

Learning to adapt

Hungarian, Icelandic, Latvian and Norwegian participants share knowledge and experience at EEA Grants-sponsored bilateral event

Local Climate Change Adaptation was a capacity building conference that took place on September 22–23, 2016, in Balatonfüred, Hungary, bringing together approximately 70 participants from Hungary, Iceland, Latvia and Norway. This was the first of three bilateral events taking place in consecutive months within the EEA 2009–2014 HU04 Adaptation to Climate Change Programme, the overall aim of which is to “promote a detailed understanding of climate change impacts and vulnerability in Hungary, to promote actions for increased climate resilience at local level, to raise awareness of climate impacts, and to show examples of replicable projects reducing the impacts of unavoidable climate change.”

The two-day event in Balatonfüred provided participants with a perfect opportunity to present main achievements of the HU04 programme and build a platform of possible cooperation between donor partners, beneficiaries and other relevant stakeholders. The idyllic setting on the northern shore of Lake Balaton and fine, early autumn weather provided a congenial atmosphere for friendly and engaging discussion, as well as an opportunity to learn about the effects on climate change on local viticulture.

Day 1: Dual perspectives

Janos Zlinszky from the Regional Environmental Center for Central and Eastern Europe (REC) opened the proceedings with a brief address that stressed the urgent need to respond to the undeniable reality of climate change. He was followed by Karl Kerner, representing the Norwegian Directorate for Civil Protection (DSB), a donor programme partner supporting the REC in planning and implementing the HU04 programme. Judit Balint, HU04 programme manager within the REC, then provided a general overview of the HU04 programme.

Péter Kajner from the Geological and Geophysical Institute of Hungary followed with a presentation that focused on the National Adaptation Geoinformation System (NAGiS) as a local planning tool. Developed specifically for Hungary, which is vulnerable in a number of ways to climate change, NAGiS is valuable source of data and information that can facilitate policy-making, strategy-building and decision-making processes at different levels related to necessary adaptation measures. The tool comprises three main components: a map visualization system, a database (GeoDat), and a meta-database.

The day continued with a series of four presentations from a Hungarian perspective. (All of the day’s presentations were produced as part of the HU04 programme as a way to present outcomes and lessons learned within the programme. All of the presentations are available on the [EEA/REC website](#).)

Gábor Fegyveres-Fiskal from the Dipol consortium spoke first about the National Climate Adaptation Network (CLIM-NET/HUN) project and its outputs. Zoltánné Kovács, representing local government from Hungary’s Bács-Kiskun County, followed with an explanation of what was learned during a series of CLIM-NET/HUN trainings. Participants then learned about the Climate Answer project from two presenters: Orsolya Fulop, a project promoter from Energiaklub, and Balázs Szabó from the local government of Felsőörs.

After lunch it was time to hear from the Scandinavian participants. Haavard Stensvand from Sogn og Fjordane County in Norway talked about making climate change adaptation efforts at county level. Rune

Gjerden discussed how his local government of Tonsberg, Norway, is coming to terms with the effects of climate change and building a more sustainable infrastructure. The next three presenters were from Iceland, a country roughly similar in size to Hungary but with about one-twentieth of Hungary's population, and a country in which the effects of climate change are clearly visible.

Luthvik Gustafsson from the Icelandic Association of Local Authorities addressed the issue of how Icelandic communities are dealing individually with climate change. Guthmundur Sigurtharson covered sustainability-driven innovations in his home town of Akureyri in northern Iceland. Rannveig Magnusdottir followed with a presentation of the effects of climate change in Hornafjorthur municipality and the response from citizens and local government.

One final presentation brought the Day 1 proceedings to a close: hydrologist Gyorgy Varga from the General Directorate for Water Management provided a fully detailed description of the effects of climate change on the 'Hungarian Sea', Lake Balaton. With a focus on comparative water quantities in the lake region over recent decades, Varga highlighted the particular fragility of the Balaton ecosystem due to the shallowness of the lake, the average depth of which is just 3.2 metres.

Day 2: Shared vision

The second day of the conference gave participants an opportunity for direct interaction and dialogue related to solving real problems. But before participants split into groups, there were a few brief presentations summarising previous project-level bilateral activities. Zsuzsanna Váradi from the Dipol consortium reviewed outcomes of a study tour in Bergen, Norway. Cecília Lohász and Zsófia Pej, both from Energiaklub, followed with a recap of their experiences and lessons learned during a project study tour in the Norwegian capital city of Oslo.

