

SISAL21: Cross-Frontier Sustainability indicators System for Local Agenda 21s

Rafael TORTAJADA*, Pablo ECHAMENDI**, Maria CABELLO***

Government of Navarra, Department of the Environment. Head of Urban Environment. Avenida del Ejército, 2 - 2ª planta.
31002 Pamplona, rtortajm@cfnavarra.es

** Trabajos Catastrales, S.A. Ctra. del Sadar s/n –Edif. El Sario. 31006 Pamplona (Spain) pechamendi@tracasa.es

*** Trabajos Catastrales, S.A. Ctra. del Sadar s/n –Edif. El Sario. 31006 Pamplona (Spain) mcabello@tracasa.es

Keywords: SISAL21, Local Agenda 21, Sustainability Indicators, Sustainable Development, Citizen Participation, Navarra, France

1 BACKGROUND

At an international level, the Local Agenda 21 is a plan promoted by the United Nations for sustainable development in the 21st century, approved by 173 governments at the Earth Summit held in Río de Janeiro in 1992.

Since then, the Local Agenda 21s have become a planning benchmark for achieving the sustainable development objectives stated at Río and Aalborg. The aim of the LA 21s is to promote measures directed at achieving a clean, just, habitable, fertile and humane world.

The Local Agendas 21 in Europe that are traditionally included as tools of Sustainable Local Administration, -in the Thematic Strategies of Urban Environment-, have come into existence to comply with the principles and agreements signed in the Danish town of Aalborg in 1994 in the European Conference of Cities and Sustainable Towns (this declaration was updated in 2004 and is known as Aalborg +10).

In this document, the local entities commit themselves to preparing and implementing Local Agenda 21s, in order to promote sustainability at a local level. These agreements will be reached by means of cooperation amongst different local stakeholders and different regions.

2 INTRODUCTION

The project SISAL 21 is included within the framework of European program INTERREG III A France/Spain 2000-2006 subsidised by the FEDER and in which are participating the following

Regions: Navarra, Gironde, The Bidasoa-Txingudi Consortium and the Council of Hendaya. The public company Trabajos Catastrales S.A., also ranks among participants, as a technological partner.

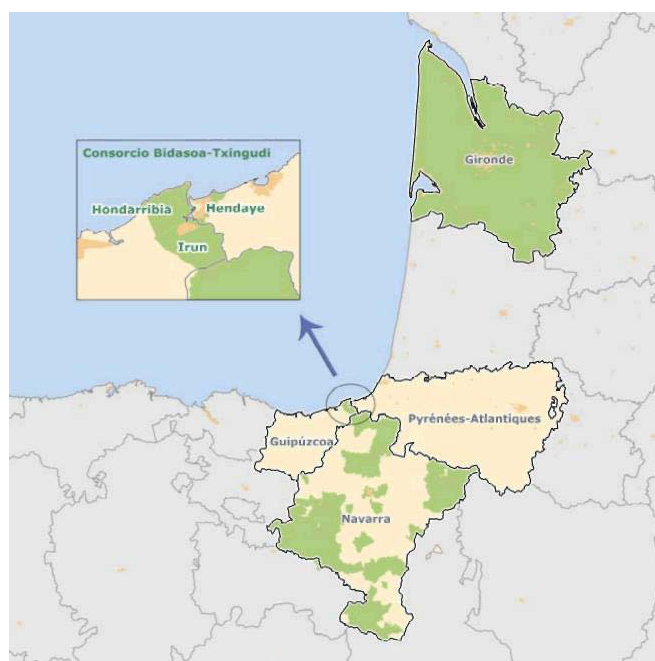


Figure 1: Regions participating

SISAL 21 is a project aim at the compilation of information from the different Local Agenda 21s of the French and Spanish regions participating in the initiative. These regions have displayed a real commitment to

achieving their respective Local Agenda 21 goals. However, thus far, the implementation of these schemes has had a highly variable impact on both sides of the Pyrenees.

The general objective is to promote cooperation amongst local entities at cross-border level, in favour of sustainable development. Other goals are:

- Provide support to implement Local Agenda 21, not only at municipal level but also over-municipal (group of local administrations), fomenting environmental monitoring in its development.
- Collect and disseminate good practice and satisfactory experience related to Local Agenda 21 on both sides of the Pyrenees, learning and obtaining added value from them.
- Contribute to training and involvement from local stakeholders, public authorities and their technical staff, environmental, social and economical agents, not only publics but also privates, and citizens in general to achieve AL21 objectives.

These objectives will be reached by means of providing municipalities and local stakeholders with a set of tools, friendly and accessible through Internet, to support Local Agenda 21 developments.

