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Sida Review

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# Overview of International Training Programme "Management of Hydropower Development and Use"

Final Report



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**Final Report  
November 2011**

**Assignment undertaken by:  
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Ulf Möller**

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## Final Report

# **Overview of International Training Programme "Management of Hydropower Development and Use"**

Date 2011-11-25

Assignment performed by:  
Alícia Borges Månsson  
Ulf Möller

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# Acronyms

|          |                                                      |
|----------|------------------------------------------------------|
| CP       | Change project                                       |
| EDM      | Electricidade de Mocambique                          |
| HPP      | Hydro power project                                  |
| ITP      | International training programme                     |
| LCA      | Life cycle assessment                                |
| LFA      | Logical framework approach                           |
| MCA      | Multi-criteria analyses                              |
| NGO      | Non-governmental organisation                        |
| O & M    | Operation and management                             |
| SHPP/SHP | Small hydro power project                            |
| SIDA     | Swedish International Development Cooperation Agency |
| TANESCO  | Tanzania Electric Supply Company                     |
| WCD      | World Commission of Dams                             |
| ZESCO    | Electricity Supply Corporation Limited               |

# Executive summary

Sida has commissioned Indevlop to carry out an evaluation of the ITP “Hydropower development and use” with the following aims:

- To summarise the results of the programme during the period 2007-2010 in relation to the programme objectives, to identify those lessons which have been learnt, to assess the results in a critical manner, and to identify any effects in the home countries of participants in terms of whether or not they have been achieved and the reasons for this.
- To assess the extent to which the programme objectives and management have been relevant in relation to the main problems and issues in the field of energy and to the objectives and priorities of Sida.
- To participate in a follow-up seminar with a group of 40 participants in the Management of Hydropower development and use programme, which took place in Kenya during the period October 3-7, 2011.

The programme has been carried out since 2007 by Vattenfall in cooperation with Sweco International and has involved a total of 109 participants from about 30 different countries. These participants hold leading positions, such as planners and managers, who work with policy and development of the energy sector in developing countries.

The goal of the programme, as stated in the terms of reference, is to “*contribute to a change in direction towards the development of processes of mobilization and anchoring that are related to the use of hydropower as well as an increased awareness of the need for, and strengthened basis for, long-term sustainable energy supplies in developing countries.*”

The evaluation has been conducted by two consultants during the period September-November 2011 using methods such as a review of programme documentation, including technical proposals, reports, evaluations (Q1a and b, and Q2)<sup>1</sup>, briefs on change projects, Sida’s policy for the energy sector and other documents relevant to the Management of Hydropower development and use programme. Interviews were conducted with the responsible programme officer at Sida, training programme organizers, lecturers, and mentors. In addition, telephone interviews were held with 2 participants over and above group and individual interviews with 34 programme participants attending the alumni seminar in Kenya.

The major findings may be summarized as follows:

- The course has succeeded in raising awareness among the participants and in increasing their knowledge to a level that is required to be able to contribute to improved access to energy
- Although the participants may have gained the knowledge and skills that are required to take initiative in increasing participation in hydropower projects, they are not yet in a position to take the lead in this kind of initiative. This could also be interpreted as indicating that the skills that have been taught are not always appropriate for their working situations.
- A significant numbers of change projects have either been implemented or are considered by the participants to stand a good chance of being implemented. The great majority of the participants

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<sup>1</sup> Q1a: is the evaluation of part I in Sweden; Q1b evaluation of part II (regional); Q2 evaluation conducted after one year from the finalization of the training program



continues to work in the same organization as previously and is working actively with the knowledge and skills that they have acquired in the programme.

- In general, the participants have found the course to be excellent and well-structured. They view Part II to have been an appropriate complement to Part I, in which lessons learnt have been shared among colleagues. The topics are considered to be very relevant despite a general criticism that the schedule was too compressed. The methodology is regarded as having been good, participatory in some ways. But the competence of the lecturers and mentors was experienced as being very variable. The programme is judged to have succeeded in providing the participants with the knowledge and tools that are necessary for planning hydropower.
- Although a single participant, or an individual change project, may not alone lead to a more sustainable power supply, it is our understanding that all the interviewees have gained increased knowledge concerning sustainability and in some of these countries (e.g. Tanzania, Zambia), the critical mass has been sufficiently large to really bring about changes. In many other countries, the participants have played the role of “change agents” on the basis of their knowledge and network. The ability to bring about change depends very much of course on other factors such as the structure of the organization, policies and willingness to drive changes. It is necessary to build up a critical mass if organizational change is to be achieved and guarantee a more sustainable power supply.
- According to those participants who have been interviewed, the programme has provided them with an integrated perspective on the hydropower business, taking into account economic, technical and environmental dimensions. However, more attention needs to be paid to those issues of democracy, human rights and gender that are linked to hydropower development.
- Many of the interviewees indicated that, during interim period, they have organised activities to disseminate the knowledge they have gained from this course through, for example, workshops, conferences, seminars, teaching, and by acting as a resource person for new employees. They also consider building networks to have been a very successful part of this programme.

Given the achievements of the programme and its relevance to both the requirements of the developing countries and to Swedish policy for the energy sector, the evaluators recommend Sida to consider reestablishing the “Management of Hydropower Development and Use” programme while taking into account the following recommendations:

- The indicators for this programme were established in 2009 and are subjective. This creates problems and limits the assessment of the achievements of the programme. It is therefore of importance that the indicators be objective, measurable, attainable and relevant, and established during the planning phase of the programme.
- It is necessary to build up a critical mass in order to better address the problems of energy in the participating countries. For this reason there should be fewer countries involved, and Sida should retain the same countries for the whole of the contract period. Participating countries should be first and foremost those where Sida is already involved in cooperation for the development of the energy sector.
- It would be necessary for the schedule to be revised for there to be a more logical and pedagogical sequence of topics. There is reason to split the programme into sub-groups, given the different backgrounds of the participants (not all of them are engineers).

- Topics such as financing should be included in the programme and be given a more prominent role, both with regard to basic finance and the ways and means for seeking finance from different funds, donors and so on. Ways of organizing public/private partnerships should be also “highlighted”.
- Management of hydro systems should also been given a larger role, for example, the manner in which different energy sources “interplay”.
- Small hydropower should also be given a more practical role, e.g. through a site visit to a SHP, preferably one still under construction. This would provide the participants an opportunity to observe “the state of the art” construction of a power plant of a size more similar to their requirements, as a complement to visiting “old” power plants in Sweden.
- The selection process is not an easy task. Based on the interviews it seems that the participants and their interactions in the group are more important to them than the actual lectures. The level of knowledge, language and social skills should be given more importance and constitute the selection criteria for future programmes. In addition, more attention and resources should be given over to the selection phase. When working with a more limited number of organizations and countries, the selection process could be carried out on site. Information about the programme and change projects could then be discussed so that all concerned understand what is expected of them. This would increase the commitment of the management in the organization, the appropriateness of participants in the programme and the quality of change projects.
- The topics to be covered are very broad and finding lecturers from different parts of the world would be an insurmountable challenge for the organizers and possibly result in the selection of lecturers with outstanding CVs but inappropriate delivery. The old hydro topic could be resolved if Sida, or the organizer, established cooperation or a partner in Norway where, as already mentioned, a large number of SHP are to be built in coming years (Part I could consist of two weeks in Sweden and two weeks in Norway, or at least one week in Norway). Our recommendation is that a new programme retains the same 5 phases, but where participants only receive their diploma at the end of Phase V, when they are expected to present a status report of the CP; that would motivate the participants to increase their efforts in this period too.
- Change projects are a very important component of the programme and their success depends to a great extent on the quality of the mentorship. This is an aspect that requires investigation to be improved. We propose that by reducing the number of lectures and increasing the time for work on individual change projects in Part I, there would be an opportunity to intensify and improve relations between the participant and the mentor and lay the foundation for better communication during the interim period and Phase V. In addition, the instructions for the mentors require revision so that their role and management be standardized for improved quality. To increase motivation among participants and their organizations, Sida could consider funding one or two of the “best” change projects (not as investment, but, for example, to finance more detailed studies/feasibility studies).
- By improving the selection process, increasing the commitment of management in the participating organizations, and mentorship will all assist in increasing motivation among participants and reduce the dropout rate, which is actually quite high.

