions from Norway and India in the period 1952-1972 were almost of the same volume: around NOK 122 million from Norway and a sum equivalent to NOK 120 million from India.

Results: A modern fishing fleet led to overfishing

When Norway withdrew from the collaboration in 1972, India had developed a modern fishing fleet. This was first and foremost an undertaking of the Indian fisheries authorities. Norway assisted with developing technology and experimenting with new types of boats and equipment. Norway also helped to develop onshore businesses such as boat workshops, fish processing facilities and freezer rooms. From the situation in 1950 when there were barely any motor boats or processing facilities, in 1972 Kerala had gained approximately 4 000-5 000 motorised fishing boats, 70-80 freezer storage facilities and 40-50 canned fish factories. Better boats made it possible to fish all year round, export industry brought in foreign currency, and workplaces provided paid work to more people. Fish processing facilities gave women in particular an opportunity to join the workforce. Family incomes rose and in one village, ownership of houses rose by 70 per cent[22].

From 1961 ocean research was included in the programme and the Indian authorities gained new knowledge of fish stocks and seabed conditions. Knowledge of the resources nevertheless lagged behind investments in new technology. After conclusion of the Norwegian initiative, fishing began to fail because of overfishing[23].

In parallel with developing fisheries, Norway helped to create better living conditions for the local population through, for instance, ensuring clean drinking water for the inhabitants. In 1952, Kerala's people drank polluted brackish water, while in 1972 no one had to walk more than 200 metres to reach the nearest source of drinking water. In 2011, Kerala was the Indian state which, according to the UN, scored highest on human development indicators (HDI). There are multiple reasons for the positive development, which is due to several factors which cannot be attributed directly to the Indo-Norwegian cooperation.

Lessons learned: Exploitation must be based upon mapping of resources

The Kerala initiative was heavily criticised for a lack of awareness of the consequences of changes in the communication such as poor distribution, alienation and ecological crisis. Historian Jarle Simensen nevertheless concludes that the Norwegian aid initiative to Kerala was much more successful than its reputation implies. Lessons from Kerala have contributed to shaping Norwegian development cooperation in fisheries. Today there is a greater degree of shared understanding that the world's fish resources are not unlimited and must be controlled and managed well[24]. Since the project covered both Christian and Hindu villages, it also taught lessons about the need for adjusting aid to different cultures and requirements.

References: Embassy of Norway in Dar es Salaam
Norad

21 Private initiatives via the mission were already running and Norway had given support to the UN's development work.

22 Ibid
23 Ibid
24 Hersoug, B., Jentoft, S., Degnbol, P. (2005). "Fisheries Development. The Institutional Challenge

EXAMPLE 3.2 FISHERIES SCHOOL IN TANZANIA TURNED FROM FAILURE TO SUCCESS

Norway's development assistance contributed to building a fisheries school in Tanzania in the 1970s. The project was criticised as a failure. Nineteen years after the conclusion of Norway's assistance in 1993, the school is still running and producing results.

Why: Need for education in modern fisheries

Mbegani Fisheries Development Centre (Mbegani) was founded in 1966 by the Tanzanian government. They believed that the country had large unexploited fish resources which could contribute towards economic growth. The vision was modern fishing out from the coast and processing of the raw fish on land. To make this possible, there was a need for more expertise and investment in education facilities and equipment. Norad began its support to the Centre in 1976 and intended to transfer capital, know-how and technology. Mbegani was meant as an example of recipient orientation but there were a number of challenges in this regard. Tanzania was interested in education for building up a modern fishing industry but Norad was of the opinion that the Centre should prioritise training of traditional small-scale fishermen. The disagreement led to a lack of clarity regarding goals, work plans and allocation of roles.

How much: Norway supported the Centre with over NOK 275 million in the period from 1976 to 1993.

Results: Vocationally trained workers in fisheries and shipping

Mbegani Fisheries Development Centre is one of the most criticised projects Norad has been involved in, and it was often described as a "while elephant" – a misguided development initiative. During the initial years the project was characterised by delays and other challenges. The trawler Mafunzo, which was given to the Centre as part of the Norwegian aid, was simple by Norwegian standards, yet too advanced for local conditions. Studies in Tanzanian waters were carried out by the research vessel "Dr. Fridtjof Nansen" in 1982 and 1983 which concluded that the fish stocks were relatively sparse. Prerequisites for industrial fishing were not present, and few of the students from the first years of the project obtained jobs in the industry. In parallel with diploma and certificate courses that were respectively of two and three years' duration, the Centre began to offer shorter courses based on simpler technology such as maintenance and repair of outboard motors, use of fishing equipment as well as processing and smoking of fish. According to a review[25] of the initiative in 1986, it was the shorter courses which had a positive economic effect both for the men who fished and women who took care of fish processing.

Those who were associated with the Centre also received a good health service and increased access to the nearest city via a free bus service. Another result from the initial period was a new and safer boat design which quickly became popular among fishermen. Those who continued to build traditional boats could work more effectively by using the boat workshop at Mbegani, where electricity and modern equipment was available. The review maintained that these results were too insignificant in relation to the large amounts Norway had used on the initiative. The project ended in 1993 when Norway stopped the support.

In the years following the end of the support, the Centre remained in operation but the operation had become considerably limited. In 2000 the number of students had shrunk from 130 to 30. Some effects of the Norwegian support were nevertheless still present: A women's group was still working. By running a local mill and renting out buildings they made a small income. In addition, former students found work easily. The private sector in Tanzania had grown and the students' know-how made them attractive workers within fishing, shipping, and other industry.

Nineteen years after the project's conclusion, Mbegani has been merged with two other centres in order to make the operation more effective. The operation has been restructured in line with changes in the labour market. For instance, tuna fishing is being taught here, which is one of the few profitable forms of saltwater fishing off Tanzania. In 2011 the Centre had 195 students, including 73 women. The Centre's administration states that the Norwegian contribution in the 1970s and 1980s provided them the basis for developing expertise which is bearing fruit today. The trawler Mafunzo is also proving useful. Since Tanzania does not have a coastguard, the trawler is used to check for illegal fishing. The country's revenues from saltwater fishing have increased considerably in recent years.

Lessons learned: External factors affect economic results. Mbegani has given us the lesson of adaptation to local conditions.

Mbegani has given us the lesson of adaptation to local conditions while an initiative is in progress. Another lesson is that investments in national initiatives may be profitable. Tanzania had founded the Centre itself and had the will to develop the operation further after conclusion of the project.

Yet another important lesson is that capacity building initiatives in industry and other economic operation are dependent upon factors beyond the control of the initiative. Privatisation of operations in Tanzania and establishment of a fishing zone that regulated saltwater fishing off the coast of East Africa were important reasons why expertise developed at Mbegani became more relevant.

25 Evaluation report 4/1986, Norad mail 1986. The Evaluation Report of the Mbegani Fisheries Development Centre

References: Embassy of Norway in Dar es Salaam

TIL INNHOLD ↑

Norad

EXAMPLE 3.3 RESEARCH VESSEL HAS MAPPED FISH RESOURCES

Mapping of fish resources along the coast in developing countries of Africa and Asia has averted futile investments in the fishing fleet.

Photo: ©FAO/A. Proto

The Nansen ship docked in Dakar in May 2012 before a voyage along the coast of Senegal, Mauritiania and Morocco.

Why: Lacked information about own fish resources

After decolonisation, the goal for most of the aid was to build independent economies in developing countries. The fisheries sector was among the sectors that many of the countries wished to develop, but there was inadequate knowledge about the resource supply along the coasts of most countries. From 1977 the economic coastal zone for many developing countries was extended from 12 to 22 nautical miles, and from 1982 to 200 nautical miles. Expectations for the presence of fish resources were high, and there was a wish to map the resources in order to develop a fishing industry.

In collaboration with the Food and Agricultural Organization of the United Nations (FAO) and the United Nations Development Programme (UNDP), Norway undertook to build and operate the research vessel Dr. Fridtjof Nansen. The programme was established in 1971, and the vessel started its work in early 1975. The goal of the Nansen programme in this period was to lay the foundation for development of fisheries based on knowledge and mapping of resources in the seas of these countries. FAO had the overall responsibility for the programme, and the Institute of Marine Research in Norway was responsible for operation of the research vessel, which it continues to do[26].

How much: The programme was financed by Norway, with support from UNDP. In the initial years operational costs varied from around NOK 30 million to NOK 36 million (at 2012 value).

26 In the national budget for 2013 it has been proposed to build a new vessel to continue this operation.

Results: Mapping saved money

The research vessel for fisheries Dr. Fridtjof Nansen has since 1975 contributed with independent data on fish resources along the coast of over 60 developing countries in Africa, Asia and Latin America. Independent data have been important for making realistic plans for building fishing fleets.

The most important results in the mapping phase were that several countries and regions had to adjust their expectations and revise their plans for investments in fishing fleets. In Burma (now known as Myanmar), where the government had approved major investments five years prior to the mapping, the plans had to be reviewed and reduced as the Nansen programme showed that the extent of resources was not in accordance with the expectations. The same was true for Sri Lanka, Kenya, Tanzania, Mozambique and the Sumatra region. Through the Nansen programme these countries were able to set more realistic goals for their fisheries development and particularly for industrial fishing. They avoided making unsound investments to develop an industry for which no foundation existed.

For countries where extensive fish resources were found, there was still a long way to go before fisheries could be developed. This was due to lack of credit, market relations, infrastructure and expertise, both in the public sector and the private sector.

Many countries that had their resources mapped in this period still refer to these data 30 to 40 years later although the information is now outdated. The problem for many developing countries is a lack of catch data from their own and foreign fleets. The independent data on resources, which the Nansen programme can contribute, are therefore important.

Lessons learned: A country's own expertise and institutions are important

According to an evaluation of the Nansen programme in 1982-83, the results were best in the countries where good communication around planning and accomplishment of the voyages had been emphasised. Another lesson was that there had been a lack of follow-up initiatives in skills development, concentration of the programme and strengthening of institutions. These became important aspects of the Nansen programme in the subsequent work in the 1980s and 1990s.

The most important lesson for many countries was that expectations of resources corresponding to the extent of the sea areas were not necessarily correct. To base development of the fisheries sector on realistic resource estimates was an important lesson for many developing countries.

Reference: Evaluation Report 4.82, NORAD februar 1983: Fisheries Research Vessel «Dr. Fridtjof Nansen» – FAO/UNDP/NORAD

EXAMPLE 3.4 NEW FISHERIES LAW HAS LED TO INCREASED INCOME AND REDUCED POLLUTION IN VIETNAM

Through long-term Norwegian-Vietnamese cooperation, Vietnam has passed legislation which provides safer framework conditions for fishermen and fish farmers, reduces pressure on fish resources and has resulted in less pollution.

Photo: Ken Opprann

Fish farming in Halong Bay, Vietnam

Why: Outdated laws and pressure on fish resources

Vietnam has long traditions of fishing and fish farming. It is a densely populated country where natural resources are under great pressure. The country's laws from 1989 to protect fish resources were outdated and were not adapted to the international directives for regulation and waste management. In 1999 Norway and Vietnam signed an agreement to prepare fisheries legislation for Vietnam, and in 2004 the new law came into effect throughout the country. The aim of the legislation is to ensure an environmentally and economically sustainable fisheries industry and to provide predictable framework conditions for fishermen and the fish farming industry.

From 2005 to 2011, the Norwegian Directorate of Fisheries and Vietnam's Ministry of Fisheries and Coastal Affairs worked on implementation of the law. Norway supported this work by developing regulations and directives as well as by building expertise on the legislation. Five pilot projects have provided practical experience in how the legislation is functioning. Based on experience from the pilot projects, the legislation has been reviewed and the Vietnamese authorities are expected to pass the reviewed legislation in 2013.

How much: The project was completed in two phases in the period 1999-2011. The total contribution from Norway was NOK 34 million. The Vietnamese government contributed USD 445 000. In addition, the Food and Agricultural Organization of the United Nations (FAO) contributed with technical assistance.

Results: Increased income and fewer violations

Through regulations, the new legislation has helped to reduce the pressure on Vietnam's fish resources, for instance, by strengthening the focus on fish farming. In 1996 fishing accounted for 66 per cent of the total income in this sector. Ten years later, the proportion had been halved. At the same time, income from fish farming increased from 31.4 per cent of the total income in 1996 to 67.2 per cent in 2007[27]. The new fisheries law has also introduced regulations to protect vulnerable species and 15 protected areas have been established along the coast.[28]

Management plans, licences and inspections have resulted in better and more predictable management. In Thang Loi in the Halong Bay area, the local population has been given fish farming licences. The licences enable the people to obtain credit and loans, and they have contributed to increased business activity. A survey by the local authorities shows that the number of poor people in the municipality has been reduced from 48 per cent to 18 per cent since 2007.

A great deal of effort has been directed at spreading knowledge about the new fisheries law in order to raise awareness and change harmful practices. A study[29] among a sample of fishermen four years after the introduction of the new law showed that violations had been reduced by 50-70 per cent. The greatest change was the reduction in pollution of the marine environment caused by fishermen. They had switched to legal chemicals and ensured that the polluted waste water was not discharged into lakes and rivers. The study also showed that fishermen are now following procedures for registering fishing boats, they keep logbooks of the catch and they use the permitted mesh size for fishing nets[30].

As a result of greater expertise in Vietnamese management, Vietnam is participating more actively in fisheries cooperation regionally and in international forums such as the FAO Committee on Fisheries and the UN Convention on the Law of the Sea. By participating in these forums, Vietnam has been able to promote its interests and influence international policy.

Lessons learned: Testing, local ownership and long-term cooperation are success factors

Several reviews and evaluations conclude that the Norwegian-Vietnamese cooperation shows how Norwegian expertise can contribute towards capacity building in developing countries. Some of the success factors that are highlighted are:

- → Local agreement and involvement. All legislation drafts have been prepared locally and later reviewed by Norwegian experts.
- → Long-term cooperation and continuity. The Norwegian-Vietnamese cooperation has continued over a long time and the same institutions and persons have been involved. This has ensured a high degree of continuity in the work.
- → Use of pilot projects. To test the legislation in practice through pilot projects is a method that is used rarely but which proved to be useful to ensure a practical and implementable law.

References: Vietnam Ministry of Agriculture and Rural Development: Establishment of Vietnam Fisheries Law and Regulations. Phase II – Bringing law to life. Internal Project Review Report 2011

27 Figures obtained from the Norwegian Embassy in Hanoi

28 Information obtained from the Norwegian Embassy in Hanoi

29 Vietnam Ministry of Agriculture and Rural Development: Report on the Assessment of Fisheries Law's Impact on the Development of Vietnam Fisheries Sector. Hanoi, July 2010

30 ibid

TIL INNHOLD ↑

EXAMPLE 3.5 CLIMATE-SMART CROPS IN INDIA, THANKS TO RESEARCH

Development cooperation in agricultural research has contributed to the development of new rice varieties that can survive floods.

Photo: G.M.B. Akash

Flooding is a common phenomenon in South Asia. Every year crops that could feed 30 million people are lost in floods.

Why: Food for 30 million people is lost every year
India has 12 million hectares of flood-prone agricultural land. Every year farmers in India and Bangladesh lose up to four million tonnes of rice because of flooding. This amount is sufficient to feed 30 million people.

CGIAR is an international organisation consisting of 15 international centres for agricultural research. One of the research areas relates to development of new plant varieties.

How much: Since 1989, Norway has supported CGIAR with NOK 1.44 billion. The results below describe only a small portion of CGIAR's results. Further examples of results achieved through CGIAR are described in Chapter 7, example 7.3.

Results: 100 000 Indian farmers have increased food security
Researchers had long known about an Indian rice variety that could withstand being submerged for over a week and could thus be a good alternative for farmers in flood-prone areas. However, yields for this rice variety were lower than for other varieties. In 1980 the International Rice Research Institute (IRRI), one of the 15 CGIAR institutes, succeeded in developing new rice varieties that could both tolerate flooding and produce a good crop. The problem was that the rice was unappetising.

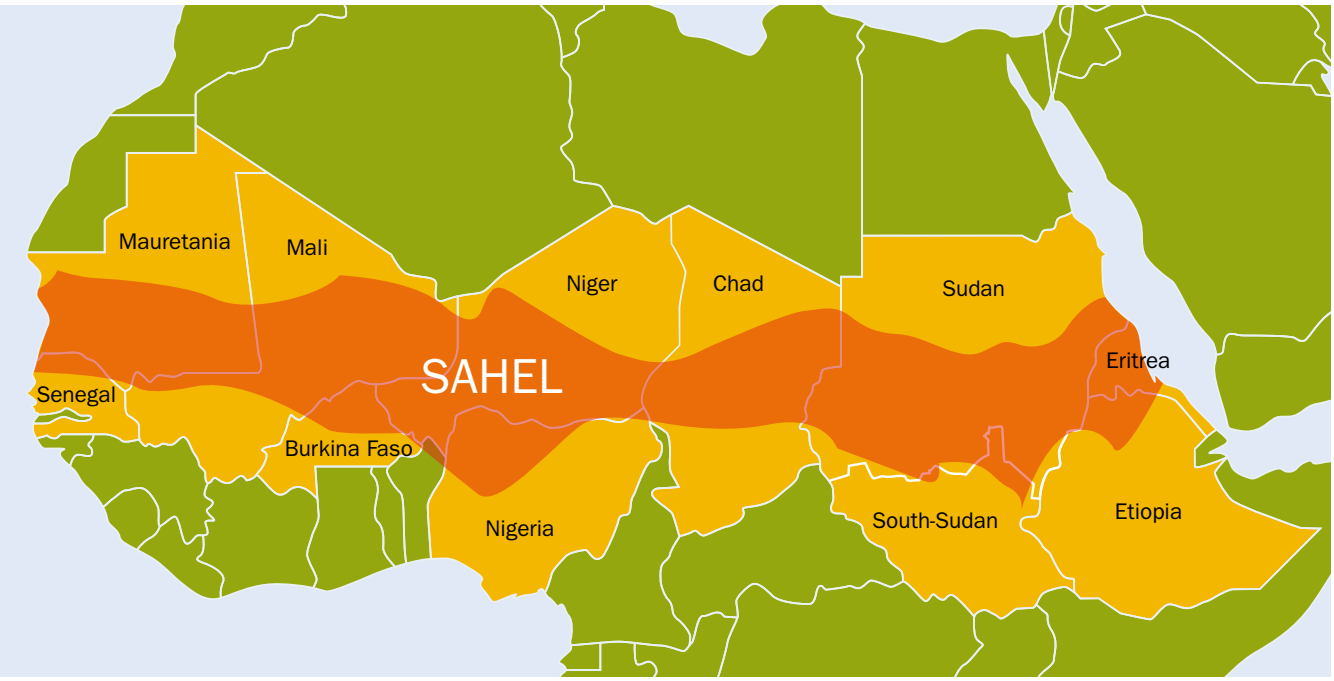
IRRI resumed the work 25 years later, and towards the end of the past decade it succeeded in producing a rice variety that could give larger harvests despite having been submerged for up to two weeks. The rice also had qualities such as good taste, high yields and resistance to diseases.

This rice variety was made available to 100 000 Indian farmers one year after it was launched in 2009. This results in increased food security for the farmers, their families and those who buy their produce. Usually it takes four to five years to test a rice variety, and another two to three years until it becomes available to farmers. IRRI has helped the authorities to identify flood-prone areas where the seed can be distributed without having to wait until it is mass-produced.

Lessons learned: Increased crops are only a part of the solution
In order to adapt agriculture to climate change, solutions are needed that also ensure taste, quality and a good harvest in addition to being climate-smart. Then, it is important to have an effective and swift programme for distribution of seed.

References: :
Norad and the Norwegian Ministry of Foreign Affairs
International Rice Research Institute (IRRI)
Global Crop Diversity Trust
Rice Today Vol. 8, No. 2, April-June 2009

EXAMPLE 3.6 RESEARCH COOPERATION WITH LOCAL FARMERS RESULTS IN BETTER CROPS IN SAHEL



The savanna belt Sahel stretches across the African continent, south of the Sahara Desert.

Collaboration between research institutions and local participants has created agricultural methods that yield more harvest in dry climate.

Why: Sahel is regularly affected by drought and famine
The savanna belt Sahel south of the Sahara desert is known for its serious famines as a result of drought.

The Drylands Coordination Group (DCG) is a network initiated in 1997 by Norwegian organisations that work with developing expertise and capacity building to adapt agriculture to drought. DCG started the Ecofarm project in Mali. This Norwegian-supported research project took place from 1998 to 2004. The goal was to find techniques that smallholder farmers in arid areas could use to increase production. At the same time, the aim was that the new methods would help to conserve the environment and improve nutrition for the farmers and the local community.

How much: Through the collaboration agreement with Norway, DCG has received NOK 6 300 000 annually. The Ecofarm project has been the largest project under the agreement.

Results: 50 to 100 per cent higher yields
Farmers who have employed the new techniques in the Ecofarm project can demonstrate an increase in crops of 50 to 100 per cent. Many farmers who are not part of the project have seen that methods such as fertilising with microdoses and soaking the seed work well, and they have started to use these techniques. In the project area in Mali, around half of the farmers are now using ecofarming techniques. The project has also promoted use of trees that can improve nutrition and has developed ways to improve the feeding of goats and sheep. Since then, the Ecofarm project has been duplicated in Ethiopia from 2006 and in Sudan from 2007 – also with good results. According to the DCG, a total of 2 335 farmers in Mali, Ethiopia and Sudan have used new agricultural methods based on research by DCG partners. Each of the farmers is assumed to be responsible for a household with an average of six persons. This means that around 14 000 people have benefited from better harvests.

Lessons learned: Collaboration between researchers and local partners results in knowledge that can be applied
The Ecofarm project is an example showing that research projects involving collaboration between research institutions, local organisations and relevant authorities have a potential to yield new know-how for improving food security and combating poverty. Another aspect which has been important for achieving good results from the Ecofarm project is that farmers in the project area have been actively involved with the research process from the start, by testing different techniques and sharing the results with other farmers.

References: Norad and Drylands Coordination Group

Jens B. Aune, professor Noragric/UMB: "Text box 4: The Ecofarm project and its development impacts", page 10 in "Concluding Report for Collaboration Agreement 2007-11" (May 2012)

TIL INNHOLD ↑

EXAMPLE 3.7 INCREASED PRODUCTION WITH MORE CLIMATE-SMART AGRICULTURE IN ZAMBIA

The organisation Zambian Conservation Farming Unit (CFU) believes it is possible to increase food production through climate-smart agriculture and at the same time to reduce greenhouse gas emissions and protect the natural environment. It is not uncommon for harvests to be more than doubled as early as the first year after the transition to climate-smart agriculture.

Photo: Ken Opprann

Phiri Sinoya has been using climate-smart agriculture since 2009. Every year he trains 100 farmers in his district so that they can also use the method. On his three hectares he has increased production from 65-70 sacks per year to 350-400 sacks at present. With these earnings he has built a new house, bought chickens and pigs and is paying for his brother's university education. He has also installed electricity in the house.

Why: Inefficient agriculture is a poverty trap

The majority of Zambia's farmers grow maize on small fields. Traditional ploughing of the land stirs up fertile soil, which disappears as dust. Repeated ploughing leaves a tightly packed layer of soil that has lost many of the nutritional elements. This results in poor harvests. As plant roots are unable to penetrate the hard soil, crops are also prone to drought and intensive rainfall. The result is poverty and scarce food. When the land has been impoverished, forest must be cut down to clear new land to compensate.

CFU promotes a form of agriculture that reduces disturbance so that the soil can retain the nutritional elements. The method is called climate-smart agriculture. Instead of ploughing, holes are made for plants or narrow strips are dug to sow the seed. The surrounding soil is left untouched and is often covered with organic material to protect and fertilise. The goal is to reap more from the same area, without increasing the use of water and fertiliser, and without degrading the soil. Gradually other methods are also incorporated such as crop rotation and planting trees that can capture nitrogen from the air and help fertilise the soil.

Information dissemination via mobile phones, better access to markets and storage, and cooperation with dealers of agricultural produce and equipment are an important part of the programme. Use of vouchers that are redeemable via mobile phones provides agricultural produce at discounted prices. These factors help establish climate-smart agriculture as a sustainable, commercial alternative to traditional agriculture.

Since 1996 CFU has established a network of farmers who have made the shift to this form of agriculture. These farmers have further trained around 200 000 farmers in Zambia and inspired similar efforts in other countries in the region.

How much: Since 2007 Norway has contributed just over NOK 200 million to CFU, in addition to donating around NOK 40 million to other Zambian institutions that work with climate-smart agriculture. This includes support to the Ministry of Agriculture through collaboration with the Food and Agricultural Organization of the United Nations (FAO). Norway is the largest donor but the EU and others have also begun showing interest in the initiatives in recent years and support from these sources is increasing.

→

Results: Climate-smart crops lead to financial security
Farmers who make the shift to climate-smart agriculture experience an increase of between 50 and 100 per cent in the harvest as early as in the first year. In addition, expenses for fuel, fertiliser and pesticides are reduced. In the following years harvests may increase by another 50 to 100 per cent. For those who cannot afford draught animals and who must dig plant holes, the first year of the transition is difficult. From the second year the same plant holes may be used again and there is less workload.

Crops are affected less by the changed climate conditions so that chances of failed crops are reduced. As a result of drought in 2011, many farmers who used traditional methods lost their crops and had to replant. Such replanting not only means a doubling of the costs but also yields poorer harvests, because the second planting takes place after the period for major rainfalls. Farmers who used climate-smart practices were not affected by the drought to the same degree and did not have to replant.

For many farmers, a doubling or tripling of production means a completely new financial freedom. Many farmers describe how, thanks to increased harvests and earnings, they progressed from living in small, unfinished or leaky houses to building new brick houses. They also say that they are able to send their children to school. Many have also bought draught animals or farm animals such as pigs and chickens so that they have several sources of income.

It is often women who lead the process of change. Men join in when prospects for money become clear. The method is relatively easy to market as the focus is to increase the farmers' profit. The transition from ploughing to digging plant holes often goes well, but it is more difficult to convince farmers to use crop rotation techniques and to plant a tree type that can provide fertiliser. Maize is subsidised in Zambia, and for many farmers this will initially mean an extra expense for growing crops other than maize.

CFU also helps with climate-smart agriculture beyond Zambia's borders. A joint African initiative has started for increased productivity with the goal of getting 1.2 million farmers to adopt climate-smart agriculture. In collaboration with local institutions in Uganda, Kenya and Malawi, CFU has established projects through which over 70 000 small farmers are to receive training and support to adopt new practices. The projects are important so that the decisionmakers can get first-hand knowledge of climate-smart agriculture in their own country.

Lessons learned: The right training and equipment are vital
CFU has spent a great deal of time finding the equipment and methods that are especially suited to the Zambian climate and growing conditions. There are many examples of organisations that have started forms of climate-smart agriculture without having the necessary information. These projects often fail, giving climate-smart agriculture a bad reputation.

One lesson is that women, who often lead the use of new methods, can play an important role as agents for change. In addition, it is an important point that efforts at the individual level must be seen in a macro-economic context. Maize subsidies are an important factor that influences agriculture in Zambia, and CFU had to adjust its initiatives to this factor.

References: The Norwegian Embassy in Lusaka
Norad
The Conservation Agriculture Programme (CAP)
Revising Food Insecurity and Environmental Degradation in Zambia, Mid-term Review final report July-August 2009

Photo: Ken Opprann

Veronica Nguloube began with climate-smart agriculture in 2009 as she did not make enough income through traditional agricultural methods. She says that it was very tough work the first year. Nguloube could not afford to rent draught animals and had to dig each planting hole using a hoe. It turned out to be worth the effort. She doubled her harvest the first year. Today she gets 165 sacks of rice from the same land patch which used to produce 30 sacks. She can send her children to school and she has bought pigs and chickens.

The same planting holes can be used year after year, so the work gets easier after the first year. The opportunity to buy herbicide and receive training in how to use it has also reduced her workload. This year she began with crop rotation and planted beans for the first time. This helps preserve the soil and gives valuable variation in the diet.

TIL INNHOLD ↑

Photo: Ken Opprann

SUMMARY

Early studies of fish stocks gave the lesson that nature's resources are not unlimited and must be used in a prudent manner. Knowledge and mapping of the resources are vital for sustainable exploitation. Legislation is also an important factor, as shown by the example of Vietnam.

For developing countries, particularly in Africa, there is a significant potential for increasing production through a shift to climate-smart production. Examples from the Sahel region and Zambia show that climate adaptation may be a good way to reduce poverty. For the poorest, a doubling of production has a major effect on the living standard.

Research on species and methods adapted to climate change are important in this work. The African Union also promotes national investments through the African Action Plan for Agriculture (CAADP), which addresses the issues of environment and the climate. Changes in agriculture require greater involvement of farmers in policy development, more rights for women, increased investments in the private sector and the political will to reshape agriculture. Changes that can improve national food security will normally take a long time to implement. Support to national programmes should therefore have a perspective of 10 to 20 years. A clear distribution of responsibility with clear goals for private- and public-sector players, and civil society, is a condition for successful change.

4. CLEAN ENERGY

The main goal of development cooperation is to end poverty, and in this regard access to energy is an important factor. The International Energy Agency has estimated that global energy consumption will increase by 60 per cent in non-OECD countries by 2035. Today 1.3 billion people, one in five of the world's population, do not have access to electricity; 2.7 billion people use health-hazardous cooking stoves that use so much biomass that it leads to deforestation and forest degradation in many areas. At the same time, energy production and consumption are among the largest sources of global emissions of greenhouse gases. If the global climate challenge is to be resolved and the climate goals are to be achieved, the higher demand for energy in developing countries must increasingly be met with renewable energy and energy efficiency. This chapter contains some examples of results of Norway's assistance for developing clean energy.

In collaboration with Statkraft, Norfund – the Norwegian government's investment fund for enterprises 1

Foto: Ken Opprann

Description of the issue

Today 1.3 billion people are living without electricity. At the same time, production and consumption of energy are among the largest sources of greenhouse gas emissions. Higher demand for electricity in developing countries must increasingly be met with renewable energy and energy efficiency.