In addition to this Inter-regional comparability, the common tool will also enable common policies and initiatives to be adopted. The aim is to achieve the sustainability of cities and regions through joint co-operation, by allowing the participation of all local stakeholders, including the general public.

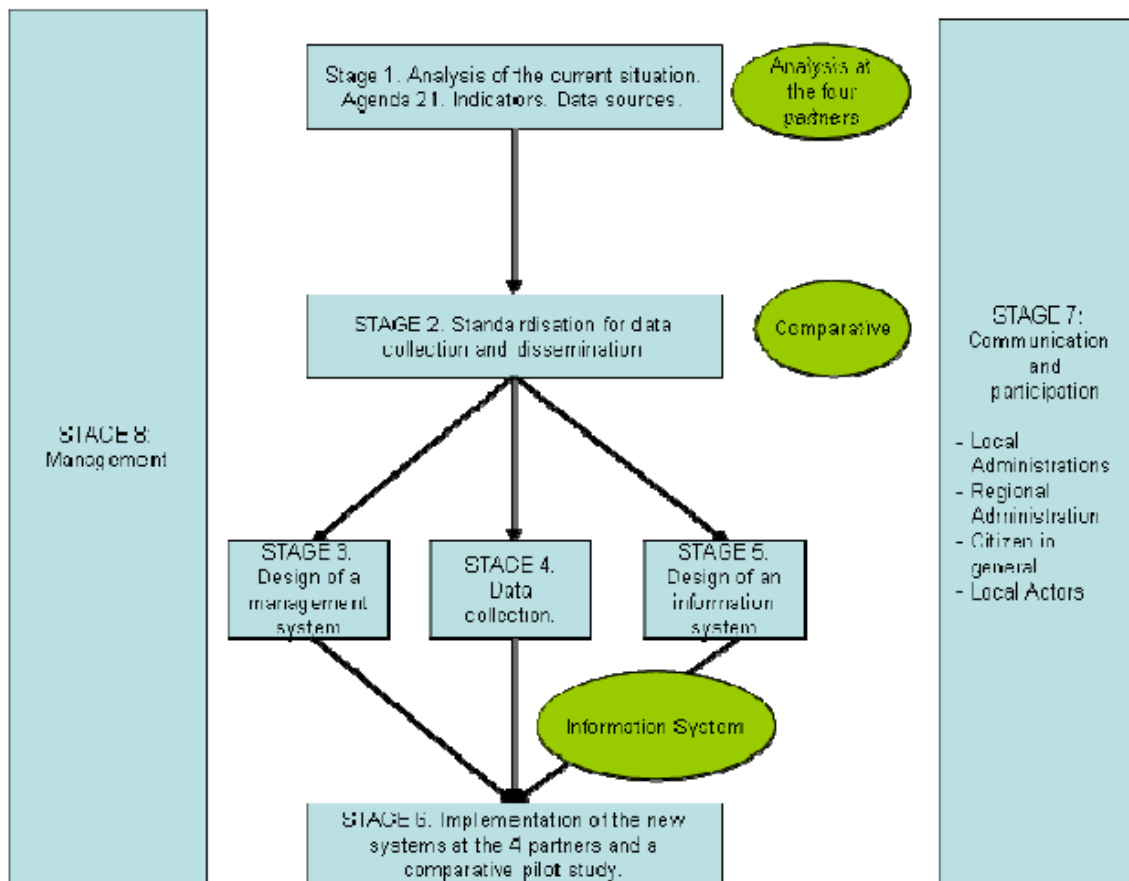
The main objective, therefore, consists on the creation of a common system of Sustainability Indicators that allows their collection and management, as well as their diffusion, promoting the co-operation of local entities at a cross-frontier level in favour of sustainable development.

3 PROCESS

The first task was the analysis of current situation regarding sustainability indicators in every region. The comparison and standardization of indicators collected in Local Agenda 21s of the different partners, started from the approval and upgrade of LA21 indicators from Navarra, (Sustainability Indicators System of Navarra SISNA 2003-2006), which previous experience served as reference for the other partners and gave place to a proposal of indicators that were comparable in all the participant regions.

The common operable tool created to be used by the municipalities of these border regions enable updating and managing these indicators, is also based on common calculation criteria and directed at providing uniform data that can be compared between regions. The interest in the use of Internet lies in that related Local Agenda 21 managers were geographically scattered and the System should allow them updating and effective maintaining of its data.

The different stages are presented in the next figure:



2: Project Stages

Figure

The project includes 32 indicators which, in turn, are divided into sub-indicators which either help or allow the indicators to be calculated. The sustainability indicators provide information on the sustainability status and dynamics of a municipality, and also allow comparisons to be established between different municipalities or regions.

