The study of DIAMONT WP6 aimed at getting a general idea of the most relevant issues influencing the current and future development of the Alpine regions. Experts from Switzerland, France, Italy, Austria, Slovenia and Germany were invited to participate in a Delphi survey. They expressed their opinions on challenges, problems or chances existing or maybe arising in the future. These estimations affected the determination of suitable development indicators and led to the selection of a specific spatial development trend which will be examined in detail in course of DIAMONT project. Vincent Briquel (CEMAGREF, France), supervisor of the survey, about the key issues of Alpine development and the Delphi survey accomplished within DIAMONT project. Interview by Sigrun Lange

The Alpine Convention calls for sustainable development. Which are the key issues of Alpine development?

The answers of the experts – gathered in a survey conducted by DIAMONT project team – covered a wide variety of topics and interrelated problems which were summarised in eight “main issues” (Fig. 1). Transport pressures, for example, rank among the most challenging development questions. The experts expected an increase in traffic on transit routes and asked for severe measures to limit traffic flows, like EU wide regulations, rising taxes and fees or the extension of the railway network. Concerned with this trend, even the Alpine Convention has chosen transport as its main topic for the “Report on the State of the Alps” which will be issued this year.

But likewise important are agglomeration processes in favourable areas on the one hand and further marginalisation of rural peripheral areas on the other hand. The experts feared that public subsidies may indeed slow down land abandonment processes, but definitively will not prevent them. Main threats are depopulation, aging and isolation, since for economic reasons, services concentrate in more central areas. For the future it will be crucial to reduce these disparities by improving the competitiveness of rural areas. Agricultural production, for example, could be more efficiently combined with tourism activities to gain second income sources, specific regional products should be labelled and brought to market and adequate education as well as access to vital services (like health care) have to be offered in rural areas.

But even if these measures will be taken, the Alpine agglomerations will not cease to attract more people in the future since they offer job opportunities and act also as cultural centres located in vicinity of natural environment. Yet, pollution, noise or the high costs of living do not significantly reduce their attractiveness. The urban sprawl results in an increasing competition for favourable lands in the valleys. Some experts, however, consider the land use pressure, caused by housing and industrialised agriculture, a minor threat than some decades ago, since the most severe landscape changes happened already in the past and land planning nowadays makes it possible to cope with negative side effects.

Another very important issue – especially in the Alpine space – is tourism. The experts referred to the coexistence of different forms of tourism: On the one hand,
there is a powerful tourism industry, which has to invest and find new markets to be able to compete with other destinations. Climate change effects will force this industry to concentrate winter tourism in higher elevation resorts. On the other hand, there are small scale tourism activities, based on certain niches, like agro-tourism or hiking. The experts predicted a rising demand for agro-tourism, although it will never become a mainstream in tourism development. Limits in capacity are still not reached, but some promising solutions are hampered by a lack of professional skills of the suppliers. Often leisure activities result in over-frequented sites which call for efficient solutions to cope with these pressures on landscapes and nature.

**Climate change effects** are widely discussed these days. Although the concrete effects are not predictable on a regional scale, changing rainfall regimes are expected to happen in combination with climate warming. These changes can have severe consequences in terms of natural hazards or a loss of biodiversity. Thus, the experts recommended observing carefully certain evidences, such as shortening of winter ski seasons or frequency of extreme events like intense rainfalls or floods. But they also warned to take preventive action now, like the implementation of energy saving options in public and private transport or housing.

When talking about the Alps, the mountain forests – as one of its most characterising habitats – must not be forgotten to mention. The key question is how to maintain their multifunctionality that is their productive, recreational, ecological and protective functions. The on-going expansion of forests cover in the Alpine regions is seen as a chance to recreate sanctuaries for forest habitats. From an economical point of view, the profitability of mountain forests is still rather low at the moment. But the development of biomass energy may reveal new income opportunities in the future.

**Are these issues likely to change in the near future?**

In fact, we consider these issues to be more consistent than evolitional, since they emerge from factors and conditions that do not change quickly. They are linked to general trends, as for example globalisation effects or rising awareness of threats to biological and cultural diversity. The interviewed experts tend to emanate from an accentuation of the existing problems in the future.

**Are these problems equally relevant in all Alpine regions?**

Generally, the whole Alps are dealing with comparable issues. The best example is climate change which affects the environment on a global scale. Even topics like transport, tourism or competitiveness are relevant for all Alpine regions. But certainly, due to differences in local conditions, they do not concern the regions in a uniform manner. The depopulation of rural areas, for example, is a severe problem in Northern Italy whereas this phenomenon is almost negligible in the Bavarian part of the Alps. Conversely, villages in Northern French Alps are repopulated, due to suburbanisation effects. Urban sprawl can be observed clearly along the Austrian Inn valley often in form or fingers but is less incisive in the foothills of the Alps south of Munich. Tyrol still focuses mainly on winter tourism and invests in new ski-lifts in higher elevations whereas winter tourism centres are left open in unfavourable parts of the Swiss Alps.

