



**Living  
in  
mountain areas**



**AlpCity Partner  
Work Package  
WP Coordinator  
Subjects involved  
and their role**

Piedmont Region (Italy)  
Urban environment (WP7)  
Friuli Venezia Giulia Region (Italy)  
The activities were carried out by:  
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in collaboration with:

- Comunità Montana Bassa Valle di Susa (Giorgio Salza, Via Trattenero 15, 10053 Bussoleno (TO) – tel +39 0122 642800)
- Comune di Condove (Debernardi Barbara, Piazza Martiri Della Liberta' 7, 10055 Condove (TO) – tel + 39 011 9642265)
- Comune Di Mompantero (10059 Mompantero (TO), Via Roma, 12, tel 0122 622323)
- Comune di Gressio (Fausto Sciandra – P.zza Carrara 131, 12075 Gressio (CN) – tel +39 0174 803649)
- Comune di Mattie
- COREP (Manuela Rebaudengo - Corso Duca degli Abruzzi 24, 10129 Torino - info@corep.it)

Other actors involved through the COREP consortium: Comunità Montana Valli di lanzo, Dora Baltea Canavesana, Valli Gesso e Vermenagna, Alta val tanaro, Curone-Grue-Ossona, Valle Stura, Val Varaita, Valli Orco e Soana, Val Pellice

The role of the involved organisations consisted:

- in finding the typical alpine buildings needed to perform the energy and environmental assessment;
- in supporting the development of the guidelines for the energy and environmental retrofit of alpine buildings;
- in acting as a link with the local population.

**Spatial area  
involved**

Maira Valley and Po Valley in the Province of Cuneo



<b>Project budget</b>	€ 40.000,00
<b>Project purpose</b>	<p>The local population and authorities were involved in building environmental assessment activities and in the following definition of strategies for the better refurbishment. This allowed an “education process” about the green building principles, mainly on the aspects tied to the energy saving. The objective is to reduce the environmental impact of the building operations and to improve the level of quality of the indoor environments.</p> <p>The local authorities will also have the possibility to better know the potential uses of the assessment systems like ABAT. For example the inclusion of such tools in the building regulation to promote a better building sustainability and quality of life.</p>
<b>Project methodology</b>	<p>Environment Park has developed a building environmental assessment tool for the alpine context, named “Alpine Environmental Building Assessment Tool– AEBAT”. The tool allows to carry out assessments on existing buildings with respect to a wide number of criteria dealing with the most important environmental issues, such as: resource consumption, environmental loadings, quality of the indoor environment, quality of service. The result is a “picture” of the actual environmental performance of the building assessed. On the basis of the assessment results, it will be possible to define, for each typical alpine building, the best refurbishment strategies to improve its environmental quality. The strategies will be analysed taking into account also the economic aspects of the refurbishment actions.</p> <p>AEBAT has been based on the GBC (Green Building Challenge) system. The GBC method and its software tool (GBTool) is a unique rating tool, in that it has been developed since 1996 through an international process with the participation of more than 20 countries. Its main feature is the possibility to be easily adapted to any context condition. The GBTool is a second-generation assessment system; one that is designed from the outset to allow adaptation to the very different priorities, technologies, building traditions and even cultural values that exist in various regions and countries</p>
<b>Project activities</b>	<p>Performance benchmark has been established for energy and water consumptions. On this base, the environmental quality of each specific building will be assessed.</p> <p>Analysis of existing housing conditions.</p> <ul style="list-style-type: none"><li>- The objective of the case study is to develop guidelines for the energy and environmental retrofit of alpine buildings.</li></ul>
<b>Achieved results</b>	<p>The main activities carried out have been:</p> <ul style="list-style-type: none"><li>- to identify a set of buildings representative of the “typical” alpine buildings in collaboration with local counterparts;</li><li>- to carry out by means of specific tools (EPIQR and AEBAT) an assessment of the environmental performance of the buildings;</li><li>- to develop retrofit actions to improve the environmental quality of the assessed buildings;</li><li>- to perform a cost/benefit analysis of the retrofit actions;</li><li>- to develop a guideline containing the optimal retrofit actions for the “typical” alpine buildings;</li><li>- to organise workshops to illustrate the guidelines to the cooperating organisations.</li></ul>
<b>Discrepancies between planned results and results achieved</b>	<p>The objectives of the case study were achieved. There are not discrepancies from planned activities and expected results.</p>
<b>Instruments proposed/revised/finalised</b>	<p>An agreement was signed with:</p> <ul style="list-style-type: none"><li>- Bassa Valle di Susa Mountain Community</li><li>- Municipality of Condove</li></ul>



- Municipality of Mompantero
- Municipality of Garesio
- Municipality of Mattie
- COREP (Consortium for research and continuing education)

The object of the agreements consists in getting the support from the communities in the identification and availability of buildings that could be considered representative of the alpine building stock.

**Impact on the local environment, actors and stakeholders**

The case studies aimed at improving the environmental quality of existing buildings, which are the object of a retrofit action by means of the application of specific guidelines.

The guidelines are at disposal of local organisations (Municipalities and Mountain Communities) to be adopted and to be used in building codes, funding programs and to base economic incentives.

The long-term result will be a more sustainable local built environment.

The involved stakeholders are also: designers, users, investors, construction companies.

**Critical aspects**

The main criticism has been to get many local Mountain Community involved.

The strategy to overcome this problem consisted in the involvement of the COREP (Consortium for research and continuing education). The consortium was managing a master in collaboration with many Mountain Communities (OPLAB Project also supported by Piedmont Region). By means of this master it was possible to involve several Mountain Communities in the case study.

**Lessons learned**

Most of the historical alpine building stock in the Piedmont Alps is quickly deteriorating.

In few years the possibility of a retrofit and refurbishment action will be not possible anymore.

There is a strong interest by local governments to recover the alpine villages and a strong will to do that in a sustainable way.

To achieve this objective it is necessary to identify in short time an eco-efficient strategy, that must involve the local governments at every level.

**Transferability**

The case study is replicable in other geographical regions.

The applied methodology is very flexible and the used tools are able to be adapted to any specific context.

**Case study follow-up**

The guidelines resulting from this case study will be adopted by several local authorities. Environment Park will support these initiatives by a technical point of view.

**Common issues with other projects**

Synergies have been developed with the other case studies of the same work package in terms of knowledge and experience sharing; the methodologies followed in the development of the case studies, particularly information concerning the cost / benefit analysis carried out.

**SSC Experts' comments and recommendations**

This pilot case revealed to be a very useful tool for analysing the convenience and sustainability of living in mountain areas. The most interesting feature consists in the use of very innovative technological instruments to carry on the study and to recover the value of some mountain building. The private company responsible for the case study took care of involving the local stakeholders and put the premises for a concrete application of the methodology of analysis proposed. The positive synergies developed with similar case studies produced the result of improving the final output made available at the project conclusion under the form of a handbook with relevant guidelines.