The list of indicators is structured in three topics:

1. Structural aspects – 19 Indicators
2. Environmental vectors – 10 Indicators
3. Participation of the general public – 3 Indicators

The indicators serve a double purpose:

- Provide information on the municipality sustainability status and trend or, to put it another way, they serve as an instrument to facilitate the analysis or diagnosis of the structural aspects of the municipality and those environmental vectors whose management directly affects the local sustainability status.
- Act as a tool to monitor the implementation and impact of the action plans in progress to improve the sustainability status and trend.

Starting from this indicators, design and development of a management system was carried out to promote decentralized updating from every region. Also quality control tool was prepared to ensure data integrity.

The next step was to design and develop a thematic web to disseminate Territorial Sustainability Information, providing the next functionalities:

- Viewing geospatial sustainability indicators
- Cartographic representation
- Viewing graphical and table data indicators

- Realizing advanced queries
- Downloading table data indicators

4 RESULTS

The results obtained are presented in the portal SISAL21 (<http://sisal21.tracasa.es>) that has been designed as an integrated and transferable tool among the different authorities.

The portal is available in four languages: Spanish, French, Euskera and English.

- Provides Information relating to the project, to the partners and also to the antecedents.
- Supply a decentralized friendly system of data collection based on Sustainability Indicators, by means of a user (partner) and password validation.
- Allows the representation of the data by means of a thematic cartographic viewer.
- Includes a system of searches and advanced analysis that completes portal potential.



Figure 3: SISAL 21 Main Page

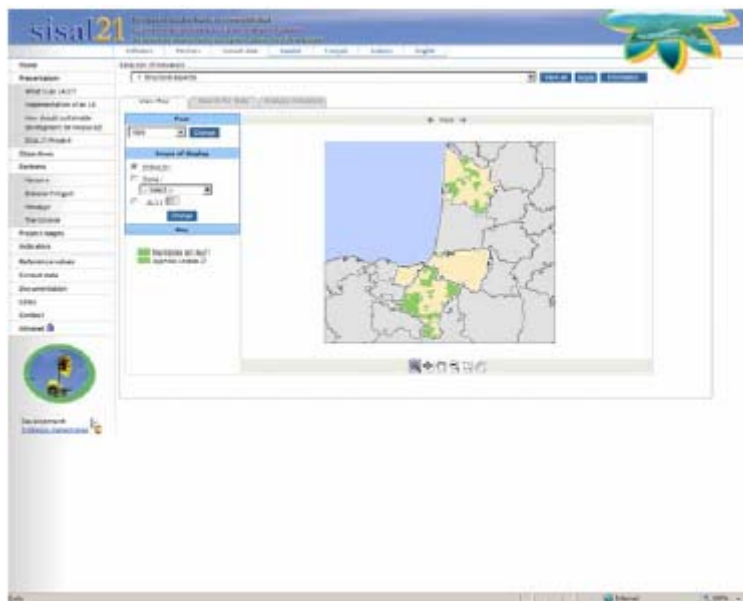


Figure 4: Map Viewer

5 CONCLUSIONS

Impetus to change does not always come from the top, in this case Towns, Cities and other Local Entities are the most important stakeholders. To make important changes globally, it is necessary to act locally.

The SISAL 21 project has been working within this context. SISAL 21 is thus a European project focussed on promoting co-operation between local entities at a cross-frontier level in favour of sustainable development, using the Local Agenda 21s to achieve this.

"Sustainable Development meets the needs of the present without compromising the ability of future generations to meet their own needs"

It is, therefore, a cooperative and integrative project, in which the information, coming from diverse sources, will help us all work towards achieving increased sustainability in our cities and regions, based on the analysis of these Sustainability Indicators.

Considering the project results, we could conclude:

- The great potential of Sustainability Indicators evaluating and monitoring Local Agenda 21 development.
- Develop specific tools is the best way to guarantee the preparation and the up-dating process for the data to be both done decentralized by each partner region.
- Another major advantage of the specific tools is the easy-to-use approach for both beginners and experts
- Finally, Internet becomes the suitable way to release the knowledge about Sustainability Indicators promoting Social participation in Local Agenda 21.

6 REFERENCES

- Antequera, J. (2005): "El potencial de sostenibilidad de los asentamientos humanos". Complete text in electronically edition available at www.eumed.net/libros/2005/ja-sost/
- Echamendi Lorente, P.; Fontano Ruiz, S. (2005): "Indicadores de Sostenibilidad y Agendas Locales 21: Difusión en sistemas de información corporativos". Poster and Communication presented at ESRI Users meeting 2005. <http://www.tracasa.es/html/es/posterAL21.pdf>
- Ministerio de Medio Ambiente (2001) "Sistema español de indicadores ambientales: área de medio urbano", Madrid, Serie Monografías.
- Local Agenda 21 Navarra. <http://agendalocal21.navarra.es/>