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DIRECTION DES ÉTUDES ÉCONOMIQUES  
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BUREAU DE LA PROSPECTIVE ET DE LA RECHERCHE EN SCIENCES HUMAINES

Call for research proposals

# Landscape and sustainable development

Projects to be submitted by:  
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20 avenue de Ségur  
75302 PARIS 07 SP  
Tel : 01 42 19 17 10  
Fax : 01 42 19 17 71

## ISSUES AND OBJECTIVES

Even though the idea of sustainable development is still vague and often shrouded in mystery, it nevertheless leads us to question the continuity of political actions and to attempt to define economic development objectives and those involving the long-term reproduction of natural resources so that society as a whole and the groups that make it up will benefit equally. In relation to landscape and particularly to relationships between the production of knowledge and public actions directed at the landscape, these three pillars of sustainable development also give rise to issues that are increasingly important and complex.

It is particularly relevant because it forces us to think about just what landscape can contribute to the idea of sustainable development itself, and particularly to the knowledge of the effects of economic processes on the landscape and on its natural or artificial dimension (and vice versa), on the one hand, and on the space and time scales involved in these processes, on the other. Other contributions concern the issue of social acceptability of these transformations that occur at a rapid pace and over large areas, upsetting our traditional notions of space categories, rural and urban, and natural and artificial, in particular. Although the idea of sustainable development is criticised by a part of the scientific community, it is very present in the public action arena and constitutes an undisputed driving force. We must therefore take a closer look at what the landscape issue can contribute to public action. Moreover, this notion is inseparable from the notion of project or of a future-oriented and environmental conception of land-use management. Thus, the notion of project is a high priority for managers and contractors within the framework of landscaping programmes. Even if the notion of sustainable development is present in all of the major national research programmes, it must also be an integral part of research that places site analyses at its core, which is the case in this call for proposals.

This assessment of the landscape is also a problem because political action is faced with the uncertainty of the effects of measures that it implements in relation to different environments whose long-term reactions are not necessarily known and whose landscape consequences cannot necessarily be predicted within a political framework that is too often limited to an electoral context. Moreover, political actions implement measures based on representations that decision-makers have of problems that arise and not of the problems themselves and their medium and long-term impact. These measures are often implemented to satisfy categorial claims or those of pressure groups, and not within a transparent and equitable decision-making process, thus creating frustrations of the other parties involved who feel left out of the decision-making process. Therefore, the list of questions that arises from relationships between landscape and sustainable development appears to be extremely open-ended.

These relationships that can be established and defined between landscape and sustainable development bring a wide range of research issues to the forefront. This call for proposals hopes to shed light on these issues in order to give rise to solutions that can be used by political action. It is deliberately positioned at the interface between the production of knowledge on the landscape and landscape action that the recent conference in Bordeaux<sup>1</sup>, organised by the MEDD, began to examine but which remains an important area of investigation. The synthesis<sup>2</sup> of the results of the MEDD's preceding programme, "Public Policies and Landscapes", also made it possible to pave the way for new possibilities that were formalised in the three orientations proposed here.

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<sup>1</sup> From knowledge of landscape to landscaping action, Bordeaux, France, 1-4 December 2004. See the conference's Internet site: <http://landscape.lyon.cemagref.fr>

<sup>2</sup> See the MEDD Internet site: [www.ecologie.gouv.fr](http://www.ecologie.gouv.fr)

## RESEARCH THEMES

This call for research proposals is organised into three different axes with obvious links between them. Proposals can overlap the different axes and the research teams that submit the proposals should specify the links between them and their interest for both knowledge and action. These axes are:

1°) Landscape, sustainability of landscape development processes and landscape actions: this central axis should focus on results of the contribution of the landscape to the notion of sustainable development, and vice versa.

2°) The European Landscape Convention and the adequation of landscape actions and objectives: this convention, implemented on 1st March 2004, is in keeping with the objectives of sustainable development, and one of them consists precisely of redefining the role of the citizen in relationship to landscape organisation. This axis is therefore essential and should contribute to the improved knowledge of its application and contributions.

3°) Landscape economics: this axis focuses on the analysis of the ways in which the landscape participates in economic development and, in particular, how landscape action produces economic values (employment and service economy).