Increased access to energy is crucial for social and economic development. Access to energy is probably the single factor which has meant the most for developing modern societies. In total, 2.7 billion people are living without access to clean-burning stoves and they are therefore exposed to indoor air pollution. Every year, up to two million people die of respiratory tract diseases caused by indoor air pollution[31]. Use of biomass for cooking can lead to deforestation and forest degradation. Access to electricity can change lives and societies by providing opportunities for business and employment, education and better health services. Electricity supply to private homes also has major positive effects. It becomes easier for children to do their homework with reading light, food can be prepared and stored safely, women's workload becomes lighter and access to information becomes easier when people are able to use radio, TV, internet and mobile telephones.

31 World Health Organization, www.who.int

Goal

The goal of development cooperation for clean energy is to increase access to electricity for poor countries and communities, without increasing greenhouse gas emissions from the power sector.

Instruments

The following are among the steps supported by Norway:

- → expansion of distribution lines to increase people's access to the power grid
- → expansion of hydropower for energy production in developing countries
- → solutions to supply electricity to villages through, for instance, solar energy and hydropower without connection to the country's electricity network
- → initiatives that increase access to more effective and clean-burning stoves when electricity is not an option

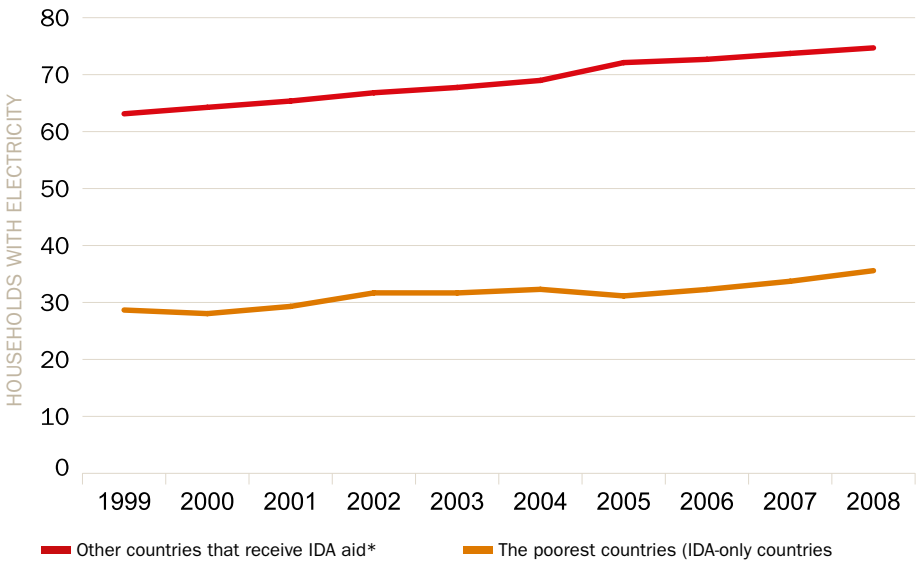
The goal is that aid should be community building and directed at the poorest part of the population. To ensure this outcome of the energy initiative, Norway is systematically working to promote women's rights and gender equality in development cooperation (see box 4.1). Women have different needs and different access to power and resources. The energy initiative must be planned in a way that takes this aspect into consideration and facilitates equal benefit of the initiatives for women and men.

Norwegian expertise is in demand because of long experience with renewable energy sources, particularly hydropower. To create a better framework for the energy sector in Norway's partner countries, capacity building and institution building is important. This work must be based on solid ownership by the recipient, with anchoring in the priorities and public administration practices of the recipient country and it must be suited to the recipient's capacity.

The Norwegian Investment Fund for Developing Countries, Norfund, aims at expanding the private sector in developing countries through commercial investments. Norfund's most important area of investment is renewable energy. There are significant untapped hydropower resources in many developing countries. In Africa, only seven per cent of hydropower potential has been harnessed. This energy source is often the cheapest to utilise. Hydropower is therefore the most important area for Norfund. In 2002, in collaboration with Statkraft, Norfund established a company called SN Power to invest in the development of hydropower and wind power in developing countries. Norfund has invested a total of NOK 3.2 billion in SN Power. By the end of 2011, SN Power had 38 power plants in production and nine under construction, in nine countries: Brazil, Chile, the Philippines, India, Nepal, Panama, Peru, Sri Lanka and Zambia. The total installed capacity was over 1300 MW. This provides electricity to millions of people. The estimated reduction in CO2 emissions is two million tonnes. Norfund has also invested in a small hydropower plant in Bugoye in Uganda, in collaboration with Trønderenergi (example 4.3).

Based on the realisation that energy is a necessity in the fight against poverty and a prerequisite for economic growth, the initiative Clean Energy for Development was launched in 2007. In 2011 Norway's international energy and climate initiative, Energy +, was launched. The goal of this initiative is to increase access to sustainable energy and reduce emissions of greenhouse gases in developing countries. The Norwegian aid goes to public institutions, regional and multilateral bodies, the private sector as well as civil society organisations. Good governance with an emphasis on transparency, accountability and anti-corruption are overarching and important principles.

FIGURE. 4.1 VAST DIFFERENCES IN ACCESS TO ELECTRICITY



Source: World Bank
*The so-called IDA Blend. It includes countries that may have the right to both IDA and IBRD loans, for instance India, Pakistan, Vietnam and certain Eastern European countries.

The World Bank divides countries into two categories: the poorest, which receive aid only through the International Development Association (IDA), and middle-income countries, which receive a combination of aid from the Association's fund and loans from the International Bank for Reconstruction and Development (IBRD). The figure shows that a characteristic of the poorest countries is that a very small portion of the population has access to electricity.

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EXAMPLE 4.1 ELECTRICITY DEVELOPMENT HAS INCREASED ELECTRICITY COVERAGE FROM 15 TO 71 PER CENT IN LAOS

Access to electricity has improved the life of people in rural areas and created new economic opportunities.

Photo: Ken Opprann

Solar panels are a good solution for providing electricity to areas outside the electricity grid.

Why: Lack of electricity impedes economic growth

In the mid-1990s, the lack of infrastructure in Laos was a bottleneck for economic growth and poverty alleviation in rural areas. In 1995, electricity coverage was 15 per cent, and the distribution was very unequal between cities and villages. Only eight per cent of the population outside the cities was connected to the grid, while 60 per cent of the capital's population had electricity. The government therefore set the target of providing cheap, constant electricity to 90 per cent of households in the country before 2020. Rural electrification became a priority for the electricity sector in Laos. The River Mekong runs through the entire country, so that the main source of energy in Laos is hydropower. This is complemented by solar energy in the villages.

Norway has contributed to this rural electrification through the World Bank's Rural Electrification Program since 2005. The programme aims to electrify selected villages and strengthen the country's electricity utilities financially and operationally. In the first phase of the programme, Norway financed infrastructure, including solar panels. In the second phase, which started in 2010, Norway financed capacity building within electricity development.

How much: Between 2005 and 2010, the Norwegian contribution amounted to NOK 56 million. In phase two, which runs from 2010 to 2014, Norway is contributing NOK 28 million.

Results: Increased access to electricity brings about economic activity in the villages

People's access to electricity increased from 15 per cent in 1995 to 71 per cent in 2010. This is equivalent to 734 600 households, 200 000 of which gained electricity through the World Bank's programme. One factor enabling energy development is that, through the World Bank project, the country's state-owned electricity company has increased its capacity in planning and carrying out electricity development projects as well as conducting impact assessments related to the environment and the population. Initiatives that were not related to the project have also contributed to electricity development.

In addition to expanding the electricity grid, the programme has found solutions for those who are not connected to the grid. Of the 200 000 households that have gained electricity through the project, 35 000 have off-grid solutions such as solar panels or small hydropower plants. Further, a special initiative for the poorest people ensured that electricity coverage in villages already connected to the grid went up from 70 to 90 per cent. The initiative was designed to provide interest-free credit to the most disadvantaged households so that they could pay for connection to the grid. In many cases, the heads of these households were women.

A study in 2005 revealed an average increase of 30 new businesses such as retailers, rice mills and textile firms in each village after the villages gained electricity. Use of electrical equipment and appliances has raised the living standard and electric lights provide better opportunities for working and doing homework after dark.

Lessons learned: Skills development is as important as infrastructure

The initiative confirms the importance of basing aid efforts on the priorities and strategies of the developing countries themselves. In this way, a common understanding of the programme's goal is achieved and its implementation becomes more effective. Another lesson is that it is effective to finance programmes in collaboration with well-established institutions such as the World Bank. They have had a long-term presence in Laos, making it much easier for Norway, which does not have representation in the country, to follow up the project in a constructive manner. Yet another lesson is that building technical expertise within electricity development is at least as important as financing the infrastructure. Without support from external expertise, Laos would not have been able to accomplish such rapid electrification.

References: Norad
World Bank, www.worldbank.orgg

EXAMPLE 4.2 ENERGY EXPANSION IN TANZANIA YIELDED MORE ENERGY, BUT HARMED A RARE ECOSYSTEM

The Kihansi power plant shows clearly how development countries can be ensured access to clean energy, while also illustrating the costs of not conducting thorough analyses early on of possible negative consequences for the environment.

Photo: Thomas Vermes

Hydropower from Kihansi accounts for 32 per cent of all hydropower produced in Tanzania.

Why: Need for clean energy for the electricity system in Tanzania

Planning of the Lower Kihansi Hydropower Project in Tanzania began in 1991. The power development scheme was started to meet the country's increasing need for clean energy. The power plant was intended to ensure a sustainable and stable supply of electricity at a competitive price.

When Norway decided to support the project in 1995, construction of the power plant had already commenced. Norway conducted a separate technical review of the project, which revealed that the original assessment of environmental impact by the World Bank was not good enough. A new assessment was completed. In connection with this study, a hitherto unknown toad species and several unknown plant species were discovered. Spray from the waterfall had created a unique mini-ecosystem with species that had not been found anywhere else in the world. The World Bank's environment programme for the area was extended to complete a comprehensive conservation plan in collaboration with the local community and it included capacity building for the authorities in water management.

How much: Construction of the power plant had a total cost of USD 237 million. The power plant is jointly funded by the World Bank, Norway, SIDA, KfW in Germany, the European Investment Bank and Tanzania. Norway contributed NOK 380 million between 1995 and 2002. As a result of concerns from the Tanzanian government, researchers and voluntary organisations about the environmental consequences of the power plant, the World Bank's Lower Kihansi Environmental Management Project was implemented from 2001 to 2011. This environmental project has cost around USD 6 million.

Results: Increased access to energy, harm to biological diversity

The power plant opened in 2000. Today the plant accounts for 32 per cent[32] of Tanzania's production of hydropower, which is equivalent to 20 per cent of the country's energy production[33].

The power plant has a capacity of 180 MW and an annual output of around 1000 GWh. This is more than the Alta power plant in Norway, which has a capacity of 150 MW and an average annual output of 655 GWh. Power production has caused major changes in what was considered one of the world's most species-rich ecosystems[34]. As most of the Kihansi river and cascades were diverted through pipes, at least 95 per cent of the ecosystem around the waterfall lost the natural water spray[35]. This forced out plants that depended on moisture, while plants that thrive in a drier climate took over. The rare toad species began to die out.

The environmental project introduced a sprinkler system and constructed paths and bridges to keep human traffic away from the vulnerable ecosystem. At the same time, the power plant had to keep production below the maximum capacity to ensure water supply in the river. This meant an annual financial loss for Tanzania equivalent to EUR 6.6 million, because the state had to purchase fuel to produce energy using other methods[36]. The measures succeeded in restoring much of the original ecosystem, but the rare toad did not survive in the wild. There are now only a few specimens that have survived in captivity[37]. Trials are in progress to discover what is needed to restore the entire ecosystem and enable the toads to survive in their natural environment.

Lessons learned: The balance between the need for energy and environmental impact must be assessed at an early stage

Experiences from the Lower Kihansi Hydropower Project shed light on the need for integrating environmental considerations with development considerations, which is often emphasised in discussions on green economy (see text box 2.3 in chapter 2). Had an adequate environmental impact assessment been completed before construction of Kihansi started, instead of one year after, the environmental costs of preserving the ecosystem would probably have been lower. In hydropower projects and other development projects, integrating the environmental considerations is challenging, yet essential.

Norwegian development cooperation must operate at this point of intersection between economic growth and local and global environmental drawbacks in assessing projects. Initiatives must be directed by the developing countries' needs and wishes, while the authorities and local people affected by the initiative may be equally divided about such major infrastructural initiatives as they are in Norway. Therefore, it is important to facilitate dialogue between different advocacy groups and to help develop capacity for dealing with conflicts of interests in development cases.

32 http://www.worldbank.org/projects/P105220/lower-kihansi-environmental-management-project-2?lang=en
33 http://www.hydropowerafrica.com/files/2012/07/Leonard-Kassana-interview3.pdf
34 UNDP/UNEP/GEF (2001). "The Integration of Biodiversity into National Environmental Assessment
35 Dorggat and Millege, 2001, quoted in Ziliihona, Innocent J.E. Responses of invertebrates to Human-Caused Disturbances in East African Tropical Rainforests: Conservation Implications. Academic dissertation, University of Helsinki 2003
36 KfW. Tanzania: Lower Kihansi Hydropower Station. Ex post evaluation. 2006
37 Soorae, PS. (ed.) (2010). Global Reintroduction Perspectives: Additional case-studies from around the globe. IUCN/SSC Re-introduction Specialist Group, Abu Dhabi, UAE

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EXAMPLE 4.3 HYDROPOWER PLANT SUPPLIES MORE CLEAN ENERGY IN UGANDA

A small hydropower plant in Uganda enabled a more stable electricity supply.

Photo: Ken Opprann

Background: Lack of commercial investments in clean energy in Uganda

In 2008, Norfund obtained the cooperation of Trønder Energi to establish Tronder Power and construct the Bugoye hydropower plant in western Uganda. At that time, there was a great need for electricity for the main grid, which had outages for several hours every day due to insufficient production. At the same time, Uganda had difficulty attracting commercial investments in the energy sector. As a guarantee for the investment, Tronder Power entered an agreement with Uganda's electricity company, UECTL, for purchase of all electricity at a fixed price for 25 years. With support from colleagues in Trønder Energi, 22 local employees are responsible for the operation.

How much: Norfund has invested USD 65 million in Bugoye, as both equity and loans. The agreement to purchase electricity from the power plant would not have provided sufficient income to make the investment commercially profitable. To help make the project profitable, Norway provided aid of NOK 60 million as an interest-free loan. This loan financed around one-fifth of the plant. The loan is convertible to an equity holding, which will accrue to Uganda when the other loans in relation to the project have been paid back in around ten years. This solution made it possible to complete the project.

Results: Clean energy and better foundation for foreign investments

The power plant began producing electricity in 2009 and now has a capacity of 13 MW. This is a small power plant by Norwegian standards, but at the time of investment this amounted to about seven per cent of Uganda's consumption. In 2011, 82 GWh were produced, which is in line with the goal. Norfund calculated that, based on average electricity consumption in Uganda, this is equivalent to the electricity consumption of 1.7 million people. The production has resulted in fewer outages in the main grid. The greenhouse gas emissions avoided by reduced use of diesel generators are estimated at 54 000 tonnes of CO2 in 2011. The emissions avoided generate income from carbon credits.

Construction of the power plant had social consequences for the local community; 33 families had to relocate, while burial sites, beehives and livestock also had to be moved. A local council was established with local authorities to discuss the relocation and other social and environmental measures. All the families that had to relocate were able to choose where they wanted to live in the future and were given a new home at no cost. In addition, 566 households were compensated for losing their land and were given support to adapt to new living conditions. New health clinics, malaria and HIV/AIDS programmes were also initiated; the local community obtained access to clean water, and an education programme for women at the upper secondary level was started.

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Box 4.1 Women's' perspective in energy initiatives

In relation to the development in Bugoye, the focus was that the initiative should benefit both women and men. The following measures were taken:

→ Women's right to own land. Establishing bank accounts and title to land for women who were affected by relocation for the project. This is a small revolution for the women concerned, in a country where it is usually men who own land, and women who work on the land.

→ Efforts for recruitment and education of female staff. Use of local labour was given priority. In September 2008 the contractor NOREMCO had a total of 176 workers, of whom seven were foreigners, 124 were from the local area of Kasese, and the rest were Ugandans from other parts of the country. Women comprised twelve per cent of this workforce, which is a high ratio for construction projects, both in Uganda and Norway. Tronder Power Ltd, which operates Bugoye, has a staff of 22, all from Uganda, of which the director and six other employees are women.

→ Improvement in women's health, day-to-day life and future prospects. The project built a maternity clinic in the local community. In a country where only 42 per cent of births are monitored by qualified personnel, this is an important contribution to the health of women and infants. Water points were also built, which helps to lighten women's workload by reducing the time spent on fetching water. Funding schemes for education of girls in the local community have also been established.

The project demonstrates that it is possible to carry out this type of development in countries like Uganda. Although Uganda has a poor ranking on Transparency International's corruption list, corruption was not found in connection with the project. On the other hand, Tronder Power has experienced some problems in collecting payments for electricity production. When the price of other electricity purchased by UECTL increased sharply, payments to Tronder Power and other electricity suppliers stopped. At the most, the company had NOK 24 million in outstanding payments from UECTL. The crisis was resolved through an emergency loan from Norfund and pressure on Uganda from authorities in Norway and other countries. The NOK 24 million has been paid and the payments are now being made according to the agreement.

The fact that problems were solved, and investments are now yielding profit, may interest other companies in investing in infrastructure projects in developing countries.

Lessons learned: Local presence and transparency are important
Patience, local presence and cooperation with authorities and partners are key factors. The power plant was completed ahead of schedule, but the costs exceeded the budget. The experience will contribute to better budgeting of future projects.

Initially the Norwegian partner, Trønder Energi, received a great deal of positive attention for its willingness to invest in one of the poorest countries. In spring 2012, the company was criticised by the local press in Trøndelag for its activity in Uganda. For instance, the development was criticised for having destroyed the source of drinking water for the local population, but this turned out to be incorrect. Many groups become involved in development projects where commercial interests are part of the picture. The project shows that it is important to maintain an open and constructive dialogue both with the parties concerned and with different advocacy groups locally and back home in Norway.

References: Norad, the Norwegian Embassy in Kampala, Norfund's Report on Operations for 2011, Trønderenergi

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Laos Rural Electrification Program

Photo: Ken Opprann

SUMMARY

Development cooperation for clean energy gives clear results in the form of increased electricity production. In addition, this aid can trigger larger effects because electricity is such an important factor for other sectors, for instance industry, trade, education and health. Rural electrification is important so that even the poorest people can have access to electricity. The example from Laos shows how such measures can be designed to reach the poorest people of all.

To achieve the goal of increased energy access without increasing greenhouse gas emissions, the aid must facilitate commercial investments in clean energy. International aid will not be sufficient to ensure global access to electricity. There must be significant participation from the private sector. Major investments are needed, and private companies have the expertise necessary for the development of the infrastructure.

Hydropower projects are capital-intensive. Many investors are reluctant to invest in developing countries, fearing that a lack of implementation capacity, corruption or inability to pay for the electricity will result in little profit on the investment. Government aid may be used to reduce the commercial companies' risk of loss, as shown by the example of Norfund and Trønder Energi in Uganda.

The example from Kihansi in Tanzania shows how important it is to do thorough impact assessment at an early stage in hydropower development. The balance between the need for energy and social and environmental considerations must be assessed in each case. Therefore, it is important to have a constructive dialogue between civil society and private- and public-sector participants.

5. STATE REVENUES FROM NON-RENEWABLE NATURAL RESOURCES

Abundant natural resources can result in significant income for a country and have the potential of lifting a major portion of the population out of poverty. Despite that, it is observed that countries with an abundance of valuable, non-renewable natural resources often have a poorer economic and social development than countries with fewer resources[38]. There are several examples of oil-rich countries where the income benefits only a few, who may be a select elite of the country or international companies. Large capital flows make a political system vulnerable to conflicts of interest and corruption, and weak governance often leads to lower priority for environmental considerations. This chapter presents examples of results from Norway's petroleum and taxation cooperation with developing countries.

38 See, for instance., Collier, Paul: The Political Economy of Natural Resources. Social Research Vol 77: No 4: Winter 2010

Petroleum operation in Timor Sea. In 2011, Oil for Development was involved in 22 countries, with a total contribution of NOK 291 million.

Photo: Eni

Description of the issue

In developing countries, the balance of power between the regulatory authorities and international investors is often skewed, and the tax rate is significantly lower than in other countries. This may be due to lack of relevant expertise and capacity, and a lack of political commitment to good governance. Contract negotiations usually take place in secrecy, with a high risk of corruption. The outcome in many cases is contracts that primarily give an advantage to the companies. Countries with weak state institutions are also particularly vulnerable to capital flight, as the tax administration often does not have adequate capacity to conduct effective checks of the companies. It is estimated that illegal capital outflow from developing countries that are rich in resources is many times greater than the total aid to these countries[39]. As a result, these countries miss out on major tax revenues which are crucial for development and prosperity growth.

Without legislation that facilitates full transparency around how the resources are managed, the risk of widespread corruption is high. Exploiting resources without regard to the environment can also lead to devastation of natural ecosystems. This particularly hits the people whose livelihood depends upon natural resources in the affected areas. The social economics may also spiral out of control, with negative consequences for other sectors and industries, resulting in loss of jobs and incomes. In the worst case, a battle for power to gain control over the resources can result in violence. Countries with weak political institutions and low capacity in the governmental systems are especially prone to violent conflicts.

Many factors can contribute to turning natural resources into a curse, rather than a blessing. This does not mean that the curse of resources is inevitable. Norway is an example that has largely avoided the problems described above. Through cooperation in petroleum and tax issues with developing countries, Norway is using this experience to assist other countries with good management of their resources, ensuring that the resources contribute to development for the entire population.

Goal

The programme *Oil for Development* (OfD) aims at contributing to economically, socially and environmentally sound management of petroleum that safeguards the interests of future generations. Through Tax for Development (TfD), Norway is helping to improve taxation systems and increase tax revenues in partner countries. Better taxation systems involve fairer taxation, greater acceptance of taxation and strengthening of the social contract between the state and taxpayers. Follow-up of the results emphasises both the overall goal of poverty reduction and economic development, and changes in public administration and legislative work.

Instruments

Through *Oil for Development*, Norway shares its long experience as a responsible administrator of petroleum resources. The programme is not a contradiction or an alternative to developing clean energy in developing countries. In a report on the world's energy status in 2011[40], the International Energy Agency, IEA, presents a scenario for increasing the world's energy consumption without exceeding the critical threshold of a 2 °C rise in global warming. In this scenario, consumption of fossil fuels must be reduced to 62 per cent of the world's energy consumption by 2035. In 2009 this proportion was 81 per cent. It is also highly likely that fossil fuels are going to be an important source of energy for many years ahead. Through *Oil for Development*, Norway is helping to ensure that these resources will be utilized and managed as prudently as possible.

OfD helps partner countries to define the rules for management of resources. This involves establishing political and legal frame-works that facilitate transparency, predictability and a clear division of responsibility. A good petroleum law has no value if it is not followed. Therefore, OfD also helps with capacity building to enable the institutions to change their practice in accordance with the new legislation as well as to implement the laws. Support is also provided to help parliamentarians, civil society and media to contribute in holding the authorities accountable to the people.

In 2011, OfD was operating in 22 countries, with a total contribution of NOK 291 million. The programme involves capacitybuilding and institution building in public authorities in the partner countries in the areas of natural resource management, environmental management and financial management. Good governance, transparency and anti-corruption are cross-cutting issues in all three areas.

A major part of the programme Tax for Development involves institutional cooperation between the Norwegian Tax Directorate and tax administrations in Mozambique, Tanzania and Zambia. The cooperation is mainly directed at audit of international companies in extractive industry. Better oversight of these companies can result in greater tax revenues for the countries and reduced capital outflow from the countries. In addition, Tax for Development is assisting the International Monetary Fund's work for natural resource management and tax in a number of developing countries, tax-related research as well as local and international organisations that are working to put the challenges related to tax evasion and capital outflow on the agenda. This includes assistance to the civil society and other initiatives that can contribute to greater transparency around state revenues from natural resources, and for better distribution of the tax revenues.

The main emphasis in the Norwegian development assistance for good governance relates to institutional cooperation directed at building management expertise in the collaborating institutions themselves. A long-term perspective is essential in order to achieve lasting results. In addition, real political will is needed to create transparency and predictability in the sector. A solid anchoring at a high political level is very important in countries with a hierarchical political system[41].

In Mozambique, the first Norwegian-supported programme for building capacity for equality in energy and oil cooperation was initiated in 2012. The programme will build capacity in oil and energy institutions' work for women's rights and equality over a three-year period. This also involves increasing work opportunities for women in the sector. In addition, consultations with the local communities affected by oil exploitation must take into account the fact that women and men have unequal access to decision-making are-

39 Baker, Raymond W. Capitalism's 50

40 World Energy Outlook 2011. International Energy Agency (IEA)

41 Evaluation of the Norwegian Petroleum-Related Assistance : Case Studies Regarding Mozambique, Bangladesh, East Timor and Angola. Danish Energy Authority, 2007

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nas, resources and information.

EXAMPLE 5.1 DEVELOPMENT COOPERATION REGARDING OIL HAS CONTRIBUTED TO PETROLEUM FUND AND STRENGTHENED MANAGEMENT IN EAST TIMOR

One of the world's youngest oil nations collected USD 1.3 billion in petroleum tax in 2011 and has saved an amount equivalent to NOK 60 billion in a petroleum fund. Collaboration with Norway and use of Norway's knowledge and experiences has laid the foundation for this positive development.

Photo: Eni

Petroleum workers, East Timor

Why: Major petroleum resources, low management capacity

The first East Timorese prime minister, Mari Alkatiri, had seen how petroleum income was misused and disappeared while he was living as a refugee in Angola during Indonesia's occupation of his country. He had also heard about the Norwegian petroleum collaboration with Mozambique. When Alkatiri returned to East Timor and became prime minister in 2002, he asked for Norway's help to build petroleum management based on Norway's experiences. The new state was facing enormous challenges. At the same time, the country had significant petroleum resources: Indonesia and Australia had already been cooperating for production in the Timor Sea for over ten years, and part of this production went to the new state of East Timor. In addition, it was assessed that the country had a significant petroleum potential in its sovereign areas. Institutional collaboration was initiated in 2003 to build petroleum management.

The project aimed at transferring experience and expertise to East Timor so that the country could manage its petroleum resources itself in a good manner. Assistance in several technical disciplines of petroleum has been provided such as licensing of offshore blocks, geology, production measurement, field development, creating databases as well as legal advice on petroleum. Later the programme was expanded to include income management, a grant programme for Masters' students in Norway and environmental management such as emissions regulation and collecting environmental data.

How much: After almost ten years of institutional cooperation in petroleum management, Norway has contributed over NOK 100 million in aid. The funds have mainly been used towards strengthening of petroleum management through providing petroleum expertise as well as competence-promoting measures including education of East Timorese people in petroleum disciplines.

Results: Good management institutions and oil fund

With Norway's support, East Timor has developed:

- → relevant management institutions
- → a national petroleum fund that ensures transparent management of the income under the parliament's supervision
- → procedures for advertisement of licences
- → regulations for all aspects of exploration, extraction and taxation in addition to environmental management

East Timor today is the country that relies the most on petroleum, besides South Sudan. Almost all of the country's income currently comes from an area it shares with Australia. Negotiations in the period from 2002 to 2006 increased East Timor's share of the income from this large sea area, from 0 to 90 per cent.

The petroleum tax law and the petroleum fund law were unanimously passed by the parliament in 2005, based on experience from Norwegian stewardship. Good technical follow-up and monitoring of the implementation of laws and regulations has been found important. Large sums are at stake through audit of the oil companies' accounts. Almost USD 1.3 billion was paid in petroleum tax in 2011, according to East Timor's finance ministry.

The Government Pension Fund of Norway – Global has been a model for the East Timorese petroleum fund. Norwegian advisors have played a key role in setting up the fund. By the end of May 2012, the petroleum fund had a sum of over NOK 60 billion. Norwegian financial advisors played an important role when East Timor became the third country to fulfil the requirements of the Extractive Industries Transparency Initiative (EITI) in 2010 (see box 5.1).

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The collaboration has contributed to education in petroleum-related subjects for a large number of East Timorese people at a very low cost. Together with capacitybuilding in public authorities, this help has had the result that the Timorese Oil Directorate no longer has a great need for international advisors.

Gradually, as petroleum income has increased considerably over the past six years, there has been a passionate debate about how much of the petroleum income the country should spend, as there is a restriction in this regard according to budgetary rules implemented in 2005. The state needs time to build an administration for handling procurement and expenses, and the petroleum fund has helped to curb over-expenditure.

East Timor has achieved good oil contracts, good tax collection and full transparency around petroleum revenues. The yield from the OfD programme in East Timor has been substantial, a fact that is also emphasised by key government officials.

Box 5.1. Extractive Industries Transparency Initiatve, EITI

EITI is a global initiative for holding governments accountable by requiring transparency around income from natural resources. Countries that wish to participate in EITI initially become EITI candidates.

An EITI candidacy involves certain commitments. The authorities undertake to disclose the income they receive from companies that are extracting natural resources in the country, and the companies are required to disclose their payments to the authorities. An independent administrator compares the information provided by the governments and by the companies and attempts to explain any discrepancies. An EITI candidate must also prepare a work plan, which is discussed and approved by a group consisting of representatives from the authorities as well as the companies and civil society.

After becoming an EITI candidate, a country has 2 ½ years to be approved as an EITI country. This involves an independent assessment of how the country fulfils the EITI requirements and what measures should be implemented to achieve better and faster progress. Countries have to undergo an assessment at least every five years in order to maintain their EITI status. At September 2012, fourteen countries fulfilled the EITI requirements, while 22 countries were EITI candidates

EITI, which has an executive board comprising of representatives of governments, companies and civil society, was established in 2003. Norway has supported EITI from the start, and the international secretariat has been located in Oslo since 2007. Norway was EITI-approved in 2011.

Lessons learned: Petroleum cooperation with East Timor started at the same time as the country was about to start building institutions for managing resources. Initiatives at an early stage made it easier to establish good administrative tools for the sector. The weak institutional foundation helped to make the development assistance more effective, due to the lack of strongly established power structures in oil management such as those existing in countries that have been producing oil for a long time. As such, there was less resistance to reforms. Another important lesson from East Timor is that a five-year perspective, which is the typical framework for long-term development cooperation, is too little time to achieve lasting results when the starting point is so weak.

