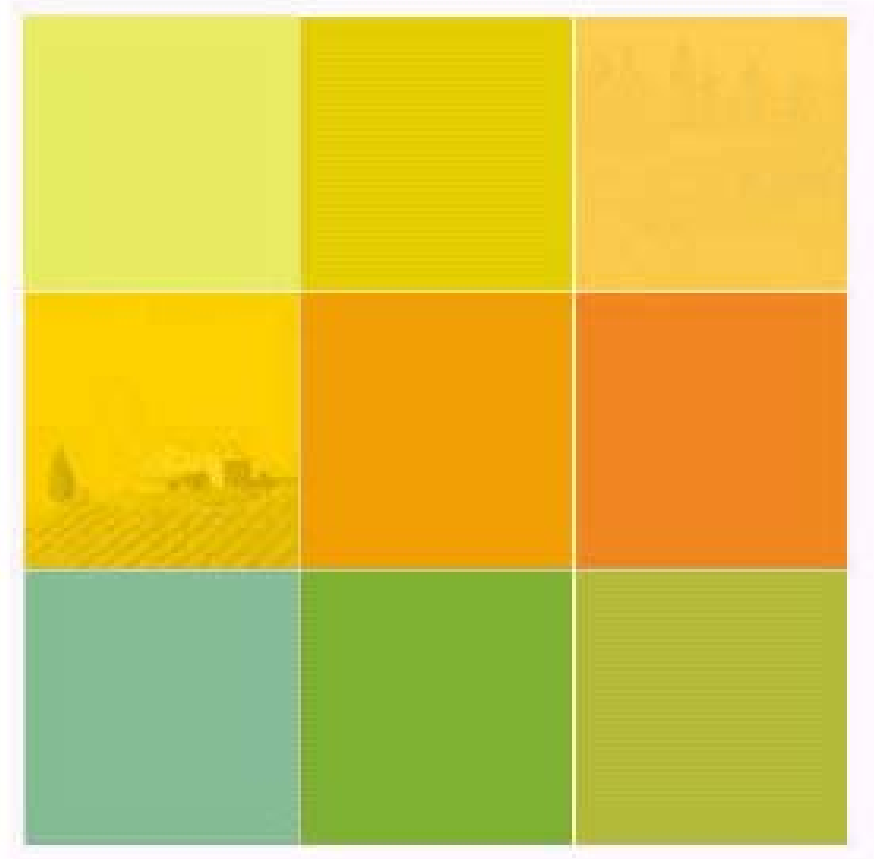


## **A vital plan.**

### Implementation of Ptcp and other planning activities in the province of Terni

Since the Ptcp has come into force and after a long and fertile training experience – involving many authors and based on a huge heritage of analysis and knowledge – the province of Terni has embarked on a series of several activities. Such activities are either directly linked with the plan implementation, or independent or linked with other activities regarding territorial planning, landscape protection and in particular exploitation.

The network of Agenda 21, the Ecomuseum, municipal landscape units, biotechnical engineering manuals, planning agreements, integrated intervention plans and projects, the management of mining activities as well as studies on landscape fragmentation are actually heterogeneous actions which are different shapewise and aimwise, but are however in tune with Ptcp's strategies. Each action, according to competence and extent, helps strengthen Ptcp's contents. Ptcp becomes thus the common denominator of many activities, through which processes can be started, actions taken and coherent strategies set out, so that a partial review or implementation of Ptcp's arguments or policies can be possibly carried out. That's why Ptcp takes on a "vital plan", which fosters ideas, plans, projects and actions that help in turn enrich or alter it, making it thus closer to territorial condition and local communities' needs.



## Landscape units: from provinces to municipalities



Landscape units have been territorial landmarks for both knowledge and analysis organization and for Ptcp's normative structure. As for Prg's structural draft, municipalities have to adjust to their attendant landscape units through a process involving analysis, projects, check on statements. Some of these in-depth experiences include the intermunicipal districts of Avigliano Umbro, Montecchio, Baschi and Montecastrilli. Techniques aiming to define landscape unit boundaries and to spot municipal subunits have been experimented in Montecastrilli. Also analysed.

Two indicators have been used to set out landscape diversity features. The *landscape grain* indicator records the surface extension changes of basic homogeneous units for every type of topsoil, while the *edge density* indicator measures the relation between boundary extension and unit surface.

On the basis of PTCP's landscape ecological indicators, the municipalities of Terni, Narni, Sangemini and Orvieto have carried out independent research.

