

Office of the Auditor General
Investigation of Assistance for Clean Energy
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Ministry of Foreign Affairs

The Auditor General's investigation of Norwegian assistance to clean energy

[Incomplete and unofficial translation by Aurelia van Eeden, FIVAS, June 2014]

Development of energy supply is an important component in the fight against poverty. An important goal of Norwegian development is to reduce absolute poverty and bringing people out of poverty permanently. In Recommendation. The Foreign Affairs Committee Recommendation No. 93 (2004-2005) to Parliament stated that sustainable development and renewable energy will be important themes in Norwegian development cooperation in years to come.

In the period 2000-2013 the assistance to clean energy has been 12.26 billion Nok. From the middle 2000s increased awareness of clean energy in development cooperation, and in 2007 the State Department launched the initiative Clean Energy for Development. In the period 2007-2013 8.97 billion Nok have been allocated for clean energy initiatives.

The clean energy initiative supports the development of renewable energy production and power grids, poverty-related measures as rural electrification with solar energy, and capacity building. The development of power plants and power grids require large investments and it has long been an important goal for the State Department to trigger private investments.

The aim of this study was to assess the extent to which Norwegian assistance to clean energy is in line with the goal of increasing access to sustainable energy services as a means to contribute to economic growth and better living conditions for the poor.

The survey mainly includes assistance to the seven priority partners for clean energy. These are Ethiopia, Liberia, Mozambique, Nepal, Tanzania, Uganda and East Timor. Countries have received about 3.9 billion million Nok in aid to clean energy in the investigation period 2000-2013.

The survey is based on among others these decisions and conditions given by Parliament:

- Recommendation No. 93 (2004-2005) to White Paper No. 35 (2003-2004) *Joint fight against poverty*
- Recommendation No. 269 (2008-2009) to White Paper No. 13 (2008-2009) *Climate, Conflict and capital*
- Recommendation. 44 S (2011-2012) to White Paper No. 14 (2010-2011) *Towards a greener development*
- Budget proposals for Parliamentary proposition. # 1 / Prop. 1 S for The Ministry of foreign affairs in the period 1999-2014

The report was submitted to the Ministry of foreign affairs by letter dated 1 April 2014. The Ministry provided comments on the report in a letter dated 29 April 2014. The comments are largely incorporated in the report and in this document.

The report, The Board of Auditors General's transmittal letter to the Foreign Ministry on 20 May 2014 and the Minister's reply 3 June 2014 are annexed.

1 Main findings

- Norwegian assistance has to a small extent contributed to the increase of access to clean energy:
 - This assistance has to a small extent led to increased renewable energy production in the priority partner countries.
 - The Ministry of Foreign Affairs lacks effective instruments to spur private investment in countries with weak regulatory framework.
 - Norwegian supported measures for development of power grids have weak economic sustainability.
 - Assistance for clean energy has to a small extent reached the poorest.
 - Weaknesses in the planning of projects for capacity building give problems in implementation.
 - The Ministry of Foreign Affairs inadequate base for planning and decision making weakens the ability to manage aid effectively.
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2 The Auditor Generals notes

2.1 Norwegian assistance has to a small extent contributed to increase access to clean energy

2.1.1 This assistance has to a small extent led to increased renewable energy production in the priority partner countries

The Foreign Affairs Committee has pointed out that aid to clean energy should be directed towards the development of hydropower, wind farms and solar power plants for the production of power to the grid. In addition to focusing on hydropower where this is feasible, aid must increasingly invest in solar and wind power plants in partner countries in sub-Saharan Africa. The Ministry of Foreign Affairs finds that it is in hydropower that Norway has comparative advantage because Norwegian companies have extensive experience in building hydropower plants and has developed internationally recognized expertise in the area.

In the period 2000-2013 in excess of 270 million Nok were granted to build or upgrade national power plants in the seven priority partner countries. The support has primarily gone to the upgrading of existing hydropower plants in Liberia, Tanzania, Uganda and Nepal. The last major state-owned power plant in Africa that was built with Norwegian assistance, hydroelectric power plant Kihansi in Tanzania, was completed in 2000. After 2005, less direct support to the development of power generation is provided than in previous years.

