

SPEECH AT THE CLOSING CEREMONY OF THE 37TH ANNUAL SESSION OF THE UNU GEOTHERMAL TRAINING PROGRAMME.

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Minister Ragnheiður Elín Árnadóttir, distinguished guests and UNU Fellows.

The four United Nations University programmes in Iceland are a key part in Iceland's contribution to developing countries. We in the Geothermal Training Programme are the oldest in the family established at the end of 1978. We have actually now the longest history of any UNU programme. A renewed agreement was signed in November last year, ensuring the continued cooperation between UNU, the Government of Iceland and Orkustofnun in geothermal capacity building till the end of 2019, at least.

The capacity building tasks of the UNU programmes in Iceland are important for UNU. However, under the current rector, David Malone, UNU has been given a stronger mandate than before to serve in policy-making and think-tank roles for the operations of the United Nations. Also more weight is expected to be given to research in the specific capacities of the different institutions/programmes of UNU.

In this respect the Icelandic programmes need to become more active, besides their customary role in education for the developing countries. Furthermore, Rector Malone has put emphasis on his support of ideas that the UNU programmes in Iceland should be united into one UNU institution in Iceland, which would certainly give them a stronger position within the UNU and UN system, and increase their possibilities of a wider economic support, which he also emphasizes.

This summer the UNU programmes had the honour of hosting Rector Malone for the first time. The purpose of his visit was to get a direct impression on the activities of the Icelandic programmes and to discuss the ideas of a new institute with the Ministry for Foreign Affairs. I think I can safely say that his impression of our activities was quite positive and that he has now a better understanding than before of the valuable work that the Icelandic UNU programmes are carrying out. About the status of discussions on a new institute I can say less, but it is likely that we will learn about the results of these negotiations with the MFA in the coming months. If positive and supported by the Government of Iceland, a new "umbrella" UNU institution could see the daylight at the start of 2017.

In 2014, UNU-GTP set in motion a revision of its activities, starting with the 6-month training. Four of the nine study lines on offer were combined into 2, and a new study line in Project Management and Finances was added, with the 6-month training thus reorganized into 8 different lines, run for the first time in the present format this year. I think I can state that this was a timely and successful transformation. In the last few months, this work has been followed up by a special

committee working on a Strategic Plan for UNU-GTP for 2016-2019. Here the basis is in the tasks of UNU in capacity building, research and its think-tank and policy-making role. Due consideration is also given to the new Post 2015 Sustainable Development Goals or the SDGs of UN, which are expected to come into force at the end of this year, where access to energy is given more emphasis than before. This is emphasized in goal 7 stating:

Ensure access to affordable, reliable, sustainable and modern energy for all.

and goal 13

Take urgent action to combat climate change and its impacts.

Finally, the strategic plan also considers the goals of Iceland's Development Aid. UNU is identified by the MFA as a key implementing agency in its development cooperation agenda, with focus on topics that can draw on Icelandic experience and expertise, in natural resource management and strong emphasis on gender equality. A draft version of the strategic plan was presented for the new Board of UNU-GTP at its second meeting earlier this month, and I expect to see this work concluded in the coming 1-2 months.

I should perhaps also mention that the MFA has set into action an evaluation process of the four Icelandic UNU programmes, which will be carried out in 2017 by a foreign expert company in such tasks, not yet selected. At UNU-GTP we are proud of our record and past achievements, and we are confident that this opinion will be shared and accepted through this evaluation process.

During the 37 years of the UNU-GTP, we have had good support from the Icelandic Government which has ensured the strength of the UNU programmes despite difficult economic climate in recent years. We did though suffer a considerable setback in 2014, when the budget of the UNU programmes was cut down about 15-16%, making 2014 and 2015 quite difficult financial years for all programmes. We hope to see improvements from this temporary set-back, with the enormous need there is for this kind of capacity building in the developing part of the world. On the positive side, for the Geothermal Training Programme this need has materialized in increasing requests for international geothermal capacity building associated with available external funds to finance it. Together this has helped to keep our flag flying as high as ever. For 2015, I expect the external funding to cover more than 40% of the budget of our operations.