In Orvieto, for instance, the municipal territory has been divided in 5 structural systems according to landscape, ecological, natural, agricultural, archaeological and historic features. The effects of transformation proposals which have been put forward in Prg's structural part – with particular reference to Ptcp's landscape and environmental criteria - have been assessed. Such criteria concern ground bearing capacity (as far as settling aspects are concerned) and complex ecological balance (as for landscape systems).

## A Biotechnical Engineering manual to stop hydrogeologic instability



Biotechnical Engineering , or soil engineering, is a technique that uses living plants or plant parts to optimize the regime of water courses, to improve slope stability and to mitigate the effects of works or infrastructures in order to reduce instability effects caused by natural or anthropic factors.

In fact some vegetable species develop quickly a root system which can reinforce the soil and generate a natural self-supporting ecosystem. This manual is a collection of theoretical assumptions and practical methods to be used according to morphological, pedologic, vegetative and climatic features of the territory. It is addressed to all those public bodies dealing with soil protection and hydrogeological risk prevention, that is to say municipalities, land reclamation consortiums and mountain communities.

Ptcp picks out a first list of different interventions in which biotechnical engineering techniques, to be used in all extremely interesting landscape units, can be applied. Included in the list are also interventions such as morphological restoration and environmental site recovery for future mining activities, reopening or enlargement. In order to assess environmental compatibility the Province prefers to apply these techniques during planning, programming, designing, implementation and test of every intervention.

## Orvieto landscape Ecomuseum



An Ecomuseum is a cultural institution that represents and brings out features, hallmarks, landscape, memory and identity of a certain territory and its inhabitants to guide them towards a future development. It is promoted by cultural and environmental societies and is included in the local development plan of Trasimeno and Orvieto of the Region Umbria and by the European Programme Leader+. This pilot project aims to assess the possibility of founding a landscape ecomuseum in the Upper Orvieto (as stated by the Ptcp). It is an area of 380 square km that includes 8 municipalities and has a population of about 10.000 inhabitants. The goal is to make local communities aware of their own identity through a process of spotting local heritage characteristics in an in-depth study on widespread traditional knowledge and in passing on goods and knowledge. Inhabitants and visitors are invited to rediscover landscape hallmarks, which descend from both territory's natural features and anthropic century-old transformation to the same extent.

The ecomuseum relies in the first place on the active participation of the city's inhabitants, who are visitors and guardians at the same time, and in the second place on public and private bodies (esp. schools), societies and economic categories. Forms of cooperation with ecomuseums of other areas accomplish a threefold aim: foster comparison between different experiences, find the most suitable tools to pass on widespread knowledge and communicate results and development proposals.

After the first phase, during some workshops with the inhabitants that were held in July 2005, 6 Community maps were produced. They have been presented for the first time in Parrano and then in all Ecomuseum municipalities during summer festivals.

## Agenda 21 processes and the environmental and territorial sustainability plan of the Province



Agenda 21 processes and their respective participation and concertation methods play an important role in the enforcement of Ptcp's strategies at a local level. In order to create effective synergies within the limits of Agenda 21, a new network is currently being set up. This includes new forms of participation (provincial Forums, intermunicipal Forums, municipal Forums, concertation platforms), innovative tools (environmental and territorial sustainability plan of the Province) and exploitation of Government tools' potentialities, active local planning and management.

The main aims of Agenda 21 network and its constituents are: building a shared updatable knowledge frame, setting common development prospects and involving the highest number of individuals and general public in decision-making processes.

The environmental and territorial sustainability plan of the Province is an instrument which hasn't been formally legitimated nor by the Government neither by the Region. Yet its effectiveness depends directly on

the generative process and the commitment of Agenda 21's various authors.

This plan completes the Ptcp and is a useful tool to acknowledge and focus all current activities and to promote new ones. It is addressed mainly to municipalities as it contains addresses and goals to be met at a local level.

### **Planning agreements: drawing up town-planning schemes' structural part**



The Ptcp has introduced Planning Agreements to carry out coordinated management policies for territorial economic development and environmental protection. These agreements are informal voluntary instruments to set out common town-planning strategies among municipalities belonging to the same area.

The object of the first agreements was adjusting municipal Prg's structural part – which contains territorial management strategies - to Ptcp.