Development of power plants require large investments and Norwegian authorities are therefore working to encourage the private sector to make the necessary investments in the energy sector. In addition, throughout the period support have been provided for feasibility studies that survey the feasibility of potential projects. The study shows that this approach has resulted in little new production in the priority partner countries.

The survey shows that Norwegian assistance to clean energy is still primarily directed towards hydropower, although countries have ample opportunities to utilize solar and wind energy resources. In Tanzania electricity generation decreased in several periods as a result of drought. The Auditor General believes that a somewhat one-sided focus on hydropower makes the recipient countries more vulnerable to a failure in energy supply than a broader focus on hydropower, wind and solar power would have done.

2.1.2 The Ministry of Foreign Affairs lacks effective instruments to spur private investment in countries with weak regulatory framework

The Norwegian Investment Fund for Developing Countries, Norfund, is the most important Norwegian instrument to spur private investment in the energy sector in the least developed countries (LDCs). In the period 2007-2013 the institution's investments in renewable energy amounted to almost half of the total Norwegian aid to clean energy. The Ministry of Foreign Affairs stated in Prop.1 S (2013-2014) that the institution will become an even more important tool in the government's commitment to renewable energy.

The survey shows that 2 percent of Norfund's investments in renewable energy have gone to the priority partner countries for the period 2007-2013. In these countries, Norfund invested in two plants, one in Uganda and one in Nepal. Meanwhile, nearly two-thirds of the institution's investments in renewable energy is made in upper middle income countries such as Brazil and Chile.

Norfund shall contribute to the realization of projects that private companies would not otherwise have gone into because of the high risk, but individual investments must still be profitable for the business that is established to be viable. How well the conditions in a country provides for profitable commercial investment depends partly on how stable the political, economic and social conditions in the country are, how effective the bureaucracy is to facilitate business, how the labor market is regulated, and access to the necessary capital and infrastructure - including access to electricity.

The survey shows that weak regulatory framework in the priority partner countries has led to a situation where Norfund in a very small extent has been able to identify profitable projects.

After OAG's assessment Norfund's current framework and requirements for profitability makes it a poorly suited instrument to trigger private investment in countries with the weakest economic and legal framework. OAG believes there is a need for alternative measures to spur private investment in these countries.

2.1.3 Norwegian Supported measures for development of power grids have weak economic sustainability

The survey shows that the embassies in Tanzania and Mozambique have provided much support to the development of the power grid aimed at providing poor rural households access to electricity. The national electricity company in Mozambique is one of the power companies on the African continent that has increased access to most households by extending the power grid. In 2011 alone the electricity company got over 160,000 new customers. In Tanzania, authorities stated that grid extension is a primary means for providing electricity in rural areas. The directorate for rural electrification in Tanzania primarily support projects for expansion of the power grid operated by the national power company TANESCO.

The population in remote and inaccessible areas often have little ability to pay and low power consumption. This makes it difficult for the individual utility company to recover the cost of development of extensive infrastructure to these areas. The study shows that this effect is amplified in Mozambique and Tanzania, where national authorities have established electricity prices below the cost of delivering power.

In Mozambique reduced electricity tariffs, increased production costs and relatively high costs of expansion of the power grid has caused an economic loss of 25 percent in the national electricity company in the period 2003-2013. The national electricity company in Tanzania also operates with huge financial losses. The company's bad economy leads in turn to a lack of maintenance of power plants and power grids, and thus the risk for both frequent and lengthy power outages.

After the OAG's assessment the Ministry of Foreign Affairs has a responsibility to ensure that Norwegian aid is given to projects that are economically sustainable. Support for projects that have weak preconditions for economic sustainability, weakens the possibility of long-term and stable energy supplies.