The year 2015 was certainly one of our busiest ever. In all four main pillars of our operations, *the 6-Month Training, the Academic Studies, the UN Millennium Short Courses and the Customer-Designed Courses and Training*, we have experienced strength, and even growth in some. This year 30 UNU Fellows were invited and are graduating here today. All eight study lines were operated, with up to 5 participants attending the different study lines. The UNU Fellows in Iceland came from 15 countries on 5 continents. For the first time we had a UNU Fellow from DR Congo. The highest number from a single country, 9, was from Kenya,

where geothermal development is now in a real fast-tracking mode, as can be evidenced by the fact that Kenya is expected to pass Iceland in electricity production from geothermal in 2016. Most of the Kenyan UNU Fellowships have been financed by Kenya or by institutions supporting Kenya. Similarly, all 4 UNU Fellowships to the Philippines are financed by the EDC of Philippines.

Summarizing, during 1979-2015, 613 scientists and engineers from 59 developing countries have completed the 6-month training at UNU-GTP, with the highest number coming from Kenya, 109. If we add the numbers for all UNU programmes in Iceland, now more than 1000 individuals, from about 100 countries have been trained through a UNU Fellowship in Iceland.

Gender equality is important to the Geothermal Training Programme but here we have had to face the reality, that in many developing countries energy business and research is not an appealing work place for women, or they are just not given fair opportunities in this branch. So far women have only been 21% of the total. But with about a third of the UNU Fellowships in recent years given to women, we are gradually improving in this respect. We will certainly continue to try to improve this trend – hoping to see at least 40% female participation in the next few years.

During 2015, 16 former UNU Fellows have been doing MSc studies in Iceland, 13 of them under the cooperation agreement between UNU-GTP and the University of Iceland, and three under our recent agreement with the University of Reykjavik. Five graduated in April-May, two from Kenya, one from El Salvador, one from Rwanda and one from Tanzania. In August/October this year, 4 have started their studies, and one is due to arrive in January. In all, 45 UNU Fellows have now graduated with an MSc degree from UI under a UNU MSc Fellowship.

Under the same agreement with UI, three former UNU Fellows are doing their PhD studies, two of whom we expect to finish their studies in 2016. One started last September and another one is expected in January.

The Short Course Series in Kenya for East Africa and in El Salvador for Latin America, usually referred to as the UN Millennium Development Goals Series, are as important as ever. The year we saw 41 participant in El Salvador, and we are expecting about 60 participants for African Series in November. Through the 10 years since they started, we have had more than 1000 participants for the series. With the new UN Sustainable Development Goals, these series will be given an overhaul and new targets in line with the UN-SDGs for the post-2015 era.

The importance of customer-designed courses and training continues to increase in our operations. This year, we have worked very closely with ICEIDA, through their East-African *Geothermal Exploration Project*, where World Bank and the Nordic Development fund are also prime partners. This has allowed us to develop material, for new courses given for the first time in 2015. This year 7 events have been given. Three short courses were held in Ethiopia in January and February, on *Geothermal Project Management*, *Bankable Geothermal Documents* and *Drilling Supervision*. The former two were repeated in Djibouti in September

and the course on Project Management also in Kenya for GDC. An additional aspect has been the possibility of the participants in the Project Management Short Courses to be licenced as internationally accepted Project Managers, which also applied to our participants in the 6-month training. This has given an added value to these studies. Finally, two Short Courses have been given in our series for the Azores of Portugal, financed through the EEA-Grants system, in *Borehole Geophysics* and *Chemistry of Thermal Fluids*. I foresee a similar activity next year, with Short Courses already agreed upon both in the Azores and in Romania, and expected as well in Africa.