In the region Umbria Prgs have been divided in structural and operative part. The former, according to regional and provincial directions, includes criteria, forms and limits of town-planning expectations that are to be carried out by municipalities in the operative part. Planning agreements are concertation tools of choices concerning exploitation of cultural and environmental resources within a systematical point of view, urban sprawl control, reorganization of productive areas and improvement of their accessibility conditions, reorganization of service network for intermunicipal

companies and mining activities, road system and mobility's rationalization, in particular in low traffic areas.

Shared actions taken within the planning agreements are implemented through provincial participative processes, especially through a whole network of Agenda 21s.

Territorial agreements concerning the areas of Amerino, Valnerina, Centrale Umbra and Conca Ternano-Narnese have been signed and have been endorsed also by other municipalities and by the province of Rieti. Negotiations concerning the surrounding area of Orvieto and the Upper Orvieto have been started.

### **Integrated intervention projects and plans**



Regional planning intervention strategies are implemented also through integrated intervention projects and plans (Pit), aiming to improve social, economic and cultural contest.

Integrated projects are complex intersectorial actions that are closely linked to each other and characterised by a common approach, in order to carry out network policies. The concept of planning integration stresses the importance of activities co-sponsored by Community Structural Funds.

The province of Terni, which is already drawing up the Ptcp, has outlined a local plan map and defined important interventions to be carried out with this strategy, in accordance with municipalities and

mountain communities. Some Pits regarding the Marmore area are currently being implemented. Pits concerning the areas of Piediluco, Rio Grande and Frutti antichi, ended in 2004, have been implemented through multi- aim area projects and sponsored by the European Union to promote tourism, environment, culture of the Region Umbria. Pits for the shore and water protection of the Piediluco Lake (the region Umbria and the river Tiber Basin Authorities taking part in it), exploitation of the Albornoz Fortress and Lakes' Park are currently being drafted.

The latter includes the recovery of places that were previously used for mining activities (applying biotechnical engineering techniques), water depuration, banks' upgrading, restoration of obsolete railways, touristic and didactic exploitation of the river Nera.

Other Pits are due shortly. One Pit concerns the Amerino area for the construction of a museum in a restored building, improvement of the access to the archaeological zone and realization of a service centre. Another Pit (Teverina Project) involves a huge area crossed by the river Tiber for the exploitation of existing environmental resources.

### **Sustainable management of mining activities**



The province controls the use of non renewable resources through the Ptcp and in particular through the regulation of mining activities. By working out the structural part of some municipal town-planning schemes a few difficult issues have come up and

highlighted the lack of a definitive general policy frame at regional level.

The province reckoned an integration of the Ptcp necessary and has introduced specific graphic and prescriptive printouts that set binding limitations and behavioural rules.

The most remarkable innovations are the "schemes of assessment", tools that make opinions on how to find and exploit mining sites in the provincial area as unbiased as possible.

The schemes of assessment's contents conform to the principles contained in the biotechnical engineering manual. They will allow to assess mining activity proposals on the whole, taking into consideration their effects on the environmental constituents of the sites and, in particular, of the surrounding landscape units on a provincial scale. It will be considered as well whether mitigative and compensative measures are suitable. Thanks to the attribution of a value scale to these three constituents and also to precious indicators for each landscape unit, it will be possible to estimate the limit value according to which every single project can be carried out.

### **Limitation and recovery of landscape fragmentation in town-planning schemes**



After careful considerations on landscape fragmentation and within the scope of studies on ecological network, the province of Terni has promoted a research to find a method – on a municipal scale – to tackle the issue of

country landscape integrity. Over the last few decades social and productive organization, especially agricultural organization, and the unsuitability of planning tools have caused the fragmentation of country landscape integrity. This happened to municipalities with a low population density such as Avigliano, Baschi, Montecastrilli and Montecchio, which had been studied as example cases.

The research has been divided into 3 distinct phases:

- in the first one the basic constituents of landscape structure have been analysed together with the causes of fragmentation phenomena (such as urban sprawl increase, connection of linear settlements, infrastructure development);
- in the second one 5 different types of landscape fragmentation have been spotted, but they had previously been classified according to the event that caused them;
- in the third one policies to stop fragmentation have been set. Such policies aim to find proper tools for resource protection and large-scale exploitation and to establish normative criteria and planning directions for structural, operative and detailed town-planning. It is important to bear in mind that a direct control on soil use and consequently on landscape fragmentation condition is possible only at a local level.

The underlying idea is trying to recover landscape continuity, netlike features and constituents through active interventions in order to exploit landscape in the best possible way.