2.2 Assistance for clean energy has to a small extent reached the poorest

The Foreign Affairs Committee has pointed out that the increased investment in the energy sector through the clean energy initiative should include poverty-directed measures such as rural electrification with solar energy and more efficient wood stoves.

The survey shows that over half of the Norwegian support for clean energy in the priority partner countries has gone to extend the power grid. In the period 2000-2013, this has given over 100,000 households' access to electricity. However, it is primarily the wealthiest households who make use of the increased power supply. In sub-Saharan Africa the cost of a connection is between 300 and 1,500 Nok, an unattainable sum for many poor with less than 15 Nok a day for subsistence. This means that even if the grid is extended to a village, large parts of the population remain without access to electricity in their own homes.

In Zanzibar, Norway has supported rural electrification for several decades. End evaluations of projects shows that less than 10 percent of residents in the villages who have received power, connects to the grid. This is far fewer than the target for the projects, and it has resulted in a weaker development effect than expected. The poor households have primarily benefitted from the electricity through better quality education and health care.

In Nepal, support to local solutions, such as solar panels and micro power plants, have given about half a million households electricity. The Ministry of Foreign Affairs however supports such local solutions only to a very small degree in the other priority countries.

The Ministry of Foreign Affairs considers that assistance to clean energy will contribute to social and economic development. Assistance for increased power generation and energy supply will lead to increased business activity and employment, which in turn also benefits the poor. The aim is thus broader than increasing access to energy for the poor part of the population.

However the survey shows that rural electrification projects in Africa to a small degree leads to increased productive activities that contribute to economic growth. In Mozambique, investments in

rural electrification led to increased production in already established companies. The increased power supply contributed little to new production activities. The established companies did not employ additional people, neither were new businesses set up. Lack of training and the provision of small loans means that potential investors do not have the expertise or resources to make use of the opportunities that increased energy supply provides. After OAG assessment it is hard to see the economic impact that the Ministry of Foreign Affairs has assumed for the aid. There is therefore a risk that the goal of reaching the poor first will be achieved in the very long term.

2.3 Weaknesses in the planning of projects for capacity building give problems in implementation

Capacity building and institutional cooperation are among the most important instruments in the aid to clean energy. The measures include strengthening the expertise and support in developing laws and regulations that are necessary to increase energy supply in developing countries. The Foreign Affairs Committee has emphasized that assistance for capacity building is likely to strengthen the recipients ownership of their own development processes.

During the period 2000-2013 27 agreements were signed on capacity building in the priority partner countries, including with partner countries' ministries, power stations and regulators. The survey shows that many of these projects have had problems because the receiving institution has not had the necessary capacity or expertise to implement agreed activities. In Tanzania, frequent replacements of personnel and senior management adversely impacted on the project's progress and the organization's ownership of the project. In several other countries, partners lacked both personnel and had a high turnover of staff, which weakens the possibility that the organization will benefit from training in the long term. It may by OAG seem like the framework the recipient organisation is working within is not taken sufficiently into account in the planning of the institutional cooperations.

The survey also shows that several projects in capacity building have had poor progress and lack of results. The results framework which defines objectives and expected results have been weak and unsuitable for following the progress of the cooperation. In a number of projects important basic data and indicators for measuring results and effects are missing. In several cases there is also a lack of coherence between activities undertaken and the results expected to be achieved. It turns out also that the recipient organizations do not always give capacity building projects the necessary priority, either because of lack of anchorage in management or lack of financial resources and staffing.

The OAG believes that better background knowledge and strengthened dialogue in the planning phase of aid projects in capacity building can contribute to setting defined objectives and expected results in better agreement with the recipients' needs, and for the result-framework to be perceived as more appropriate by both parties.

2.4 The Ministry of Foreign Affairs inadequate base for planning and decision making weakens the ability to manage aid effectively

The Foreign Affairs Committee has emphasized that development in poor countries requires an overarching and coherent use of instruments, so that aid becomes more targeted and strategic.