### **1°) Landscape, sustainability of landscape development processes and landscape actions.**

**A) The theoretical dimension** obviously exists in the question presented to the scientific community: how can we apply the notion of landscape sustainability, on the one hand and, is taking the landscape into account conducive or not to the sustainability of a development project, on the other? Moreover, is it possible to speak of "sustainable landscape", knowing that every landscape evolves and that all development projects produce landscapes that are obviously subject to change? If we refer to the material and immaterial dimensions of the landscape, the question of sustainability deserves reflection and can be full of meaning: the sensitive and aesthetic dimension of the landscape can actually produce new meanings and reveal the landscape in another light when we assume that the "sustainability" of the landscape implies economic development, reproduction of natural resources and social equality. Research undertaken could therefore provide the opportunity to examine the meaning that these three pillars of sustainable development confer on the landscape.

Research teams could examine possible differences or gaps between the social and biophysical processes that are at work in a given area and the landscape forms themselves; these differences imply that the effects of these processes are not immediately visible in a landscape and that a "shaping" period takes place between the time that these processes are at work and landscape production, obviously raising the question of sustainability. Research could focus on the different forms of evolution, on the overlapping of these forms, and on the role of technical and social innovation, without losing sight of the economic dimension of the evolutionary process.

a) As for **biophysical objects and processes**, we can ask ourselves how we can evaluate them from the point of view of the landscape, taking the relationship that now exists between the landscape and environmental problems into account.

b) As for the analysis of **social processes**, research could focus on the relationships between landscape evolution and social evolution, and particularly on representations of changes, while attempting to relate them to sustainable development.

**B) As for links between the three pillars of sustainable development and the landscape,** they will be examined from several different points of view:

- a) That of **economic development** itself (major economic trends, decisions at the European or international levels [WTO, CAP, etc.] in relation to economic issues) and its effects on landscape transformations and, in particular, by defining the respective roles between economic processes and landscape action.
- b) That of the **reproduction of natural resources**: this will include the analysis of the effects of economic solutions on landscape forms through the modification of the resources themselves. In this case, the aesthetic, symbolic and ecological dimensions will be taken into account. Particular attention will be given to maintaining biodiversity whether it be just "ordinary", supporting ecosystem function (role of biogeochemical cycles, pollinators, organisms acting on the soil, etc.), or "extraordinary" (protected species and spaces). Therefore, how can we take the new functions of landscape elements and the evolution of their management into account?
- c) That of **social equality**: research in this case deals with the social effects of major economic movements and their impact on landscapes, by examining which landscapes and/or social groups are the most affected.
- d) The one that obviously arises from the **overlapping of these three approaches** and that can make it possible to innovate in relation to modelling approaches and simulations that attempt to link biophysical models with social and economic ones.

**C) Landscape actions** (that is, protection, management, development) will be analysed from different points of view:

- a) What are their **long-term effects** and how can we evaluate them beforehand (advantage of developing forecast models and, in particular, attempting to create new landscape models)? The interdisciplinarity between the ecological and the social sciences will be of utmost importance here in order to be able to evaluate the effects on biophysical processes as well as on social processes.
- b) Are landscape actions designed within a **framework of sustainability** and, if so, what are the guarantees? What does the notion of "sustainability" signify in relation to the landscape? Can we imagine actions that take the form of experimental designs, driven by their own knowledge analysed during the duration of the action by scientific teams?
- c) What are the **implications of landscape actions within the three pillars of sustainable development**: how are they perceived and understood in the field by the different parties involved in landscape actions?
- d) Which **indicators** should be created to evaluate the effectiveness of landscape actions and their sustainability, in particular? It would be interesting to take a look at innovations that have already taken place in the area of indicator development.

## **2°) European Landscape Convention<sup>3</sup> and the adequation of landscape actions and objectives.**

Landscape projects and experiments are numerous in Europe at this time and concern spaces with a wide range of dimensions and very different landscapes. They also involve a

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<sup>3</sup> See the European Landscape Convention and its different related activities on the Internet site of the Council of Europe: [www.coe.int](http://www.coe.int)

broad diversity of methods, but their effectiveness has not always been subject to sophisticated evaluation procedures. Moreover, some of these experiences and projects appear to be the outcome of the European Landscape Convention that was an important incentive to action and research/action, although it has only been in effect for less than a year. We must therefore analyse and put the following to the test:

**A) The adequation of experiments** carried out within frameworks that can be defined by the different articles of the **European Landscape Convention**, and particularly with the following procedures:

a) *landscape identification and qualification*: these procedures refer to the role of social representations at work among the concerned parties; they should lead to analyses comparing different landscape models, landscape forms that can be observed in the field, and knowledge produced by scientific communities. The role of the knowledge of past landscape forms and landscape atlases will be subjects of particular interest, like that of ecological specificities and their role in these forms.

