Download your tool from www.aim2014.eu

Examples of tools and results, free available for end-users, are the following:

SESAMO

A software for Multi Criteria Analysis allowing to define structure, validation and sensibility analysis and to rank different alternatives on the basis of multiple conflicting objectives.

VAPIDRO-ASTE

A GIS tool to evaluate the hydropower residual potential in a water course taking into account the analysis of the catchment, the actual withdrawals and restitutions scheme and the application of the Minimum Instream Flow constrains.

MORIMOR- GIS

A morphodynamic 1D model to evaluate the sediment transport and river morphology changes, in particular as consequence of large mass movement or sediment release during flushing operations. Useful to avoid inconvenient environmental problems.

SMART MINI-IDRO

An EXCEL tool to evaluate the main hydropower project parameters, considering the flow duration curve, the available heads and the types of turbines to be installed, the range of discharges to be used, costs, benefits and financial analysis.

EUROPEAN FISH INDEX (EFI+)

A fish-based method to assess the ecological status of European running waters in support of the Water Framework Directive. General information about the EFI+ is available at: http://efi-plus.boku.ac.at
(Developed under EU FP6)

HALTFLOOD

A software tool with a GIS interface to support operation of hydropower reservoir for flood attenuation.

WATER SCARCITY INDEX (WSI)

A local early warning system in order to help decision makers during water scarcity or drought periods for solving conflicts between hydropower production and agriculture. The index is based on the analysis of the main hydro-meteorological parameters: discharge, rainfall, snow water equivalent, temperature and solar radiation.

ACTION TOOL FOR SEAP

Tool to support municipalities in selecting actions that suit to their individual requirements and capabilities, in terms of (1) what so far has been done regarding energy efficiency, adaptation and mitigation; (2) what will be done in the future, as core part of their SEAP.

Project Partners:

Observer Partners:

- PSAC - Permanent Secretariat of the Alpine Convention (Austria)
- SJE - Schneider & Jorde Ecological Engineering (Germany)
- US - University of Stuttgart (Germany)
- JRC - European Commission Joint Research Centre – Institute for Environment and Sustainability (Italy)
- UNESCO IHE - Institute for water education (The Netherlands)
- CNR - Compagnie Nationale du Rhône (France)
- APER - Assorinnovabili (Italy)
- ARPAV - Veneto Regional Land Safety Department
- VR - Veneto Region (Italy)
- ITCOLD - Italian National Committee on Large Dams (Italy)
- SVDC - Soča Valley Development Centre (Slovenia)
- SENG - Soške Elektrarne Nova Gorica, Hydropower producer on the Soča River (Slovenia)
- IRSNC - Institute of the Republic of Slovenia for Nature Conservation (Slovenia)
- FRIS - Fisheries Research Institute of Slovenia (Slovenia)
- ME – Italian Ministry of the Environment, Territory & Sea Preservation (Italy)
- ASC - ASCONIT Consultants on environmental issues (France)
- ICPDR - International Commission for the Protection of the Danube River (Austria)
- KC - Kyoto Club (Italy)
- TOR - Torino Province (Italy)
- ARPAVDA - Valle d'Aosta Regional Land Safety Department (Italy)
- POLE4 - Municipality of 18th District of Budapest, Thematic Pole Low Carbon Communities (Hungary)
- WWF Austria (Austria)
- VETMED - University of Veterinary Medicine Vienna, Research Institute of Wildlife Ecology (Austria)
- BMLFUW - Austrian Federal Ministry for Agriculture, Forestry, Environment and Water Management (Austria)

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Alpine space In Movement

Alpine space
In Movement

targeted to water and energy capitalization

The project Alpine space In Movement (AIM) aims at becoming a "megaphone" of the Alpine Space Programme (ASP) projects active in the field of water & renewable energy. AIM capitalises the achievements of the numerous ASP projects dedicated to the promotion of energy production from renewables and on the optimization of water resources use. The importance of the issue was highlighted by the EU directive on renewable energy sources (RES-E Directive) and by the EU Water Framework Directive. In particular AIM focuses more specifically on the hydropower generation and the preservation of aquatic ecosystems.

Indeed while hydropower is the most important renewable energy in the alpine areas, it also negatively impacts the environment. Specific dissemination actions (seminars involving key stakeholders of target groups, web communication, publications, etc.) will address the relevant actors at EU, national and regional policy level.