The Ministry of Foreign Affairs' action plan for the clean energy initiative (2009) states that the Ministry, in consultation with the embassies shall specify the recommended guidelines in the detailed activity plans that outline goals, projects and expected results, and to fix responsibilities and deadlines. The

survey shows that embassies have not developed activity plans for aid or analysis of the energy sector in partner countries.

The embassies' strategic plans and business plans for the period 2000-2013 provides information about ongoing Norwegian-supported assistance measures, implementation risk and future priorities. The plans indicate what is decided, but they contain little information about what has been the background and the factual basis for the embassies decisions and priorities.

The survey also shows that the State Department has not updated key plans and documents for assistance to clean energy. The Ministry were to consider the sustainability of the clean energy initiative for two years, update the action plan from 2009 annually and conduct a mid-term review of the Action Plan for Environment in Development Cooperation. None of these measures have been implemented to date.

In 2004 the aid administration was decentralized with greater decision-making powers to the embassies. The Ministry of Foreign Affairs justifies decentralization with the fact that embassies local knowledge will help to ensure that decision-making gives the best and most sustainable results in each partner country.

After the OAG's assessment the realization of the aspirations underlying the the clean energy initiative is hard to reach unless embassies increasingly follow up the prerequisites for planning like the clean energy initiative assumed. The OAG also believe that a flawed decision making weakens the the Ministry of Foreign Affairs' ability to manage aid effectively and to identify which instruments are best suited to the particular partner country.

3 Auditor General's recommendations

The OAG recommended that The Ministry of Foreign Affairs

- considers how technological advances in renewable energy could better be utilized to promote increased and more stable electricity production in recipient countries and to more effectively reach out to the poor part of the population
 - considers alternative measures that could trigger private investment in clean energy in the countries that have the weakest conditions
 - ensure that the recipient organization's organizational challenges, capacity and expertise to a greater extent is taken into account in the planning of capacity building
 - ensures that embassies implements and improves the analysis that form the basis for setting priorities and decisions for aid to clean energy; this will provide a basis that can contribute to instruments better adapted to the conditions in partner countries
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4 The Ministry's follow up

The Minister emphasized that the report offers concrete and useful recommendations that will be followed up in the Ministry's further work on aid to clean energy.

To the Auditor General's recommendation to consider how technological advances in renewable energy could be better utilized, the minister answers that the last ten years of technological development and strong price drop has made solar, wind and biomass more competitive. This will make it possible to expand the breadth of investment in clean energy. At the same time the minister points to that hydropower is an area where Norwegian aid is well placed to contribute. Many partner countries have significant hydropower resources they want to exploit, and have therefore requested Norwegian assistance in this area. The minister pointed out that other donor countries have more experience and expertise in sun and wind than Norway can offer.

The Ministry of Foreign Affairs endorses the Auditor General's recommendation to strengthen efforts to improve energy access in rural areas with small-scale renewable solutions. The Ministry agrees that there is a need to supplement online extension with other measures to reach out to the poorest, including households where conditions are not conducive for network expansion or establishment of separate networks. At the same time the Ministry points out several challenges that prevent increased use of decentralized solutions, such as lack of access to financing and weak regulatory frameworks for commercial operators.

The Minister emphasized that to reduce poverty, it is important that access to electricity creates businesses and jobs. This happens over time, but it also depends on the development of other infrastructure and general framework conditions. The Ministry will to a greater extent look into the possibilities of how increased access to energy, for example through the Norwegian support for network expansion, can contribute to increased business development.

The minister pointed out that it has been difficult for institution to find the mature projects and investors who are willing to invest in countries that are characterized by generally weak governance and poor conditions. The minister pointed out that authorities in the partner countries have gradually gained increased understanding of the importance of creating better investment climate and predictable conditions. The poorest countries are, in the ministry, become more attractive for investments in clean energy. The institution has in recent years strengthened its efforts for clean energy in poor countries, including the creation of a project development facility and the reorganization of SN Power. The minister also stated that work is to find suitable mechanisms which grant funds may be combined with investment funds to realize projects that would not otherwise have been undertaken.