Debora Davies from the Western Norway Research Institute gave a very nice presentation titled "Journeys in Adaptation". A main point of the presentation was: "Adaptation is messy and complex because society is messy and complex." Asking participants to bear this thought in mind, the participants split into separate discussion groups, the criteria for which were determined the previous evening at dinner — i.e. two people who had attended either the Bergen or Oslo study tour; at least one person from Hungary; and at least one person from Norway, Iceland or Latvia. Group participants provided the feedback summarised below.

"The group I was in was very specific," said Karl Kerner. "We discussed the issue of uneven distribution of rain throughout the year — strong downpours, followed by long periods of drought. The [Hungarian] municipality in question saw that many inhabitants had put down stones, asphalt or channels in their yards to lead the water away when it rained, which got the municipality thinking about how to promote local solutions for capturing rainwater for use in dry period."

"My group focused on a case study in Hungary where a small town dealt with a lot of flooding," Gregory Taff, a research scientist at the Norwegian Institute for Bioeconomy Research, explained. The mayor of this town, who was in our group, was able to convince one of the town's biggest landowners to allow much of his land—situated on higher ground—to be dammed up, which up to now has been successful in preventing flooding. But there's still some concern that this measure might not be sufficient protection in a really wet year. I told the group about a model I saw implemented in Slovakia where

many small ditches were dug in fields, and dams were constructed in mountain streams from local wood, which was successful in preventing downstream flooding.”

Janis Gorbunovs was one of two participants from Latvia taking part in the Balatonfured event. “Our group had two mayors from local municipalities in Hungary,” Gorbunovs recalled. “We decided to look at the climate change-related issue of flash flooding and to compare experiences in these two towns with those in Bergen, Norway. One of the mayors shared his practical example of building a dam to protect the municipality, but the question was whether some groups of people were not protected from losses during flooding — some farms, for example. The other mayor said that dam construction in his municipality were positively assessed by all groups of the local community. Regarding Bergen, we agreed that this is a large city that requires complex solutions and large investments, both from municipal and government budgets and from the private sector.”

Turning to a different concern, Rune Gjerden, Rannveig Magnúsdóttir and Daniel Sugar, a doctoral student at Semmelweis University, were all part of group discussing drought and desertification in Mórahalom, Hungary.

“There is an area in Mórahalom where the water had disappeared from a local lake. The challenge is to make people face the problem and to understand the reasons for it,” said Gjerden. “We agreed that an information campaign at schools would be helpful, and that locals should be encouraged to plant trees.”

“We also prosed large-scale restoration efforts to reclaim the degraded land and to restore the ecological services that are now completely damaged,” Magnúsdóttir explained. “This will take a lot of effort and goodwill from the local community, but it’s for a great cause. People are already suffering from the drought and will suffer even more in the coming decades if nothing is done.”

“There are many vulnerable groups in this area,” said Sugar. “Local people feel the direct loss of their natural surroundings, local businesses suffer from a lack of tourist revenue, landowners see their property depreciate in value, and the local government takes in less revenue in taxes. There are, however, measures that can be taken to change the situation. We can create protective forest to filter pollen and dust and to help stabilise the soil; we can construct rainwater reservoirs for irrigation; and we can introduce an alternative tourism industry by employing eco-volunteers.”

Of course, putting good ideas into action is often much easier in word than in deed. And there are external obstacles and changing circumstances to consider as well.

“Sometimes, the hardest thing is just getting people to understand and face a problem,” said Gjerden.

“Adaptation measures can also be time consuming and expensive, and can create tensions between neighbours,” Sugar explained. “Political changes, changes in land ownership and changing precipitation patters present challenges as well.”

“What interested me about the dam-building efforts we discussed was that the municipalities were able to build the dam from its own resources and with the help of the local community,” Gorbunovs said.

“This shows that common efforts can succeed, even without government money, if the local population really believes that climate change is a significant issue.”

“Indeed, there are several things that can be done to avoid common pitfalls,” Sugar continued.

“Community multi-stakeholder involvement, having a good plan, obtaining political support through supportive actions and legislation, getting tourists involved in volunteer projects, and getting financial support through donors—all of these can help.”

“Ultimately, these group sessions were a nice opportunity to get in closer contact with people from each participating country, and to learn more about their problems and interests,” Taff summed up.