## **Interview with Donatella Venti, Town-planning Department Manager, province of Terni**



*1 – Four years after the PTCP's approval, is it possible to take stock of this planning experience?*

*What are the most successful themes and what are instead the ones that have been difficult to deal with?*

Municipalities have shown great interest for co-planning and in particular for planning agreements. Both small and big municipalities have understood the importance of working together on intermunicipal issues and of entering into agreements with the Province before drawing up new town-planning tools. At present many municipalities have signed planning agreements and many of them have already begun drawing up new plans according to the PTCP.

Planning agreements' most successful themes concern the planning of productive areas, tourism-related development, infrastructures and environmental policies. Municipalities have become indeed more aware of environmental risks. This is basically why many plans contain the concept of "limit to transformation". Such novelty might be regarded as a remarkable success if we consider that plans had been carried out and implemented without in-depth environmental research until 6-7 years ago, whereas planning activities are now based not only on territorial and geological aspects, but also on aspects related to vegetation, fauna and history of the territory.

Compared to the accomplishment of PTCPs, the first use of landscape indicators has caused a few difficulties, especially for smaller municipalities, whose

lack of proper territorial information system hasn't allowed to carry out enough detailed analysis.

Another difficult issue, as stressed by municipalities themselves, concerns the high costs of drawing up town-planning schemes. In order to overcome this economic issue the Province allocates incentives funds to small municipalities that decide to join together to draw up the plan. The combined action of planning development allows to cut down expenses. At present there are 4 associations, made up by 4 or 5 small municipalities with similar territorial features, that have joined together to draw up their plan.

*2 - The analysis of the PTCP has highlighted the settlement growth in fringe areas, divestment phenomena of industrial areas as well as concurrent richness and environmental frailty of the territory. Are such phenomena still topical? Are there any other transformation trends taking place within the territory?*

Compared to the analysis carried out by the plan, an updated and detailed study on industrial areas enabled to show that out of 200 places no longer in use that had been counted in a census of the provincial area at the end of the 80s, only about twenty of them are now no longer working. There has evidently been a great recovery. The most remarkable changes have occurred in fringe areas. Many industrial areas no longer in use have been turned, especially through urban recovery programs (prust), into areas meant for cinema industry.

Still unsolved is though the problem of fragmentation of ecologically complex and rich areas, where anthropic

pressure and changes due to infrastructures and network (long-distance power lines, aeriels) have deeply changed and damaged landscape.

We have been able to stop the settlement growth in fringe areas, thanks also to the PTCP intervention. In fact the new plans opt for a development that is no longer spread along the main infrastructures, but concentrated mainly in small centres or villages with utilities.

A difficult issue to handle with - in settlement's layout - is the great demand for houses in country areas that has further increased thanks to a regional law allowing dwelling extension.

This parallel market of "former" country houses risks to jeopardize landscape integrity. Unfortunately the law concerning rural areas contained in the PTCP is not suitable to stop this sprawl. This phenomenon is one of the problems to be urgently tackled. The general trend to search for quality living environment - as our provincial area offers - is getting more and more frequent.

The territorial market of close regions, such as Tuscany and Latium, is now overstocked. Whoever wants to invest in farmhouses or agriculture looks for a market with similar characteristics and available shares, like the one of our province.

Another phenomenon related to urban sprawl is that of second homes. It had stopped for a while, but it is starting again.

An "international" market exists as well. It is not a market of second houses, but of permanent residences for foreigners who have decided to move on the

outskirts of Orvieto. In fact in some municipalities there has been a considerable population growth.

A difficult issue that the PTCP has not been able to face properly is mobility. Therefore a plan update has become a necessity. The public transport system is lacking in organization, rather than in quantity. A good balance between road and rail transport is needed.

The plan update will have to take into consideration that inland transport system uses mainly private vehicles. The railway network in particular will have to be reorganized and strengthened.

*3 – The Province has worked out PTCP’s investigation and management tools to increase knowledge and exchange of information. What issues have been topical? How did municipalities react?*

Municipalities have focused their attention on environmental issues, especially on hydrogeological risks. The plan has been an important key for the river Tiber Basin Authorities in order to understand hydraulic and hydrogeological risks and environmental protection. The new municipal planning goal is environmental and territorial safety.

Municipalities have also carried out some interesting research on the subject of nature and vegetation, which have integrated and examined closely those studies already contained in the Territorial Plan.