This was also a year of the quinquennial World Geothermal Congress, which was held in Melbourne in April. There, UNU-GTP provided fellowships under the auspices of IGA, to former UNU Fellows. Despite some doubts about the location, the congress was a real success, and the contribution of former UNU Fellows was significant. In all 262 or 20% of all papers presented in the congress proceedings were written or co-written by 184 UNU Fellows, and almost 100 came to Melbourne to present their research in geothermal. I think we Icelanders can be real proud of their achievement there. And I know that the minister can vouch for this, having been there in person. Our reunion party at the WGC2015 was a fantastic occasion. Still, we will certainly try to improve on this when WGC comes to the home geothermal, Iceland, in 2020. That is an occasion we are all looking forward to.

Our annual UNU Visiting Lecturer for 2015 was Dr. Meseret Teklemariam Zemedkun, a former UNU Fellow from Ethiopia in 1985, who is now at UNEP in Nairobi and leading the ARGeo geothermal project for 6 nations of East Africa. She gave a series of lectures on *Borehole Geology and Development of Geothermal in Africa*, which were very well received, and provoked lively discussion.

I think we can all agree on that this has been a good year for UNU-GTP. I would like to thank the many teachers, trainers and supervisors that we have been able to call upon during this year. Here, the experts of ISOR – Iceland GeoSurvey have as before carried the biggest burden with about 55% share, the Universities 20%, and specialists from other institutions, energy utilities and consulting engineering offices about 25%. In all, at least 70 teachers have contributed to the teaching, training and supervision this year. You are the backbone of UNU Geothermal Training Programme - without you it could not exist.

I would also like to give my deepest thanks to the permanent staff of UNU-GTP, Ingimar G. Haraldsson, Markús A.G. Wilde, Málfriður Ómarsdóttir and Þórhildur Ísberg. Your selfless drive and will in work is the key to the success of the programme. And let us not forget María Guðjónsdóttir, who had an important role in the revision of the 6-month training, but left us at the end of June for a teaching position at Reykjavik University.

Finally, turning my attention to the current UNU Fellows. This year we have

had an exceptionally good class in the six-month programme, and I tell you that this is not an overstatement. I am sure that through your training you are clear on the importance of geothermal development for your home country. You were selected to come to Iceland because you had impressed us through your education and in interviews, making us believe that you had the potential to play an important role in geothermal development. Now it is your task to show that this faith is justified. Myself, I have been associated with geothermal all my working life. Development of geothermal has become real a passion for me. I tell you I can see the seeds of a similar passion in several of you, and I am very proud of that.

Dear UNU Fellows, you will now be returning to your home. You have been a long time away and made sacrifices in not being close to your families and friends. During this period you certainly experienced some of the benefits of geothermal energy. None of you believed it when you were told that according to the Icelandic calendar, summer had started a week before you came to Iceland. If that was summer, how was the winter?? But at least there was summer in your apartments through the means of geothermal heating. And I have to admit that real summer came late to us in Iceland this year. The second half of your stay was though better, and we have not yet seen any really cold days of winter, which is unusual at this time of year. Returning to our old Icelandic calendar, it actually says that the first day of winter is tomorrow. There certainly seems to be more truth in that, if the weather forecast is to be believed, with cold winter weather on the way, with freezing conditions and even some snow expected on Sunday. But then you should be on the way home to your warmer climate. And I am sure that you will not miss this in Iceland.

When you return home, please remember to keep in touch with us and your fellow students. We live in the age of information and none of us has the excuse of not being able to connect. You are also members of new families. The UNU Geothermal Family which keeps on growing every year, but the same applies also to the Big Geothermal Family, with development of geothermal resources all over the world as its common goal and burning ambition. As with other family ties, this means both duties and pleasures. We will be following you from distance and support you in your work as possible.

I wish all of you a very good and safe journey home, and look forward to see you soon again, wherever that may be.

THANK YOU