If Sida decides to reestablish this training program, a number of changes would be necessary. Some other practical recommendations are outlined in the main report.

# 1. Background

## 1.1 Introduction

The international training programme (ITP), Management of Hydropower Development and Use, has been carried out since 2007 by Vattenfall Power Consultant in collaboration with Sweco International. A total of 109 participants have completed the programmes in 2007, 2008a, 2008b and 2009. The programme for 2010 is still running and includes 27 participants. The majority of the participants are from Africa, followed by Asia, but the programme has also attracted increased interest in South America and Europe.

This programme is conducted within the framework of Sida's strategy for ITP which is capacity development in developing countries through international training Programmes. The objective of the area of activity is good skills and high capacity among organizations in developing countries to drive processes of change for more effective poverty reduction.

Sida has commissioned Indevelop to carry out an evaluation of the Hydropower development and use program aiming to:

- Summarise the results of the programme under the period 2007-2010 in relation to the programme objectives, identify lessons learnt, assess the results in a critical way, identify the effects at participants' home countries, why they have been achieved or not;
- Assess how relevant the programme objectives and management have been in relation to main problems and issues in the field of energy and to Sida objectives and priorities;
- Participate in a follow-up seminar with a group of 40 participants of the Management of Hydropower development and use programme, which took place in Kenya during the period October 3-7, 2011.

## 1.2 The training programme "Management of Hydro Power Development and Use"

The overall goal for the international training programme is defined as follows in the tender documentation:

*"To contribute to a change in direction towards the development of processes of mobilization and anchoring that are related to the use of hydropower as well as an increased awareness of the need for, and strengthened basis for, long-term sustainable energy supplies in developing countries."*

The programme's aim is to result in 1) impacts on relevant national decision-making organs, organizations and companies; 2) increased national awareness of the importance of common processes of anchoring and decision-making with regard to hydropower projects; and 3) greater consideration to be paid to the environment and the socio-economic aspects of planning and decision-making in relation to hydropower projects. On completion of the programme, the participants are to be:<sup>2</sup>

- familiar with the measures that are required at several levels of a hydropower project.
- able to initiate and lead the work necessary to bring about long-term changes with regard to the supply of energy.
- aware of the importance of participatory processes and important issues arising when the environment, democracy, equality and socio-economic questions are being taken into account.

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<sup>2</sup> The formulation of these objectives differs from the one in the tender document. The evaluators have opted to use the same one as in the Terms of Reference.

- able to take the initiative in expanding collaboration between various sectors of society.
- able to communicate the knowledge and experiences that they have acquired.
- in the position of having constructed a regional network.

The programme is addressed to people in leading positions like planners and managers who work with policy and development of energy sector in developing countries. The programme consists of five phases namely:

**Phase I – Selection and preparation** The participants prepare their change projects (CP). It has been important that the CP is a real project where the applicant has a role. The CP has to fit in under the headline “Hydropower development and use”, the content is rather open. Criteria for selection of participants have been the application (motivation), position in the organization, the CP, language, age and sex.

**Phase II – Part I.** consist of four- week programme in Sweden starting up with introduction meetings where the participants are introduced to each other, and present their CP and country, to the organizers, lecturers and mentors. The main contents of the programme are lectures, group work, site visits and individual work with the change projects. The course is divided into five modules including:

1. Introduction to energy planning, energy master plans and hydropower feasibility studies;
2. Technical aspects: electricity distribution, protection, O&M, rehabilitation, decommissioning;
3. Energy efficiency, energy savings and unconventional energy-generation technologies;
4. World Commission of Dams (WCD) and related tools: Impact Assessment – participatory processes, socio-environmental studies and programmes, other assessment methods – life-cycle assessment (LCA), multi-criteria analysis (MCA) etc.;
5. Managing a hydropower business

**Phase III-** Six-month interim period during which the participants work with their change projects with mentor support from Sweden.

**Phase IV – Part II** a regional follow-up in selected country with focus on the participants’ change projects. Site visits and lecture in one or two topics are also included.

**Phase V –** The participants are expected to finalise their change projects during one year after Part II. Mentor support from Sweden.

The programme has engaged lecturers and mentors from both Vattenfall and Sweco and external experts.

### 1.3 The Alumni Training Seminar

The alumni training seminar was not a part of the ITP “Hydropower development and use” from the beginning, but was arranged as a fifth year of the contract instead of one more programme. Only participants from the programmes 2007 to 2009 were invited to the seminar and 34, representing 18 countries, could participate. The seminar was arranged in Nairobi, Kenya from October 3 2011 to October 7 2011. The main topics of the alumni seminar were: Hydropower financing, group work to discuss lessons learned, and status report on change projects. This seminar has also been an instrument for this evaluation.

## 2. The Evaluation

### 2.1 The objectives of the evaluation

The purpose of this evaluation is to gain knowledge of the Hydropower training programme experiences and results and contribute to the improvement of Sida's result based management.

As stated in the Terms of Reference this evaluation should take into account and highlight the following issues:

- Has the training programme been relevant with regard to the problems confronting the home countries of the participants and possible processes in their home organizations?
- Has the programme been relevant with regard to Sida's policies and priorities?
- Has the programme been relevant concerning the overall goal for ITP to combat poverty through supporting capacity development?
- Has the programme been in line with Swedish policy for global development?
- Has the programme addressed the appropriate target groups?
- Has the programme been involved in establishing functioning networks and partnerships for the development of knowledge and the exchange of experiences between developing countries and Sweden?
- What does the resource base in Sweden look like in the areas of concern? Does Sweden have comparative advantages to offer our partners in collaboration?

**Indicators** were only established when the contract with Vattenfall was extended in 2009. The indicators 1 and 2 assess the programme aim and objectives while indicators 3 and 4 assess the programme implementation and results. These are:

1. The number of individual project assignments which have the aim of raising the level of awareness and knowledge and thereby contribute to improved access to electricity.
2. The number of initiatives that have been carried out to strengthen participation in hydropower projects.
3. The number of change projects that the participants themselves consider to have been carried out or where there are adequate prerequisites for implementation.
4. The number of participants who, one year after completion of the training are still working with the insights they have gained.

Although stated in the ToR, 2010 will not be included in the scope of this evaluation. The 2010 programme is not yet completed and it is too early to look at the effects for this group. Therefore the evaluation will cover 2007, 2008a, 2008b, and 2009 programme.

### 2.2 Methodology used

The methodology used included the review of programme documentation, such as technical proposal, reports, evaluations (Q1a and b, and Q2)<sup>3</sup>, briefs on change projects, Sida's policy for energy sector and other documents relevant for Management of Hydropower development and use programme.

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<sup>3</sup> Q1a: is the evaluation of part I in Sweden; Q1b evaluation of part II (regional); Q2 evaluation conducted after one year on the finalization of the training program

Interviews were conducted with responsible programme officer at Sida, training programme organizers, lecturers, and mentors. Also group and individual interviews with 34 programme participants were conducted during the alumni seminar in Kenya. These represented 31% of total number (109) of participants 2007-2009.