The minister points out that it has been difficult for Norfund to find mature projects and investors who are willing to invest in countries that are characterized by generally weak governance and poor conditions. The minister pointed out that authorities in the partner countries have gradually gained increased understanding of the importance of creating better investment climate and predictable conditions. The poorest countries have, in the opinion of the ministry, become more attractive for investments in clean energy. Norfund has in recent years strengthened its efforts for clean energy in poor countries, including the creation of a project development facility and the reorganization of SN Power. The minister also stated that they work to find suitable mechanisms where grant funds may be

combined with investment funds in order to realize projects that would not otherwise have been undertaken.

To the Auditor General's recommendation to consider alternative measures that could trigger private investment in clean energy, the minister says that there is a process to identify multilateral and other international financing instruments that can contribute to more private investment in clean energy in developing countries. Based on lessons learned from a pilot project for innovative financing mechanisms in Uganda it will be considered whether similar models can be used in other partner countries in Africa and Asia. The minister stressed that Norfund will continue to be an important development policy instrument for investments in renewable energy, and that the geographical shift towards investment in least developed countries and sub-Saharan Africa will continue.

As for capacity building, the Ministry of Foreign Affairs recognizes that not all goals are reached. The Ministry also has experience from several other projects that weaknesses in the planning of capacity building projects have created problems in the implementation and progress. According to the Ministry this may be due to needs to devote more resources to ensure thorough knowledge of partner institutions, but also that it can be applied overly optimistic assessments of the institution's ability to absorb and put into practice the capacity strengthening offered. The minister stressed that thorough preparation and better dialogue with partner country governments and relevant institutions will be required to ensure that the projects are adapted to the realities of the institution and thus contribute to realistic results.

The Foreign Ministry will carefully review how we can ensure that capacity building takes into account the recipient organization's organizational challenges, capacity and expertise, as the OAG recommends. Competitive tendering of contracts and programs for capacity building and institutional work will be considered. The minister pointed out that there will be a need to work to achieve greater continuity by keeping trained staff in the recipient organisation, and the Ministry will look into the resources and skills needs in the planning of capacity building projects. The aim will be to ensure a comprehensive assessment of institutional needs and conditions, systematic assessment of relevant instruments and initiatives, and the establishment of better frameworks for measuring results.

The Minister agrees with the Auditor General that support for development in poor countries requires an overall and coherent use of instruments, so that aid becomes more targeted. The Ministry agrees that there is a need for a more coordinated management of clean energy efforts, and the Minister refers in this context that in 2013 introduced a common budget line - Chapter 166.74 - for clean energy initiatives. This has provided a better overview of the budget development and made it easier to manage the funds to where it performs best. The Ministry will review the budget and operations planning processes aimed at improving the management tools. Efforts to develop clear and specific objectives, performance indicators and good measurement systems will be a key priority in the future. The Minister maintains that the Auditor General's review of energy assistance will be an important contribution to this work.

Responsibility for the implementation of development policy is delegated to the embassies in the individual partner countries. The minister bases this on the view that decisions about cooperation should be taken in close consultation with the recipient.

As for the Auditor General's recommendation to ensure that embassies conduct and improves analysis as a basis for aid, the Minister agree that a thorough analysis is a prerequisite for the priorities and decisions to be made in the energy initiative. The Ministry will examine how the quality of the embassies planning can be increased to exploit Norwegian comparative advantage.

The Ministry of Foreign Affairs recently obtained input from embassies with large energy portfolios on how the energy initiative should be prioritized and improved. The Minister sees this as essential for the strategic actions that will be taken to ensure a basis for decision-making that will make the use of instruments best suited to the conditions in partner countries, such as the OAG recommends.

The minister states that the ministry will review the number of countries and multilateral investments in clean energy with the aim of more concentrations. This can improve performance and goal achievement.

5 Auditor General's final remarks

OAG has no further comments on the case.

The case sent to Parliament.

Adopted by the Auditor General Meeting on 17 June 2014

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