Experiences from East Timor and other states where there are few people with the necessary education and expertise are that an intensive education programme should be started in an early phase. The graduates can then participate over a longer period in transfer of expertise and experience. The constant presence of Norwegian advisors, particularly in the early phase of cooperation, helped create continuity in training and knowledge transfer. At the same time, it was sometimes a major challenge to find qualified Timorese counterparts. It was also demanding for the Norwegian advisors to find the balance between giving advice and carrying out crucial tasks themselves to ensure good management in the sector.

References: The Norwegian Embassy in Jakarta and Norad

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EXAMPLE 5.2 TAX COOPERATION HAS INCREASED REVENUES FROM PETROLEUM ACTIVITY IN MOZAMBIQUE

Building expertise in tax administration has better equipped Mozambique to ensure the state an appropriate share of the income from exploitation of natural resources.

Photo: Marit Strand

Gas tanks from Matola Gas Company

Why: Limited experience with taxing the petroleum activity
After major discoveries in 2010, 2011 and 2012, up to 2.8 trillion cubic metres of recoverable gas has been found in Mozambique. The discoveries place Mozambique among the eleven largest gas nations in the world. The country is thus in a completely different situation to what it was a few years ago, and has itself identified a need for increased capacity in tax collection from international companies in order to ensure the state a fair share of the revenues. In 2010, Norway entered into tax cooperation with Mozambique, with the objective of increased tax collection from the country's natural resources.

The aim of institutional cooperation between the Norwegian Directorate of Taxes and Mozambique's tax and customs administration is to increase expertise in planning, implementation and follow-up of tax audits of major players in the petroleum sector. Norway is also providing development assistance for general expertise building in tax administration, in collaboration with other countries such as Germany, Belgium and the UK. In addition, Norway is supporting civil society organisations which contribute in regard to EITI requirements of transparency around income from natural resources (see box 5.1). Norway has also contributed to a research project under the auspices of CMI on development of the tax administrations in Mozambique, Tanzania and Zambia. In two regional conferences, the tax administrations of these three countries and the Norwegian tax administration shared experiences on subjects such as taxing international companies.

How much. Since 2010, aid for tax cooperation has amounted to NOK 13.9 million. Aid for relevant civil society organisations has totalled NOK 11.8 million in the period 2007-2012.

Results: Higher tax proceeds from the petroleum sector
Mozambique has been increasing tax revenues by 0.5 per cent of the GDP every year for the past five years, and Norway's assistance has been a contributing factor in this. As part of the tax cooperation, in 2011 Norwegian auditors assisted the customs and tax authorities of Mozambique to carry out tax audits. So far, an amount equivalent to several million USD has been paid in additional tax because of this review. The most important result nevertheless is that principles of taxation have been established for the complicated petroleum sector, and that tax administration has gained experience in conducting such reviews. This may yield several hundred million USD in increased tax revenues in the coming years.

Mozambique also gained useful input from the exchange of experiences for practical solutions suited to local circumstances and issues. The sale of Cove Energy's shares in the country's Anadarko block to Thailand's PTTEP in 2012 shows the income potential for taxation of the petro¬leum sector. As a result of the sale, Mozambique received USD 175 million in capital gains tax.

In 2011, Mozambique delivered its second report to EITI. In preparing the reports, Mozambique has strengthened its internal procedures for checking tax revenues. Norway's support to civil society organisations, especially the Centre for Public Integrity (CIP) in Mozambique, has contributed to higher quality of the second EITI report than the first. This is because, through development cooperation, CIP has been able to produce relevant background documents and participate actively in shaping the report. Norway, together with Canada, is providing direct assistance for preparation of the third national report.

Through tax cooperation with Norway, Mozambique has become better equipped to collect its rightful share of income from exploitation of natural resources. However, it is only in the coming years, when the major revenue starts to flow to the treasury, that it will become clear whether the efforts have benefited the people of Mozambique. An important question will be how Mozambique will use gas revenues to shape economic growth in other sectors, particularly in agriculture, which is the source of livelihood for 80 per cent of the population. It is likely that most of the revenues will be placed in an investment fund, to be used for other sectors.

Lessons learned: Clearly defined needs are a prerequisite for effective cooperation
The tax cooperation was established at Mozambique's request. Norway's expertise in taxing international companies is well-known and it was sought after by the authorities. They preferred institutional cooperation to hiring in consultants because they were looking for the most practical approach. Sharing of experience has been highlighted as the most positive aspect of the cooperation. The fact that the need was clearly defined, and that assistance was designed to match the recipient institution's wishes, has been important in achieving increased tax revenues as a result of the development cooperation.

Supporting both state authorities and civil society participants has been useful for increasing transparency around management and revenues from oil resources.

References: Norad and the Norwegian Embassy in Maputo.

EXAMPLE 5.3 IMPROVED TAX SYSTEM LEADS TO INCREASED STATE REVENUES IN ZAMBIA

Tax cooperation with other countries including Norway has led to reforms which bring in higher revenues for Zambia from the mining sector.

Photo:: Jan Speed

Copper extraction in the Kansanshi mines. Zambia is the largest producer of copper in Africa.

Background: Income from Zambia's copper resources disappeared from the country

Zambia has been the largest producer and exporter of copper in Africa since the 1940s, and it is a major player in the global market. After the privatisation of the country's copper mines towards the end of the 1990s, production has more than tripled. Since 2003 there has also been radical price growth, so that the value of copper exports increased from USD 350 million in 1999 to USD 8 400 million in 2011.

It was agreed that a part of this increase in the export value should go to the new international investors. When copper prices continued to rise dramatically, it also became evident that the agreements made with mining companies under privatisation did not satisfactorily safeguard the interests of the Zambian state. In the period after privatisation, only one to five per cent of copper's export value went to the state. In comparison, the state in Botswana in the same period had secured a 70-75 per cent share of the export value of diamonds via revenues from direct ownership and tax. From 1998 to 2007, copper exports made up 19.8 per cent of Zambia's GDP while state revenues from copper were 1.6 per cent of the total tax revenues in Zambia.

Copper is a non-renewable resource. Through extraction, a national asset lying underground is transformed into state revenues. When such small portion goes to the state of Zambia, copper extraction leads to a reduction in the national assets.

The Norwegian embassy in Zambia has been working since 2007 to assist the government with building capacity for effective management of the exploitation industry. This includes assistance for a new model of mining tax, analysis of the tax regime, contract negotiations, transparency and tax audits.

How much: Norway has spent approximately NOK 20.4 million in total on tax cooperation. This includes support to the Zambian Ministry of Finance, implementation of EITI (see box 5.1) in Zambia, and extensive institutional cooperation between the Norwegian and Zambian tax directorates for building capacity within mining taxation.

Results: Increase of USD 200 million per annum in the state revenues

As a result of development cooperation with the tax authorities, Zambia in 2008 decided to annul the existing agreements with the mining companies and introduced a new tax regime. Some crucial details in this regime were reversed in 2009, for instance tax that ensured extra revenues for the state if copper prices rose to more than double the average cost level. The result is nevertheless that Zambia today has one tax regime which applies to all companies that are working in the country. The main difference from the time before 2008 is that there are same rules for everyone, and the rules do not allow individual negotiations with the mines. The new rules mean higher tax revenues from new investments and production.

After changes in the tax regime, the state revenues from copper rose to around eleven per cent of Zambia's total tax revenues. This is due to increased value of copper exports and changes in the tax regime. The state received at least an additional USD 200 million per annum in revenues after the state's royalty for exploitation was increased from 0.6 to 3.0 per cent of the gross sale value. From 2012, this levy has been raised further, to 6.0 per cent. For 2011, the International Monetary Fund (IMF) has estimated that around USD 450 million of the total mining tax represented payment of the remaining unpaid tax from 2008. This means that a major increase in total mining tax in 2012 compared with 2011 is unlikely.

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There is potential for increasing the state's share of the income considerably if some of the measures reversed in 2009 are reintroduced and the authorities in Zambia continue to prioritise tax audits. Three audits were completed in 2009 and 2010, which revealed that the authorities should be able to collect considerably larger sums in tax if the income-and-expense basis is verified and the tax assessment is enforced effectively. In addition, Zambia will increase monitoring of exports and domestic trade so that the authorities can more easily check whether turnover figures provided by the companies are correct.

Lessons learned: Advice must be flexible and based upon good relations with the authorities

Norway's own experiences have been a starting point for the advice which is offered. Advice has been available on short notice, and it has been based on thorough knowledge of the issues and good contacts with the authorities. The advice has also been formulated to suit the local circumstances. Another vital factor was that Norway accepted confidentiality in the meetings between independent experts and the authorities.

It has also been important that Norway has been able to influence the International Monetary Fund, the World Bank and the EU in looking after Zambia's interests concerning tax, natural resources and the state's role. Tax cooperation lays the foundation for an increase in a state's revenue which exceeds most forms of other development cooperation activities, and it may become an important factor in making countries independent of aid.

References: Norad, the Norwegian Embassy in Lusaka and former country economist at the Embassy in Lusaka.

Photo: Jan Speed

SUMMARY

Through support for developing tax legislation and for conducting tax audits in Mozambique and Zambia, Tax for Development has contributed to increasing the state revenues. By increasing the capacity in tax administration, Norway can also help increase the states' tax revenues in the long run.

The example of results from East Timor shows how Norway, through Oil for Development, has helped to establish a legal framework that facilitates transparency in petroleum management, while capacity in the country's institutions is strengthened. These are results that in the long run can lead to economically, socially and environmentally sound management of petroleum resources which takes future generations into consideration.

If a country is successful in establishing a system for management of natural resources based on the principles of transparency and good governance, the income could pave the way for lasting reduction in poverty. Yet there is no guarantee that the resources are benefiting the entire population. Whether this will lead to economic growth and increased prosperity for the people depends upon how the government decides to use the income. Therefore, it is highly important that the governments are held accountable for their policies. Here, support from civil society, media and trade union federations can play a key role.

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6. SUSTAINABLE USE OF FORESTS AND OTHER ENVIRONMENTAL RESOURCES

Of the world's poorest people, 350 million mainly live off forest resources[42]. Norway is supporting initiatives to prevent climate change and loss of biological diversity, and initiatives for preserving the basis for the livelihood of poor people. In order to succeed in this, it is important to combine conservation measures with sustainable use of resources and development of alternative sources of income for the local population.

This chapter presents examples of projects that Norway is supporting for conservation and sustainable use of forests and other environmental benefits.

42 The Rainforest Fund: Rights-based Rainforest Protection. 2012

Gold mining is one reason for deforestation. Deforestation and forest degradation are among the most significant sources of greenhouse gas emissions.

Foto: Ken Opprann

Description of the issue

The development potential of poor countries lies mostly in their natural resources. Overuse of forest and other natural resources contributes to loss of biological diversity and land degradation, and it erodes a country's development potential. When species become extinct, an entire ecosystem may change drastically, changing the basis of existence for those who live in the area. Land degradation leads to erosion, which increases the risk of major damages by floods and bad weather, and reduces harvests. Poor groups of the population are the most reliant on local natural resources and are therefore the hardest hit by environmental degradation and climate change, which alter the local resource base and growth conditions. Resources are used for daily consumption, provide an important subsidiary income and function as a safety net in times of crisis. It is therefore important to ensure that poor groups have access to use natural resources.

Those groups of people who are most reliant on the forest for their livelihood often do not have ownership or the right to use the forest resources. According to the Food and Agriculture Organization of the United Nations, FAO[43], 85 per cent of the forests globally are administered by central authorities. In Africa, only ten per cent of the forest is controlled by local users. The right of poor women to use the forest is usually even weaker. Women's access is often only through their husband's or father's right to use the forest. Without rights of use, the resources are often subjected to short-sighted over-exploitation[44].

Environmental problems and deforestation often have multiple reasons. The United Nations Environment Programme, UNEP, highlights population growth, urbanisation, non-sustainable consumption patterns and globalisation as some of the most important reasons. Weak governments, lack of capacity to develop and implement environmental policy, low local participation in decision-making processes and lack of law enforcement also make the environmental problems more severe in many cases. At the same time, poverty leads to overuse and environmental degradation. UNEP emphasises the need for political measures and guidelines that address the reasons for environmental changes.

Deforestation contributes to climate change. Forests absorb light and water so that the climate near the ground in the forest is cooler and more humid than in open areas. This also affects the air pressure, so that there is more rainfall in forest areas. When forests disappear, the air temperature on the ground increases and there is less rainfall. Tropical forest helps to store carbon so that it is not released into the atmosphere. Deforestation and forest degradation account for one sixth of the total global emissions of greenhouse gases that contribute to increased average global temperature (see box 6.1).

Box 6.1 Emissions from deforestation and forest degradation

Growing forests bind large amounts of the greenhouse gas carbon dioxide, CO2. When a tree dies because of fire or decay, greenhouse gases (mainly CO2) that were trapped in the wood are released. When a forest is in balance, greenhouse gases will be bound so that these are not released in the atmosphere. Emission of greenhouse gases from a forested area takes place when the total forest area is reduced, for example, when forest is burnt to clear the land for agriculture, or when large areas are felled without planting new forests. Draining wetlands in a forest to clear land for plantations causes the release of large amounts of methane, which had been stored in the marshes. Forest degradation because of activities such as charcoal production, firewood collection or selective felling also reduces the forest's carbon storage.

Goal

Norway's environmental assistance has the goal of conserving biological diversity and preserving the livelihood of forest-dependent local communities in developing countries. The climate and forest initiative aims at reducing deforestation and degradation of natural forest to avoid greenhouse gas emissions, and at the same time to support poverty alleviation.

Instruments

For several years, Norway has been using different forms of development cooperation for conservation and for ensuring sustainable use of natural resources in developing countries. Protecting natural areas is one measure that has been used for conserving biological diversity and preventing environmental degradation. Protected areas include all types of areas, from those where research and environmental monitoring are the only legal activities to areas where sustainable use of natural resources is permitted. Protected areas are found both on land and at sea. Local management and tenure arrangements are important for conserving natural areas.

Box 6.2 REDD, REDD+ and UN REDD

REDD stands for "Reducing Emissions from Deforestation and Forest Degradation". Without reducing emissions from the forest sector, it will not be possible to achieve the global climate goal of avoiding an increase in the global average temperature of over two degrees Celsius. UN **REDD** was established in 2008 as a cooperative programme between the Food and Agriculture Organization of the United Nations, the United Nations Development Fund and the United Nations Environment Programme. These bodies are gathering expertise in different areas to assist the member countries with developing and implementing strategies for reducing emissions from deforestation and forest degradation.

During climate negotiations in Cancun in 2010, the participating countries agreed to reduce emissions related to deforestation and several points were added to the agreement, which was called **REDD+.** The plus symbol stands for sustainable forest management, increase in the forests' carbon capture and conservation of forests and biological management.

43 FAO, Forest Department /Francesca Romano: Understanding Forest Tenure in Africa: Opportunities and challenges for forest tenure diversification. (draft)
44 Rights and Resources Initiative (RRI): Respecting Rights, Delivering Development. Forest tenure reform since Rio 1992.May 2012

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Box 6.3 Valuation of ecosystem services

Ecosystem services are defined as nature's benefit to us. There are two different types of ecosystem services:

→ *products,* such as clean water, food, shelter and fuel

→ *processes,* such as water purification, climate regulation, pollination, and pest control.

Payment for ecosystem services is defined as a voluntary agreement between the seller and the buyer of a given ecosystem service, or management of an area that ensures delivery of this service. This may happen between the parties concerned in a country or between countries. The crucial aspect is that payment is made only if the agreed ecosystem service is delivered.

Many natural resources and ecosystem services are important in the global economy, such as food, seed, fuel, medicine and building materials. Many less visible ecosystem services have no market price. The risk of short-sighted overuse of natural resources increases if no one has a clear ownership of the resources or if price for use of common pool resources has not been set. Overuse can hamper development in poor countries. The basic principle for payment of ecosystem services is that those who benefit from the services must pay those who contribute to enabling nature to deliver the services.

REDD, Clean Development Mechanism (CDM) under the Kyoto protocol, and voluntary quota schemes are the most well-known international schemes of payment for reduction in greenhouse gas emissions. Examples of schemes in poor countries are conservation organisations that are financing projects for the local population near nature parks by charging tourists a fee for visiting the parks and viewing the animals. Another example is that farmers can sell their produce at a good price in return for refraining from poaching and illegal felling of trees (see box 6.5). In this way, it becomes in the local population's interest to protect wild animals in nature parks.

In 2007, the Norwegian government decided to grant NOK three billion per annum through the aid budget for the climate and forest initiative to reduce emissions from deforestation and forest degradation (see example 6.1). This is part of a development strategy where aid is combined with market-based mechanisms (also see box 6.3). This is an important addition to traditional instruments. Norway is also working to safeguard the rights of indigenous communities and women in this initiative and to conserve biological diversity.

One of the underlying reasons for deforestation and non-sustainable use of forest resources is believed to be poor governance or lack of governance. The forest initiative is contributing to improve governance through requiring transparency in management. It is essential to ensure that the real value of natural resources is reflected in financial management at the central and local levels, that resources are managed and distributed optimally and that the legal system is able to prosecute and penalise environmental crime.

Norway is also using aid to facilitate economic investments that support healthy ecosystems, ensuring economic growth and generating income for distribution at the same time (see example 6.5). Work is also continuing to include the connections between environment and economic growth in development plans of countries, for instance through the United Nations Development Programme and Poverty Environment Initiative, a collaboration project under the United Nations Environment Programme.

Norwegian aid is also used to promote local forest tenure. A study[45] of 80 forest communities in Africa, Asia and Latin America revealed that where a local community had a formal tenure, forest management was more sustainable and there was less illegal felling than in the forests owned by the state. The study proposes an explanation for this: where the local people do not have rights over the forest, they will want to exploit the forest as much and as fast as possible, since they do not know whether the activity will be permitted next year. On the other hand, where the people have obtained tenure, it is in their own interest to use the forest without exhausting it. The study showed that increased income and better living conditions of the local communities also had a connection with land rights, and that these rights were not at the expense of sustainable activity. A study done for the World Bank showed that there was better prevention and control of forest fires in locally owned forests[46]. (See example 6.6 of forest tenure).

45 Chhatre, Ashwini and Arun Agrawal. 2009. Trade-offs and synergies between carbon storage and livelihood benefits from forest commons. PNAS 106 (42): 17667-17670. Quoted in RRI, 2012: Respecting Rights, Delivering Development: Forest tenure reform since Rio 1992.
46 Nelson, Andrew and Kenneth M. Chomitz. 2011. Effectiveness of strict vs. multiple-use protected areas in reducing tropical forest fires.

The Yanomami people are the largest indigenous group who live traditionally in the Amazon rainforest

Photo: Regnskogfondet

EXAMPLE 6.1 DEFORESTATION IN THE BRAZILIAN AMAZON HAS BEEN REDUCED BY OVER 60 PER CENT

Brazil has succeeded in reducing deforestation in the tropical rainforest. Norway pays for results after the results have been achieved. This is known as results-based aid, or results-based development assistance.

Foto: Regnskogfondet

Why: Deforestation accounts for one-sixth of the world's greenhouse gas emissions

According to the United Nations Climate Panel, emission of greenhouse gases from deforestation is one-sixth of the world's total emissions[47]. Half of the world's greenhouse gas emissions from forest degradation and deforestation take place in Brazil and Indonesia. At the international climate conference in Bali in 2007, Norway launched its Climate and Forest Initiative. Norway undertook to use up to NOK 3 billion annually on combating destruction of tropical forests. At the same time, Brazil presented its Amazon Fund. Brazil has allocated its own funding to reduce deforestation in the Amazon. As reduced deforestation benefits the entire world, the international community was invited to contribute to the fund based on the results that are achieved (see text box 6.4). If Brazil manages to reduce deforestation in accordance with the goals, it receives aid through the Amazon Fund. The fund can then provide support to national and local authorities, NGOs and the private sector to carry out new climate and forest measures.

47 Intergovernmental Panel on Climate Change (IPCC): Climate Change 2007: synthesis report.

How much: Since the agreement between Norway and the Brazilian Development Bank, BNDES, was signed in March 2009, NOK 2.55 billion has been allocated to the Amazon Fund on the basis of the reduction in deforestation that Brazil has achieved. Of this amount, NOK 554 million has been paid out. In addition to Norway, Germany (KfW) has also contributed EUR 21 million and the Brazilian state oil company Petrobras has contributed an amount equivalent to NOK 22 million. Brazil is not a contributor to the fund, but it uses significant resources every year on the initiatives described in this example.

Results: Reduction in deforestation equivalent to 367 million tonnes of CO_2

Reduction in deforestation that Brazil has achieved in the Amazon in recent years is the greatest single climate initiative the world has witnessed. From August 2010 to July 2011, 6418 km2 was deforested. This is 61 per cent less than the average annual deforestation in the period 2001-2010, which is the reference level for the Amazon Fund. According to the calculation presented in box 6.4, the reduction in 2011 corresponds to almost 367 million tonnes of CO_2 – approximately seven times Norway's total emissions in 2011. These are first and foremost Brazil's results. Norway's contribution of NOK 2.55 billion to the Amazon Fund represents payment for reductions that are equivalent to 83.6 million tonnes of CO_2[48].

Although the Norwegian money represents payment for results that have already been achieved, it is a criterion that the funds must be used for new climate and forest projects approved by the Amazon Fund. Approvals of projects and disbursements under the Amazon Fund have been slower than expected, partly because the quality of the applications has been low, and partly because the authorities have not used the fund enough. Therefore, no more than 655 million of the reserved Norwegian funds has been paid out to the fund. The Brazilian Development Bank, BNDES, which manages the fund, is working with the authorities to make changes so that the fund can be used more effectively. For instance, a service will be started which can help applicants with preparing project proposals.

By the end of October 2012, the Amazon Fund had approved 34 projects for different types of recipients; 29 of the projects had started. None of the initiatives has been in operation for more than one year, so it is too soon to say anything with certainty about the outcomes.

48 Source: The Secretariat for Climate and Forest in Norwegian Ministry of the Environment

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Box 6.4 Results-based development assistance – calculating reduction in deforestation and emissions[49]

Results-based development assistance.
The climate and forest initiative is an example of results-based development assistance. This means that funds are paid out after the results have been achieved. Because of the strong economic interests inherent in logging, individual projects are not sufficient to remove the causes of deforestation. Paying for reduced deforestation at the national level creates economic incentives to implement a policy that helps reduce deforestation completely.

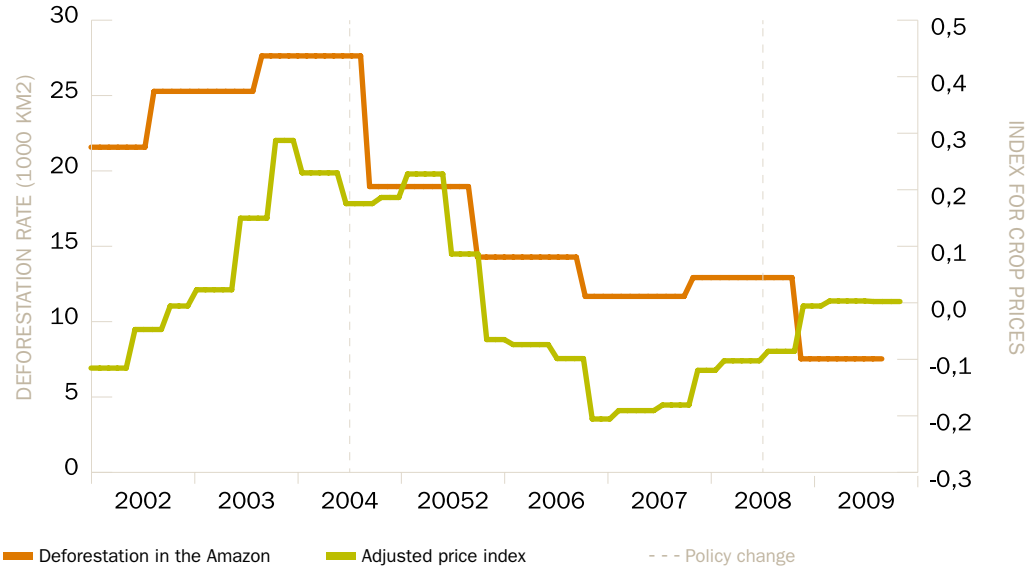
Measuring deforestation.
Among Norway's partner countries in the forest initiative, currently only Brazil qualifies for this type of financing in a pure sense.[50] Payments to the Amazon Fund are linked to the trend in the deforestation rate in the Brazilian Amazon in relation to a historical reference level, and an estimation of the equivalents in CO_2 emissions. Each year Brazil's National Institute for Space Research, INPE, uses satellite images to calculate the size of areas that have been deforested in the Amazon region.

The reference level for the period 2011-2015 is the average annual deforestation in the period 2001-2010, which was approximately 16 500 km2. In 2011, 6418 km2 was deforested. This is a deforestation reduction of 10 046 km2 relative to the reference level. Satellite images do not reveal forest degradation. This increases the risk that those who engage in illegal logging may have switched from complete tree felling to selective woodcutting in areas that are monitored using satellite imaging.

Calculating reduction in emissions.
In order to find out what the decrease in deforestation represents in terms of CO_2 emissions saved, deforestation reduction is multiplied by the carbon density in forests, which is 10 000 tonnes carbon per km2. The mass of carbon in the forest that has been saved from deforestation in Brazil has been rounded to 100 million tonnes. When carbon burns, it binds with oxygen and becomes 3.67 times heavier before being released into the atmosphere. The reduced deforestation, saving 100 million tonnes of carbon, therefore corresponds to 367 million tonnes of CO_2. The Amazon Fund uses a CO_2 price of five USD per tonne of CO_2. It means that for the results achieved by Brazil in the form of reduced deforestation in 2011, the Amazon Fund can receive over USD 1.8 billion, or approximately NOK 11 billion. Norway's payment of NOK 2.55 billion is for reduction of 83.6 million tonnes of CO2. This is not emissions trading: Norway cannot emanate more CO_2 because of this payment.

49 Other partners in climate and forest initiative are Guyana, Indonesia, Mexico, Tanzania and the Congo Basin Fund which covers several countries in Central Africa. Norway has international agreements with Guyana and Indonesia for starting results-based payouts when the necessary systems for checking, forest monitoring and payments are in place.
50 Carbon density varies depending upon how dense the forest is, and composition of different types of vegetation. The figure used for calculations for the Amazon Fund is very conservative and it is set by the Brazilian environmental authorities, in line with the presidential order through which the Amazon Fund was established. The authorities have chosen a conservative figure to avoid claims that they are exaggerating the climate benefic in order to receive larger payments.

FIGURE 6.1. LINK BETWEEN MARKET PRICES AND DEFORESTATION IN THE AMAZON FROM 2002 TO 2009



Source: Climate Policy Initiative, Rio de Janeiro

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Effects of the changes in Brazil's policy and Norway's role

Deforestation in the Amazon has long followed changes in prices of soy and beef. When the prices were high, clearing of rainforest increased to grow soy or to use the area for pastures to produce beef[51]. Changes in the Brazilian forest policy in 2004 and 2008 ended this trend, as shown in figure 6.1. This is especially clear after 2008, when the Brazilian authorities implemented a number of initiatives with the result that it was not necessarily profitable any longer to engage in deforestation despite increases in the prices of meat and soy. The financial risk of illegal activity in the rainforest areas has increased. Half of the reduction in deforestation that has taken place after 2005 is attributable to policy changes[52].

Measures taken by the authorities include stricter checking, confiscation and slaughter of animals that graze on illegally cleared land in addition to a voluntary agreement with soy producers to stay away from the land that had been illegally cleared. In addition, civil society organisations ran campaigns against deforestation, and the major abattoirs began to demand evidence that animals did not come from areas where forests had been illegally cleared.

Several Brazilian researchers are of the opinion that Norway's support to the Amazon Fund in 2008 stimulated the authorities to pursue a tougher policy against deforestation, although it is difficult to prove this. The real-time evaluation of the climate and forest initiative also points out that the Norwegian funds have been an important motivational factor[53]. The former environment minister of Brazil, Carlos Minc, said that the support received by the environmental movement in Brazil through the Norwegian contribution was important for strengthening their position vis-a-vis interest groups that did not wish to protect the Amazon.

A risk with increased checks of deforestation in the Amazon is that those involved in deforestation move their activity to places where there is less checking, both in Brazil and in other countries. There are examples of Brazilian companies that have moved their operation to neighbouring countries, even to countries as far away as Mozambique. Therefore, money from the Amazon Fund can also be used for measures to prevent deforestation in areas outside the Amazon.

51 Paulo Barreto, Eugênio Arima and Rodnesy Salomão (March 2009)
52 Juliano Assunção et al. Deforestation Slowdown in the Legal Amazon: Prices or Policies? Climate Policy Initiative, Rio de Janeiro
53 Evaluation Report 12/2010. Real-Time Evaluation of Norway's International Climate and Forest Initiative. Evaluation Department Norad.

Political will and good checking mechanisms have been crucial

The Amazon Fund was established on Brazil's initiative for implementing the Brazilian policy. The results have been achieved because the government has had the will and ability to change its policy and put the policy into practice. This is an important lesson for implementing similar measures in other countries.

The Amazon Fund has been a pioneering mechanism for payment on the basis of results, and the money is then used to continue the work. Factors that make Brazil and the Amazon Fund especially suitable for this type of development cooperation include the following:

- → There is a well-established system for monitoring deforestation in the Amazon. Satellite images and results are published on the internet, so that anyone can check them.
- → Brazil has a national development bank (BNDES), with long experience, to manage the fund.
- → There is a well-functioning civil society that is playing a role in administration of the fund. Voluntary organisations are also an active driving force to ensure transparency around the fund.

Economic and political interests associated with the forests are strong, and how this is managed will be crucial in deciding whether the positive trend in the Amazon continues. This is illustrated by an ongoing debate on a new forest law, where industrial interests wish to make it easier to clear forest legally for developing industry, and the environmental movement wants stricter rules against deforestation.

Source: Embassy of Norway in Brasilia, Norwegian Ministry of the Environment.