The idea was to complement the evaluation with the case of Tanzania. For that a visit to Tanzania was planned where interviews would be held with the remaining participants, their line managers and colleagues. The aim was to look closer at the effects at organizational level since TANESCO<sup>4</sup> and the Ministry of Energy have had all in all 15 participants in the programme 2007-2009. Unfortunately this was not possible because it turned out to be that those we were going to meet in Dar-es-Salam would be out of the city in a forum for the whole week. Notwithstanding it was possible to interview six of the participants attending the seminar in Kenya in the position as managers. This of course limits to a certain extent any conclusion on the effects of the training programme at the level of the organization.

In addition interviews via telephone would be held with selected participants and their line managers from ZESCO<sup>5</sup> in Zambia, EDM<sup>6</sup> in Mozambique, and PAMIR in Tajikistan. These organizations were selected because they have had a considerable number of staff who attended the Hydropower training programme and who might form a critical mass and lead changes in the organizations.

However, Zambia had only one participant at the Alumni seminar which is too few considering the number of participants (14) ZESCO has had in the Hydropower training programme. So we ended up with only two interviews from ZESCO. From EDM it was possible to interview two participants of which one was interviewed as manager. Regarding PAMIR<sup>7</sup> all four participants were interviewed as well as their manager (who has been a participant himself).

This evaluation reflects the insights of 36 participants representing 33% of total participants (of which six managers), the organizers, 6 mentors/lecturers, and Sida program officer. As a complement it draws upon the results of the Q2 evaluations. Still this evaluation is limited because it was not possible to talk with all participants, their line managers and colleagues, to conduct observations or check if changes are really taking place in the participating organizations and to identify the factors contributing to such changes.

The participation in the Q2 has also been limited; 11/22, 13/28, 14/29, 20/30 for respective 2007, 2008a, 2008b, 2009. Similar is the case of change projects. Out of 22 participants in 2007 only 21 presented change projects; in 2008a only 22 change projects out of 28 participants; 2008b 22 out of 29 participants presented change projects and in 2009 only 27 out of 30 participants had a change project. This points to a significant rate of dropout especially in 2008a and 2008b.

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<sup>4</sup> TANESCO: Tanzania Electric Supply Company

<sup>5</sup> ZESCO: Electricity Supply Corporation Limited

<sup>6</sup> EDM: Electricidade de Mocambique

<sup>7</sup> PAMIR Energy Tajikistan

## 3. The Results

### 3.1 Results compared to indicators

The results are many and at different levels, particularly at individual and organizational levels. We start by presenting the results according to the established four indicators.

#### 1. The number of individual project assignments which have the aim of raising the level of awareness and knowledge and thereby contribute to improved access to electricity

The annual report<sup>8</sup> presents estimates based on contacts with the participants and their presentations. When we now analyzed the descriptions of change projects we got a result that differs a lot from the annual report results:

*% of change projects that intend to raised awareness  
& contribute to better access of electricity*

|                       | 2007 | 2008 a | 2008 b | 2009 |
|-----------------------|------|--------|--------|------|
| Annual report results | 86%  | 92%    | 86%    | 82%  |
| Our analysis          | 48%  | 55%    | 32%    | 41%  |

This reason for the different results is that the indicator is clearly subjective and can be assessed in different ways. In fact all change projects presented can be considered as **having the intention** to contribute in one way or another to knowledge improvement and to better access to electricity. This would explain the high scores in the annual report measurement.

In our analysis we could only base the evaluation upon the information at hand. The analysis was based on the short descriptions provided by the organizers of the change projects which may not give the whole picture. The criteria was however the same as per defined *i.e. % of change projects that intend to raised awareness & contribute to better access of electricity*.

Nevertheless, no matter if it is the old or new measurement applied; it is possible to conclude that the result is rather positive. We can say that the course has succeeded to raise awareness and increase knowledge to desirable level, considering all the challenges that have been in the various countries, which were also often expressed by the people throughout the interviews, even though not stated in the short project descriptions.

#### 2. The number of initiatives that have been carried out to strengthen participation in hydropower projects

From the interviews during the seminar in Kenya, we could perceive that almost all participants expressed an increased understanding of the importance of involving different stakeholders in hydropower projects. For instance the participants from TANESCO stated that they have been involving stakeholders and also participating directly in negotiations with stakeholders, which in their opinion facilitate the implementation of projects. This was also well illustrated in their presentation of lessons learned and the importance given to application of LFA in their change projects. In fact LFA is widely used and found a very useful instrument particularly for social assessments.

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<sup>8</sup> Annual report 2010 include analysis of programme 2009 and discuss the indicators

The interviewee from ZESCO told that most of the senior engineers had been participating in the programme, and more or less all processes in the organization are influenced or affected by the programme. The PAMIR group told us that the learning from the programme had led to more support to the farmers and increased payment of compensation.

However, the way that the indicator has been defined - it becomes subjective. It is not specified what kind of initiatives that the indicator refers to: if it is the related change projects or any seminar/workshop conducted by the participants. Despite the fact that the great majority of the interviewees expressed the importance of getting various stakeholders involved the figures presented in the annual report 2010 are rather low. As shown below:

|                           | 2007 | 2008 a | 2008 b | 2009 |
|---------------------------|------|--------|--------|------|
| <b>Annual report 2010</b> | 12   | 16     | 8      | 13   |

One of the reasons may be that the participants have not been able to create the desirable level of stakeholders' involvement in the way as expressed in the interviews.

Many among the interviewees have also indicated that they have organized activities to disseminate the knowledge from this course during interim period such as workshop, conference, seminar, teaching, and acting as resource person to new employees.

### **3. The number of change projects that the participants themselves consider to have been carried out or there are adequate prerequisites to implementation**

A significant number of change projects are feasibility studies of projects to be implemented in a longer perspective. Therefore, is difficult to know the exact number of change projects actually implemented. Perhaps a more clear and realistic guideline to change projects is needed and criteria for when to considered a change project completed established. The numbers presented are based on a comparison of Q2 results and on Vattenfall status description of change projects and annual report 2010.

|              | Q2 results | Change project status <sup>9</sup> | Annual report 2010 |
|--------------|------------|------------------------------------|--------------------|
| <b>2007</b>  | 91%        | 57%                                | 76%                |
| <b>2008a</b> | 84%        | 73%                                | 79%                |
| <b>2008b</b> | 92%        | 91%                                | 90%                |
| <b>2009</b>  | 60%        | 70%                                | 89%                |

The three analyses above show a result between 57% and 90% which is quite high. This is important because it shows that the selected participants are actually people that in one way or another can initiate and participate in the change process in their home organizations.

<sup>9</sup> This analysis is based on short descriptions of each participant's change project. These were 21 in 2007; 22 in 2008a and 2008b; and 27 in 2009.



#### 4. The number of participants who, one year after completion of the training are still working with the insights they have gained

All the participants interviewed are still working in the same organization with the exception of one who took up on a consulting work in Rwanda. All of them are working actively with the knowledge and skills acquired in the programme. However when analyzing the Q2 results the scenery is slightly different but still scores high:

|            | 2007 | 2008 a | 2008 b | 2009 |
|------------|------|--------|--------|------|
| Q2 results | 100% | 77%    | 99%    | 85%  |

This may be related to the relevance of the training programme and the knowledge acquired to the participants' home organization needs and interests which may be considered a step towards the building up of a critical mass in some of the participating organizations.

