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“The effect of Participation in the Development of Local Agenda 21 in the European Union”

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Abstract: The different forms of participation or communication within and between public agencies represent one of the five major features of policy implementation which explain why programs do not turn out the way they are expected to. This paper evaluates the advancements and the effect of the participation of several bodies – citizens, the private sector, other local government departments and other public entities - in the implementation of Local Agenda 21 in European municipalities.

Results show that participation by citizens and the involvement of different departments within the municipal government in implementing Local Agenda 21 significantly promote its implementation. However, the promotion of sustainable development through policies or activities by the European Union, the State or other national or supra-administrations are of little relevance.

Key words: Local Agenda 21, sustainable development, Aalborg Charter, European municipalities, policy implementation.

1. INTRODUCTION

The starting point of mankind's first signs of collective concern for the environment was the Conference on the Human Environment held by the United Nations in Stockholm in 1972. At that conference, serious concern for global environmental behavior was made manifest; evidence of this is the analysis included in the Report by the Club of Rome titled "The Limits of Growth." A result of the consensus on this concern was the creation of what is known as the United Nations Environment Program (UNEP), the primary aim of which is to analyze the effect developed countries' activities have on natural resources and the environment around the globe, due to both their direct action as demanders of all sorts of raw materials, and their indirect action as emitters of all types of waste and polluting elements.

It took eight years, until 1980, for the seed sown at the Stockholm Conference to have a chance to germinate. In that year, the International Union for the Conservation of Nature and Natural Resources (IUCN), currently known as The World Conservation Union, formally acknowledged the concept of *sustainable use* in its proposal titled "The World Conservation Strategy."

The few suggestions and proposals made during the fifteen years which elapsed between 1972 and 1987 revolved exclusively around the idea of protecting the environment; however, in the last year, a report came to light which was probably transcendental to mankind's future: the Brundtland Report. This report, written by the World Commission on Environment and Development (WCED), presided over by Gro Harlem Brundtland, included under its title "Our Common Future", the first major step by an official entity in terms of a committed concept of an extraordinarily wide scope, that of sustainable development. Although the concept was not invented in this report itself, the truth is, as pointed out by Berga (2005. 1), that the report turned the term into a fashionable one. It was not made up in the report, but it was disseminated on a worldwide scale.

In the report, sustainable development is understood to mean (see WCDE, 1987. 43) "that development which makes it possible to satisfy the needs of the present without compromising the ability of future generations to satisfy their own needs."

From that moment on, we shifted from a basically environmental idea of sustainability to another which practically encompasses all facets of human life in general and aims for acceptance of the need to focus on the topics involving the environment and development in a balanced, all-encompassing manner.

In the end, it was the United Nations Conference for the Environment and Development (UNCED), held in Rio de Janeiro in 1992 and known as the Rio de Janeiro Conference or Earth Summit, which managed to build the foundations for sustainable development through a broad agreement between governments.

The Rio Summit agreements were set down in five sections which, according to the Code of Good Practices of the Spanish Federation of Municipalities and Provinces (FEMP, 2004. 5), are as follows:

- The Rio Declaration

- Agenda 21
- The Conservation of Biological Diversity
- The Framework Convention on Climate Change
- The Declaration of Principles on Forests

In addition to the Declaration, which is the document that states the 27 main principles or Rights of the Earth, Agenda 21 has been regarded by many experts “as the centerpiece of the Rio accords.” In fact, many of the conferences held and declarations made by international organizations afterwards have been more or less related to the global action plan for sustainable development laid down in Agenda 21.

Even though other intermediate general proposals exist, it was the First European Conference of Sustainable Cities and Towns, organized in 1994 in the Danish city of Aalborg by The International Council of Local Environmental Initiatives (ICLEI), which created the foundations for a serious commitment by European cities to the enforcement of Agenda 21.