b) *development of landscape quality objectives*: research could be used to investigate the means of development of these objectives in relation to landscape forms and landscape models that structure social representations, on the one hand, and in relation to older forms described in archaeological and historical records, on the other hand, or even in relation to biophysical processes specific to a certain area or region. Attention will be focused on comparisons between countries already involved in the procedures of protection, management and development projects and countries that have limited technical and legislative means.

c) *participation of concerned populations* at different stages of development; by this, we mean information about the means of mobilisation of concerned populations, about the representations that they have of landscapes and of their future (and about the methodologies used to determine them) and about the role of their landscape culture in the different phases of the development of protection, management or land-use projects. On the contrary, we could examine the ways in which scientists and experts use the know-how of the concerned populations. Research could thus focus on the forms of mobilisation that bring out deep-lying sentiments during negotiation processes and on the receptiveness of projects by these populations for which we could attempt to find out if the projects in question correspond to the expression of their aspirations. Particular attention will be given to innovative methods related to population participation.

d) *implementation of objectives*: experiments in progress or already terminated will be analysed in order to reveal the means of applying objectives and, in particular, the different groups of participants mobilised and their respective roles in this implementation. Research projects could be designed like research action experiments or could be made to stand the test of new implementation methods.

e) *mobilisation of technical, human and financial means*: the different means used during these stages of protection, management and development projects will be subject to in-depth analyses making it possible to assess their effectiveness, their relative costs and the significance of their uses. We will analyse the role of the various forms of knowledge exchange used in relation to project implementation by attempting to show the effects of innovative education techniques; we will also examine the ways in which different types of knowledge are formulated, interpreted and reformulated.

**B) The different methods developed** to fulfil landscape protection, management and development objectives such as those defined in the European Landscape Convention and, in particular:

a) *forms of mobilisation of the participants* involved in protection, management or development projects; we will attempt to define the respective roles of these participants, their means of intervention, the relationships that evolve between the different groups that they form (by distinguishing, for example, institutional, political, professional, scientific and casual participants, among others). Emphasis will be placed on the evaluation of expertise in project development. It will be particularly important to determine the degree of training of experts in the area of landscape, their influence in the formulation of projects, the ways in which they mobilise representations and the knowledge of the participants and the methods they put into effect. Comparative analyses of projects in the different countries of Europe will provide useful information for the implementation of the European Landscape Convention.

b) *scales* at which projects are developed and interrelationships between the project scale and other levels of public action (European, national, regional, local); the teams will therefore specify the degree of autonomy of protection, management and development projects in relation to national and regional institutions.

c) *compatibility* of protection, management and development projects as provided for in the European Landscape Convention, with other national or international legislation: in this case, project analysis focusing on either transboundary landscapes, similar types of landscapes or landscapes with the same status but located in different countries could be of interest, especially if they lead to cooperation between teams of neighbouring and/or foreign countries and the comparison of methods and means of intervention of the different participants involved.

d) *the effects of these projects on landscapes* and eventual differences between the effects expected and their objectives. Teams should focus on projections into the future in order to precisely evaluate expected effects; particular attention will be given to ecological effects and to their evaluation over the long term.

e) generally speaking, research proposals should analyse *the ways in which the European Landscape Convention is received and understood* by those involved and its innovative character for the implementation of protection, management and development projects.

### **3°) Landscape economy.**

That the landscape has an economic sense and produces income and employment is obviously not new; tourism is an activity that is essentially based on these market values that were recognised as early as the second half of the 19th century. The same is true for the exploitation of ground rent as a result of the development of numerous residential zones. The following three trends sum up what is new in this area:

- The significance taken on by the activity implemented around landscape protection, management and development in its function as an economic activity, representative of monetary, market, service and employment values;
- The evolution of landscape policies that tend to replace a simple regulatory framework with an economic one;
- The development dynamics themselves of large areas that depend much less on primary production than on the development of environmental assets.

These changes justify the pressing need for research in the economic sciences. They also force us to take a look at how society changes when landscape becomes part of the economic reality.