### 3.2 Results compared to the training programme objectives

**The participants are familiar with the measures that are required at several levels for a hydropower project.**

In general the participants found the course excellent and well structured. They see Part II as a good complement to part I in which lessons learnt are shared among colleagues. The topics are considered very relevant despite the general criticism to the tight schedule. The methodology is considered good, somehow participatory. But the level of lecturers and mentors is considered to vary a lot. Below are some illustrative quotes by the interviewees:

- ✓ *"The course covers a wider spectrum of the hydropower industry, its management, development and use"*
- ✓ *"Tools and methodologies to address the problems of the industry were adopted after the training programme (e.g., LFA, among others)"*
- ✓ *"Learning the LFA has given me much"*
- ✓ *"Learned to see the development of hydropower as a process; the course learn you to plan and gives you tools for planning the project – we are now covering the whole spectrum of the developments of hydropower"*
- ✓ *"The programme is good because of the structure, content, mentors and participants"*

We can conclude that the programme succeeded in providing the participants with the knowledge and tools necessary for planning hydropower. This can also be seen from the Q2 results.

**The participants are able to initiate and lead the work necessary to bring about long-term changes with regard to the supply of energy.**

When asked about how the hydropower training programme can help reducing poverty in their countries, the participants were unanimous in their responses by saying that *"increased access to energy, increases economic activities, and consequently reduces poverty, especially in the case of small hydro where results are immediate"*. In the case of Tanzania and Tajikistan, the participants even talked about *"We do things by our own now which reduces the use of external consultants. This brings about development"*

A participant, or a change project, alone may not lead to a more sustainable power supply, but our understanding is that all the interviewees have got an increased knowledge about sustainability and in some of these countries (e.g. Tanzania, Zambia) the critical mass have been considerable enough to really make changes. In many other countries the participants appears as “change agents” using their knowledge and network.

- ✓ *“It has changed the way of thinking – the knowledge makes us different”*
- ✓ *“It helps us to discuss with the board”*
- ✓ *“Change project is a process of learning and the company benefits a lot”*
- ✓ *“Change projects gave an opportunity to apply the knowledge acquired”*

This objective has been partially attained. It depends very much on other factors like the organization structure, policies and willingness to drive changes. It calls for the need to build up a critical mass if organizational change is to be achieved and guaranty a more sustainable power supply.

**The participants are aware of the importance of participatory processes and the important issues when the environment, democracy, gender and socio-economic questions are been taken into account.**

According to the participants interviewed the programme has given them an integral perspective of the hydropower business considering economic, technical and environmental dimension. As expressed below:

- ✓ *“The programme raised awareness on environmental and human rights issues”*
- ✓ *“Environment has become more important”*
- ✓ *“Gone from an engineer to be more human”*
- ✓ *“Multi-disciplinarity and participation appears to be effective way to mitigate environmental problems”*

According to the interviewees, environmental issues were widely treated in the programme and even considered too much for some. So did the socio-economical aspects.

Nine of the projects presented in the alumni seminar dealt directly with environmental and social aspects of hydropower development. These include:

- ✓ Feasibility and impact assessment of the Low Se San 2HPP, Chile
- ✓ Environmental and social plan for hydro Xacbal, Guatemala
- ✓ Environmental flows and power production: the case of Kihansi, Tanzania
- ✓ Impact assessment, Mitigation and Enhancement Measures of Sanxikou Hydropower, China
- ✓ Increasing fish population in Lake Yashilkul, Tajikistan
- ✓ Study report on identification of socio-impact assessment Moragolla Hydropower project. Sri Lanka
- ✓ Review of downstream environmental impacts of the Volta Dam, Ghana
- ✓ Adding Value to the existing hydropower Dams in Tanzania
- ✓ Barriers of small hydropower development in Ecuador

From the interviews and participants' change projects is visible that the participants are well aware of the importance of applying participatory processes and taking into account environmental and socio-economic issues in hydropower development. However, democracy, human rights and gender issues link to hydropower development need more attention.

### **The participants are able to take the initiative in expanding collaboration between various sectors of society.**

As discussed above in relation to the indicators, the interviewed participants expressed an understanding of the importance to get different stakeholders involved in the projects. Still very few of them managed to put it into practice.

- ✓ *"Learned to involve the stakeholders in an early stage of a project"*

This objective has not been really achieved. The participants may have the knowledge and skills required and yet are not in the position to take the lead in this kind of initiative. This could also be interpreted as indicating that the skills taught are inappropriate for their working situation.

### **The participants are able to communicate the knowledge and experiences that they have acquired.**

As mentioned above many among the interviewees indicated that they have organized activities to disseminate the knowledge from this course during interim period such as workshop, conference, seminar, teaching, and acting as resource person to new employees.

- ✓ *"Able to contribute more in own organization – learned to use more of the competence in own organization (and less consultants)"*
- ✓ *"I have got increased knowledge about hydro. I can tell the boss that we do a lot correctly, but also what we can do differently"*

In addition one condition is for them to report back to their line managers and colleagues and share the knowledge acquired in the organization.

This objective has been attained to great extent.

### **Regional networks between participants have been constructed**

It seems that building networks has been a very successful part of the programme. Through the change projects, workshops and group work the participants have got a lot of new friends and colleagues from all over the world, and also lectures and mentors in Sweden they can contact to ask questions or ask for references or other topics.

- ✓ *"A very enriching cultural exchange among the participant countries to compare power industries and their challenges they face in developing countries"*
- ✓ *"It was interconnected a network of professionals on different subjects related to hydropower issues to exchange knowledge and experiences"*

More or less all interviewees suggested that Sida should establish a joint web site for all participants in this programme (and other programmes), not only for the group they participated together with.

This would give them the opportunity to check if there is someone who has participated in the programme when they visit a city or country, and it would also increase the number of relevant change projects to learn from.

- ✓ *“Nice to see how other has solved their problems”*
- ✓ *“The world is bigger than Nepal”*
- ✓ *“A shower of different experiences”*
- ✓ *“The interaction between countries increase the advantage of the programme, learning a lot of each other”*

As stated above building networks is considered a very successful part of this programme.

### **3.3 Issues affecting the results**

Many are the issues affecting the results of the “Management of hydropower development and use” programme. From Sida program officer point of view the major difficulty has been a weak tender and terms of reference that also revealed weaknesses in a too much detailed control of content at technical level. Another difficulty presented is frequent changes in management staff and as a result *“dialogue has to start from zero again on reporting and strategy issues. We don’t move forward in the programme. Administration have been very good because is the same person.”*

The organizers have expressed to have had a lot of difficulties in optimizing the programme and finding lecturer to cover hydro management issues. English language has also been indicated by the organizers as a hinder especially in relation to some participants and to some study visits where the level of English has been low. In addition getting into contact with the participants has presented major difficulties. *“It has been a lot of communications problems, because often has the application been filled out by someone else. Change projects are sometimes challenging.”*

The participants of the alumni seminar have also indicated financing, lack of adequate information and local expertise, and limited time assigned to change project as issues affecting negatively the results.

Among the issues affecting positively the results the following has been stressed:

- Program organizer (Course well organised)
- Genuine need
- Mentor Support
- Stakeholder involvement & support
- Funds made available
- Clear Vision and connection to project objective and targets
- Training
- LFA “Logic framework approach”

## 4. Analysis and results assessment

### 4.1 Main goal of the ITP programmes

International Training Programmes (Internationella Utbildningsprogram), ITP, contribute to the development of capacity and processes of change in the collaborating countries and other developing countries through providing an opportunity for key people to participate in a training programme within priority subject areas of Swedish development work, where Swedish competence is needed and where experiences from countries at different levels of development are taken into account.