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EXAMPLE 6.2 PROTECTION OF ISOLATED INDIGENOUS GROUPS IN THE PERUVIAN AMAZON HAS BECOME LEGALLY BINDING

With assistance from the Rainforest Fund, indigenous organisations have established checkpoints and led to passing of a bill for protecting isolated indigenous tribes from contact with the outside world.

Photo: Ken Opprann

Background: Exploitation of natural resources threatens the survival of indigenous communities

Contact between Amazon indigenous tribes and the outside world is a threat to the survival of the tribes. When the ecosystem is disturbed, the basis of existence is removed. Visitors may introduce diseases against which the indigenous people lack natural immunity. In the Manu area in Peru, the Nahua people were contacted by the oil company Shell and a number of lumberjacks in 1984. This resulted in influenza and cold epidemics that killed 300 Nahua people in a short time. Conflicts with lumberjacks, gold miners, oil companies and authorities have also led to murders and other serious abuse.

In Peru, 20 isolated indigenous communities have been identified, with roughly 10 000 residents who live on a total area of 125 000 km^2. This area equals 18.5 per cent of the Peruvian rainforest. Peru's government has protected 85 000 km^2 of this area.

The Rainforest Fund supports several indigenous organisations in the Peruvian Amazon. Through lobbying and monitoring at the outer edge of protected areas, they are working to allow the indigenous groups to live on their traditional territories without contact with others.

How much: The programme for protection of isolated indigenous communities started in 2004, and by 2012 it had received a total of NOK 17.5 million. The programme is fully financed by Norway.

Results: Legislation and checking has improved

There has been increased checking in regard to protected areas and illegal activities in these areas have been reduced. In one of the areas where isolated indigenous groups live, the Rainforest Fund's collaboration partners and the local community have set up checkpoints. This has been possible due to information dissemination and support from the programme. The checkpoints have closed three of the most important river systems. Now there is no illegal logging in the part of the area that is accessible via these rivers. In comparison, it has been documented that up to 2 000 lumberjacks were involved in illegal logging in the area in 2004, and there were violent clashes between them and the indigenous people. One checkpoint is still needed in one last river system before the entire area of 55 000 km^2 is protected. This checkpoint is being planned. Two oil concessions that overlapped parts of the area have been withdrawn as a result of efforts by the Rainforest Fund.

The programme has achieved similar results in other areas of Peru. This includes protection of human life, cultures and biological diversity.

Through efforts of the indigenous people's organisations, rights of the isolated groups have been recognised. A review from 2009[54] shows that the programme has contributed to increased coverage of the issue in Peru's media, to incorporation of the issue in the university curriculum, to the fact that the ombudsman has reports on the isolated groups, and there is increased awareness of the rights of the isolated groups in the national assembly.

In 2006, a national law was introduced in Peru that forbids unauthorised attempts to contact the isolated indigenous people. Two county laws from 2009 and 2011 state that it is in the government's interest to protect the isolated tribes. The Ministry of Health now recognises that this is the most appropriate health strategy for the indigenous people to avoid all outside contact.

Until now, the government has only established one checkpoint and according to the Rainforest Fund this is not working effectively. After introduction of the law on protected reservations in 2009, no further reservations have been established.

Lessons learned: It is challenging to put laws into practice

Establishing laws and other judicial instruments is an important tool for indigenous organisations. It brings legitimacy in their demands to the authorities, and the threshold for breaching the rights of the indigenous people is raised.

Passing of laws provides no guarantee that the authorities actually perform their duties outlined in the law. The indigenous people's organisations are doing a great deal of the work that the authorities are required to do by law. The challenge ahead is to ensure sustainability in the work, by the authorities gradually taking over the programme's function.

References: Annual and periodic project reports from the Rainforest Fund's partners, Beatriz Huertas Castillo 2004 "Indigenous Peoples in Isolation in the Peruvian Amazon, "Beatriz Huertas Castillo 2004 «Indigenous Peoples in Isolation in the Peruvian Amazon»

54 Paulo Barreto, Eugênio Arima and Rodnesy Salomão (March 2009)

EXAMPLE 6.3 SUSTAINABLE MANAGEMENT HAS IMPROVED LIVING CONDITIONS AROUND LAKE MALAWI

An environmental initiative in Malawi has found good solutions both for agriculture and for nature, but it was unsuccessful in providing alternative livelihoods for the population.

Background: Soil, forest and water sources around Lake Malawi were under threat

Near Lake Malawi, unfavourable agricultural practices have endangered the soil, water quality, flora and fauna. Rural settlements farm on steep river banks and continually grow crops in the same area. Forest fires and woodcutting for firewood also contribute to erosion and sedimentation of water sources.

The organisation Total Land Care has started a project which has the main goal of improving livelihoods for 50 000 households in rural areas while at the same time conserving the environment. To build capacity to improve food security and reduce vulnerability to climate change is a key point. In addition, the project aims at reducing deforestation through tree planting, rebuilding forest areas and natural forest cover, promoting the use of cheaper and energy-saving stoves and promoting companies based on natural resources and ecotourism.

How much: USAID donated USD 2.1 million from 2004 to 2007. In 2008, Norway contributed NOK 35.5 million for continuation of the programme and for increasing its geographical scope.

Results: Reduction in deforestation, increased earnings and food security

The number of trees that were planted increased from 273 306 in 2007/2008 to 10.9 million trees in 2012. This covers 4360 hectares of land. When the trees are full grown after six years, this will be equivalent to saving 3000 hectares from deforestation. In addition, this contributes to halving land erosion.

Through conservation, management and participation from the local communities, areas that are under natural restoration grew from 875 hectares in 2007/08 to 3087 hectares in 2011/12. This has restored the biological diversity in the landscape. Natural restoration of forest landscape provides a foundation for building materials, herbal medicines and other products such as mushrooms and honey.

Another way of reducing deforestation is to market stoves that are more effective and reduce the use of firewood. The stoves are efficient, easy to use and emit less smoke. The number of households that are using improved stoves has increased from 67 in 2007/2008 to 14 109 in 2011/2012. Savings through the use of better stoves are equivalent to 330 hectares of forest annually.

In order to make farmers more self-sufficient and reduce their vulnerability to climate change, the programme promotes climate-resilient agriculture. Through minimal tillage, mulching the fields with plant residues, rotation of crops and intercropping, harvests have been increased by 20 to 30 per cent. The soil is also better protected. This reduces the risk of failed crops due to drought or too much rainfall. This means higher earnings and increased food security.

The project's work to create alternative livelihoods has had varying success. Seen as a whole, there has been a decrease in production and interest among farmers because of poor market relations. Mushroom production was relatively successful and it created an average monthly income of NOK 1100 for some women. On the other hand, income from honey was low. Those who engage in small-scale ecotourism have had difficulty in creating attractive eco-villages and establishing collaboration with professional tour operators and hotels.

Lessons learned: A combination of food security and environment creates more motivation

A combination of food security and environmental management measures has motivated farmers to participate in the programme. Small-scale irrigation systems and variation in agriculture have been found important measures to alleviate the scarcity of food and income among the farmers.

It is important that aid organisations concentrate on doing what they are best at. Total Land Care has insight into agriculture and environmental aspects related to planting and managing forests. The organisation has little experience in creating alternative livelihoods. Livelihood projects did not go well for several reasons, for instance, because there was too little knowledge about investment, marketing and access to markets. See text box 6.5 for an account of an initiative that has had better success in this regard.

TIL INNHOLD ↑

Box 6.5 Access to markets has reduced poaching in Zambia

In the Results Report 2009, an initiative for providing alternatives to poaching in the South Luangwa National Park was described. Through the company Community Markets for Conservation, the local community receives a guaranteed price for products from climate-resilient agriculture in return for not participating in poaching or other illegal exploitation of resources in the national park. The programme includes good surveillance systems to monitor this. Centres that receive and process the products have been established near the communities in question. The centres also arrange for further sale under a common label and negotiate deals for sale to major chain stores. This ensures market access for remote communities and small producers who would not have the same opportunities operating by themselves..

Photo: Ken Opprann

References:
Johnsen, F.H., Kafakuma, R. and Silkoset, U. (December 2011): Management for Adaptation to Climate Change, Mid-term Review of a project implemented by Total Land Care, Malawi, Department of International Environment and Development Studies, Noragric, Norwegian University of Life Sciences. Bunderson et al. (March 2012). Management for Adaptation for Climate Change; Technical and financial report for July 2010 to June 2011. Bunderson, W.T. (June 2012). Benefits of Conservation Agriculture vs conventional agriculture. The Norwegian Embassy in Lilongwe, based on reports from, and talks with, Total Land Care.

EXAMPLE 6.4 INCREASED AFRICAN NEGOTIATION CAPACITY HAS LED TO FAIRER DISTRIBUTION OF GENETIC RESOURCES

Financial and technical support for initiatives to strengthen negotiation capacity among African countries has led to a breakthrough for African interests in international agreements on genetic resources.

Photo: Ken Opprann

Background: Under-representation of African countries in negotiations on genetic resources

Since 2000, negotiations have continued for an agreement related to the Convention on Biological Diversity. The African interests were under-represented and poorly coordinated in the negotiations. The African countries also had limited capacity to implement the existing regulations or to develop strategies for access, use and sharing of genetic resources. In 2005, Dutch and German aid agencies started an initiative for access to and use and sharing of genetic resources. The initiative was aimed at increasing the African countries' ability to participate effectively in the negotiations and protect their interests. The objective was that the protocol on genetic resources should contribute to good natural resource management, preservation of biological diversity and combating poverty. The initiative has provided legal and technical training to authorities and representatives of indigenous people and local communities. In addition to training, the initiative established forums for exchange of experiences and discussion.

How much: Norway became a part of the initiative in 2009 with technical and financial support, and earmarked part of the assistance for the Fridtjof Nansen Institute, which assists with legal and scientific expertise. The total figure for the aid was EUR 2.4 million. This constituted approximately 30 per cent of the total budget for the period 2009-2011. Other donors were Denmark, Holland and Germany. The German development agency GIZ administered the programme.

Results: Breakthrough for African positions

In 2010, agreement was reached on a legally binding protocol on genetic resources, the Nagoya Protocol. The agreement was a compromise between rich countries and poor countries. For instance, Africa made a breakthrough for its demand for assessment of how benefits from genetic material of unknown origin can be distributed fairly. Material that was collected before the protocol came into effect and genetic resources from areas outside national jurisdiction will also be assessed. The African countries were also satisfied with the provisions intended to ensure that countries receiving genetic resources follow the requirement of prior consent and national legislation of the provider country. Rules for compliance with the protocol's provisions were an important outcome for which the African countries had campaigned.

The assessment of the initiative in 2011 emphasizes that the initiative contributed significantly to raising awareness at the top political level in the African countries about issues associated with access to and use of genetic resources. The African countries were represented by negotiators who were able to participate actively and react promptly to unexpected questions. The African delegation was coordinated to act as a united group and was successful in several concrete proposals. In addition, the initiative made it possible for African interest groups, local people and industry representatives to provide input to their negotiators.

Due to the initiative, the African countries are now better able to develop and implement measures to control access to genetic resources. Phase two of the initiative will support the African countries in nation-wide implementation. This will contribute to development and poverty alleviation by creating economic incentives for conservation and sustainable use of biological diversity.

Norway joined the initiative when Holland had withdrawn its support. Norway's support was important for completing the project. At the same time, Norway's professional support was also important. Norway focused more on promoting interests of the African countries than the EU, which also had industrial interests in gaining access to genetic resources of the developing countries.

Lessons learned: Expertise of different stakeholders should be institutionalised

The approach of involving both authorities and representatives of the local communities was useful in developing a common understanding of the Nagoya Protocol. Assessment of the project emphasises that expertise should be institutionalised to a greater degree and that the network of national experts should become independent of external support. The assessment also pointed out that many countries still have unrealistic expectations about the benefits from the protocol.

References:
The ABS Capacity Development Initiative. Progress Report 2011 Nagoya Protocol Factsheet Findings of the Project Progress Review of the ABS Capacity Development Initiative for Africa. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)

TIL INNHOLD ↑

EXAMPLE 6.5 SUSTAINABLE TOURISM HAS PROTECTED A NATURE RESERVE IN KENYA

A project for local industry development related to safari tourism has provided income to the local people while at the same time protecting wildlife in the national park.

Photo: Gunnar Zachrisen

Why: Ecological tourism can lead to economic growth
The Masai Mara region in Kenya is famous for its rich wildlife and the Masai culture. Safari tourism in Masai Mara national park generates around NOK 120 million per annum through entry fees. The local Masai people have had little opportunity to participate in the economic development. Population growth outside the area is also threatening the ecosystem through expansion of agriculture. The Masai people's traditional lifestyle of keeping cattle might also be a threat to the wild animals in the area.

The Norwegian company Basecamp Explorer was founded in 1998, one of its activities being an ecological safari camp in the Masai Mara region. The objective was to create local workplaces, generate income from tourism and contribute to education in natural resource management. Another objective was to avoid the sale of land in the buffer zone around the reserve in order to protect wildlife in the park. The project was established in a reserve of 20 km2, where the Masai people already had gained land rights. The organisation Basecamp Foundation is running projects in Kenya.

In 2010, Norfund invested in the project to make expansion possible. Two new camping places were created in collaboration with Basecamp Foundation.

How much: Norfund has invested NOK nine million as equity in the company Basecamp Explorer Kenya, which makes its ownership share 40 per cent. In addition, Norfund has given a grant of approximately NOK 1.9 million to Basecamp Foundation and Masai Mara Conservancy Development. In 2009, Norad financed a feasibility study in Kenya to investigate whether Basecamp Explorer should develop a model for local ownership and responsibility in relation to management of nature and wild resources, as well as running tourism facilities. The support from Norad was NOK 576 255.

Results: Conservation of the reserve and increased income for the local people
The project has contributed to increased income from tourism, a significant portion of which goes to the Masai people in the area. 525 Masai landowners rent their land to the reserve and receive rent proceeds equivalent to a teacher's salary. A guide school has made guiding services a popular career path for young Masai people in the area, including women. In the past, guides came from other regions of the country. The camp has a total of 62 employees who work both as guides and as service staff at the three camping facilities.

Basecamp Foundation has developed the model for the reserve, and landowners are upholding the agreements for limiting cattle farming in the area near the reserve. Natural wildlife in the area has increased. This attracts tourists, which in turn ensures rental income for the landowners. The safari camp is popular and it has received a great deal of attention both in the media and through visits by prominent guests.

The Masai people can continue much of their traditional lifestyle of cattle keeping, but they have adopted permanent abodes to a greater degree than in the past because grazing grounds are limited to areas outside the reserve. To make this more attractive, Basecamp Foundation opened a school and a health clinic and dug wells. Due to their higher income, the Masai people can now purchase goods and services that previously were not available to them. Many have opened bank accounts and use payment services.

Norfund's investment has created the opportunity for long-term development of the project. A new camp has been built. Work with sales and marketing has been significantly improved, including use of the Internet.

Lessons learned: Altering a traditional way of life must happen through dialogue
It is possible to develop good tourism projects that are environmentally sustainable and are well accepted by the local people. It requires good marketing and a high standard of facilities to attract tourists.

In this case, it was necessary to balance preservation of the traditional Masai way of life with the regard for nature. As the approach was developed in collaboration with the Masai people and they received ownership rights, a solution was reached so that they were willing to limit the grazing grounds for cattle, conserving the rest of the reserve. Such solutions necessitate a good dialogue with the local community.

References: Norad, Norfund, Basecamp Explorer.

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EXAMPLE 6.6 OWNERSHIP RIGHTS HAVE PRESERVED FORESTS AND IMPROVED LIVELIHOODS

Support for a global initiative for forest reforms has contributed to more locally owned and better preserved forest.

Photo: Carsten Thomassen

Why: Local communities lack forest tenure
Without formal land rights, those living in and off the forest become more vulnerable, for instance where international companies are granted concessions without any consideration for the population. In addition, uncertain rights of ownership and use hamper effective preservation of forest, because it becomes difficult to check illegal woodcutting and deforestation.

Norway has supported the Rights and Resource Initiative (RRI) since 2007. RRI is a global coalition of non-governmental organisations that work for reforms in forest tenure. The initiative contributes knowledge of ownership conditions in the forest country and suggests solutions for local administration, poverty alleviation and development of small-scale forest enterprises.

How much: Since 2010, Norway has supported RRI with NOK 5.0 million to 13.6 million per annum.

Results: Local ownership has increased
An evaluation from 2011[55] concludes that RRI has created changes that better facilitate land reforms, for instance by spreading new information that is important for making decisions and by bringing the perspectives of indigenous people and forest-reliant local communities in discussions that concern them. Due to this, forest reforms are a component in the strategies of several nations for reducing emissions from deforestation and forest degradation.

The evaluation also states that RRI, through information dissemination and advocacy, contributed greatly to the outcome that a land reform in China turned into reality in 2008. This is the world's largest reform, which affected 400 million people and 100 million hectares of forest. As a result of the reform, communities could distribute land rights internally and decide themselves whether the areas should be managed as common land or should be divided among smaller groups or individuals. The changes led to increased trade in timber and other forest products and led to an average rise of ten per cent in income of the local people. At the same time, the planted area has increased by 150 per cent on average. These results were not known until RRI, with the help of Chinese academics, documented them in 2009, and according to the evaluation the results have provided important incentives for upholding and expanding the reform.

In 2011 one of the RRI partners, Forest Peoples Programme (FPP), revealed that the local population in several forest areas in Indonesia had been forcibly moved and made homeless by a palm oil company. Since the company also received support from the World Bank, FPP arranged for the Bank to mediate the case. As a result, the forest was returned to the local population in two areas, and mediation is continuing for another area. As a result of pressure from RRI and others, the World Bank also conducted a review, with the outcome that the World Bank froze all support to palm oil companies while a new framework was under preparation. The new framework requires companies to respect local land rights, including rights pursuant to customary law. RRI used the new rules to make a complaint against the plans of another palm oil company, which had started felling 200 000 hectares of forest in Liberia. As a result the company had to discontinue felling and initiate negotiations with the local population to resolve land right disputes.

Lessons learned: Advocacy requires partnership and adjustment to every individual situation
The land reform in China shows that local ownership makes it possible for trade of forest products and growth of forest to continue simultaneously. Increased rights result in preservation of forest as an important resource. In China RRI assisted the government's ongoing work and created incentives for upholding and implementing the reforms. In Indonesia RRI succeeded in advocacy through engaging an important financial institution, the World Bank. In both cases local partners were indispensable for providing information

References
Rights and Resources Initiative RRI
Mid-Term Evaluation: Final November 2011. The Mountain Institute
Norad

55 Mid-term Evaluation of the Rights and Resources Initiative. The Mountain Institute, 2011

TIL INNHOLD ↑

Photo: Regnskogsfondet

SUMMARY

Both the major forest initiative in Brazil, and less extensive measures such as in Malawi or support for the Rights and Resources Initiative give results: Sustainable exploitation of resources, increase/averted reduction in carbon storage in forests, and preservation of biological diversity. At the same time, there are a number of dilemmas in the work of preserving forests. In many places there may be a conflict of interests between commercial investors and local exploitation, between preserving biological diversity and active economic exploitation of the forest. These conflicts can only be resolved through a political process in each country. Through Norway's assistance for policy development for REDD+ in several countries, this process takes into account the goal of preserving the forest's carbon storage and other environmental values as well as safeguarding the local communities.

Assistance for locally based management has been among the most successful measures in Norway's efforts for biological diversity. Many years of research have shown that it is crucial that the local people see the value of preserving the resources they live off. It is important to develop alternative income generating activities for the local people to prevent unsustainable use of natural resources. The challenge is to upscale this at the national level. This necessitates a well-functioning state that is able to implement legislation and regulations that promote sustainable exploitation of natural resources. Locally based management contributes to ensuring the rights perspective and use of traditional knowledge and techniques. When the local community is guaranteed ownership and use of resources, it can also make an important contribution to the local economic growth and governance.

Developing international regulations is also highly important. Assistance to the African negotiation capacity in connection with the agreement on genetic resources has ensured control of the African countries over a resource base that potentially can have major development effects.

7. IILLUSTRATIONS OF NORWEGIAN RESULTS THROUGH MULTI-LATERAL ORGANISATIONS

In 2011, 45 per cent of the Norwegian aid budget, or NOK 12.5 billion, went to multilateral organisations. More than half of this was core support to the organisations, that is, money that goes into the organisation's budgets, which the organisation itself allocates to its operation and different programmes. Since many donors contribute, and a very large portion of the funds is not earmarked for particular purposes, it may be difficult to see which results have been achieved with the Norwegian development cooperation funds.

This part of the report presents some examples of how results achieved through multilateral organisations may be attributable to Norway's efforts. This has been presented in a simplified manner to illustrate which results the Norwegian funds have contributed to. Results reported by the organisations have been compared with Norway's share of funds given to the organisations so that Norway's share in the results can be estimated.

Fish market in Dar es Salaam, Tanzania

Foto: Ken Opprann

The UN and other multilateral organisations are important for Norway's development and environment policy for several reasons. For instance, they contribute to develop common regulations and directives for all member countries of the UN. Some examples are the three Rio conventions, respectively on climate, desertification and biodiversity, and the subsequent Nagoya Protocol that determines rules for access and use of genetic materials and sharing of profits through this (see example 6.4). Such international regulations are often be necessary for minor assistance initiatives to be successful, or even to begin. Without the Convention on Biological Diversity, for instance, it would have been much more difficult for developing countries to take measures to protect their natural environment, particularly where a biotope crosses the border of several countries. Mechanisms that are under development as a part of the Nagoya Protocol will ensure the developing countries income from the research and industrial potential that lies in their vast biological diversity.

The multilateral organisations collect and analyse data material that member states use as foundation for policy priorities. Some examples are reports from the United Nations Climate Panel, the United Nations Development Programme's annual Human Development Report and Human Development Index, and the United Nations Environment Programme's report on the environmental status, Global Environmental Outlook (see text box 7.1).

Support for global initiatives through multilateral organisations can be more effective than supporting individual initiatives. One example is the work of the United Nations Development Programme, UNDP, for reducing emissions of ozone depleting substances. The UNDP reports that thanks to their work in the period 1991-2011 emissions of 68 000 tonnes of ozone depleting substances were averted[56]. This has been an important contribution to global reduction in such emissions (see figure 7.1). Another example is the international research group CGIAR, which through developing new varieties of wheat, rice and maize has created an economic gain equivalent

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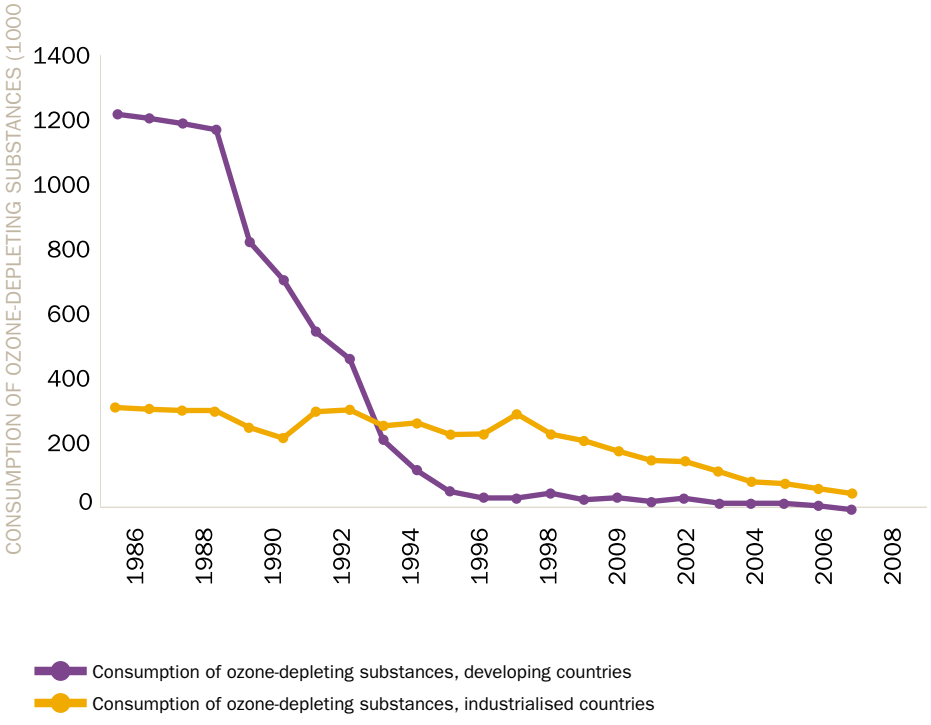
Box 7.1 UNEP and the Global Environmental Outlook

The United Nations Environment Programme, UNEP, aims to contribute to international cooperation and action based on solid scientific assessments of regional and global environmental trends. Since 1997 reports on the GEO - Global Environmental Outlook – have been the foundation stones in the work to build bridges from science to politics.

The GEO project aims to gather and systematise knowledge of the environmental status, place this knowledge in a wider context and present solutions. Norway has contributed both financially and technically to ensure quality of the reports, attention to the reports and follow-up. In preparing the latest report (GEO-5), GRID-Arendal in particular had a key role. GRID-Arendal is a Norwegian research centre associated with UNEP, and it is UNEP's leading provider of information on the polar region, and an important collaborating partner for initiatives for sea and coastal areas all over the world.

There is an element of supranationalism in the work of environmental monitoring and environmental information, and processes around this often become political. Norway had a leading role in negotiating the summary document about this year's GEO report, that the states agreed to and that was launched prior to the Rio+20 Conference. This was the first time the GEO report was followed up by a joint intergovernmental interpretation of the environmental information.

FIGURE 7.1 SHARP DECLINE IN EMISSION OF OZONE-DEPLETING SUBSTANCES



Reference: The Millennium Development Goals Report 2010. (MDG 7, p. 54)

All countries of the world have committed to the Montreal protocol from 1989 to ban ozone-depleting substances. In its update on the Millennium Development Goals, the UN writes: "2010 marks the beginning of a world practically free of ozone depleting substances".

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Photo: Ken Opprann

Power line in Laos. The World Bank has expanded or improved almost eight gigawatts of production capacity in the poorest countries.

to USD 14.1 billion in Asia (see example 7.3). These results would have been difficult to achieve through individual programmes. Norway contributes to global efforts through, for instance, the United Nations Environment and Energy Fund, the World Bank's Climate Investment Fund and the United Nation efforts for environment and poverty alleviation. In 2005, UNDP and UNEP established the Poverty-Environment Initiative (PEI) for integrating environmental considerations with strategies for poverty and other development plans. So far, the initiative has assisted authorities in 18 developing countries with planning national initiatives that integrate environment in national development plans and budgets.

Calculating Norway's share of the results

The multilateral organisations receive both core contributions and funds that are earmarked for specific initiatives or focus areas. Over half of the assistance Norway gives to multilateral organisations is core contributions. This is an instrument for making the organisations more efficient. Core contributions are more predictable than earmarked funds and they make it easier for the organisations to plan long-term and adjust the initiatives to the needs in partner countries. Earmarked funds are used to promote areas that are particularly highly prioritised by Norway. Initiatives by organisations are often financed with a combination of these funds, which makes it difficult to track down the results achieved in individual countries with Norwegian funds used through multilateral organisations. The picture is further complicated by the fact that organisations both carry out their own initiatives, and grant money to other organisations for carrying out initiatives, for instance the United Nations Development Programme and the Global Environmental Facility, GEF (example 7.1). Norway lays down strict requirements for result reporting from the organisations and assists several of its multilateral collaboration partners with improving their results work.

For illustration purposes, one can nevertheless calculate Norway's share of the results achieved by the organisations. For instance, the World Bank ensured that 24 million people gain electricity through measures such as laying 43 000 kilometres of power lines[57]. Since Norway supported the World Bank's International Development Fund with 1.5 per cent of the total contribution, it may be implied that Norway's contribution has led to providing electricity to 360 000 people, and that 645 kilometres of power lines have been laid. This indicates the volume of the results achieved with Norwegian funds, but the reality is more complex than what the example shows. The authorities in countries where electricity networks have been expanded have also contributed to these results, and exactly what part of the results can be attributed to the different participants is difficult to determine. Another challenge is that it can be difficult to check whether the quality of reporting is good enough. These calculations must therefore be seen as illustrative and not the actually documented Norwegian results.

Examples of results below have been selected as the concerned organisations report quantifiable effects of their efforts, which makes this type of calculations possible. The examples include one UN organisation, one international finance institution and one international research fund – respectively the UNDP, the World Bank and the Consultative Group on International Agricultural Research, CGIAR. These three organisations show to some degree the scope of the focus areas and the approach for working with the management for natural resources in multilateral organisations. Only a few examples of results from each organisation have been selected.

57 www.worldbank.org

EXAMPLE 7.1 UNITED NATIONS DEVELOPMENT PROGRAMME (UNDP)

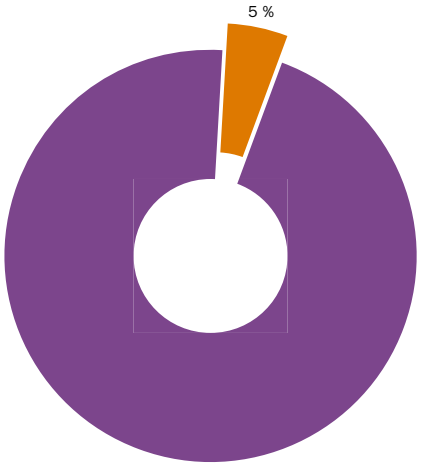
Norway has contributed five per cent of the UNDP's income since 2001. With the reservations mentioned in the introduction, Norway can claim five per cent of the results. According to the UNDP, approximately ten million people have gained access to energy though UNDP-supported projects during the past ten years[58]. Most of these are poor families in rural areas. Therefore, it is estimated that half a million people have gained access to modern energy thanks to the Norwegian aid. The UNDP reports that as a result of their work in the period 1991-2011, CO_2 emissions have been reduced by almost 4000 megatonnes[59]. If Norway's contribution was also five per cent in the period 1991-2011, emission reduction of 200 megatonnes is attributable to Norway's aid.