The subject of archaeological resources contained in the PTCP and proposed to municipalities has not been completely examined. Instead of carrying out analysis on settlements by gathering documentary inquiries, many municipalities have merely picked up the information contained in the PTCP without seeking the

advice of archaeologists (this issue has been faced in detail only in the plan of Orvieto).

Municipalities have also failed to carry out perusals on the integration between urban mobility and town-planning policies.

The Biotechnical Engineering manual has certainly awoken interest, yet less than how it was expected. The idea of a Biotechnical Engineering manual arose as PTCP’s regulations prescribe the use of specific techniques only for interventions in areas with peculiar environmental and natural features and for strengthening works of water courses.

The manual has been used and appreciated by specialists and associations. Other bodies to which the manual was addressed though, especially land reclamation consortiums, have not used these techniques in their projects yet. The province itself has now extended its authority (through regional laws) for the optimization of water courses. This will contribute to increase effective interventions in order to solve for good knotty problems, difficult to be solved with traditional techniques.

The interest for biotechnical engineering has lead to a new cultural approach and new job opportunities for both personnel and companies that decide to specialize in such field, especially in plant nursery.

We are now offering the opportunity to all public bodies’ officers to attend a course on biotechnical engineering. Other courses will be organized for private operators as well.

*4 –The numerous planning agreements signed in the last few years with municipalities and association of*

*municipalities have lead us to think that PTCPs have boosted a whole series of municipal town-planning tools. Which processes brought about their accomplishment and what characteristics do they have in common?*

After approving the PTCP, about twenty per cent of the municipalities in our province drafted a new municipal plan. Many other municipalities, that is to say about 45%, are about to pass on to the province new town-planning tools. Among these is the plan of Terni.

Generally speaking, all municipalities have begun to draft a new plan. Some of them though are running into difficulties as they had been given only old plans that did not contain preliminary analysis and must now carry out basic research that is required to draft a proper plan.

The municipal town-planning tools of the whole province should be completely renewed within the next five years.

We are pleased with the quality of the new plans, which are very different from the old ones. All municipalities have now town-planning schemes that have been studied in depth. The first landscape plans, which explain PTCP's directions in detail, are currently being drafted at municipal level.

Intermunicipal plans are rather plans that have been worked out by an integrated group of people and preceded by planning agreements. They are totally new as they set benchmarks such as development of production fields or of settlement phenomena that involve several fields, ecological network, etc.

Bilateral agreements between various municipalities (involving 4 or 5) have been signed as well.

Such agreements determine preferential relations between municipalities with common and specific issues. The structural part of the plan develops the themes of the agreements and PTCP's local development, while the operative part of the plan awakes only local interest.

I believe that such new intermunicipal plans will provide a more flexible approach which is more likely to work well.

The province has a co-planning function in the plan's draft and working out. This is a commitment for the province itself that has also the task of checking and testing the plan's consistency through large-scale tools. Such check serves also as PTCP's update. As we have said before, the province allocates funds to carry out the plan giving the priority to municipalities with less than 10.000 inhabitants that decide to join together.

*5 - Any plans for the future?*

We are planning to update the PTCP, although its basic principles stay the same. It will be a totally new phase in which town-planning department and sectorial planning will work together on environmental and transport matters.

A very important link - to solve and implement environmental issues - is the teamwork with Agenda 21, which had already begun in 2000 and had developed strong ideas that will be strengthened in the sustainability plan of the Province.

Through Agenda 21 it will be possible to combine the territorial plan with the sustainability plan of the Province and to try out concertation platforms, workshops, forums and communication. All the

province inhabitants have been handed out questionnaires that have highlighted the strong need of communication and participation through concertation processes to satisfy the most urgent territorial needs. Unfortunately not all Agenda 21s have been started, the province therefore must make up for a municipal-level management that is beyond its authority.

We have signed the Aalborg Charter, we hope that this experience can help spot new environmental themes concerning mostly water cycle and energy.

It is now proven that provincial plans are also environmental plans. Such thesis has been strengthened through the latest regional delegated acts: the province – ours in particular – has now extended its authority on several matters (water, soil protection, air, waste, mining activities).

## **Credits**

Articles and reports for Planum.net by Federica Legnani and Chiara Girotti

Web design concept by Giancarlo Gamberini (Prosperomultilab)

Supervised by Donatella Venti (Town-planning Department Manager, province of Terni)

Translation by: Annalisa Mantovani