The International Training Programmes, ITP, contribute to creating the preconditions for the collaborating countries and other developing countries to combat poverty by means of effective measures for the development of capacity and institutions.

This is achieved through the programmes being based on the following principles:

- key people in the developing countries are provided with an opportunity to take advantage of Swedish experience, models and cutting-edge competence
- people from developing countries are provided with an opportunity to take advantage of relevant experiences of other developing countries who, in certain areas, are on the same level of development or who have proceeded further
- structures and visions for the development of knowledge which have clear goals for change and development
- collaboration in establishing functioning networks and partnerships for the development of knowledge and the exchange of knowledge between developing countries themselves and between developing countries and Sweden.

Below we will look further into the relevance of the programme in relation to these four principles.

#### ***4.1.1 Relevance of the ITP programme “Management of Hydro power development and use” in this context***

For the whole period of 2007-2009, the programme has started with four weeks in Sweden (part I), beginning with an introduction to energy in the Nordic countries, with a special focus on Sweden. As far as we can see from the course programmes, a number of Swedish experts have been lecturers, and also mentors. The headlines of the programme (see chapter 1) are considered very relevant for both development and use of hydropower. The programme structure and contents, including study visits are also considered very relevant for the participants.

An important part of the programme has been the change projects. All participants had to choose a “real” change project, work in it throughout the programme and do presentation for the rest of the group. The change projects have in particular given the participants a possibility to take part of relevant experiences in hydropower development and use from other developing countries.

However when it comes to quality of lecturer and mentorship the opinions vary. Most of the interviewees were satisfied with the lectures in the programme as a whole and found it very relevant, while some found that it was too much lectures/theory and too little of change projects in part I. No doubt that lectures/mentorship are extremely important for the success of the training programme and change projects and therefore would need to be improved.

The suggestion by the participants is to reduce lectures in part I and give more prominent role to change projects (50-50) and start mentorship in an earlier stage before part I. Perhaps even visit the country

prior to part I which would provide better knowledge on participants' change projects and realities and also increase the support from the management back home.

Another related issue is the dropouts. As mentioned above in Chapter 2, the dropout rate has been quite high and according to the organizers this is due to several reasons (like sickness or change of work) but mainly due to the managers who do not allow the participants to attend Part II of the programme. This indicates that more attention needs to be given to the selection process.

Since we haven't participated in the programme, neither conducted observations of the lectures it is partly difficult to say if the programme has had a distinct plan for change and development, but an important part of the programme has been introducing the participants to the Logical Framework Approach (LFA), a goal oriented project planning method. This instrument has been very useful for the development of the participants' change projects and other projects.

As far as we can see from the course programme, it has been a lot of group work, giving the participants the possibility to do networking and exchange knowledge from different countries. Also the presentations of the countries and CPs seem to have given the participants various insights and the possibility to exchange knowledge and experiences.

Concerning the topics covered, there is also room for further improvements. Most of the developing countries are looking into small hydropower development (SHP), and most of the hydropower in Sweden is big run-of-river. Notwithstanding many of the interviewees expressed that they missed site visits from development of new SHP, but still found both interesting and useful to visit plants where upgrades and rehabilitation are done. Financing is a topic that has been missing in the programme although it is considered of extreme importance by the participants. Some basic financing should be included in part I which would be an added value of great help to the participants' change projects. In general the participants were happy with the broad character of the programme but some suggested splitting the programme into sub-groups and providing differential training programmes.

Also all the interviewed participants find the programme useful to reduce poverty. SHP in rural area is a good solution for reducing poverty, e.g. an example from Nigeria is that it was possible to move small industry back to the villages because of the electricity. "Knowledge is power, you will be able to be more active and reduce poverty". Also reducing power cuts was mentioned as a help for reducing poverty (with up to 15 hours of power cut every day it is difficult to establish any small industry in rural areas). In what degree a programme like this really reduce poverty, can of course be discussed, not least when thinking that in many cases poor people cannot afford connection charges once the grid is expanded in rural areas. But from our point of view this is a small, but important step in the right direction because energy is an important tool to create business opportunities.<sup>10</sup>

## **4.2 Sida and the Swedish Policy for Global Development**

Sweden's Policy for Global Development<sup>11</sup> lays the foundation for Sweden's development cooperation. It states that "Adequate and secure access to energy solutions, at both local and national level, that are cost effective, sustainable and not detrimental to health, plays an important part in order to attain several of the millennium development goals, including the fact that they contribute to the reduction of poverty, to attaining equality and increased power for women, as well as good health and environment." Therefore Sweden ought to strive towards:

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<sup>10</sup> Sida have also multiple policies, e.g. that energy should be from a renewable source. In some areas a small thermal plant could be cheaper and better (?), but that would not be consistent with a renewable source policy.

<sup>11</sup> Utrikesdepartementet, Policy för miljö- och klimatfrågor inom svenskt utvecklingssamarbete 2010-2014

- increased access to energy for those living in poverty and support efforts to increase the proportion of renewable energy.
- such development of energy supply which reduces negative effects on the environment and climate.
- promoting the prerequisites in developing countries for the production of, and trade in, renewable energy, using technology which reduces carbon emissions.
- Support the entrance of developing countries on to the market for emissions trading.

Based on this policy, Sida supports the energy sector development with the overall objective of assisting in the development of sustainable energy systems that enable poor people to improve their lives. Sida's support rests on two pillars: reform of energy institutions and development of sustainable energy systems.<sup>12</sup>

Sida supports sustainable hydropower development since hydropower is an important energy source and has considerable development potential in many developing countries. It supports efforts that increase access to a mix of modern energy services from renewable energy sources.

Investments in energy infrastructure require capital. The public sector will have to continue to play a major role in financing needed investments but a significant part of the capital, in both local and foreign currency, must be mobilised from private investors and financial markets.

#### ***4.2.1 Relevance of the training program compared to Sida's and Swedish Government policies and priorities for energy sector***

The programme is first of all a "Management of hydropower development and use" programme. Most of the topics are about designing and construction of hydropower plant, maintenance and operation with focus on mini and micro hydropower. Dam safety and hydrology have also been an important part of the programme.

Other renewable sources and non-conventional energy generation technologies also have a part in the programme, but from our point of view this should have had a more important role. As stated in Sida's policy document: "Often a mix of energy technologies is required to satisfy different energy service needs and to secure reliable supplies", and in a time where climate changes in some areas make hydropower more intermittent, a broader approach to different renewable sources (and maybe also thermal sources) would make sense to help the different countries to increase the security of supply (Management of hydropower and the power system).

Looking into part I and part II, lectures of financing has been missing. Only this year the topic was covered in the alumni seminar in Kenya but not all participants could attend. As stated above, investments in energy infrastructure require capital, and it is important for the participants to learn both how to attract private investors, but also different kind of donors and last but not least: a combination between private and public partnerships. This combination is probably the solution that will raise most of the projects in the future.

The training programme has well covered the topic on environment and many of the interviewees mentioned that they have acquired knowledge and skills to take into account environmental issues when planning and executing projects, and not least involve different stakeholders (landowners, villages, NGOs) earlier in the process.

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<sup>12</sup> Policy document "Sustainable Energy Services for Poverty Reduction" of 6 December 2005.

Most of the interviewees expressed that management of hydropower/management of power systems was poorly handled in the programme. From our point of view, the interaction between different sources of energy, but also the interaction between production and consumption (to reduce cut offs) is extremely important in developing countries. More focus on organization and management is needed to reach better results in development of sustainable energy systems.