### **A) Landscape offer and demand.**

Research that has been done up until now has focused either on the estimation of the demand or, more rarely, on the conditions of the offer by certain parties, including farmers. On the other hand, it has not provided a global vision of the economic issues raised by the different aspects of the landscape (public or private activities, landscape activities including different scales, activities focused on the quality of the landscape, etc.), nor addressed questions as to interactions between expectations in terms of landscape and the commercial activities of the different sectors (agriculture, transportation, etc.). Finally, the relationship between offer and demand is never examined. Questions concern several different aspects:

- a) The way in which the **landscape offer** is built and the implications, particularly in terms of the status of goods and services, property rights, employment, professional qualification, etc.;
- b) The different forms of **market and non-market productions** (intentional and unintentional), their interactions, the different forms of integration of landscape issues in the strategies of economic participants and local government;
- c) The **qualification of the principal characteristics of landscape amenities** and the evaluation of the demand; analysis of explanatory, market and non-market factors related to its evolution;
- d) The analysis of the **adequation between offer and demand**;
- e) **Regional specificities and differences in national contexts** within Europe.

### **B) Economic regulation of the landscape.**

The development of tourist activities around remarkable sites, or the multiplication of conflicts around the use of their images for marketing purposes, is indicative of the importance of the role of the landscape in economic relationships and the necessity of more effective regulation of these relationships. The enhancement of the landscape assumes that the mechanisms involved allow the offer to encounter the demand and that financial flows are organised between producers and consumers. This issue is even more important in this case because the landscape encompasses market and non-market services and goods and the beneficiaries are not always identified, let alone organised. These questions concern:

- a) Identification of the **involved parties** (from the side of the offer as well as of the demand), their means of organisation and consensus-building, the instruments on which their interactions and coordination are based;
- b) Forms and conditions of **internalisation** by the landscape amenities market (access rights, user's rights) and necessary innovations;
- c) Forms and conditions of **public regulation** (taxes/grants, regulations, etc.) and necessary innovations.

### **C) Contribution of landscape policies to local development.**

Environmental policies and particularly those related to the landscape can be an advantage but can also act as an obstacle to local development. We must therefore take a look at the conditions that make it possible to enhance this asset and the mechanisms that lead it to be included in development. Local or national disparities

are considerable in this case and comparative analyses would be particularly helpful. The following issues should be explored in particular:

- a) The contribution of landscape to the **attractiveness of the territory in question**;
- b) The contribution of landscape to the **construction of the territory in question** within the framework of its political and economic framework;
- c) The conditions of emergence of the **territorial landscape offer** and the mechanisms that could lead to a degradation of this offer;
- d) The contribution of **European policies** and the role of Europe in general in the development of this activity.

**D) Evaluation of new forms of employment and their organisation in relation to other activities.**

This area of activity of landscape production mobilises very diversified forms of employment whose organisation we know little about. The focus here will be on its forms of employment, their organisation and the income that they represent:

- a) Which **forms of employment**, between managers, contractors, engineering firms and businesses, on the one hand, and full and part-time employment and liberal forms of employment, is encompassed by the landscape production sector? What are the relationships between the different levels of employment?
- b) How does this area of activity **organise itself** or **not organise itself** to regulate this employment? At what scale (national, regional, European)? Which institutions could possibly take on the responsibility of this organisation? How does the recognition of these levels of employment come about? Obviously, the different national contexts will be subject to specific analyses.
- c) What is the **income structure** reflected in this area of activity? What is the total payroll by sub-sector and by level of employment? It will be essential to situate these new forms of employment in relation to other closely-related areas of activity (land-use planning, environment, culture, etc.).

**E) Finally, at the theoretical level**, consideration must be given to the implications of taking the landscape into account in relation to the economy. This reflection will be even more advantageous if it is done within a framework of interdisciplinarity with researchers from other areas of the social sciences. Proposals should be based on studies of actual cases. Among the issues to be dealt with, we can mention the following, in particular:

- a) The **status of goods** (public goods, social goods, private goods, etc.) and its consequences: privatisation vs. collectivisation of spaces, economic and social inequalities, conflicts of use and public regulation, etc.;
- b) Places and forms related to **landscape consumption** and their implications in terms of economic regulation;
- c) Economic criteria related to **the evaluation of landscape policies**: meaning of the notion of effectiveness, treatment of the time dimension and intergenerational relationships, etc.

Teams committed to a research project within the framework of this call for proposals could attempt to define the links that obviously exist between these different axes. The scales involved in research within the framework of this project are not a determining factor for the



evaluation; they may focus on land-use management operations limited to a specific space or to analyses at the European level. However, in every case, all efforts to extend generalisations to the European level will welcome.