# The Finnish Environment Institute SYKE – Partnership across borders

We collaborate with international partners in order to secure a safe and healthy environment, and a sustainable lifestyle.

Our work extends from neighbouring regions and Europe to Central Asia, Africa and South America.



## MORE SUSTAINABLE MANAGEMENT OF WATER RESOURCES IN KYRGYZSTAN

In Central Asia, SYKE is engaged in long-term efforts to improve water safety. The ability to produce up-to-date and reliable information on water quality, in particular, has been a major challenge for Kyrgyzstan, the country with the richest water resources in the region. SYKE and the Kyrgyzstan Environment and Forestry Agency have worked together to improve the monitoring and sampling of aquatic environments in the country, information management and laboratory quality systems. This provides Kyrgyzstan's environmental authorities with up-to-date information on issues such as the condition of the country's largest lake, Issyk-Kul. Simultaneously, Kyrgyzstan has improved its ability to prepare for the water resource management challenges resulting from climate change.

municipalities, regions



#### NATURE-BASED SOLUTIONS INTRODUCED BY LOCAL AUTHORITIES IN EUROPE

Knowledge of ecosystem services provided by nature and their linkage to human well-being has increased, but tools have been lacking for taking ecosystem services into account in practical measures. Together with designers and citizens, SYKE and its research partners have built a toolkit that provides tools for evaluating and utilising nature-based solutions. The tools have already been used in applications such as urban planning and assessing the health benefits of nature in Barcelona, Spain; Oslo, Norway; Trnava, Slovakia; and Sipoo, Finland. SYKE's solid expertise in interacting between research and decision-making contributed to the success of the work.



## CHILE ENHANCES THE QUALITY OF ENVIRONMENTAL MONITORING

In Chile, confidence in environmental information has been undermined by inadequate quality assurance of environmental measurements. Together with SYKE, the Finnish Meteorological Institute and VTT Technical Research Centre of Finland, the Chilean authorities planned a reference laboratory centre for environmental measurements in 2017. The Centre promotes the accuracy of measurements in laboratories, disseminates good practices and organises qualification tests for professionals in the field. High-quality environmental monitoring plays a key role in the development of the forest and mining sectors, which are important growth areas for Chile. SYKE's strong expertise in environmental measurements in the chemical industry was essential to cooperation.

international partners



### NATURE CONSERVATION ADMINISTRATION IMPROVED IN THE CENTRAL BALKAN COUNTRIES

Central Balkan countries have lacked comprehensive information on their species and have had no established nature conservation practices. SYKE has supported the development of nature conservation administration in Central Balkans and improved the authorities' information resources, legislative capacity and identified future tasks in nature conservation. Supported by SYKE's solid competence in species, experts in Montenegro have mapped the country's habitats and species. This work has safeguarded nature, promoted natural science and provided development opportunities for local nature professionals. The work will be launched in Macedonia, too.

## ARCTIC COUNTRIES ARE PREPARING FOR LOCAL CLIMATE CHANGE



In a changing climate, it is increasingly important to be able to evaluate and monitor changes, including at local level. The EU's Copernicus service provides information on daily snow conditions in different regions of Europe. This enables the authorities in EU countries to prepare for various incidents, such as floods and avalanches, and allows companies to anticipate their own activities. The service produces information on the extent of snow cover, using a method developed by SYKE. SYKE also produces information for the service through remote sensing methods, together with the Finnish Meteorological Institute and an Austrian company in the sector. The Copernicus service will be extended from Europe to cover the entire Northern Hemisphere.



#### the authorities, research partners NEPAL STRENGTHENED ITS ENVIRONMENTAL ADMINISTRATION

Industrial development in Nepal began largely without environmental regulation. Together with SYKE experts, the authorities built a model to improve the environmental performance of the country's industrial sector. Environmental permit procedures, environmental impact assessments and environmental monitoring practices in the pilot area were developed using the model. At the same time, the preconditions were created for environmental protection throughout the country, while three hundred local projects promoted environmental health in the provinces, cities and villages. They involved improving indoor air quality and waste management, training organic farmers and building up the water supply infrastructure. At the same time, environmental awareness of actors in various sectors was promoted.



## A MODERN MARINE RESEARCH VESSEL FOR NAMIBIA

The Namibian government acquired its first modern marine research vessel from Finland. SYKE Marine Research Centre provided training for the National Marine Information and Research Centre (NatMIRC) in the scientific use of the new vessel. The expertise of Namibia's marine scientists improved, particularly in the modelling of marine ecosystems and the application of geographic information systems (GIS) related methods in marine research. In addition, communications experts from SYKE improved the partner organisations' skills in preparing and using communications strategies and materials.

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