#### **4.3 The training program compared to participants countries central energy problems**

The majority of the interviewees found the training programme useful in their daily work. Some comments are given above, but a very important message is that the programme increases the cooperation in the organization. Some states that they have to report in writing what they have learned, and it becomes a part of the new rules or theory in the organization (the new “energy bible”). They think wider, involve other persons or departments within the organization, but also involve stakeholder much more and in an earlier stage of a project. As one interviewee stated “Everybody is a part of the project, and knowledge from the programme is used every day”.

In many of these countries, there is lack of water – especially in some periods of the year. Some of the interviewees were very happy with the lectures in “Integrated water resource Management”. From an irrigation point of view, it made sense for them to see how the water could be better used in multiple ways. We could also see from the “Verksamhetsberättelse 2009” that the lectures on environment covered the issues on how the planning and operation of hydroelectric power is affected of potential changes in water runoff as a result of climate change. But a deeper analysis of the lectures by us was not possible.<sup>13</sup>

Topics like off-grid and on-grid production (challenges and benefits) could have had a more significant role in the programme, but we of course have to take into consideration that the main topic is hydropower development and use, and there is only six weeks for lectures and site visits.

Some of the interviewees also mentioned that it was too few site visits to small hydro power sites. This problem could have been solved in part II, if part II had been arranged in an area with “interesting” small hydropower projects to visit, either under construction or stopped/paused because of environmental, social or irrigation challenges; or just find “benchmark” projects that fit with Sida’s policy. It may require some more planning and organizing, but should be well invested money.

One important component of this training programme is to build up a critical mass in order to address the participating countries energy problems in a better way. A critical mass normally implies a large enough number of participants per organization and/or country so that many people share the same vision and tool kit, but it depends a lot on the participant and the position of the participant (in some organizations two or three change agents make a difference). Sida has not made a quantifiable objective of this but would say at least 20 per country or 5-10 if they come from the same organization. From this point of view, the programme has only partly reached this objective. One of the reasons presented is that change in countries approved by Sida (or initiated by Sida) through the years have made it difficult to creating a critical mass. In addition it seems that instead of limiting the number of participating countries these have been extended. From Sida and organizers perspective fewer countries would have given better results and more focus on organization and management which is needed to face the energy problems in most developing countries.

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<sup>13</sup> The material we have at hand, verksamhetsberättelse 2009 and course schedules, only provide very short information about the topics covered in the programme.



## 5. Conclusion and Recommendations

All in all, the programme has been relevant and reached to a considerable extent most of the goals a programme like this should meet. The knowledge gained, the learning of hydropower projects as a process both at the level of the organization and the community (stakeholders) are valuable. The increased understanding of environment and social challenges is also important. The programme has also connected people across regions, people from different backgrounds, sex and competences. Based on this and on the relevance of this training program to both the countries' needs and to Swedish policy for energy sector, we strongly recommend Sida to consider reestablishing the "Management of Hydropower Development and Use" programme.

If Sida decides to reestablish the programme, the following recommendations should be taken into account:

- The indicators for this programme were established in 2009 and are subjective. This creates problems and limits the assessment of the achievements of the programme. It is therefore of importance that the indicators be objective, measurable, attainable and relevant, and established during the planning phase of the programme.
- It is necessary to build up a critical mass in order to better address the problems of energy in the participating countries. For this reason there should be fewer countries involved, and Sida should retain the same countries for the whole of the contract period. Participating countries should be first and foremost those where Sida is already involved in cooperation for the development of the energy sector. It would appear to be easier to create a critical mass in countries where hydropower is run by the state, but since public/private partnership will be of growing significance in the future, it is also important to include countries where the energy sector is "more" privatized.
- The schedule for the course was generally found to be very tight and the content not always appropriate to the interests of the participants. Thus it would be necessary for the schedule to be revised for there to be a more logical and pedagogical sequence of topics. Perhaps lectures in the morning and group work, study visits or individual project work in the afternoon should be considered. The participants need time to "digest" the information from the lectures. There is reason to split the programme into sub-groups, given the different backgrounds of the participants (not all of them are engineers). The programme could have a common first two weeks and then be differentiated on the basis of the areas of interests of the participants. This would provide an opportunity for the participants to focus on specific subjects and gain deeper knowledge.
- Topics such as financing should be included in the programme and be given a more prominent role, both with regard to basic finance and the ways and means for seeking finance from different funds, donors and so on. Ways of organizing public/private partnerships should be also "highlighted".

Management of hydro systems should also been given a larger role, for example, the manner in which different energy sources "interplay". In many countries thermal energy will have an important role to play for many years, but the "correct" use of hydropower and other renewable sources could reduce the impact of pollution and CO<sub>2</sub>. One of the site visits should probably include a wind turbine park.

- Small hydropower should also be given a more practical role, e.g. through a site visit to a SHP, preferably one still under construction. This would provide the participants an opportunity to observe “the state of the art” construction of a power plant of a size more similar to their requirements, as a complement to visiting “old” power plants in Sweden. This could be carried out in Part II in one of the regions, or in Part I, visiting Norway, where a large number of SHPs are to be constructed in the next ten years. (See below for more details on this proposal)
- The selection process is not an easy task. Based on the interviews it seems that the participants and their interactions in the group are more important to them than the actual lectures. The level of knowledge, language and social skills should be given more importance and constitute the selection criteria for future programmes. In addition, more attention and resources should be given over to the selection phase. When working with a more limited number of organizations and countries, the selection process could be carried out on site. Information about the programme and change projects could then be discussed so that all concerned understand what is expected of them. This would increase the commitment of the management in the organization, the appropriateness of participants in the programme and the quality of change projects.
- It has been suggested that less of the programme be held in Sweden and more in the regions (e.g. region-Sweden-region), but nothing in our findings would provide grounds for any strong recommendation about this, except the discussion about “only” old hydro in Sweden. High level lectures are required, and the “best” ought to be from Sweden, or at least in the Nordic countries. The topics to be covered are very broad and finding lecturers from different parts of the world would be an insurmountable challenge for the organizers and possibly result in the selection of lecturers with outstanding CVs but inappropriate delivery. The old hydro topic could be resolved if Sida, or the organizer, established cooperation or a partner in Norway where, as already mentioned, a large number of SHP are to be built in coming years (Part I could consist of two weeks in Sweden and two weeks in Norway, or at least one week in Norway). Our recommendation is that a new programme retains the same 5 phases, but where participants only receive their diploma at the end of Phase V, when they are expected to present a status report of the CP; that would motivate the participants to increase their efforts in this period too.
- Change projects are a very important component of the programme and their success depends to a great extent on the quality of the mentorship. This is an aspect that requires investigation to be improved. We propose that by reducing the number of lectures and increasing the time for work on individual change projects in Part I, there would be an opportunity to intensify and improve relations between the participant and the mentor and lay the foundation for better communication during the interim period and Phase V. In addition, the instructions for the mentors require revision so that their role and management be standardized for improved quality. To increase motivation among participants and their organizations, Sida could consider funding one or two of the “best” change projects (not as investment, but, for example, to finance more detailed studies/feasibility studies).
- By improving the selection process, increasing the commitment of management in the participating organizations, and mentorship will all assist in increasing motivation among participants and reduce the dropout rate, which is actually quite high.