Since all these issues superimpose more or less in Alpine regions, their importance is to be described through regional phenomena. Existing data and indicators on the economic, social and environmental spheres informing on the magnitude of these phenomena will help to reveal differences within the Alpine regions. Logically, the respective issues were not perceived in the same manner by the different experts. For example, opinions on possible effects of metropolises on the development of the surrounding Alpine regions differed from one country to another. There was a tendency to stress the higher dependence on peri-Alpine metropolises like Vienna, Milan, Torino or Munich, whereas the Sillon Alpin, which is an inner-Alpine metropolitan area in France, was considered as a powerful engine enhancing economic development for its region.

**Did your study deal with a complete list of all relevant development issues?**

No. We gathered information from a panel of experts, coming from all Alpine countries. They expressed their subjective opinions on problems, challenges and chances for a sustainable development of the Alpine regions. In expressing their own views, they reacted in fact on questions or problems which have a particular meaning for the Alps. However, other aspects, less applicable to reveal the differences between Alpine and extra-Alpine regions, were left out. For example, experts did not focus on the access to tertiary education, which is underscored...
in the EU Lisbon strategy to get better chances to catch employment opportunities, providing high added value and thus enhancing economic competitiveness. Spatial unbalances were not analysed in the same terms as in the European Spatial Development Perspective (ESDP). Our study focused more on spatial differences between and within urban and rural regions. The experts’ answers were not completed with results of other existing documents dealing with on-going trends influencing regional development in the Alps, their effects in Alpine territories and their perception in the public and in policies. Moreover, we did not accomplish prospective studies by establishing various scenarios.

What method did you apply to reveal the issues?

We decided in favour of a Delphi survey. This method aims at facilitating the expression of a collective judgement or opinion, by putting in evidence the convergences or differences of opinions within groups of experts interrogated in an independent way. The same experts are questioned several times in successive rounds. Their opinions are collected while bringing to their attention the results of the preceding questionnaires. The Delphi method allows, by the successive return of information, to organize a form of communication within a group of experts in order to develop individual answers in comparison to collective opinions.

The DIAMONT team selected 60 experts (scientists, stakeholders, state officers or representatives of Alpine associations) – an average of 10 experts per country – to participate in the survey.

How was the survey organised?

In the first round, we collected general appreciations on Alpine issues in various thematic domains (Fig.2). Many experts agreed on the same trends, as for example the abandonment of cultivated land, the disappearance of cultural diversity and an impairment of Alpine identities. However, the opinions differed widely on the causes of these processes, their current state and the consequences of their possible development. Did these results reflect only divergences in the experts’ opinions or did they reveal real differences in the Alps regions?

To answer this question, in the second round, we formulated ‘theses’ describing the current state of relevant issues, their main causes and their possible consequences. In doing so, we focused mainly on those issues, whose causes and consequences were discussed controversial in the previous round. Some theses were expressed provocative enough so that most experts did not hesitate to reject and criticize them; in other cases, they were more approving, even when they proposed some nuances. The experts’ opinions on the theses helped us to analyse more in depth the related issues, their interrelations and the variety of their expressions within the Alpine space.

The results were attributed to eight “main issues”, characterised by a limited set of phenomena, that is to say facts or trends that inform on relevant aspects of the respective issue. In the last round the experts were asked to rank the importance of each phenomenon, at the moment or in the future. Therewith the different occurrence of the issues within the Alpine regions could be revealed. The phenomena assessed as highly important for the development of the Alpine space should be followed through data and indicators in the future.

The results of the ranking were presented at the last project meeting. One of the important development trends was chosen by the DIAMONT team: „Urban centres and fringes between competition and co-operation – steering towards sustainability“. It will be examined in more detail in course of the project.
Did you face any difficulties with respect to the Delphi survey technique?

In theory, the method helps to reduce the subjectivity of expressed opinions by confronting the individuals with the collective opinion coming from the whole group. Experts were selected according to their general competence in questions related to Alpine development. But since the first round generated a wide variety of topics, the experts were not equally competent in all addressed topics and thus did not feel comfortable to assess the importance of all given phenomena. The experts acted above all as informers which helped us to develop the analysis. In this respect, most valuable information came rather from comments accompanying the answers than from the quantitative ranking of phenomena.

Moreover, to be able to compare the answers, we had to pay attention to the factors which may influence experts’ opinions. Various criteria could explain the divergences: the profile of the experts (scientists or stakeholders), their nationality or their competence level. Besides, some experts answered only for their own region or country, declaring they were not in the position to give appreciations for the whole Alpine space. Others analysed the current situation, stating they do not have a firm opinion on future developments. Considering these factors, no general conclusion emerged: in some cases, these criteria obviously played a role in other cases their role was less perceptible. That is why we considered divergences in opinions to result mainly from varying sensibility and less from objective factors. For us, this is a sign of the complexity of the issues and the absence of ‘unique thinking’ thereabout …

To conclude, don’t you fear these results will collect dust in a drawer?

No, not at all. The DIAMONT team decided to focus in our next work steps especially on the issue „Urban centres and fringes between competition and co-operation – steering towards sustainability“. Thus, we will make extensive use of the analysis, for example to define relevant indicators to monitor the processes or to search for regional planning instruments to reduce the disparities. Moreover, the Alpine Convention bodies as well as the Interreg IIIB Alpine Space programme officers invited us to disseminate our results and to discuss them in various occasions, like the Alpine space Peak Event in June 2006 in Stresa, Italy.