In the period 2005-2010, the UNDP established conservation of land equivalent to eleven million hectares in order to ensure biodiversity[60]. The Norwegian share of this can be stated as just above half a million hectares of land. None of the above results is attributable only to the UNDP, as development assistance has also been provided through other finance mechanisms, for instance, the Global Environmental Facility (GEF) which also separately receives assistance from Norway.

58 UNDP 2012: Fast Facts. Universal Energy Access.
59 UNDPs annual report 2011-2012.

60 UNDP 2012: Fast facts. Environment, Energy & UNDP.

FIGURE 7.2



Norway's share in the UNDP income, average for 2001-2011

Reference: The Norwegian Ministry of Foreign Affairs, UNDP

In the past ten years, Norway has supported the UNDP with approximately NOK 16 billion, out of which NOK 8.5 billion represented earmarked contributions. Norway's total development assistance to the UNDP constitutes around five per cent of the organisation's total income.

EXAMPLE 7.2 THE WORLD BANK

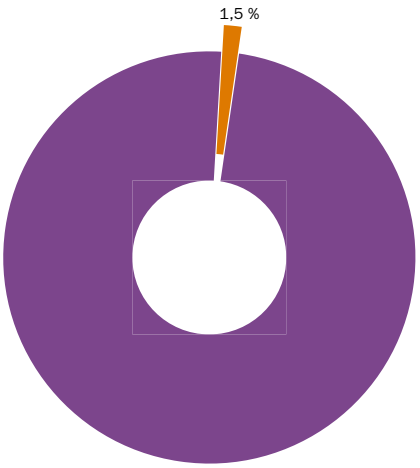
In 2011 the World Bank lent out a total of USD 43 billion, 14 per cent of which went to environment and natural resource management. Since 2000 the World Bank has helped to build or improve approximately eight gigawatts of electric production capacity. This is equivalent to almost the entire production capacity in the middle-income country Peru, or as much as the production of the 15 largest power plants in Norway. Norway's support to the World Bank's International Development Fund is 1.5 per cent of the total contribution. With the reservations mentioned in the introduction, Norway's share of this result may be stated as 0.08 gigawatts.

Thanks to the World Bank, more than 113 million people have gained better water sources and 5.8 million people now have sanitary facilities[61]. Norway's contribution can be stated to have led to better water sources for 1.7 million people and sanitary facilities for 87 000 people.

The World Bank is one of several partners in the two climate investment funds Clean Technology Fund and Strategic Climate Fund. Over the coming five years, it is expected that the funds will contribute to reducing CO2 emissions by approximately 1.5 billion tonnes[62]. Norway has contributed USD 194 million, or three per cent, of the fund's total income of USD 6.5 billion. If Norway continues to contribute three per cent of the fund's income, Norway's share of the reduced emissions will be 45 million tonnes of CO_2 in the next five years.

61 www.worldbank.org/ida
62 climatechange.worldbank.org

FIGURE 7.3



Norway's share of core assistance, the World Bank's International Development Association (IDA), 1999-2011

Reference: The Norwegian Ministry of Foreign Affairs, UNDP

The World Bank's support to programmes in poor countries goes via the International Development Association (IDA). Norway's non-earmarked contribution to IDA in the period 1999- 2011 on average constituted 1.5 per cent of the fund's core contribution.

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EXAMPLE 7.3 CONSULTATIVE GROUP FOR INTERANATIONAL AGRICULTURAL RESERACH (CGIAR)

The Consultative Group for International Agricultural Research (CGIAR) consists of 16 research centres with different areas of specialisation in agriculture and forest. Through result studies CGIAR has found that for every NOK invested in agricultural research, food valued at nine NOK is produced63. In Asia, for instance, the total annual economic benefit gained through CGIAR's research is USD 0.8 billion for maize, USD 2.5 billion for wheat and USD 10.8 billion for rice. Norway's share of the CGIAR system's total financing is 2.5 per cent and the Norwegian share in the results can be stated as 2.5 per cent. Recalculated as economic gain, it is respectively USD 20 million for maize, USD 63 million for wheat and USD 270 million for rice.

Over 50 new drought-resistant plant varieties have been developed by CGIAR's research institutes. These new varieties are now being used on approximately one million hectares of land in the southern and eastern parts of Africa, producing between 20 and 50 per cent more than the old varieties would have produced. Development of such plants is important so that farmers in poor countries are able to adapt to climate change, and Norway can claim a share of 2.5 per cent in these results.

CGIAR's research on, and development of, new rice varieties has led to the trend that the production is increasing and the price is decreasing (also see example 3.5). CGIAR estimates that 6.75 million Chinese were lifted out of poverty between 1981 and 1999, thanks to its research. With the average Norwegian contribution of 2.5 per cent of CGIAR's total budget, it can be assumed that the Norwegian assistance lifted approximately 170 000 Chinese out of poverty.

A counterfactual study from 2003 maintains that without CGIAR:

- → developing countries would have produced seven to eight per cent less food
- → farmed land would have been 11-13 million hectare more, which would have other implications for instance, large forest areas would have been cut down.
- → food consumption per capita would have been five per cent less on average
- → 13-15 million children would have been undernourished

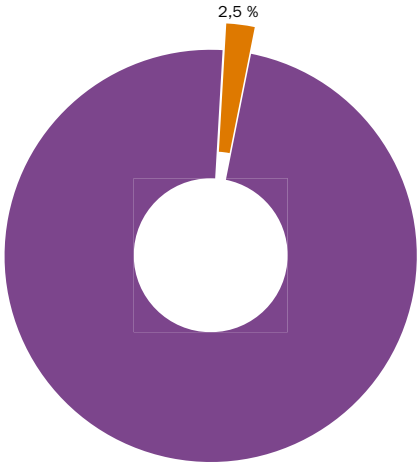
63 CGIAR 2011: Findings on the impacts of CGIAR research 1971-2011
64 R.E. Evenson and M. Rosegrant, 2003: The Economic Consequences of Crop Genetic Improvement Programmes

Norway's funds have, in other words, also prevented 325 000-350 000 children from becoming undernourished. In almost half of the areas that were used for growing beans in West and Central Africa, improved versions of beans are now being grown that were developed by CGIAR. It is estimated that 5.3 million households have improved food security and increased income as a result of this. 132 500 of these are attributable to Norwegian development cooperation.

Towards the end of the 1980s, CGIAR succeeded in developing a method for biological control of pests that were very destructive for the production of cassava in Africa. It is estimated that controlling one of these pests – the cassava mealybug – alone has resulted in savings of USD nine billion. Norway's share of this is almost a quarter billion USD.

It is also possible to use the same approach for calculating future results: CGIAR has developed a vaccine for the cattle disease East Coast Fever, and the vaccination programme is now being rolled out in the African countries concerned. The vaccine is expected to save more than one million cattle per year, saving up to USD 270 million per year. If the results are fully attributed to C GIAR, Norway's share would ben5 000 cattle and a saving of USD 6.75 million per year.

FIGURE 7.4



Norway's share of the total budget, CGIAR, 1989-2011

Reference: The Norwegian Ministry of Foreign Affairs, CGIARR

Norway has supported CGIAR with NOK 1.44 billion since 1989. Nearly all of this is core funding. During this period, Norway's share of CGIAR's total budget has varied between 1.7 and 3.4 per cent, the average being 2.5 per cent.

SUMMARY

Through support to multilateral organisations, Norway has contributed to results that would have been difficult to achieve alone, such as large reductions in emissions of CO2 and ozone-depleting substances, and development of new grain and rice varieties that will provide food security for millions. Sometimes Norway and other small countries that give substantial aid to multilateral organisations and have high participation in international processes have more influence than the volume of their contribution would suggest.

Norway sets requirements for result reporting by the multilateral organisations. The quality of result reporting is however uneven. Quantitative result reporting, which has been used in this chapter, is not used by many of the organisations. Therefore, Norway is working to improve the results work among many of its most important multilateral partners. It must be emphasised that the purpose is not to make the organisations provide only quantitative reports, but that planning, implementation and supervision of initiatives should be done in a way that makes it easier to document the results of the work.

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PART II
FACTS AND FIGURES

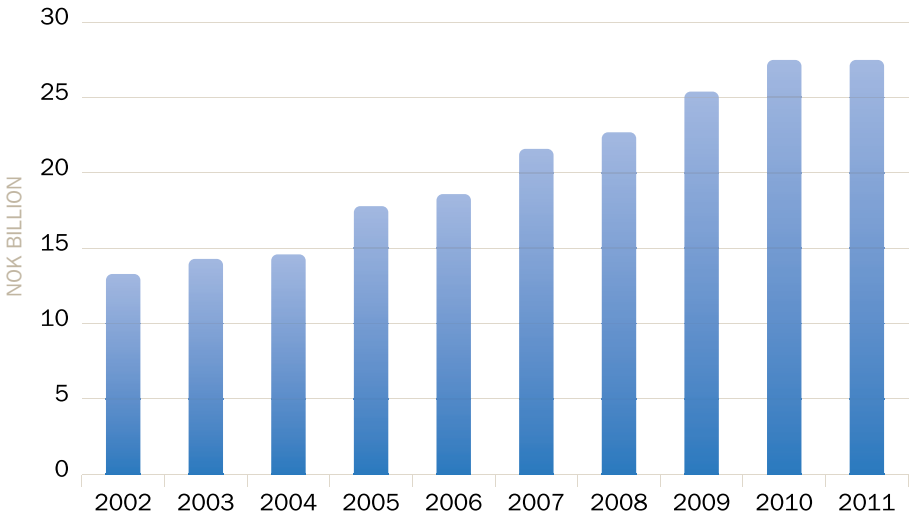
The statistics part of the report presents sample statistics of development and aid. This part contains general information and it is not directly linked with the subject of natural resource management. The statistics part has four sections. The first section gives an overview of how the Norwegian aid funds are used. In the second section, Norway's aid is compared with aid from OECD countries. The third section gives an overview of selected development indicators in countries that received aid from Norway in 2011. The last section contains tables that present an overview of the Norwegian aid.

_part II →

Photo: Ken Opprann

2.1 NORWEGIAN DEVELOPMENT ASSISTANCE IN FIGURES

FIGURE 1: THE NORWEGIAN AID HAS INCREASED



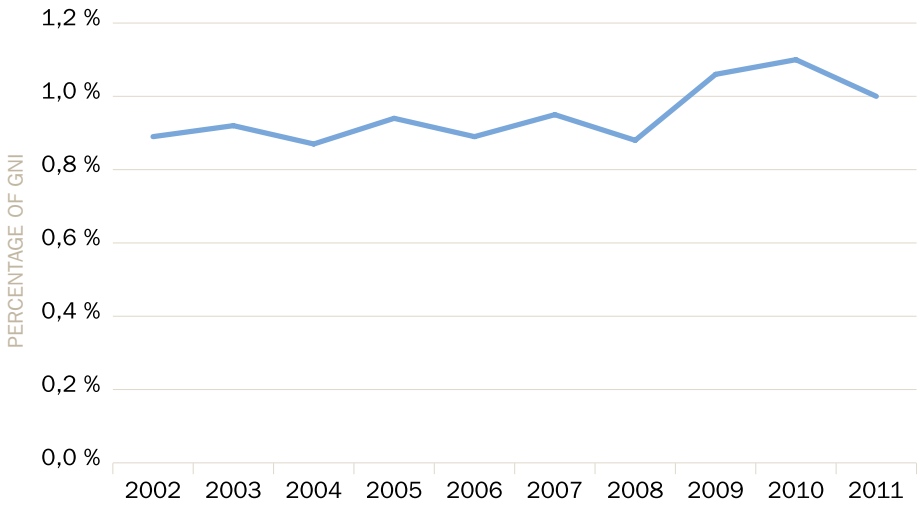
The Norwegian aid 2002-2011, NOK billion

Source: Norad

In 2011 the Norwegian aid amounted to NOK 27.7 billion. From 2010 to 2011, there was a reduction of NOK 18 million, which represents a difference of less than 0.1 per cent. If we look at the aid in relation to the population, each Norwegian gave an average of NOK 5 500 in aid in 2011.

Photo: Ken Opprann

FIGURE 2: THE NORWEGIAN AID CONSTITUTES ONE PER CENT OF GNI



The Norwegian aid as percentage of GNI. 2002-2011

Source: Norad

In Norway, it is a defined policy goal that aid is to constitute one per cent of gross national income (GNI). GNI is a measure of a country's total income, so the goal of giving one per cent in aid ensures that the degree of aid increases in line with the income development in Norway. In 2011, Norway's aid was one per cent of GNI. This is less than the aid given in 2010, which was 1.1 per cent of GNI. The goal had nevertheless been achieved. Prior to 2009, one has to look as far back as 1982-1994 to find a period when the volume of aid, compared with GNI, was similar to this or higher.

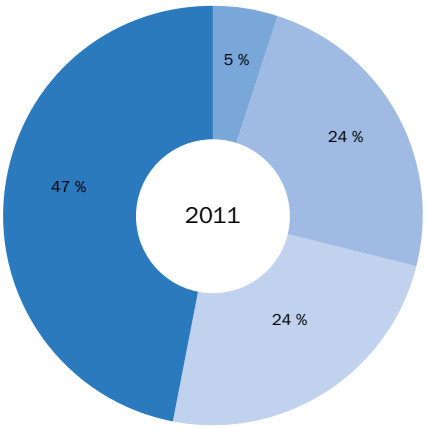
Out of the NOK 27.7 billion that Norway gives in aid, less than half is not earmarked for a particular geographical area. The aid that cannot be distributed over regions covers administration costs in relation to aid work, assistance as core funding to multilateral organisations and aid that is often sector-specific but not geographically earmarked.

The administration costs consist of expenses incurred by Norad, the Norwegian Ministry of Foreign Affairs, Norfund and FK Norway for administering the aid work. In 2011, NOK 1.5 billion was spent on administration, which constitutes 5 per cent of the aid. Over the past ten years, the proportion of aid funds that goes to administration has remained stable at around five per cent.

A multilateral organisation is an organisation whose members are states. The United Nations and World Bank are examples of such organisations. In 2011, assistance of NOK 6.6 billion was given in core funding to multilateral organisations. These funds go directly to the organisations without being attached to a certain country or type of project. If we look at core funding to multilateral organisations in NOK, it has been increasing over the past ten years, from NOK 4.0 billion in 2002 to NOK 6.6 billion in 2011. Although core funding to multilateral organisations has been increasing in NOK, there has been a decline in its percentage ratio of the total aid. In 2002, this aid was just under 30 per cent of Norway's total aid, while in 2011 it was 24 per cent.

In 2011, NOK 6.7 billion was given as aid that was not geographically specified. This was 24 per cent of the aid in 2011. Examples of the uses are refugee expenses in Norway and aid to thematic funds for education, health and environment. In 2002, NOK 1.2 billion was global aid, which constituted nine per cent of the aid that year.

FIGURE 3: LESS THAN HALF OF NORWAY'S AID GOES TO SPECIFIC COUNTRIES OR REGIONS



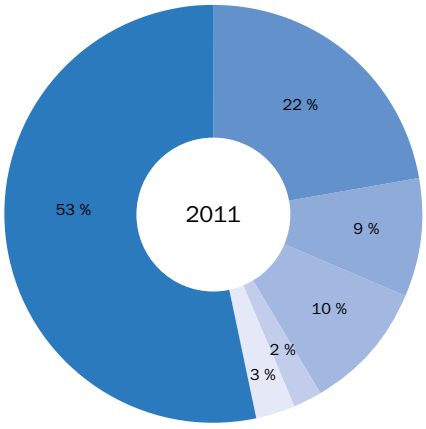
The Norwegian aid 2011. NOK 27.7 billion

Source: Norad

The proportion of aid for which distribution by country or region can be shown was 47 per cent in 2011. Since 2002, the proportion of aid which can be distributed by region has shrunk; ten years ago aid distribution by region constituted 57 per cent of the total aid, ten percentage points higher than 2011.

Africa is the part of the world that receives most region-specific funding. Aid to Africa made up 22 per cent of the total aid. This is equivalent to almost half of the region-specific aid. The Norwegian aid to Africa has increased over the past ten years from NOK 3.6 billion in 2002 to NOK 6.1 billion in 2011. In this period, aid to Africa, despite an increase in NOK, had gone down in percentage of the total aid, from 27 per cent in 2002 to 22 per cent in 2011. Aid to Asia and America was respectively 10 and 9 per cent of the total Norwegian aid in 2011. Asia has traditionally received substantial aid from Norway. America in the past has received a relatively small portion of the Norwegian aid, but the region has been receiving more since Norway started its climate and forest initiative. Between 2002 and 2011 the proportion of aid to this region has doubled.

FIGURE 4: AFRICA IS THE REGION THAT RECEIVES THE MOST AID



The Norwegian aid 2011. NOK 27.7 billion

Source: Norad

* Aid that cannot be distributed over countries or regions consists of administration costs associated with aid, core funding to multilateral organisations and aid which is sector-specific but not geographically earmarked

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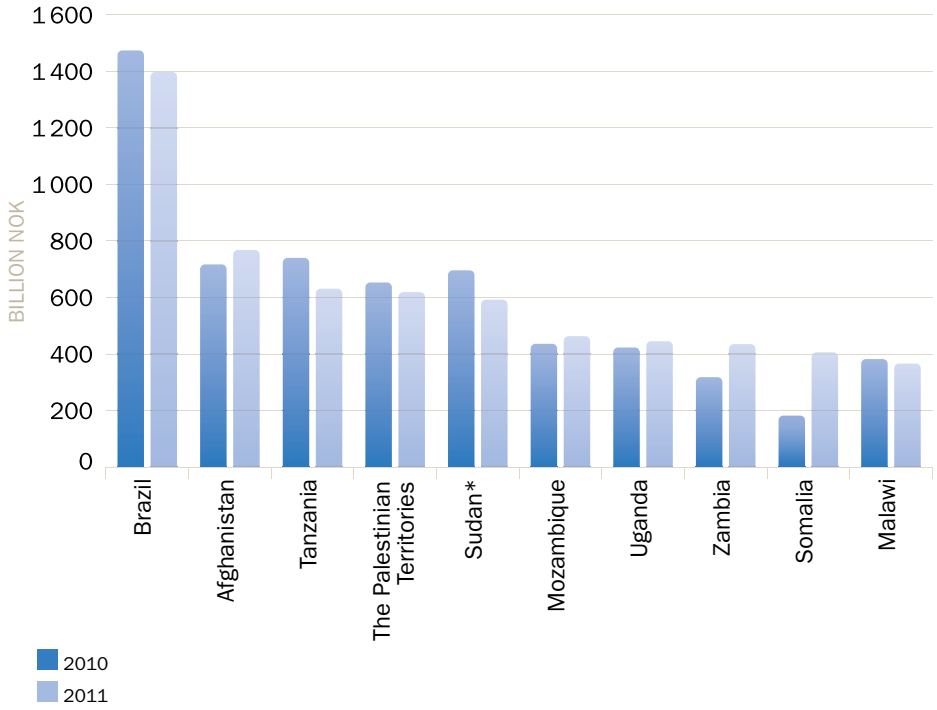
FIGURE 5: BRAZIL IS THE LARGEST RECIPIENT OF NORWEGIAN AID



*Aid to Sudan and South Sudan in 2011

Ten countries that received most Norwegian aid in 2011, in comparison with aid they received in 2010. NOK million

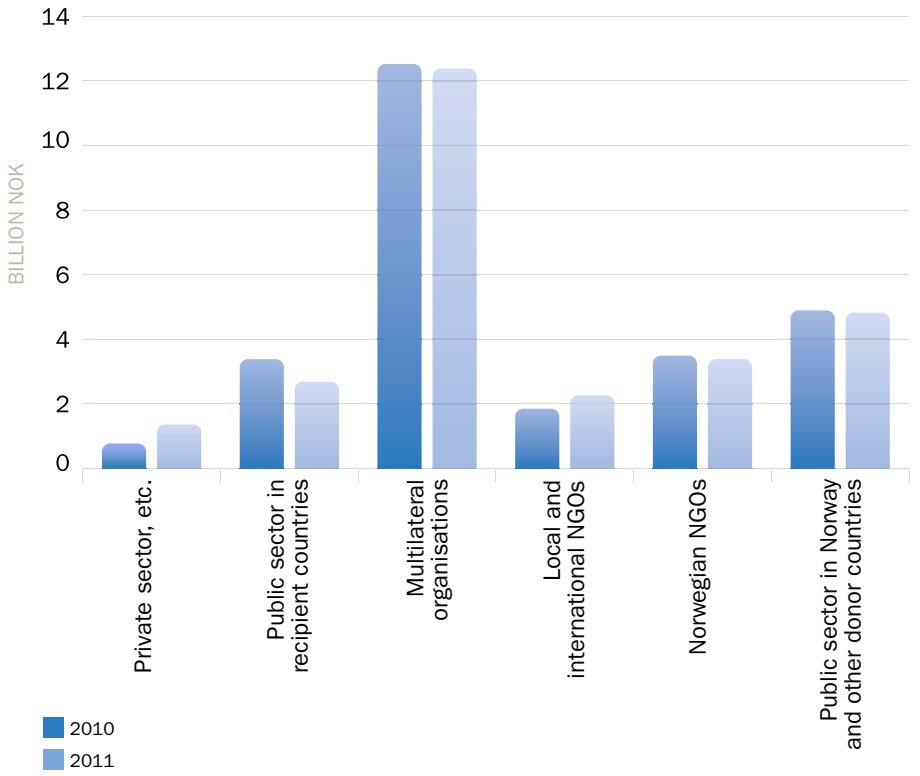
Source: Norad

The country that received the most aid in 2011 and in 2010 was Brazil. Brazil received NOK 1.4 billion in aid from Norway in 2011. Most of Norway's aid to Brazil is related to climate, the environment and energy. From 2010 to 2011, there was a decrease of NOK 425 million for forest projects within this sector but there was an increase of NOK 347 million for hydropower. From 2010 to 2011, aid to Afghanistan increased from NOK 726 million to NOK 777 million. Most of the increase was associated with aid for good governance. Aid to Tanzania amounted to NOK 640 million in 2011. This was a reduction of NOK 90 million from 2010. Most of the reduction can be explained by the fact that less funding was granted for environment and energy, economic development and education.

In June 2011, Sudan was divided into two countries, Sudan and South Sudan. To provide a clearer comparison of the aid level in 2011 with the level in 2010, aid to Sudan and South Sudan is reported together. In 2011, Sudan and South Sudan received NOK 274 million and NOK 327 million respectively in aid from Norway. In total, this represents a reduction of 15 per cent in comparison to aid to Sudan in 2010, before the country was divided. Aid to Zambia increased by 36 per cent from NOK 327 million to NOK 444 million. This increase can largely be explained by investments of NOK 98 million in hydropower.

Among the ten countries that received the most aid from Norway, Somalia had the largest increase in percentage terms. From 2010 to 2011, aid increased by NOK 191 million, amounting to a total of NOK 415 million, which was more than a doubling of the aid. Most of the increase was associated with upscaling of emergency relief for internally displaced people and persons affected by drought and famine. Haiti and Pakistan received significantly less aid in 2011. Both these countries experienced a reduction in aid of over 60 per cent from 2010 to 2011. The reason was that these countries received large sums of money after the earthquake in Haiti and floods in Pakistan in 2010, while they did not have similar needs in 2011.

FIGURE 6: MULTILATERAL ORGANISATIONS RECEIVED OVER 12 BILLION NOK IN 2011

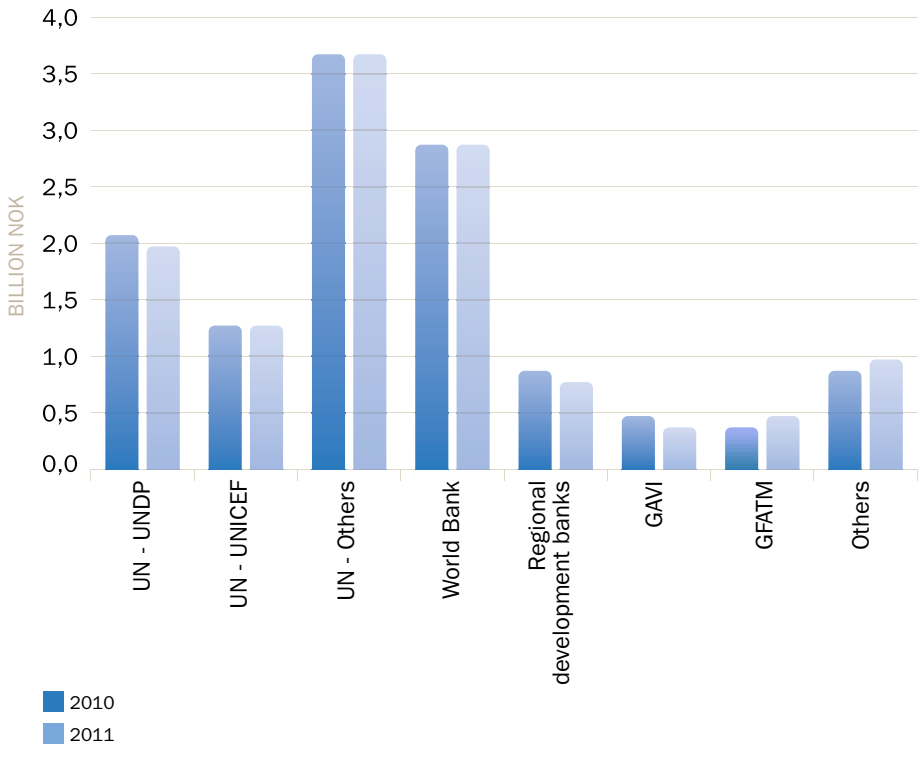


Distribution of Norwegian aid by partner in 2010 and 2011. NOK Billion

Source: Norad

In 2011, multilateral organisations received NOK 12.5 billion in aid from Norway. This is a combination of both core funding and funding for earmarked projects. This makes up 45 per cent of the Norwegian aid and the level of this aid has remained almost the same as in 2010. Norwegian non-governmental organisations received NOK 3.5 billion in aid, a decline of three per cent from 2010. From 2010 to 2011, there was a decline in aid to the public sector in developing countries. This decline is associated with reduced aid for climate and forest to Brazil as well as a decline in budget support. There was an 83 per cent increase in aid to the private sector in 2011 compared with the year before. This increase is mainly due to investments from Norfund in banking and finance services and in the energy sector.

FIGURE 7: THE UN RECEIVED NOK SEVEN BILLION IN AID FROM NORWAY

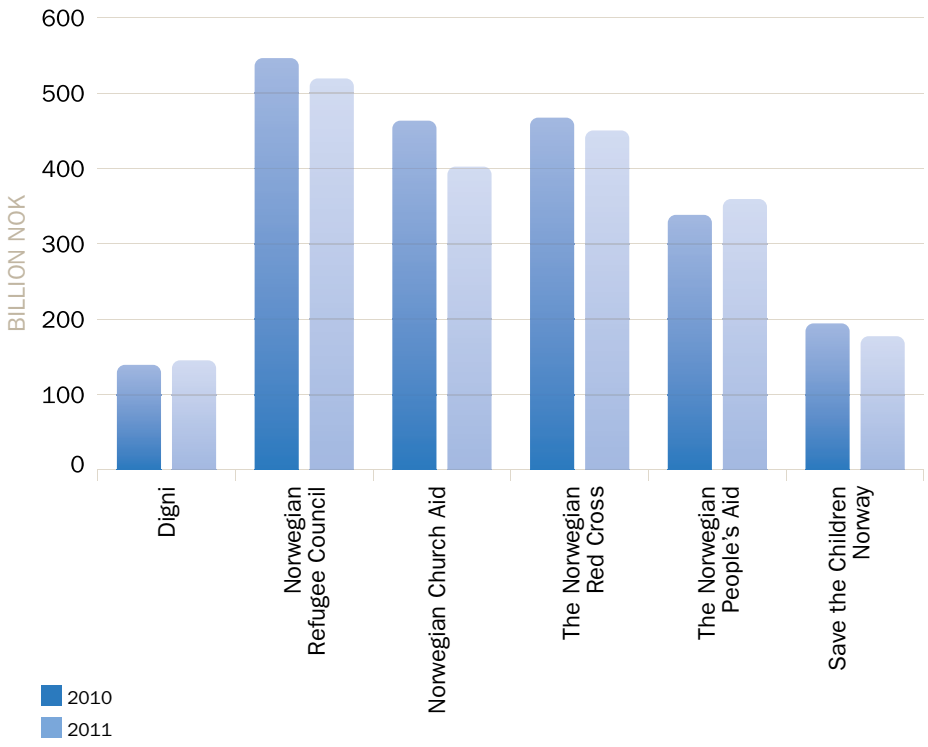


Aid to multilateral organisations

Source: Norad

Among the multilateral organisations that receive aid from Norway, the United Nations organisations receive the most aid. In 2011, Norway gave NOK seven billion in aid to the UN. This is a slight decrease compared with 2010. Among the UN organisations, the United Nations Development Fund (UNDP) and the United Nations Children's Fund (UNICEF) received the most aid from Norway. These two organisations received NOK 2.0 billion and 1.3 billion respectively in aid from Norway. The World Bank received NOK 2.9 billion in 2011, which was almost at the same level as in 2010. Regional development banks received ten per cent less assistance in 2011 compared with 2010. In 2011, the vaccination organisation GAVI received NOK 429 million, a decrease from 2010. The Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) received NOK 450 million, which represents an increase of 20 per cent from the level in 2010. More information on Norway's aid to multilateral organisations is available in Table 9 in the appendix of tables.