## Annex 1 - Documents consulted

- Anbudsinbjudan Hydro power Development and Use, Sida 13. Juni 2006
- Anbud avseende planering och genomförande av det internationella utbildningsprogrammet "Hydropower Development and Use, 2011-09-06
- Beslut om insats, 2009-12-15
- Change projects: sammanfattningar
- Deltagarlistor 2007-2009
- Kursprogram och inbjudan
- Policy document "Sustainable Energy Services for poverty reduction" of 6 December 2005. Sida
- Policy för miljö och klimatfrågor inom svenskt utvekslingssamarbete 2010-2014, Utenrikesdepartementet
- Promemoria, 2009-12-07
- Q1a, Q1b and Q2 from 2007, 2008, 2009
- Tilläggskontrakt för förläggning, 2009
- Utbildning för förändring: utvärdering av ITP-programmet "Road Traffic Safety". Lage Bergström, 2011-03-03
- Utvärderingsrapport, konsulttjänster. Styrelsen för internationellt utvecklingssamarbete "Hydropower development and use". 2006-10-03
- Verksamhetsberättelser 2009, 2010
- Årsrapporter 2008, 2009, 2010
- Översyn av Sidas Internationella Utbildningsprogram inom Energiområdet, SPM Consultants juni 2005

## Annex 2 - The interview guides

### Questions for Sida

- How were the goals of the management of hydro power development and use programme defined?
- Did the beneficiary countries/Embassies participate in the design of the programme?
- How does this ITP programme fit in the Swedish overall policy for energy sector?
- This is first of all a hydro power programme, but was consideration given to other renewable sources as well (using e.g. wind or biomass instead of fossil fuel to increase the security of supply); and if not why not?
- Change projects are key components of this program. Do you think there has been a suitable correlation change project and programme contents?
- How were the countries chosen? Are these priority countries beneficiaries of Sida support to energy sector? If not, what are the expected outcomes of the programme?
- In the tender it is stated that it is important to have critical mass from each country in the target group, so they have the force and potential to make changes for the better. Do you think the organizers have been successful in this? What does a “critical mass” imply?
- In what way do you think that this programme can contribute to reducing poverty?
- How is this programme expected to support participants to understand and apply rights based approaches and gender perspectives?
- How do you think the changes of programme management have affected the programme?
- What is expected from this evaluation? Who will be the reader of the report? How can the evaluation report best support them in future decision making?
- What has been done in the case of this particular ITP programme to ensure sustainability?
- What are the major difficulties encountered during execution of the programme?
- What changes and/or recommendations would you like to see?

### Questions for organizers/mentors/lecturers

- When planning this programme did you take into account the participating countries realities?
- In the tender it is stated that it is important to have critical mass from each country in the target group, so they have the force and potential to make changes to the better. Do you think you have been successful in this? What does success imply in this regard?
- Do you consider that the programme content responds to the varied needs and expectations of participants? Explain
- The programme contains a lot of topics, but the structure (agendas) seems a little odd sometimes – changing from CDM to poverty to electronic equipment in the same day. Please comment.
- How relevant is the program content to Sida’s policy for energy sector?
- It’s stated in the tender that the participants – after the programme – should be able to understand the role of hydro power in the energy mix (energy supply). Has this been successful?
- How has Demand Side (DSM), Market Design and Consumer protection been treated in the programme
- This is first of all a hydro power programme, but was consideration given to other renewable sources as well (using e.g. wind or biomass instead of fossil fuel for to increase the security of supply); and if not why not?
- What are the advantages/disadvantages of having part I in Sweden and focusing on Swedish experiences?
- The report refers to dropouts during interim phase as a problem. What’s the percentage of dropouts? What actions have been/should be taken to reduce the dropout rate?

- How many applications did you receive per cycle?
- What criteria have been used in the selection process?
- What has been done to ensure that the program reached the right applicants and a larger number of potential participants?
- Mentorship: how has it worked? (Supervision, contacts how often? How many mentors per cycle?) How could it be made more effective?
- Only one mentor participates in the regional part of the programme. How is the coordination done among the mentors to guarantee a good follow-up in part II?
- Mentorship should continue one year after the regional phase. How do you assess this period? What recommendations?
- Change projects are essential for achieving the program objectives/ results but not enough time was assigned to development of change project in the programme particularly in part I. Please explain
- Are the change projects relevant to their home organization and country realities?
- In what way can the individual change projects contribute to poverty reduction?
- How have aspects of gender equity, environmental impact and socio-economic trends been dealt with in the course programme and in change projects?
- Has the overall programme been able to raise attention to rights based perspectives, particularly in relation to planned displacement?
- In the evaluation seminar taking place in Kenya only 50-60 out of 112 participants applied. Why?
- One of the methodologies used is a seminar “trainer of trainers”. How the HPD participants were prepared in part I of the programme to carry out such seminar? What were the results?
- Do you consider the time assigned to each module sufficient?
- What has been done in the case of this particular ITP programme to ensure sustainability?
- What are the major difficulties encountered during execution of the programme?
- What changes and/or recommendations would you make?

#### Questions for managers (and participants) on effects at organizational level

- How did you get information about the Hydropower training programme?
- How were the candidates to the programme chosen at your organization?
- How important is the training programme to your organization? In your view is the programme in line with your organizational development policy and human resource development strategy? In what sense?
- How has the knowledge acquired been shared/applied in your organization? Please explain and provide examples
- How relevant have the change projects been to your organization? Please explain
- What kind of support have you provided in the implementation of change projects? Has the implementation been successful? If so, what factors have contributed to the success? What were the major difficulties encountered?
- Has your organization initiated any changes as a consequence of this training programme? Could you please give some examples?
- Has the mentoring process proven useful for the staff who have been trained? Is there any way that this could be improved?
- What could be improved in your organization to ensure efficient use of the knowledge and skills acquired in the training programme so that to reach sustainability?
- In your opinion, how does this training programme contribute to poverty reduction, gender equity, respect for human rights and/or environmental sustainability in your country?

- Do you have any ideas/recommendations on how to improve this training program in the future?

### Questions for participants (group interviews)

#### *Introduction*

- When it comes to hydropower, what are the main problems your country has today? Has the HPD programme been relevant to deal and discuss these specific problems? In what way?
- Has the HPD programme given you increased knowledge that helps improve the processes in your organization?
- In what way do you think hydropower management can help reducing poverty in your country?
- Has the programme provided you with relevant knowledge and tools to take into account environmental impacts, gender issues and the rights of people affected by hydropower development?

#### *Another set of questions could be the following:*

- Has the HPD training programme been beneficial for you as individual? In what sense?
- Has the HPD training programme been beneficial for your organization? Explain
- Can you give examples of how you or your organization have applied the knowledge and skills developed in the training programme?

#### *Selection*

- What do you think about the composition of the group of participants (in your group)? Explain

#### *Interim period:*

- How has the supervision of your mentor worked? How often did you have contact? How could the mentorship been made more effective?
- Did you carry out any seminar during this period? What kind of seminar? With/for whom? What were the results? What difficulties did you find?
- Did you have any support from your manager and colleagues in developing your change project? What kind of support? Specify
- Did you have professional contacts with other participants that could help improving your change project?

#### *Part I and Part II*

- How do you assess these phases in general? Explain
- How do you assess them in terms of time and importance attributed to your change projects? How could the mentorship been made more effective?
- How relevant do you consider the topics to your work and country situation? Why?
- What's your opinion about the methodology used in HPD programme? Explain
- Do you consider the establishment of network between participants and between participants and Swedish colleagues important? Why? How did the course contributed to it?

#### *Finalizing*

- In your opinion what are the major results achieved with this programme? And what factors have contributed to them?
- What can be done to make the programme results more sustainable?
- If you were to organize a programme like this, what would be the changes you would make? Explain?