Challenges

The Alpine Space Programme 2007-2013 is moving towards the conclusion, and it's to time to think about the next Cooperation Programme. Several challenges have been addressed during the last 7 years programme, reaching significant results and getting in contact with numerous stakeholders. Nevertheless, in some cases the comparison between project's achievements and needs of the entire Alpine Space region is weak, and key actors - in terms of policy making and management - were not reached as end-users of the results.

The planning of the future actions to promote the sustainable development of the Alpine Space region, should start from the assessment of the outcomes & results achieved by the previous/on-going projects. Furthermore, the EUROPE 2020 points a specific target on "Resource efficient Europe" to help decouple economic growth from the use of resources, support the shift towards a low carbon economy, increase the use of renewable energy. EU countries must increase their share of renewable electricity production according to RES-e Directive, leading to at least 20% of energy consumption coming from renewables. Water is the most important renewable resource for electricity production in alpine areas. On one hand, hydrœlectric production has to be maintained/increased, on the other hand, hydropower can affects water bodies connectivity and damage river ecosystems. The WF Directive obliges to reach a "good" ecological status in their water bodies. There is an urgent need for water & energy harmonization!

Objectives

The project aims to a better utilisation of water resources concerning hydropower production in Alpine Space countries, looking up to renewable energy sources development and preserving environmental quality. The project brings a contribution to the implementation of the EU-WFD and the RES-e Directive in the Alpine Space countries. The AIM project is based on the following three main objectives:

1. **Track the accomplished results** of the Alpine Space Programme projects (2007-2013), in the thematic field of water & energy harmonization; and identify the transnational needs of the entire Alpine Space Region.
2. **Valorise and capitalize the main ASP project's achievements** in terms of policy & management development, into effective/massive dissemination and targeting the relevant policy level/actors to impact on national/regional policies.
3. **Setting the scene for the 2014+ project generation**, by identifying key relevant policy actors and institutional competencies, crossing the achieved results with beneficiaries needs, and mapping the European/regional/trans boundary/national programs with possible synergies.

Activities

Activities of the AIM project are aggregated per work packages, collecting a series of actions aimed to reach the expected results. Relevant topics are the following:

Information and Publicity

The project targets all groups and persons "around" the use of "water" and "hydropower". These are public administrations, water authorities, hydropower producers, energy agencies, environmental associations and research centres, among others, having influence on the decisional processes along the Alpine Space area. Each of them has to be informed about ASP project's results and benefits, through proper communication channels.

Tracking of achieved results & identification of the Alpine Space Region needs

The selected projects from the ASP (2007-2013) analysed by AIM are the following: **SHARE**, **Alp-Water-Scarce**, **SEAPAlps**, **SedAlp**, **recharge.green** and **ECONNECT**. AIM valorises the accomplished results, in terms of policy and management development of water resources and renewable energy, with special emphasis on the river ecosystem and hydropower.
In addition, the project assess the needs of the entire Alpine Space Region, correlated with water & energy harmonization.

Setting the scene for the 2014+ projects

Support the Programme in the preparation of the 2014+ project generation: Identification of project's weak points, assessment of relevant policy actors & institutional competencies, state of art of policy coordination at transnational level in the topics related to water and energy.

Outcomes

The main results of the AIM project are:

1. Alpine Space (2007-2013) stakeholder database
2. Website 2.0 of the AIM project, including forum & social network
3. Updated Alpine Space (2014+) stakeholder database,
4. Seminar: Brain-storming with the Stakeholder Panel (Austria)
5. Panel discussion with stakeholders of target groups (Slovenia, France, Switzerland and Germany)
6. Final Transnational seminar addressed to Alpine Space stakeholders (Italy)
7. Database/informative factsheet of the project results and achievements (2007-2013)
8. Multi-sector & interdisciplinary evaluation and assessment of accomplished results & outcomes
9. Project results in terms of economical valorisation of ecosystem services
10. Weak points from the interconnection between project's results and AS regional targets
11. Database/informative sheet of key relevant policy actors and their specific competence
12. Cross-table/matrix with achieved results/beneficiaries
13. Regional GIS-web database
14. Guidelines for setting the scene for the project generation 2014+