FIGURE 8: NORWEGIAN REFUGEE COUNCIL RECEIVED OVER NOK 500 MILLION IN AID

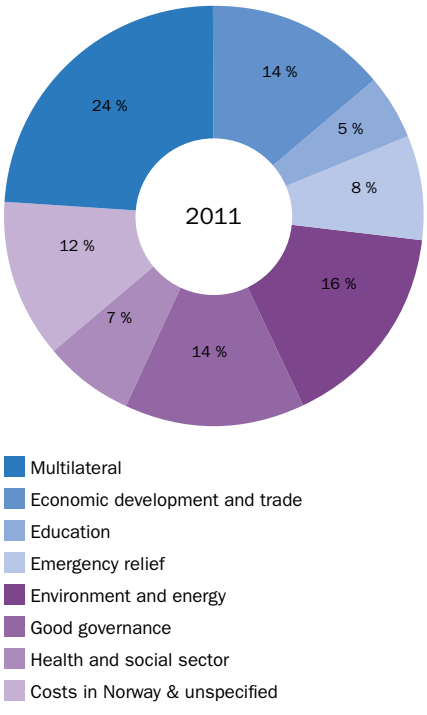


Aid to the six largest Norwegian NGOs in 2010 and 2011. NOK Million

Source: Norad

The Norwegian non-government organisations received three per cent less aid than the year before. Many of the major Norwegian organisations such as the Norwegian Refugee Council, Norwegian Church Aid, the Red Cross and Save the Children Norway received less funding compared with the 2010 level. The Norwegian Refugee Council received the most aid among Norwegian organisations in 2011. They received five per cent less aid compared with 2010, that is, NOK 525 million. Norwegian Church Aid had a reduction of 13 per cent in aid. This was the largest percentage reduction among the six largest Norwegian NGOs. The Norwegian People's Aid was given six per cent more aid than the year before. One of the reasons for this was that the TV Charity Campaign was run by the Norwegian People's Aid in 2011.

FIGURE 9: 24 PER CENT OF NORWEGIAN AID IS GIVEN AS CORE FUNDING TO MULTILATERAL ORGANISATIONS



Distribution of Norwegian aid by sector, 2011

Source: Norad

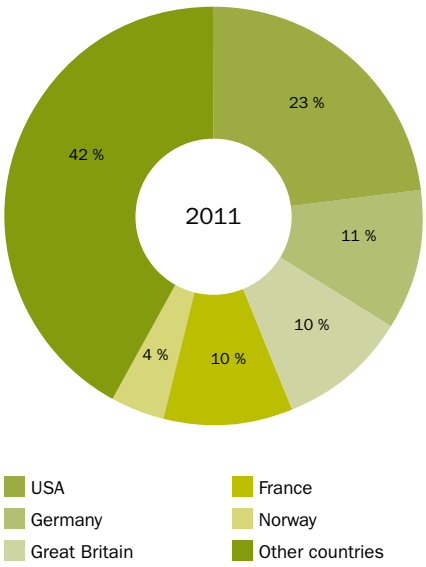
In 2011, 24 per cent of the Norwegian aid was given as core funding to multilateral organisations. This general aid is not earmarked for a specific sector. NOK four billion was given in assistance for economic development and trade. This is an increase of ten per cent from the year before. One of the reasons for the increase is that major investments were made in the private sector through Norfund. Assistance for education amounted to NOK 1.5 billion in 2011. This is a decrease of five per cent from the 2010 level. There was a decrease in assistance for education both through the Norwegian NGOs and through the private sector in developing countries. The volume of Norway's assistance for education has been reducing every year since 2005. In 2011, NOK 2.1 billion was donated in emergency relief. This is a decrease of three per cent from the year before. NOK 4.3 billion was given in assistance for environment and energy. This is a decrease of four per cent from 2010. Within this sector, assistance for energy has increased while there have been reductions in assistance for climate and forest. The largest sector-wise reduction from 2010 to 2011 was in costs in Norway and unspecified. This was a reduction of 13 per cent because refugee expenditure in Norway was reduced from NOK 2.0 billion in 2010 to NOK 1.5 billion in 2011.

2.2 NORWEGIAN DEVELOPMENT ASSISTANCE IN AN INTERNATIONAL CONTEXT

This section compares Norway's aid with aid from countries that are members of the OECD's Development Aid Committee (DAC). OECD/DAC has 23 member nations in addition to EU, and it is a forum of discussion on aid policy. OECD countries have traditionally been the largest aid donors.

In 2011 OECD/DAC member nations gave a total of USD 134 billion in aid (approximately NOK 750 billion). Norway contributed 3.7 per cent of this amount. In comparison, Norway's population is 0.5 per cent of the population in OECD countries. The USA, with its contribution of 23 per cent, gave the most assistance among the OECD/DAC countries. Germany, the UK and France had contributed approximately 10 per cent each among the OECD/DAC countries.

FIGURE 10: NORWAY GIVES FOUR PER CENT OF OECD/DAC'S TOTAL AID



Aid given by OECD/DAC countries. 2011 (provisional figures)

Source: OECD/DAC

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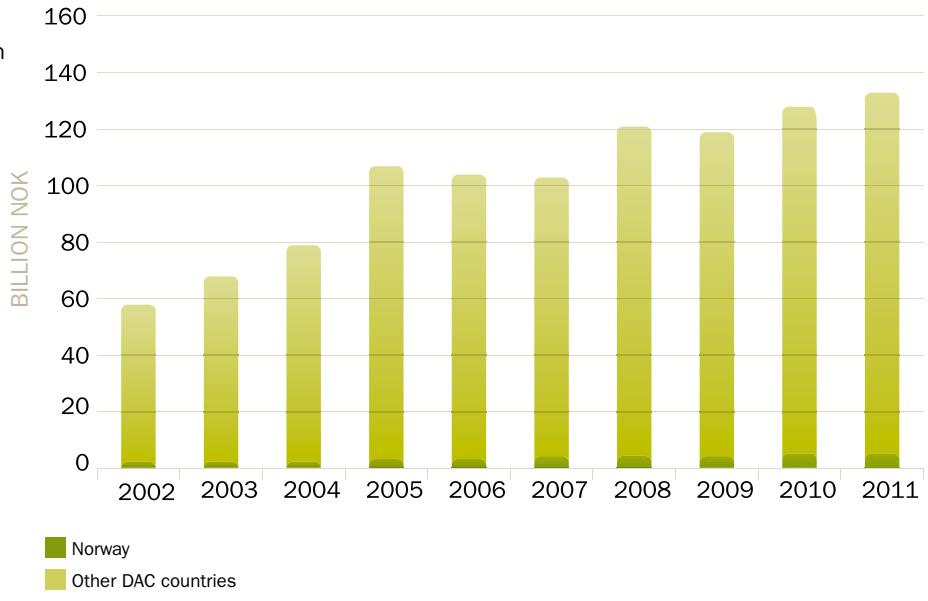
Foto: Ken Opprann

In the period 2002-2011, total assistance from OECD/DAC countries has increased from USD 59 billion to USD 134 billion. In the same period, Norway's contribution has increased from 2.9 per cent to 3.7 per cent.

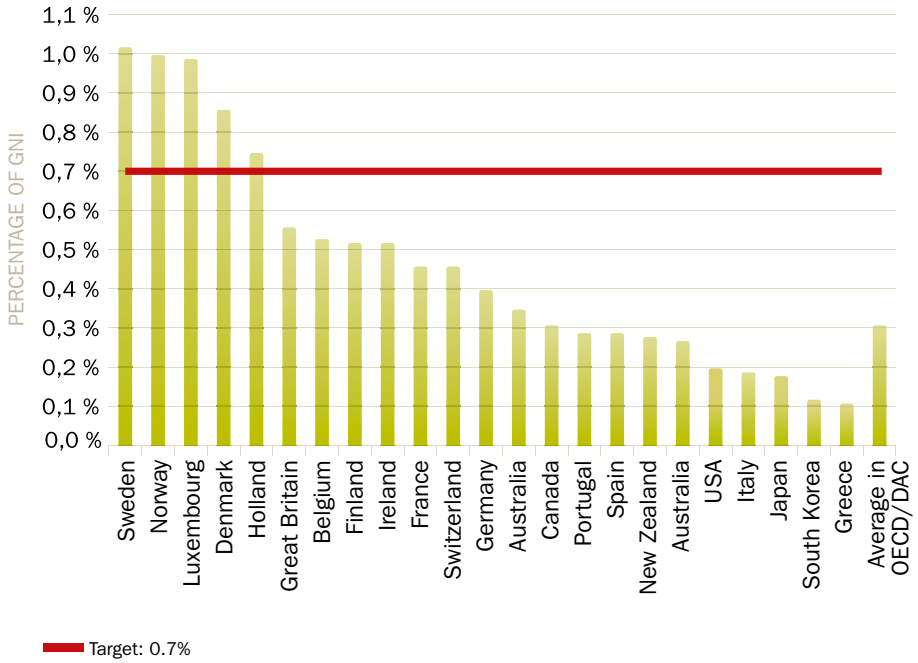
FIGURE 11: INTERNATIONAL AID DOUBLED IN A DECADE



Total aid by OECD/DAC, and Norway's contribution in this. 2002-2011. USD billion (provisional figures for 2011)

Source: OECD/DAC

FIGURE 12: FIVE COUNTRIES GIVE OVER 0.7 PER CENT OF GNI IN AID

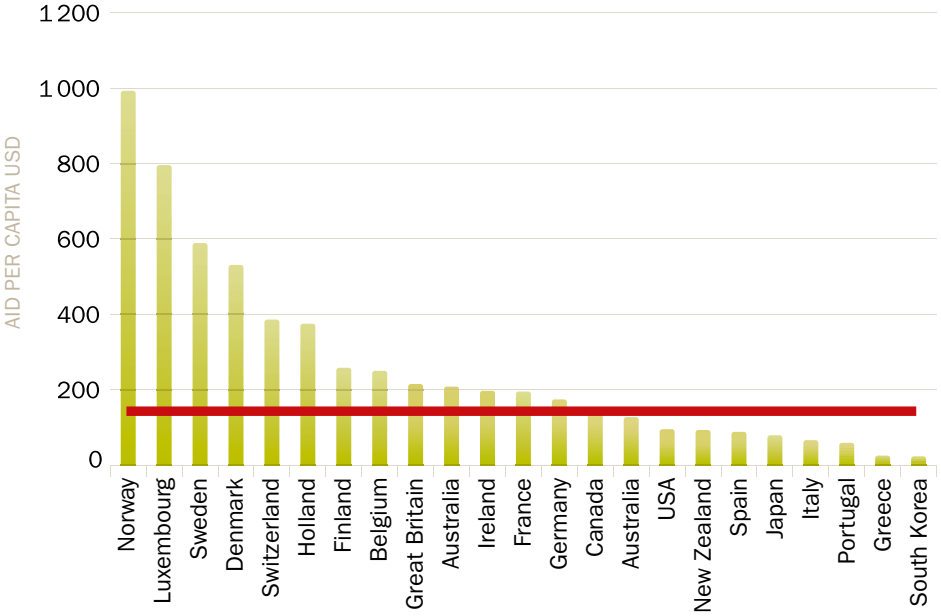


Aid as percentage of GNI in OECD/DAC countries. 2011

Source: OECD/DAC

The economies of the different OECD/DAC countries differ greatly in size. To get an overview of how much a country gives in aid in relation to the size of the economy, aid can be presented as percentage of the gross national income (GNI). The UN's goal is that rich countries contribute 0.7 per cent of GNI in development aid. In 2011, Sweden, Norway, Luxembourg, Denmark and Holland were the only OECD countries to achieve this goal. Sweden made the largest contribution, 1.02 per cent of GNI. Norway gave 1.0 per cent of GNI in aid. Norway has been meeting the UN's target of giving 0.7 per cent of GNI in aid since 1974. On average, OECD/DAC countries gave 0.31 per cent of GNI in aid.

FIGURE 13: NORWAY GIVES MOST AID PER CAPITA



Aid per capita in OECD/DAC countries. 2011

Source: OECD/DAC

Another way to look at how much the different countries contribute is to see how much aid is given per capita. On average, every inhabitant in OECD/DAC countries gave USD 140 in 2011 (approximately NOK 800). Inhabitants of Norway gave on average USD 1 000 each, which is over seven times the average for the OECD/DAC. The combination of a strong economy, a relatively large aid budget and a small population are the factors that make Norway the largest donor per capita. Luxembourg and Sweden had an average of respectively USD 800 and USD 600 per person among the three countries that donated the most in relation to population.

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FIGURE 14A: SWEDEN AT THE TOP OF THE COMMITMENT TO DEVELOPMENT INDEX

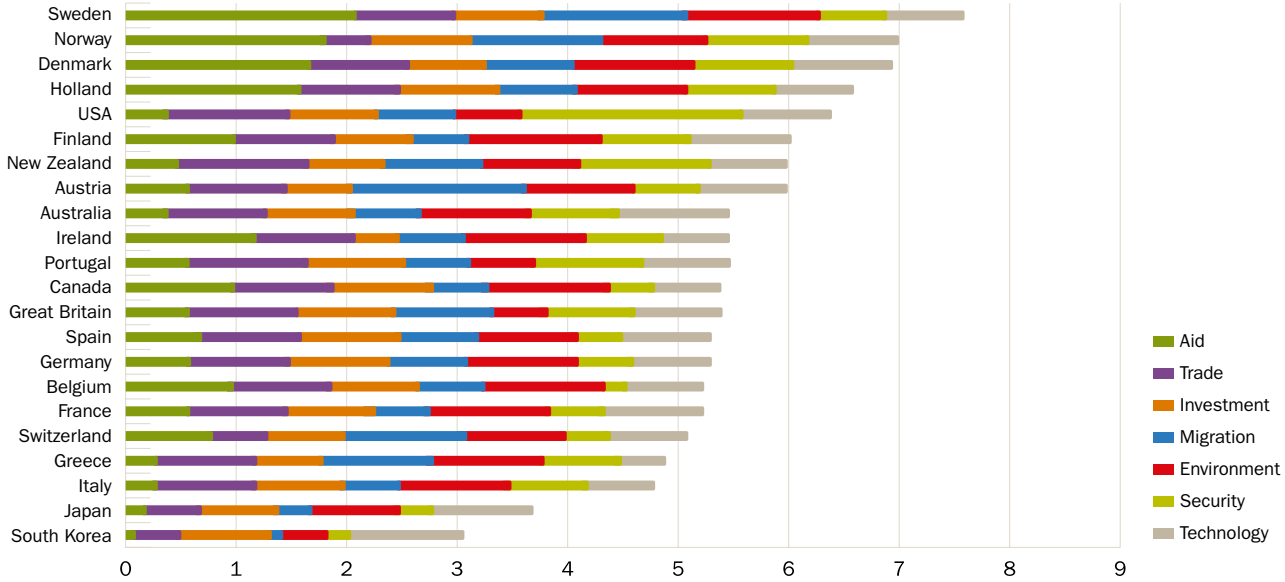
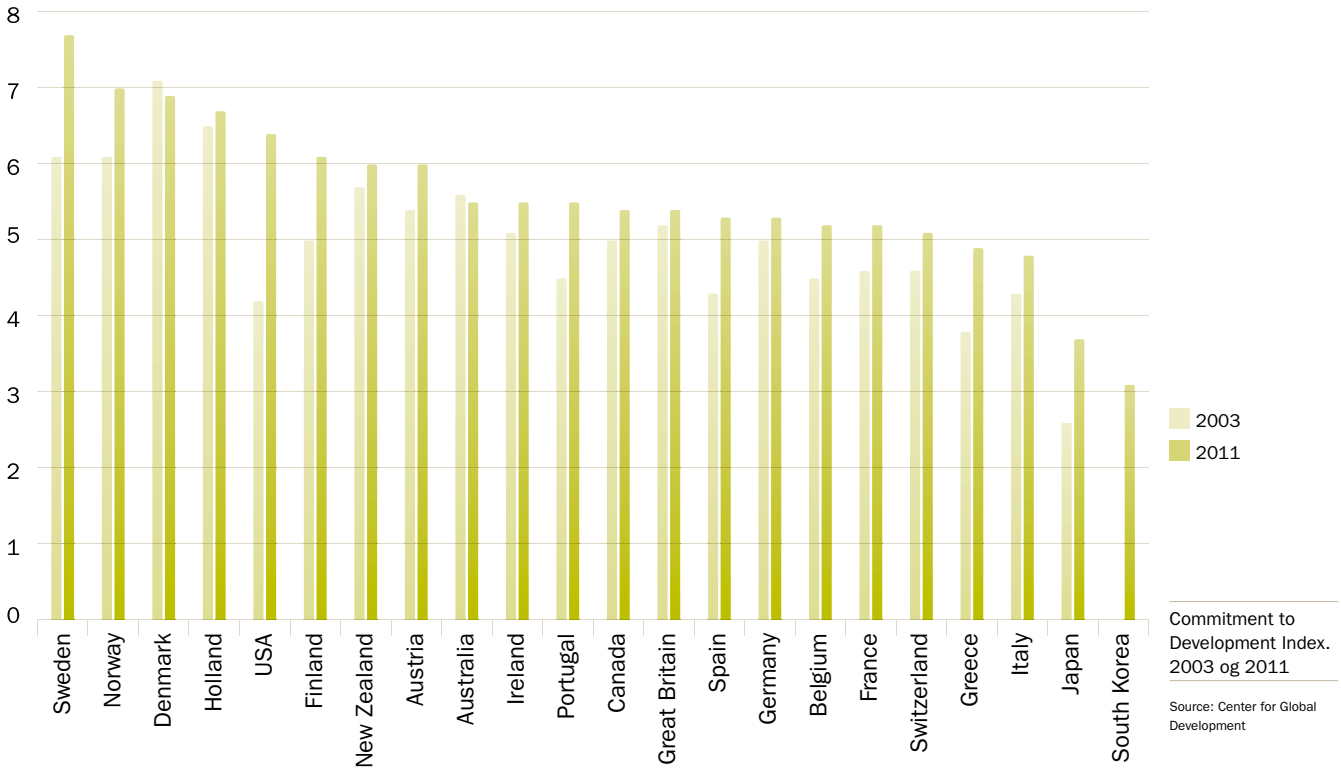


FIGURE 14B: USA MADE MOST PROGRESS ON COMMITMENT TO DEVELOPMENT INDEX



Commitment to Development Index. 2003 og 2011

Source: Center for Global Development

Aid is only one many factors that have an impact on development. The Center for Global Development has prepared an index that in addition to aid takes into account contributions made by different donor countries through policies on trade, investments, migration, environment, security and technology.

The Scandinavian countries stand out as countries with particularly development-promoting policies. Sweden, Norway and Denmark are at the top of the list that rates development policies of donor countries. In 2011, Norway scored highest on most indicators with the exception of trade. Due to high customs tariffs and agricultural subsidies, Norway's trade policy was ranked the lowest among the 22 countries included in the index. Norway does not have any customs tariffs for the least developed countries, but since this relates to only a few, and not all, developing countries, it is not sufficient for raising Norway from the lowest position.

The Commitment to Development Index was first prepared in 2003. Since 2003, Norway has had a continuous improvement in the ranking on the index. From 2010 to 2011, Norway's total ranking moved from the fourth position to the second position. The USA is the country that made the most progress in this period. In 2003, the USA was among the five lowest-scoring countries, but it was ranked as among the five best in 2011.

2.3 THE DEVELOPMENT SITUATION IN RECIPIENT COUNTRIES

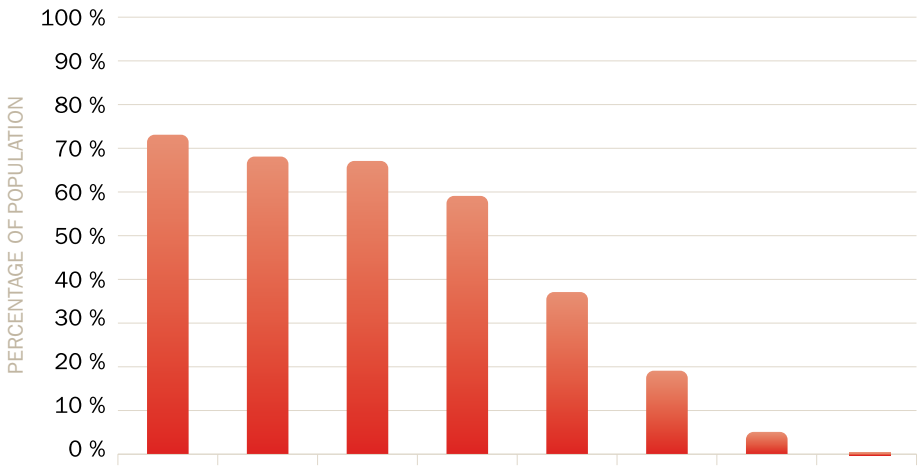
This section presents development trends in ten of the countries that received the most aid in 2011. The statistics cover poverty, economic growth, health, education and governance. On several indicators, complete statistics are not available for all countries. The figures in this section of the report are therefore only for those ten countries that received the most aid from Norway in 2011, as available.

POVERTY AND DISTRIBUTION

One of the United Nations Millennium Development Goals is to abolish extreme poverty. The World Bank defines extreme poverty as persons living on less than USD 1.25 per day. In developing countries, the number of people who live on less than USD 1.25 per day has gone down from 52 per cent in 1981 to 22 per cent in 2008. Much of this reduction is due to strong economic growth in China and India. China and India have transformed from being low-income countries to middle-income countries, despite having the largest number of poor people.

Foto: Ken Opprann

FIGURE 15: HIGH NUMBER OF POOR PEOPLE IN COUNTRIES SOUTH OF THE SAHARA

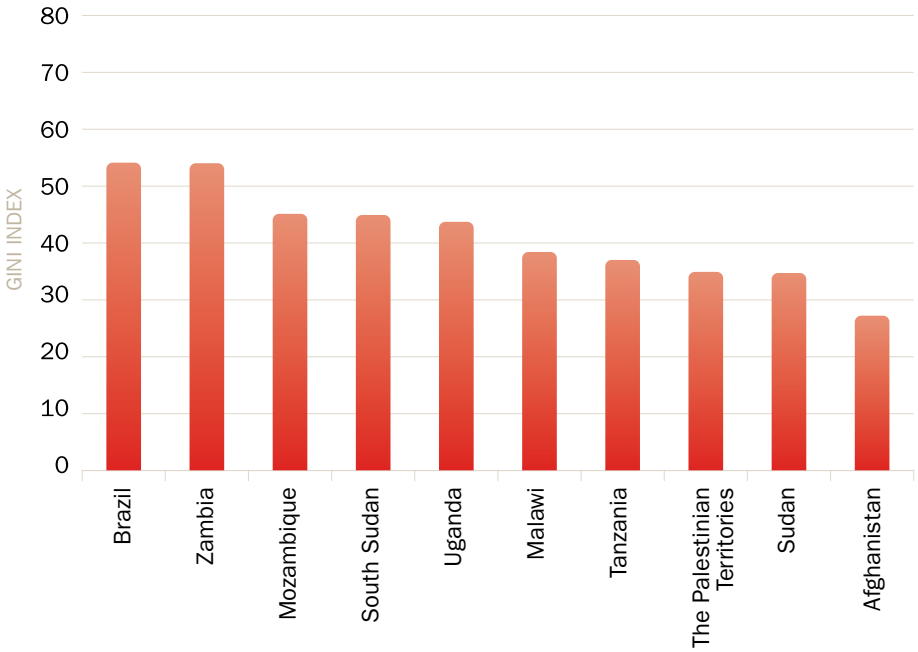


Percentage of people living on less than USD 1.25 per day. Latest figures available

Source: World Bank

Among the countries that received the most aid from Norway in 2011, Malawi and Zambia have the highest levels of poverty, respectively 74 and 69 per cent of the population. Zambia is the only country in this sample where the number of poor people is increasing. From 1998 to 2009, the number of persons living on less than USD 1.25 per day has increased by 13 percentage points. Among the other countries in the sample, many have over half of the population living on less than USD 1.25 per day. Although some of these countries have the highest rates of poverty in the world, many have had a significant reduction in the number of poor people. In Tanzania, the number of people living in extreme poverty decreased from 85 per cent in 2000 to 68 per cent in 2009, while this group in Mozambique fell from 75 per cent in 2003 to 60 per cent in 2009. The fastest reduction in the number of poor was found in Uganda, that is, from 52 per cent to 38 per cent in three years. In the same period, Uganda experienced strong economic growth.

FIGURE 16: WIDE INEQUALITY IN BRAZIL AND ZAMBIA

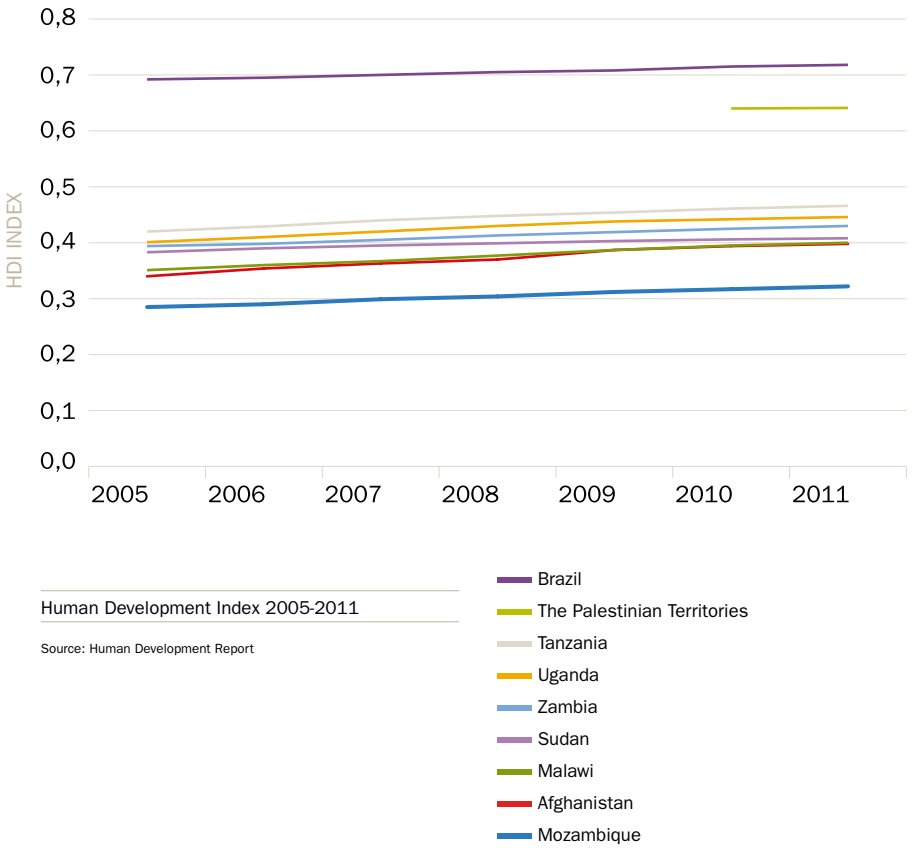


GINI index

Source: World Bank

The GINI index describes the distribution of resources in a society and measures the degree of inequality. Using numbers from 0 to 100, the index represents absolute inequality as 100 and perfect equality as 0. Countries with the lowest inequality in the world have a GINI value of approximately 25, while the most unequal societies have a value of approximately 60. In this sample, Brazil is the country with the highest inequality, but there has been a trend towards greater equality since 2001. In 2001, Brazil's GINI value was 60 while in 2009 it had gone down to 55. Most countries in this sample have had a reduction in GINI value. Tanzania and Uganda are the exceptions, where inequality is increasing. In Tanzania, the GINI index rose from 34 in 2000 to 38 in 2007, while in Uganda it rose from 37 in 1996 to 44 in 2009. The country with the least inequality is Afghanistan, where the GINI index is 28. This is higher than Norway, which has a GINI value of 26, yet lower than many OECD countries.

FIGURE 17: HIGHER DEVELOPMENT



Human Development Index 2005-2011

Source: Human Development Report

The Human Development Index was developed by the economists Mahbub ul Haq and Amartya Sen in order to represent the level of human welfare in different countries. The index combines a number of different indicators to measure health, education and economic prosperity. The index has a value between 1 and 0, where 1 represents the highest level of development. Norway has a score of over 0.9 and has been at the top of the HDI index for several years. In developing countries, there is a general trend towards increasing levels on the Human Development Index. This trend is also found among countries that received the most aid from Norway. In this sample, Mozambique has the lowest level of development with a score of 0.32, while Brazil is at the top, scoring over 0.7.

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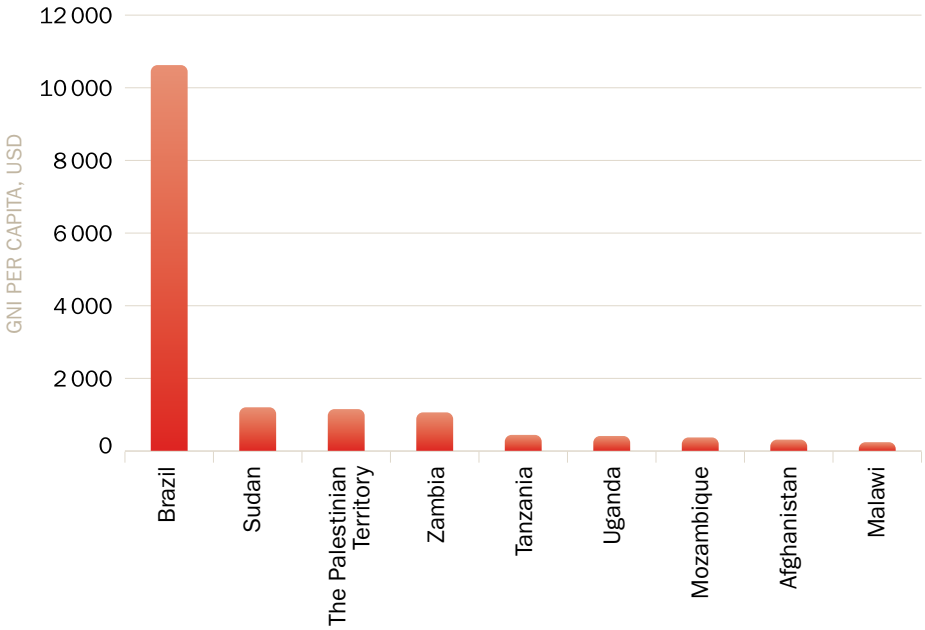
ECONOMIC DEVELOPMENT

FIGURE 18: HIGHEST GNI IN BRAZIL

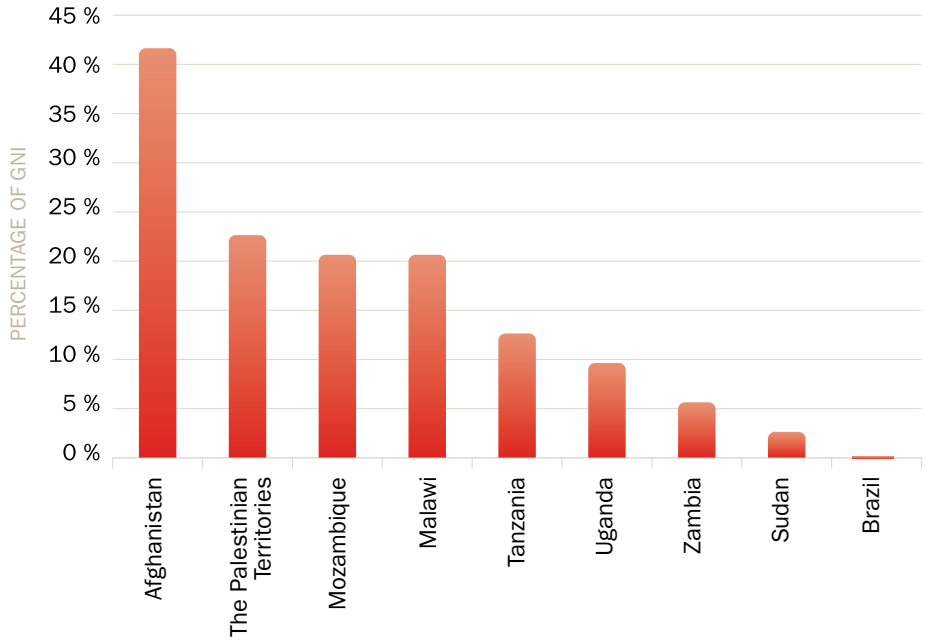


GNI per capita. Latest figures available

Source: World Bank

Economic growth is one of the most important factors for lifting a nation out of poverty. The World Bank classifies countries in different groups according to per capita income level. Countries that have a gross national income (GNI) of less than USD 12 275 per capita per annum are classified as low-income or middle-income countries. A country whose GNI is above this level is classified as a high-income country, and therefore too rich to receive official development aid. Brazil with its per capita GNI of over USD 10 000 is the richest country in this sample. The poorest countries in this sample are Afghanistan and Malawi with a per capita GNI of respectively USD 410 and USD 340.