# Annex 3 - Terms of Reference

## UPPDRAGSBESKRIVNING FÖR ÖVERSYN AV INTERNATIONELLA UTBILDNINGSPROGRAMMET "MANAGEMENT OF HYDRO POWER DEVELOPMENT AND USE"

### 1. BAKGRUND

#### 1.1 Bakgrund av det aktuella programmet

Det internationella utbildningsprogrammet (ITP) *Hydro Power Development and Use*, härnäst kallat HPD, har genomförts sedan 2007, 2008 gavs det också två gånger. 78 deltagare har fullföljt de årliga program som startat 2007 och 2008, 29 deltagare är i slutfasen av det program som de påbörjade 2009 och 27 följer 2010 års program just nu. Huvuddelen av deltagarna kom från Afrika följt av Asien, men programmet har också rönt intresse i Sydamerika och i Europa. Det långsiktiga målet (impact) för detta internationella utbildningsprogram angavs i anbudsunderlaget vara att

*"bidra till en förändring i riktning mot att utveckla mobiliserings- och förankringsprocesser relaterat till utnyttjandet av vattenkraft samt en utvidgad medvetenhet om behovet av och en förstärkt grund för en långsiktigt hållbar energiförsörjning inom utvecklingsländerna."*

De insatsmål som förväntas uppnås vid insatsens slut och som utgör output är:

- genomslag i relevanta nationella beslutande organ, organisationer och företag,
- ökad nationell medvetenhet om betydelsen av en samlad förankrings- och beslutsprocess vid vattenkraftsprojekt,
- bättre hänsyn till miljö och socioekonomiska aspekter vid planering och beslut gällande vattenkraftsprojekt.

Dessa ska uppnås genom att varje utbildningsprogram når de individuella resultatmål på outcome-nivå:

- Deltagarna känner till nödvändiga åtgärder vid planering av vattenkraftsprojekt på flera nivåer.
- Deltagarna kan initiera och leda förändringsarbete mot en långsiktig energiförsörjning.
- Deltagarna vet betydelsen av deltagandeprocesser och viktiga frågor att ta hänsyn till (miljö, demokrati, jämställdhet och socioekonomi)
- Deltagarna har förmåga att ta initiativ till utvidgat samarbete mellan olika samhällssektorer
- Deltagarna kan förmedla de erhållna kunskaperna och erfarenheterna
- Regionala nätverk har bildats mellan deltagarna.

Indikatorer för denna insats fastslogs först vid förlängning av insatsen och av kontraktet december 2009.

- Antal individuella projektarbeten som syftar till att höja medvetandegrad och kunskapsnivå och därigenom bidra till förbättrad tillgång till elektricitet
- Andel genomförda initiativ för att stärka deltagande i vattenkraftsprojekt
- Andel projektarbeten som av deltagaren själv bedöms vara genomfört eller ha goda förutsättningar att genomföras
- Andelen deltagare som efter ett år efter genomgången utbildning fortfarande arbetar aktivt med de erhållna insikterna.

I syfte att bidra till Sidas förbättrade resultatstyrning, önskar nu Enheten för Kapacitetsutveckling och Samverkan ta del av resultaten inom ramen för denna utbildningsinsats.

Då Sida avser fortsätta bedriva internationella utbildningsprogram inom energisektorn utgör också erfarenheterna från detta ITP värdefulla underlag.

## 2. UPPDRAGET

### 2.1 Syfte

Sidas ambition är att varje internationellt utbildningsprogram skall utvärderas inför en eventuell ny upphandling. En oberoende utvärdering skall därför sammanfatta resultatet av programmets genomförande i förhållande till uppsatta mål samt bedöma hur relevant programmets mål och inriktning är i förhållande till centrala problem och frågeställningar inom det aktuella ämnesområdet och i förhållande till Sidas mål och prioriteringar i dagsläget.

Uppdragets syfte är således att:

- Sammanfatta resultat av programmets genomförande under perioden 2007 – 2010 i förhållande till de mål programmets haft, identifiera lärdomar, göra en analyserande och problematiserande resultatbedömning, identifiera resultat i deltagarnas hemmamiljöer och varför dessa uppnått eller varför resultaten inte uppnått förväntningarna;
- Bedöma hur relevant programmets mål och inriktning varit i förhållande till centrala problem och frågeställningar inom det aktuella ämnesområdet och i förhållande till Sidas mål och prioriteringar;
- Delta i ett resultatuppföljningsseminarium med 40 tidigare deltagare i *Management of Hydro Power Development and Use*, som äger rum i Kenya under 5 arbetsdagar i början av oktober 2011.

### 2.2 Frågor som skall belysas

Frågor att belysa vad gäller utvärderingen av *Management of Hydro Power Development and Use*:

- har utbildningsprogrammet varit relevant med avseende på deltagande länders problem och ev processer i deltagarens hemmaorganisation?
- har programmet varit relevant med avseende på Sidas nuvarande policies och prioriteringar?
- har programmet varit relevant med tanke på att det övergripande målet för ITP att bekämpa fattigdom genom stöd till kapacitetsutveckling?
- har programmet varit i linje med Sveriges politik för global utveckling?
- har programmet vänt sig till rätt målgrupp?
- har programmet medverkat till att skapa fungerande nätverk och partnerskap för kunskapsutveckling och erfarenhetsutbyte mellan utvecklingsländer och Sverige?
- hur ser resursbasen ut i Sverige inom aktuellt område? Har Sverige komparativa fördelar att erbjuda våra samarbetspartners?

## 3. GENOMFÖRANDE AV UPPDRAGET

Uppdraget skall genomföras dels genom deltagande i resultatuppföljningsseminariet i Kenya 3-7 oktober 2011 dels genom:

- genomgång av dokumentation rörande programmets olika omgångar (rapporter, elektroniska utvärderingar, övriga rapporter relevanta för *Management of Hydro Power Development and Use*);
- intervjuer med relevanta personer på Sida;
- intervjuer med programarrangör (Vattenfall Power Consultants) samt med viktigaste föreläsare/handledare/mentorer samt med deltagare under seminariet i Kenya.

## 4. TIDPLAN OCH RAPPORTERING

Förberedelser för uppdraget skall påbörjas under juni 2011. och omfatta max 4 arbetsveckor (förberedelse – seminarium – ev resor - efterarbete).

- Avstämningar skall göras med ansvarig handläggare på Sida/ITP.
- Uppdraget skall redovisas i form av en rapport på svenska och vara Sida tillhanda senast 30 november 2011.

## 5. VILLKOR FÖR UPPDRAGET

Den part som åtar sig detta uppdrag får inte ha varit involverad i genomförandet av det aktuella programmet.

Då Sida i dagsläget överväger att handla upp genomförandet av liknande internationella utbildningsprogram, kommer den part som genomför uppdraget att vara diskvalificerad från att lämna anbud i en eventuell kommande upphandling.

Detta gäller också om denna part ingår i ett konsortie med vilket Sida har skrivit ramavtal.





## OVERVIEW OF INTERNATIONAL TRAINING PROGRAMME "MANAGEMENT OF HYDROPOWER DEVELOPMENT AND USE"

Sida commissioned Indevlop to evaluate ITP Hydropower development and use to summarise results during 2007-2010, to assess the relevance of the objectives to issues in the field of energy and to Sida's priorities. The evaluation included a review of documentation and interviews. The findings are that the course successfully increased participants' awareness and knowledge for them to contribute to improved access to energy but the skills taught were not always appropriate to their working situations. Many of their change projects were implemented. The participants feel the course to be excellent, providing them with an integrated perspective on hydropower business, including economic, technical and environmental dimensions. However, more focus is needed on democracy, human rights and gender issues linked to hydropower development. Sida are therefore recommended to reestablish the programme but a number of specific changes would be necessary.

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