FIGURE 19: AID RECEIVED BY AFGHANISTAN IS MORE THAN 40 PER CENT OF ITS GNI

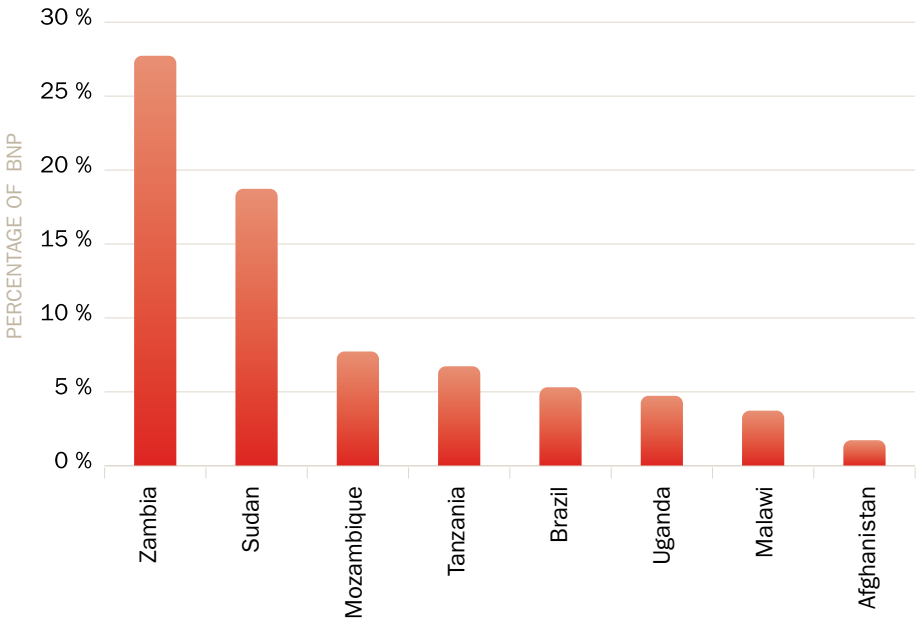


Aid as percentage ratio of GNI

Source: World Bank

Afghanistan is the most aid-dependent country in this sample. In 2010, aid transactions to Afghanistan were over 40 per cent of its GNI. In comparison, aid received by Brazil was less than one per cent of its GNI.

FIGURE 20: HIGH PROPORTION OF INCOME FROM NATURAL RESOURCES FOR ZAMBIA AND SUDAN

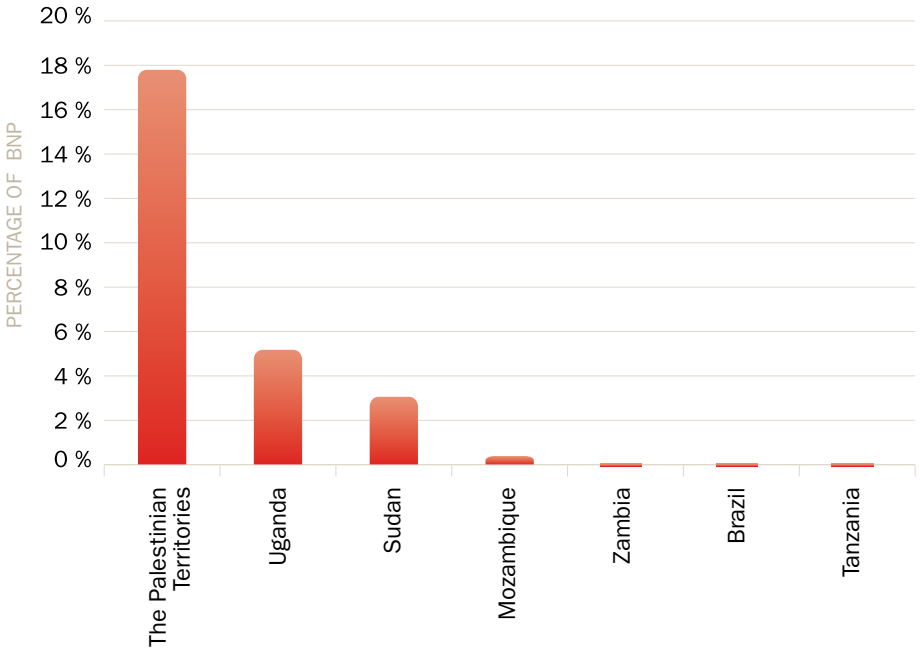


Income from natural resources as percentage of GDP

Source: World Bank

The figure shows what proportion of GDP is attributable to income from natural resources. Here, income from oil, gas, coal, minerals and forests has been taken into account. Among the countries in this sample, Zambia has the highest percentage of income from natural resources i.e. 28 per cent. Sudan has 19 per cent from natural resources while for the other countries this portion is less than ten per cent. In comparison, Norway's income from natural resources is 13 per cent of GDP.

FIGURE 21: TRANSFERS FROM MIGRANTS MAKE UP A LARGE PART OF THE PALESTINIAN ECONOMY



Migrants' remittances as percentage of GDP. Latest figures available

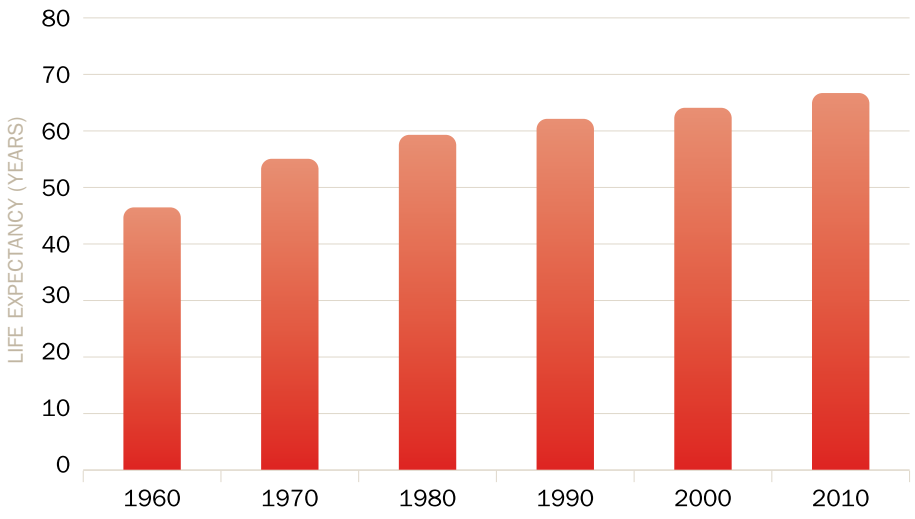
Source: World Bank

Aid is only one of the many monetary flows into developing countries. Every year migrants send large sums of money. In 2010, USD 325 billion was sent to developing countries by migrants. This is more than two and a half times the amount given in aid by all OECD/DAC countries together. For several developing countries, this money makes up a significant part of their economy. Brazil is the country that receives the highest amount. Yet this money makes up a small portion of the Brazilian economy. Money sent by migrants makes up a larger part of the economy in the Palestinian Territories, where this monetary flow into the territory constituted almost 18 per cent of GDP in 2005.

TIL INNHOLD ↑

HEALTH

FIGURE 22: LIFE EXPECTANCY IS INCREASING IN DEVELOPING COUNTRIES

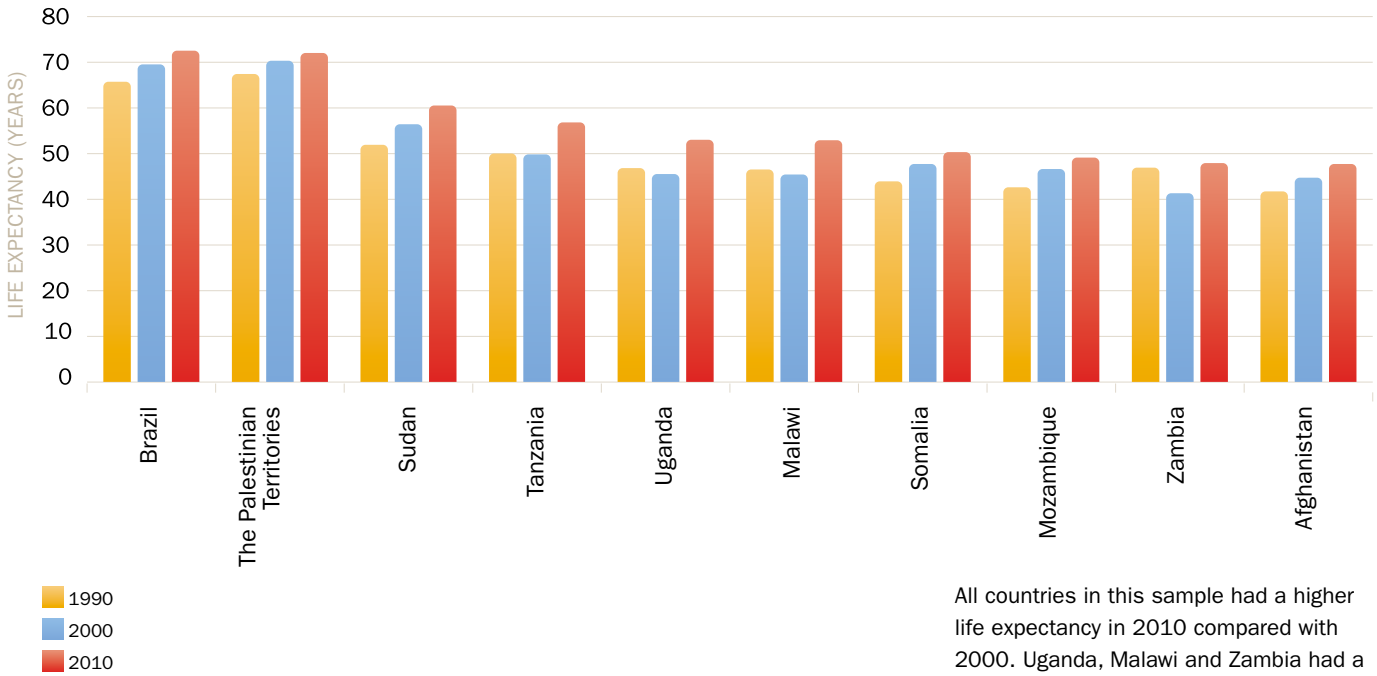


Life expectancy for people born in low- and middle-income countries. 1960-2010

Source: World Bank

Good health is one of the most important prerequisites for poverty alleviation, sustainable development and increased value creation. Although many developing countries have major health challenges, there has been improvement in several areas of public health. In 1960, life expectancy in developing countries was 47 years. In 2010, life expectancy in these countries had increased to 68 years. In this period life expectancy in the richest countries had also improved, but the long-term trend has been that the developing countries are catching up with the richest countries.

FIGURE 23: LIFE EXPECTANCY IS INCREASING

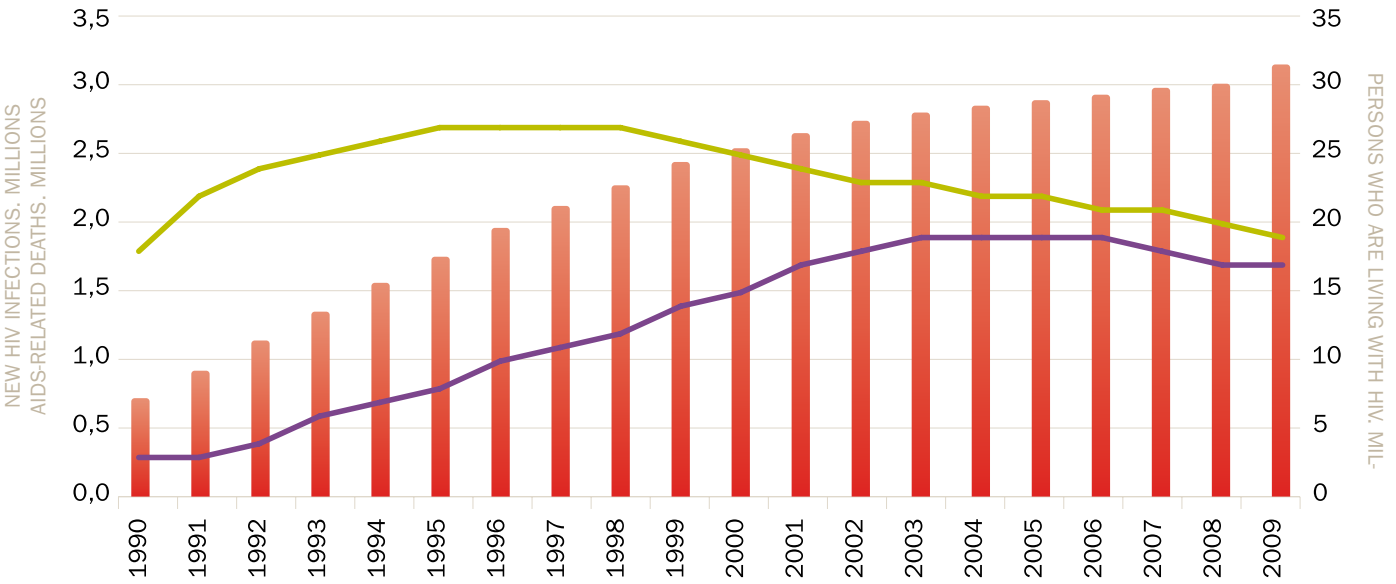


Life expectancy for people born in selected countries. 1990, 2000 and 2010

Source: World Bank

All countries in this sample had a higher life expectancy in 2010 compared with 2000. Uganda, Malawi and Zambia had a decline from 1990 to 2000. This must be seen in relation with the fact that these countries have been seriously affected by HIV/AIDS. The other countries have experienced an increase in life expectancy since 1990. Although there has been a positive development in these countries, they are still at a significantly lower level than the rich countries. Afghanistan has the lowest life expectancy in the sample in 2010 i.e. 48 years. In comparison, Norway had a life expectancy of 81 years in the same year.

FIGURE 24: HIV EPIDEMIC REVERSED



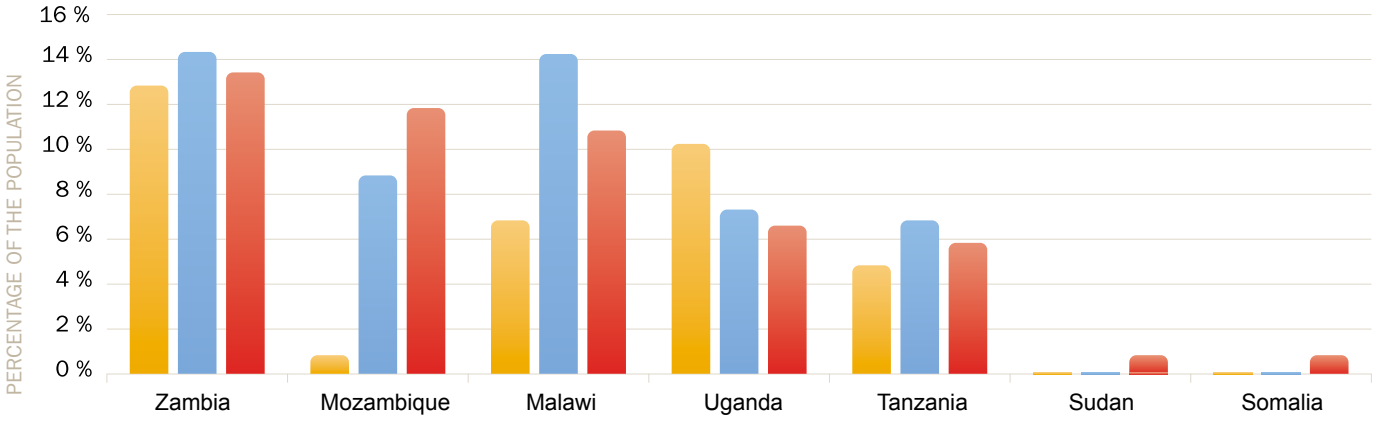
Number of persons who are living with HIV
Number of new HIV infections
Number of AIDS-related deaths

Number of persons who are living with HIV, number of persons who are being infected by HIV and number of persons who die of AIDS

Source: UNAIDS

One of the world's greatest health challenges is the HIV/AIDS epidemic. UNAIDS estimates that there were around 34 million people living with AIDS in 2010 and 1.2 million died as a result of this disease. Two thirds of these people lived in Sub-Saharan. In the 1980s and 1990s there was a sharp increase in both the number of persons who were infected and the number of those who died of HIV/AIDS. Despite these numbers, there has been a positive development in recent years. The number of new infections has been decreasing every year since 2007, and the number of deaths per year has been decreasing since 2003.

FIGURE 25: MORE HIV-POSITIVE IN MOZAMBIQUE



1990
2000
200

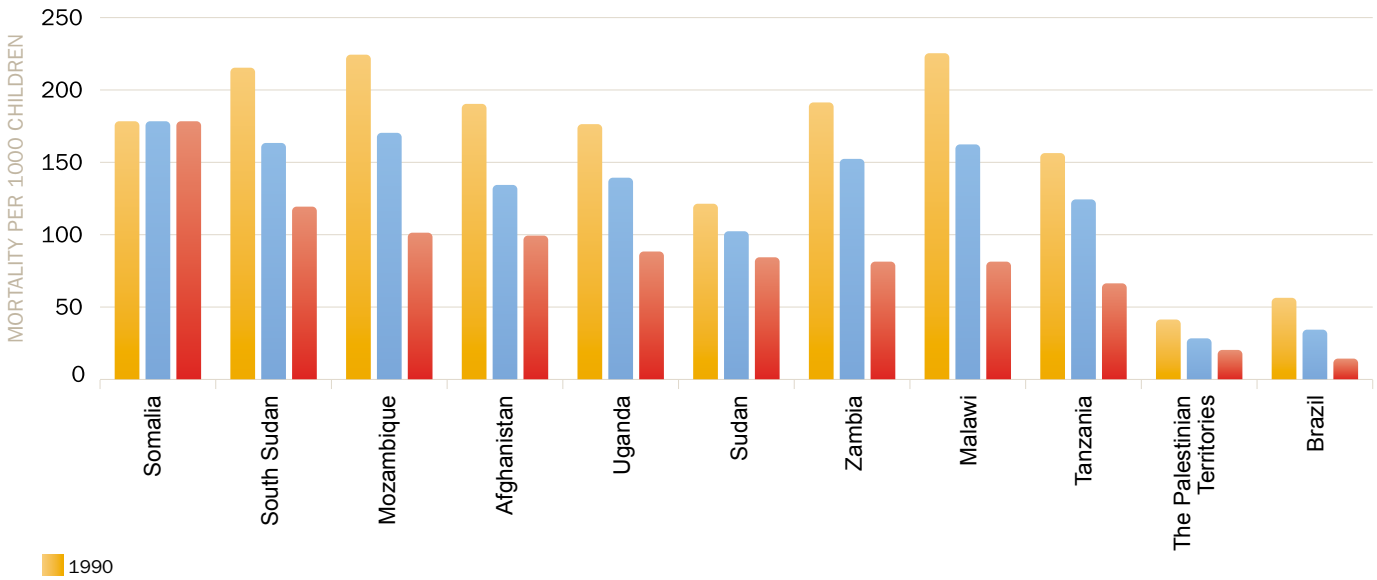
Number of HIV-positive persons in age group 15-49 in selected countries. 1990, 2000 and 2010.

Source: World Bank

Among the countries that received the most aid from Norway in 2011, countries in Sub-Saharan Africa had the highest number of HIV-positive persons. Mozambique stands out due to the sharp increase in the number of HIV infections. This development may be explained by the fact that the country has major challenges of gender equality and capacity problems in the health sector. From 1990 to 2009, the number of HIV-positive people in Mozambique in the age group 15-59 years increased from one per cent to over 14 per cent. In Zambia, Malawi, Uganda and Tanzania the number of HIV-positive people has declined since 2000.

TIL INNHOLD ↑

FIGURE 26: CHILD MORTALITY IS DECLINING

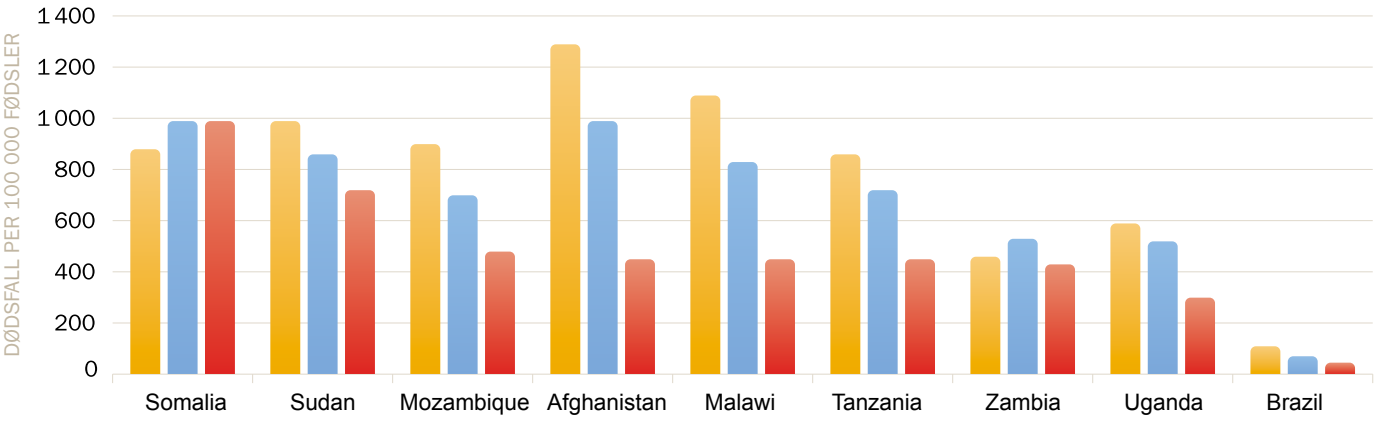


Dødsfall blant barn under 5 år, per 1000. 1990, 2000 og 2011

Kilde: World Bank

Child mortality is measured in terms of the proportion of children who die before reaching the age of five. One of the UN's Millennium Development Goals is to reduce child mortality by two-thirds from 1990 to 2015. There is a reduction in child mortality in almost all countries in the sample, compared with the level in 1990. The reduction is the highest in countries that initially had a high rate of child mortality. Somalia stands out as the country where no reduction in child mortality was achieved. Malawi is the country with the highest reduction in child mortality, a 64 per cent reduction in the period from 1990 to 2011.

FIGURE 27: FEWER DEATHS AMONG WOMEN DURING PREGNANCY AND CHILDBIRTH



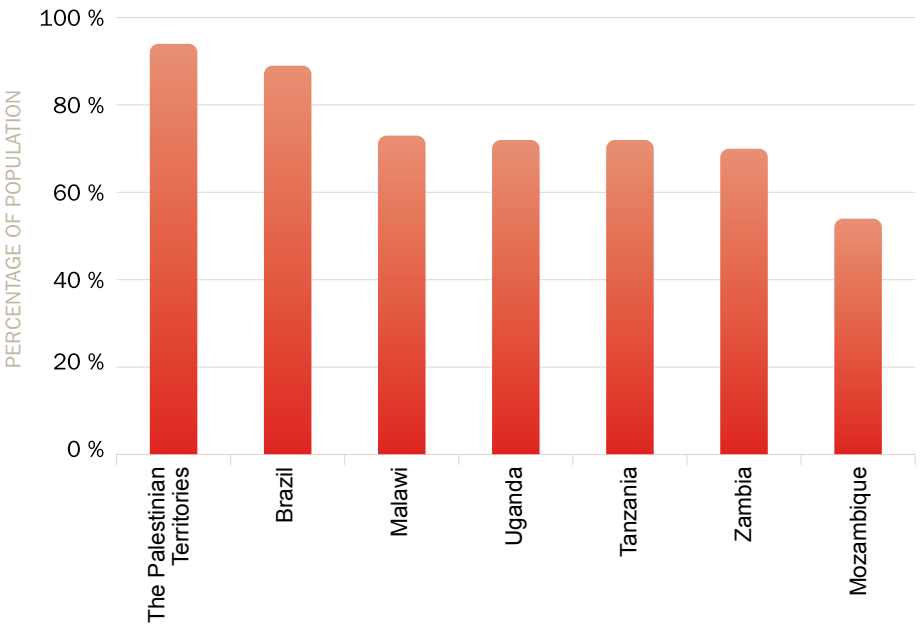
Pregnancy-related deaths per 100 000 births. 1990, 2000 and 2010

Kilde: World Bank

The United Nations Millennium Development Goal number five is to reduce maternal mortality during pregnancy and childbirth by three quarters. This is one of the Millennium Development Goals which the international community is the farthest from reaching. Despite this, there has been a decline in the number of women who die during pregnancy and childbirth. This tendency is reflected in all countries in this sample with the exception of Somalia. In Afghanistan, pregnancy-related mortality was 1 300 per 100 000 births in 1990. This figure fell to 460 in 2010, which is a reduction of 65 per cent. In Mozambique, Malawi and Tanzania there has been a reduction of over 40 per cent since 1990.

EDUCATION

FIGURE 28: LOWEST LITERACY LEVELS IN MOZAMBIQUE

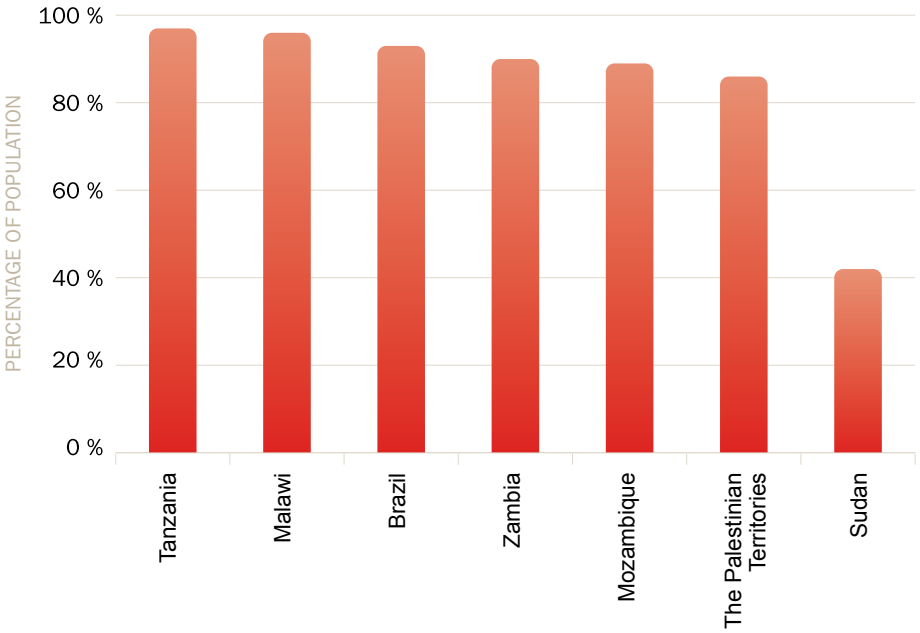


Literacy rate among persons above the age of 15

Source: World Bank

Among the countries that received the most aid from Norway, the Palestinian Territories and Brazil are the countries with the highest percentage of population that is able to read and write. In all countries in this sample, there has been a gradual and steady improvement in literacy. Mozambique has the fewest adults who are able to read and write, i.e. 55 per cent.

FIGURE 29: MORE CHILDREN ENROLLED IN ELEMENTARY SCHOOL



Number of children enrolled in elementary school

Source: World Bank

In low and middle-income countries, 88 per cent of children had access to education at the elementary school level in 2010. This is progress by seven percentage points compared with 2000. Tanzania and Mozambique share the distinction of a sharp increase in the number of children who are enrolled in elementary school. 98 per cent of children in Tanzania and 90 per cent of children in Mozambique are enrolled in elementary school. This is equivalent to an increase of respectively 45 and 34 percentage points from 2000. Sudan was the country in this sample with the lowest percentage of children with access to elementary education i.e. 43 per cent[1]. Here, little change has occurred during the past ten years.

1 The figures are from 2010, and therefore, represent the statistics for Sudan before division into Sudan and South Sudan in 2011.

TIL INNHOLD ↑

FIGURE 30: HIGHEST PERCEIVED CORRUPTION IN SOMALIA

Land	2010	2011
Brazil	3,7	3,8
Zambia	3,0	3,2
Malawi	3,4	3,0
Tanzania	2,7	3,0
Mozambique	2,7	2,7
Uganda	2,5	2,4
Sudan	1,6	1,6
Afghanistan	1,4	1,5
Somalia	1,1	1,0

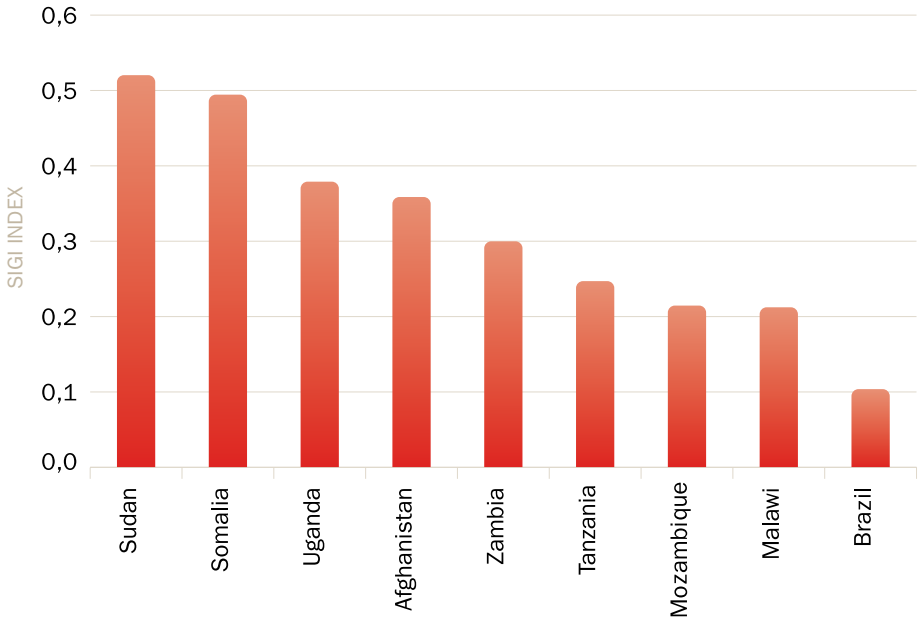
Corruption Perceptions Index. 2010 and 2011

Source: Transparency International

Transparency International annually publishes the Corruption Perceptions Index. This index combines a number of different sources to give an idea of the corruption level in a country. Since corruption is illegal, it is difficult to measure. The information is collected from different reports and studies by independent sources. The index does not measure actual corruption; it is based on perceptions regarding the level of corruption. The index goes from 1 to 10, where 1 indicates the most corrupt.

In countries that receive the most aid from Norway, there is a general perception of a high degree of corruption. Afghanistan and Somalia are considered the most corrupt countries of the world. In comparison, Norway and many of the OECD countries score around 9 on the Corruption Perceptions Index.

FIGURE 31: MAJOR CHALLENGES OF GENDER EQUALITY IN SUDAN AND SOMALIA



SIGI Social Institutions and Gender Index 2012

Source: OECD Development Center

The Social Institutions and Gender Index (SIGI) shows the degree of equality between the genders. By comparing twelve different variables related to the family situation, rights, inheritance and physical assaults, the index provides an indication of how much gender equality is found in different societies. On a scale of 0 to 1, full equality between the genders is represented by 0 while 1 indicates no equality at all. The figure shows that Sudan and Somalia are the countries with least equality between women and men. Brazil has the highest equality in this sample.

2.4 TABLES

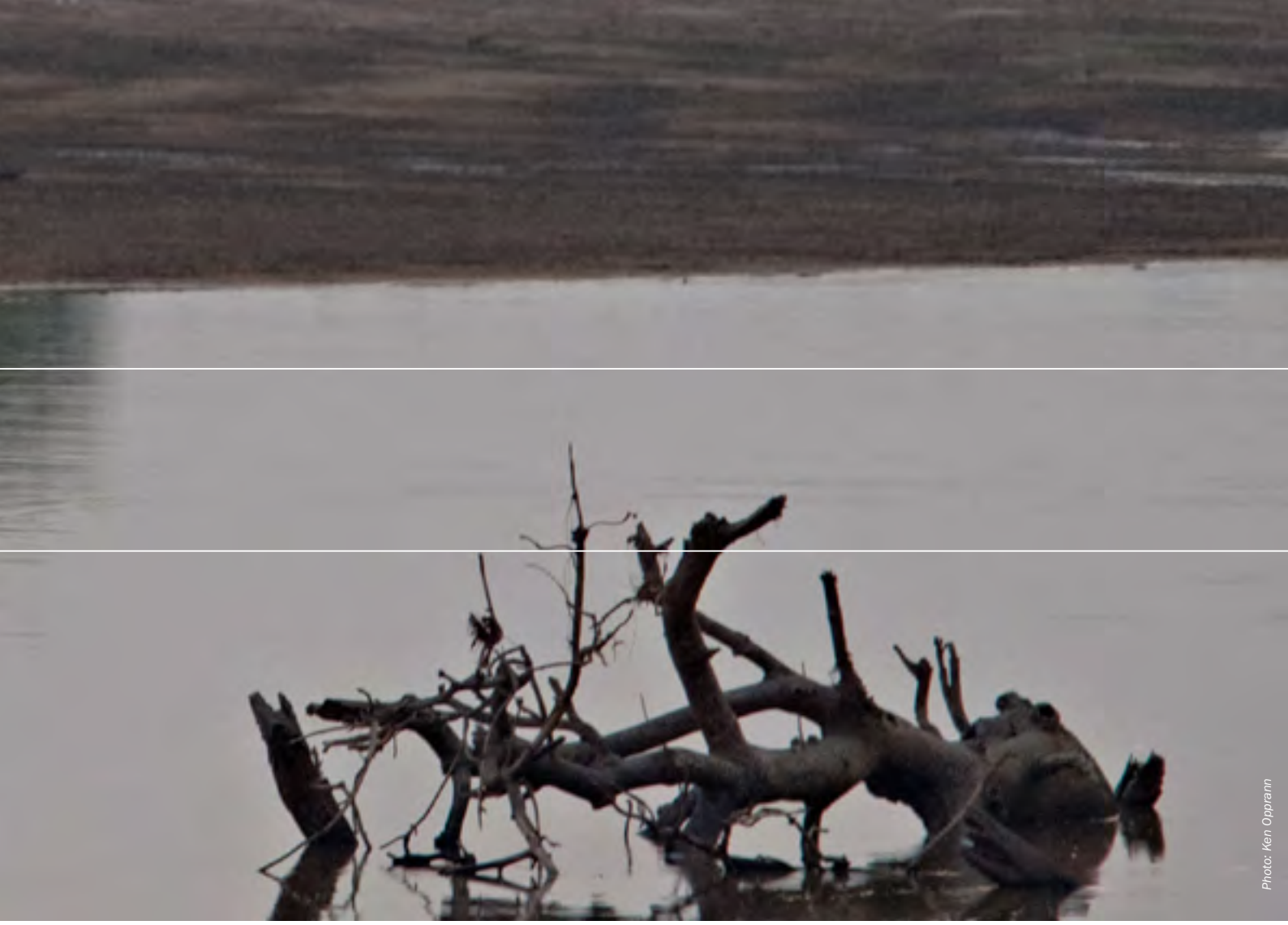


Photo: Ken Opprann

Table 1. Norwegian aid. Sample figures 2002-2011. Million NOK										
Indicator	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
Aid million NOK	13 544	14 469	14 815	17 995	18 827	21 808	22 862	25 624	27 681	27 663
Aid million USD	1 696	2 044	2 198	2 794	2 935	3 723	4 006	4 081	4 580	4 936
Aid by OECD countries	2,9 %	2,9 %	2,8 %	2,6 %	2,8 %	3,6 %	3,3 %	3,4 %	3,6 %	3,7 %
Aid per inhabitant NOK	2 977	3 166	3 214	3 878	4 037	4 616	4 763	5 272	5 626	5 544
Aid/GNI %	0,89	0,92	0,87	0,94	0,89	0,95	0,89	1,06	1,10	1,00
No. of recipient countries	114	112	113	115	113	109	111	114	113	112

Table 2. Norwegian aid distributed over regions 2002-2011. Million NOK										
Region	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
Africa	3 614	4 104	4 226	4 617	4 984	5 344	5 862	5 679	5 726	6 053
America	496	544	583	682	697	1 623	845	866	2 625	2 417
Asia	1 753	1 766	1 865	3 359	2 301	2 889	2 924	2 698	3 230	2 796
Europe	1 156	1 009	863	818	804	668	641	648	684	672
Oceania	2	2	3	3	4	4	9	11	11	15
Middle East	664	941	640	751	952	913	905	845	894	910
Not distributed over regions	*5 860*	*6 103*	*6 634*	*7 765*	*9 085*	*10 369*	*11 674*	*14 877*	*14 512*	*14 799*

Table 3. Norwegian aid distributed recipient countries 2002-2011. Million NOK										
Recipient Country	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
Afghanistan	494	487	456	386	447	553	737	728	726	777
Angola	177	172	167	135	150	125	102	112	80	73
Bangladesh	133	86	161	212	137	233	132	92	102	95
Bosnia-Herzegovina	190	153	115	114	122	102	109	99	110	83
Brazil	23	27	21	18	18	55	34	185	1 483	1 407
Burundi	81	86	80	66	84	118	145	158	118	97
Chile	98	85	99	89	92	99	140	136	136	132
Colombia	61	66	57	58	64	78	62	73	86	68
Dem. Rep. Congo	102	121	123	128	138	137	199	176	171	178
Eritrea	107	153	126	121	115	60	51	60	58	45
Ethiopia	227	263	229	245	268	198	213	237	197	163
The Philippines	8	13	13	15	30	246	171	11	106	62
Georgia	35	36	33	54	48	38	75	69	60	57
Guatemala	94	90	87	135	96	87	65	48	57	62
Guyana	-	-	0	-	-	-	-	-	177	219
Haiti	13	14	47	32	51	45	59	27	404	135
India	68	57	89	184	84	176	199	101	145	164
Indonesia	48	46	50	290	66	96	61	81	253	67
Iraq	143	415	125	155	145	99	99	73	47	46
Kenya	24	73	54	63	79	76	121	97	81	111
China	4	5	2	102	91	135	200	83	79	-67
Kosovo	-	-	-	-	-	-	68	133	147	107
Croatia	105	101	100	100	96	41	24	23	21	-
Lebanon	43	43	43	50	178	90	62	62	56	68
Liberia	15	64	78	46	57	165	193	96	138	197
Madagascar	46	44	57	76	103	119	129	52	78	72
Macedonia	93	82	85	81	80	55	35	44	45	39
Malawi	124	199	183	316	323	321	368	399	391	375
Mali	57	53	54	89	108	94	85	79	96	75
Mozambique	309	383	412	438	412	469	552	505	445	472
Myanmar (Burma)	31	36	48	38	52	64	169	119	131	112
Nepal	105	143	155	162	263	239	239	284	285	277
Nicaragua	71	90	85	90	162	116	114	112	116	102
Nigeria	25	31	37	19	19	19	36	58	85	66
Pakistan	82	70	55	533	120	181	170	292	502	184
The Palestinian Territories	407	379	363	477	563	622	661	629	662	628
Peru	11	62	8	21	9	838	2	-46	23	20
Rwanda	49	56	42	29	26	44	21	22	26	19
Serbia	176	310	250	219	209	239	198	125	122	111
Somalia	203	283	227	202	217	253	252	209	191	415
Sri Lanka	171	199	204	428	239	258	174	221	175	145
Sudan	186	236	385	636	686	713	721	656	705	274
South Africa	141	117	108	93	90	95	108	227	150	214
South Sudan	-	-	-	-	-	-	-	-	-	327
Tanzania	373	477	402	389	483	667	729	731	749	640
Uganda	260	271	281	293	319	403	422	423	432	454
Vietnam	63	82	81	100	98	175	177	100	122	242
Zambia	232	252	252	315	425	436	418	394	327	444
Zimbabwe	57	49	55	87	72	74	120	182	148	126
East Timor	62	50	59	58	93	79	44	53	47	46
Not distributed	*810*	*724*	*697*	*767*	*736*	*609*	*671*	*509*	*597*	*922*
over countries	*7 105*	*7 135*	*7 877*	*9 240*	*10 264*	*11 588*	*12 965*	*16 360*	*15 990*	*16 517*
Total	**13 544**	**14 469**	**14 815**	**17 995**	**18 827**	**21 808**	**22 862**	**25 624**	**27 681**	**27 663**

TIL INNHOLD ↑

Table 4. Aid distributed over thematic areas 2002-2011. Million NOK										
Thematic area	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
Good governance	1 831	1 713	2 032	2 329	2 886	3 357	3 454	3 895	3 865	3 940
Health & social sector	1 524	1 461	1 563	2 009	1 920	1 864	2 103	2 274	1 725	1 811
Costs in Norway & unspecified	1 778	2 069	1 700	1 568	1 801	1 909	2 301	4 258	3 825	3 346
Environment & energy	779	843	848	1 040	1 107	2 269	1 966	2 366	4 488	4 304
Multilateral	3 962	3 895	4 165	4 571	5 061	5 554	6 029	6 269	6 387	6 641
Emergency relief	1 183	1 347	1 091	2 227	1 471	1 733	1 760	1 398	2 161	2 107
Education	856	1 086	1 293	1 662	1 720	1 516	1 541	1 759	1 601	1 515
Economic development & trade	1 633	2 054	2 122	2 589	2 862	3 608	3 709	3 405	3 628	4 000
Total	**13 544**	**14 469**	**14 815**	**17 995**	**18 827**	**21 808**	**22 862**	**25 624**	**27 681**	**27 663**

Table 5. Aid distributed over sectors 2002-2011. Million NOK										
Sector	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
111 - Education unspecified	164	215	295	357	445	394	269	336	320	235
112 - Elementary education	443	651	781	1 072	1 065	872	923	1 030	925	1 007
113 - Upper secondary education	58	25	32	51	64	42	52	70	57	49
114 - Higher education	190	194	185	181	146	208	297	323	299	224
121 - Health, general	257	328	263	370	377	404	368	348	349	407
122 - Primary health	207	190	253	333	356	274	456	605	207	375
130 - Population policy & reproductive health	252	277	269	287	386	399	449	508	455	434
140 - Water supply & sanitation	217	152	213	282	231	273	255	261	234	129
151 - Public management & civil society	1 518	1 338	1 665	1 845	1 858	2 206	2 258	2 632	2 564	2 646
152 - Conflict resolution & prevention	314	375	367	484	1 027	1 151	1 196	1 264	1 301	1 295
160 - Social infrastructure & services	591	514	565	737	571	514	574	552	479	465
210 - Transport & storage	67	145	51	64	96	115	9	59	31	23
220 - Communication	54	27	17	19	66	26	63	-26	-30	12
230 - Energy production & distribution	377	439	429	641	616	1 673	1 108	568	1 022	1 541
240 - Banking & financial services	87	77	160	109	84	244	221	286	253	764
250 - Business	125	150	217	229	252	274	212	240	193	199
311 - Agriculture	331	294	353	320	370	446	418	489	462	470
312 - Forest	44	30	46	25	20	30	179	904	2 707	1 996
313 - Fisheries	101	117	110	208	128	117	123	139	138	152
321 - Industry	49	1	70	77	80	69	47	61	120	92
322 - Mineral resources & mining	16	21	17	43	57	90	148	162	185	242
323 - Construction	0	2	1	0	0	1	1	-0	0	0
331 - Trade policy & regulation	39	59	65	76	82	131	119	126	123	112
332 - Tourism	1	6	4	36	6	3	28	0	19	72
410 - Environmental protection	357	374	373	374	471	566	679	894	760	767
430 - Multi-sector	400	597	565	1 000	877	986	940	680	949	856
510 - Budget support	236	372	409	390	577	824	1 162	1 100	1 079	872
520 - Food commodity help & security	20	29	1	0	42	5	8	5	4	3
530 - Other commodity help	-	-	-	0	0	0	15	3	3	-
600 - Debt measures	107	157	83	15	145	276	197	80	100	130
720 - Emergency relief	1 033	1 228	1 008	2 133	1 380	1 578	1 597	1 179	1 752	1 766
730 - Restoration & rehabilitation	149	119	84	94	91	154	112	89	291	150
740 - Catastrophy prevention & emergency planning	-	-	-	-	-	-	51	130	119	190
910 - Administration & multilateral	4 613	4 599	4 958	5 456	6 102	6 672	7 251	7 656	7 839	8 144
930 - Refugees in Norway	994	1 249	750	438	399	456	806	2 533	2 027	1 475
998 - Unspecified	132	116	157	245	361	335	272	338	346	367
Total	**13 544**	**14 469**	**14 815**	**17 995**	**18 827**	**21 808**	**22 862**	**25 624**	**27 681**	**27 663**

Table 6. Aid distributed over budget chapters 2007-2011. Million NOK					
Budget post	**2007**	**2008**	**2009**	**2010**	**2011**
140 - Foreign Ministry's administration of development aid	835	924	1 029	1 079	1 095
141 - Directorate for development cooperation (Norad)	171	177	192	201	206
144 - FK Norway	-	-	54	49	49
150 - Aid to Africa	2 649	2 679	2 842	2 702	2 610
151 - Aid to Asia	794	817	999	988	942
152 - Aid to the Middle East	173	245	491	457	532
153 - Aid to Latin America	226	246	250	221	192
160 - Civil society & democracy development	1 646	1 715	1 763	1 747	1 812
161 - Business development	1 820	1 144	482	1 031	1 985
162 - Transitional assistance (GAP)	869	686	625	641	389
163 - Emergency relief, humanitarian aid & human rights	2 460	2 529	2 448	2 966	3 053
164 - Peace, reconciliation & democracy	1 674	1 770	1 631	1 681	1 626
165 - Research, expertise development & evaluation	557	648	732	757	790
166 - Environment & sustainable development etc.	-	-	1 225	3 007	2 325
166 - Grants for different initiatives	193	402	-	-	-
167 - Refugee initiatives in Norway, approved as ODA	456	806	2 533	2 027	1 475
168 - Women & gender equality	196	207	312	292	305
169 - Global health & vaccination initiative	-	1 542	1 506	1 479	1 695
170 - UN organisations etc.	4 965	4 013	4 273	4 156	4 324
171 - Multilateral finance institutions	1 754	2 000	1 991	1 949	2 002
172 - Debt cancellation & debt-related initiatives	367	306	260	270	270
530 - Reversals	-	-	-24	-28	-23
51 - Auditor General	2	7	10	10	9
Total	**21 808**	**22 862**	**25 624**	**27 681**	**27 663**

Table 7. Aid distributed over types of agreement partners 2002-2011. Million NOK										
Type of partner	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
Consultants	53	52	50	66	96	113	86	113	206	160
Norwegian private sector	125	92	128	209	131	78	178	175	182	363
Private sector in other countries	129	161	283	281	248	256	292	567	347	820
Public sector in recipient countries	1 409	1 631	1 566	1 843	2 011	2 282	2 173	2 111	3 506	2 808
Norwegian public sector	2 285	2 614	2 220	2 282	2 625	3 621	3 446	4 713	4 794	4 476
Public sector in other donor countries	98	104	85	96	262	202	243	258	229	474
Norwegian NGOs	2 353	2 525	2 579	3 067	3 218	3 397	3 493	3 566	3 620	3 515
International NGOs	236	303	272	349	406	694	806	1 080	1 156	1 465
Local NGOs	323	344	358	412	460	605	633	766	824	921
Multilateral organisations	6 458	6 522	7 081	9 232	9 161	10 317	11 277	12 127	12 651	12 515
Public-private collaboration	41	44	48	50	89	113	136	105	116	92
Unspecified	34	76	143	107	119	130	99	43	50	53
Total	**13 544**	**14 469**	**14 815**	**17 995**	**18 827**	**21 808**	**22 862**	**25 624**	**27 681**	**27 663**

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Table 8. Aid to Norwegian non-government organisations 2002-2011. Million NOK										
Organisation	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
Norwegian Refugee Aid	259	296	300	344	434	488	476	452	552	525
Norwegian Red Cross	350	356	354	449	419	389	415	435	473	456
Norwegian Church Aid	345	363	346	397	482	437	489	453	469	408
Norwegian Peoples' Aid	307	267	312	358	421	404	385	385	344	365
Save the Children Norway	156	182	163	187	178	197	223	218	200	183
Digni - formerly the Norwegian Missions in Development	130	141	138	145	141	140	142	143	145	151
Rainforest Fund	16	18	22	25	34	56	83	99	101	115
Atlas Alliance	80	56	56	62	76	76	79	79	80	81
Development Fund	41	43	55	79	35	40	54	68	71	73
WWF Norway	5	10	17	11	20	53	56	60	55	71
CARE Norway	60	82	65	93	65	79	76	136	100	70
Stromme Foundation	39	45	50	53	53	64	54	48	48	46
PETRAD	6	6	6	7	10	18	42	40	40	45
Doctors without Borders	33	34	51	58	64	41	45	29	23	39
Plan Norway	4	6	10	34	38	46	36	46	36	37
CRN - Christian Relief Network	8	13	18	18	19	18	17	22	32	36
FOKUS - Forum for Women and Developmen	17	18	17	49	21	24	33	32	39	33
FORUT - Campaign for Development & Solidarity	28	29	28	50	34	47	37	31	31	31
LO - The Norwegian Confederation of Trade Unions	30	27	25	26	28	28	28	29	29	29
NOREF - The Norwegian Peacebuilding Resource Centre	-	-	-	-	-	-	10	29	26	29
CMI - Chr Michelsen Institute	14	13	13	18	18	15	22	39	27	29
UNA Norway	19	0	18	30	26	22	28	25	27	28
Norwac - Norwegian Aid Committee	32	32	30	33	52	52	50	35	34	24
Norwegian Helsinki Committee	8	9	7	8	14	15	21	19	19	24
Caritas Norway	29	37	36	56	34	44	38	32	29	23
KS - Norwegian Municipal Organisation	7	6	20	22	30	25	24	19	25	22
SAIH - The Norwegian Students' & Academics' International Assistance Fund	18	17	16	18	18	18	19	20	21	22
The Norwegian Society for the Conservation of Nature	0	1	1	2	4	6	10	13	13	18
FAFO Research Foundation	7	27	20	9	23	32	18	18	11	17
NHO - The Confederation of Norwegian Enterprises	7	8	11	13	14	14	17	19	17	16
PRIO - International Peace Research Institute, Oslo	21	20	5	12	21	17	15	16	22	16
The Royal Norwegian Society for Development	34	43	46	42	12	21	23	26	24	16
SOS Children's Villages	6	6	8	16	16	8	7	13	23	15
HRH - Human Rights House Foundation	-	-	-	0	2	2	7	11	9	14
TMC - Tromsoe Mine Victim Resource Center	5	8	7	3	11	17	16	13	12	14
Friends of Sierra Leone	-	-	-	-	2	5	4	8	9	14
AiN - The Norwegian Afghanistan Committee	16	13	7	14	12	15	9	9	14	13
Rogaland Training & Education Centre	-	-	-	3	4	4	7	14	12	13
NIF -The Norwegian Olympic & Paralympic Committee & Confederation of Sports	11	9	11	10	8	9	10	11	12	11
Friendship North/South	6	7	9	9	10	11	11	12	10	11
YME Foundation	5	3	5	7	5	12	9	10	10	11
PYM - The Norwegian Pentecostal Foreign Mission	1	14	8	7	8	21	13	12	1	11
GenØk - Centre for Biosafety	2	1	6	8	8	7	11	11	13	10
NFG - Norwegian Forestry Group	0	12	17	3	5	13	12	14	5	9
NMS - The Norwegian Mission Society	9	9	5	10	7	9	8	8	11	9
Energy Norway	-	-	-	0	-	-	4	7	11	9
LNU – The Norwegian Children & Youth Council	4	5	5	5	5	5	8	8	10	9
The Norwegian Forum for Environment & Development	5	2	5	6	6	5	5	6	6	8
The Norwegian Geotechnical Institute	5	0	1	1	6	6	5	7	4	7
Nansen Dialogue Network	-	-	-	-	-	-	4	9	9	7
Other organisations	170	231	231	256	266	322	278	271	275	238
Totalt	**2 353**	**2 525**	**2 579**	**3 067**	**3 218**	**3 397**	**3 493**	**3 566**	**3 620**	**3 515**

Table 9. Aid to multilateral organisations 2002-2011. Million NOK										
Organisation	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
UN organisations total	**3 965**	**3 970**	**4 147**	**5 605**	**5 452**	**6 182**	**6 209**	**6 880**	**7 175**	**7 029**
UNDP - UN Development Programme	1 119	1 130	1 106	1 350	1 436	1 716	1 750	2 012	2 141	2 002
UNICEF- United Nations Children's Fund	666	777	900	1 338	1 152	1 135	1 187	1 298	1 319	1 310
UNHCR - UN Office of the High Commissioner for Refugees	344	328	374	382	360	332	336	400	484	434
UNFPA - UN Population Fund	273	268	248	271	287	394	413	409	449	410
UNCERF - United Nations Central Emergency Response Fund	-	-	-	-	206	350	300	300	375	387
WHO - World Health Organization	309	290	278	397	312	314	351	374	333	369
WFP - World Food Programme	309	359	315	607	336	240	278	240	252	250
UNRWA - UN Relief and Works Agency	125	130	130	203	167	219	190	235	221	200
UNOCHA - UN Office for the Coordination of Humanitarian Affairs	49	78	87	187	107	195	139	142	197	196
UNAIDS - UN Programme on HIV/AIDS	110	110	121	131	201	169	162	162	162	162
FAO - Food and Agricultural Organization of the United Nations	124	106	89	166	130	147	131	164	130	142
UN Women	-	-	-	-	-	-	-	11	86	137
UNEP - UN Environment Programme	52	56	60	62	82	85	119	115	115	103
ILO - International Labour Organisation	64	58	55	52	69	80	81	113	93	88
UN-HABITAT - United Nations Human Settlements Programme	12	23	26	62	66	100	89	101	87	87
IFAD - International Fund for Agricultural Development	60	4	75	75	74	80	97	73	92	83
UNODC - United Nations Office on Drugs and Crime	-	-	16	25	25	43	44	52	58	71
UNESCO - UN Educational, Scientific and Cultural Organisation	39	67	40	47	44	51	52	76	64	70
UNDG - United Nations Development Group	-	-	15	-	-	-	-	65	135	60
UNOPS - UN Office for Project Services	5	1	7	1	17	98	103	55	73	58
UNIDO - UN Industrial Development Organisation	12	14	29	9	32	42	58	47	29	47
OHCHR - Office of the UN High Commissioner for Human Rights	37	37	36	44	51	64	48	35	50	43
UNIFEM - UN Development Fund for Women	20	2	20	30	37	119	97	168	49	42
IAEA - International Atomic Energy Agency	0	-	-	-	4	2	17	19	24	30
UN Peacebuilding Fund (Window Two)	-	-	-	-	-	-	-	-	-	30
UNDPKO - UN Department of Peacekeeping Operations	-	-	-	3	-	1	3	7	9	30
GRID-Arendal	2	-	4	12	14	14	21	25	20	23
Other UN organisations	235	133	115	151	244	189	141	182	126	165
IMF total	**38**	**24**	**26**	**10**	**54**	**10**	**7**	**72**	**65**	**73**
IMF - PRGF - Poverty Reduction and Growth Trust	-	11	-	-	-	-	-	52	50	50
Other IMF organisations	38	13	26	10	54	10	7	20	15	23

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Organisation	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
World Bank Group total	**1 307**	**1 336**	**1 506**	**2 101**	**1 828**	**1 881**	**2 601**	**2 610**	**2 878**	**2 858**
IDA - International Development Association	590	584	667	916	846	816	779	821	954	992
IBRD - International Bank for Reconstruction and Development	428	591	223	681	447	350	700	801	873	935
World Bank	288	7	392	415	460	476	876	799	817	627
AMCs - Advance Market Commitments	-	-	-	-	-	-	-	-	12	131
IDA - HIPC	-	125	222	65	65	167	201	107	107	78
IDA - MDRI - Multilateral Debt Relief Initative	-	-	-	-	-	50	-	50	57	68
IFC - International Finance Corporation	-	29	3	23	10	23	46	31	58	27
Regional development banks total	**456**	**505**	**552**	**591**	**642**	**809**	**871**	**875**	**879**	**789**
AFDB - African Development Bank	331	390	420	449	498	517	618	668	772	583
ASDB - Asian Development Bank	71	93	83	102	103	184	198	167	83	122
EBRD - European Bank for Reconstruction and Development	32	-	2	-	16	68	27	26	24	75
Other Regional development banks	22	22	47	40	26	40	28	15	-0	9
Other multilateral organisations total	**693**	**686**	**849**	**925**	**1 185**	**1 435**	**1 589**	**1 690**	**1 655**	**1 765**
GFATM - Global Fund to Fight AIDS, Tuberculosis and Malaria	130	138	125	152	271	301	375	375	375	450
GAVI - Global Alliance for Vaccines and Immunisation	200	155	290	290	416	470	472	463	491	429
GEF - Global Environment Facility	43	43	44	44	44	44	44	44	55	112
CGIAR - Consultative Group on International Agricultural Research	73	81	78	85	93	81	88	88	98	110
UNITAID	-	-	-	-	-	140	140	140	140	102
WTO - World Trade Organization	14	21	24	28	28	29	36	40	31	30
NDF - Nordic Development Fund	88	81	91	57	53	60	158	152	19	58
GEF - LDCF - Least Developed Countries´ Trust Fund	4	-	-	5	20	24	-	10	25	53
IDEA - International Institute for Democracy and Electoral Assistance	5	4	4	4	6	30	22	61	45	51
IOM - International Organisation for Migration	31	30	17	40	46	38	22	27	18	51
IFFIm - International Finance Facility for Immunisation	-	-	-	-	33	32	28	37	128	49
ITTO - International Tropical Timber Organization	-	1	1	1	1	0	1	25	1	25
OSCE - Organization for Security and Cooperation in Europe	14	20	13	13	11	24	13	11	26	23
Other multilateral organisations	92	114	163	207	164	162	189	218	204	223
Total multilateral organisations	**6 458**	**6 522**	**7 081**	**9 232**	**9 161**	**10 317**	**11 277**	**12 127**	**12 651**	**12 515**

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