With the signing of the Aalborg Charter, the cities, smaller towns and territorial units of Europe committed to taking part in the local initiatives of Program 21 and to carrying out long-term programs aimed at sustainable development, under the following terms (European Sustainable Cities, 1994. 8):

“We, European cities & towns, signatories of this Charter, pledge by signing this Charter and joining the European Sustainable Cities & Towns Campaign that we will seek to achieve a consensus within our communities on a Local Agenda 21 by the end of 1996. This will meet the mandate established by Chapter 28 of Agenda 21 as agreed at the Earth Summit in Rio in June 1992. By means of our individual local action plans we shall contribute to the implementation of the European Union's Fifth Environmental Action Program Towards Sustainability.”

Therefore, the Aalborg Charter comprises the commitment of European cities to become a motor for enforcement of Agenda 21 at a local level, by creating local action plans to promote sustainable development and establish systems and processes for monitoring and social communication of the progress achieved.

The holding of other events, such as the Second European Conference of Sustainable Cities and Towns; the special session on the environment and sustainable development of the United Nations General Assembly, held in New York in 1997 and known as Rio+5, in which the goals established at the Rio Summit were revised; the United Nations Millennium Summit of 2000, also held in New York; or the Third European Conference of Sustainable Cities and Towns of 2000, held in Hanover, has not led to significant advancements in the proposals on sustainable development.

The aim of the World Sustainable Development Summit held in Johannesburg in 2002, known as Rio+10 or the Second Earth Summit, was to put a stop to the impoverishment and degradation suffered by the environment. Likewise, the current validity of the

agreements reached at the Rio Summit were reaffirmed, especially in terms of the application of Program 21 as a basic element for sustainable development.

At the Aalborg+10 Conference, the local European governments included in the European Campaign of Sustainable Cities and Towns moved ahead. An inspiration for the future, it was held in 2004 in order to review the local activities implemented for sustainability after ten years. At the conference, these governments undertook to play a central role in ensuring sustainable development, influencing individual behaviors through education and increasing awareness and consolidating Local Agenda 21.

This research paper is an attempt to evaluate to what extent the governments and municipalities of the European Union have fulfilled the commitments they took on in 1994 in the city of Aalborg and backed up ten years later in the same location.

We have attempted to verify the level of fulfillment by considering two perspectives: on the one hand, by assessing the degree of advancement in the process to implement Local Agenda 21, and on the other, by determining the effect of the participation of several bodies – citizen associations, other local government departments and other public entities - in the development of Program 21 at the level of each of the municipalities. The different forms of participation or communication within and between public agencies represent one of the five major features of policy implementation which explain why programs do not turn out the way they are expected to (Van Meter and Van, 1975).

The results showed that the degree of advancement in the implementation of Local Agenda 21 is quite homogeneous amongst European municipalities. Participation by the people and the involvement of different departments within the municipal government in implementing the Local Agenda 21 significantly promote its implementation. However, the promotion of sustainable development through policies or activities by the European Union, the State or other national or supra-administrations are of little relevance.

The paper is divided into five sections and an introduction. Section 2 comprises a study of the features of Local Agenda 21 as a process, while briefly examining the status of research. Section 3 details the hypotheses of the investigation based on the relevance of different forms of participation or communication within and between public agencies on policy. Section 4 is devoted to proposing the analysis methodology used, specifying the analysis techniques implemented and the characteristics of the population analyzed. In Section 5, there is an empirical study in which we analyze the degree of implementation of Local Agenda 21 in the municipalities of the European Union and the effect of participation to this degree. Finally, in Section 5, the conclusions reached are stated.

2. LOCAL AGENDA 21

Local Agenda 21, whose basic aspects are summarized in Table 1, is a dynamic program which describes the foundations for action, the objectives to be achieved, the activities to be carried out and the means necessary for its execution. In terms of the importance of participation by local entities, the Program emphasizes:

“Because so many of the problems and solutions with which Program 21 is concerned are related to local activities, the participation and cooperation of local authorities will constitute a decisive factor in achieving the Program objectives. In their status as the authority closest to the people, they play a very important role in the education and mobilization of the public in favor of sustainable development.”

The implementation of Local Agenda 21 entails the execution of a series of activities, phases or stages for each municipality, on the basis of the analysis methodology that they use (i.e. ICLEI, 1997 and FEMP, 2004), which could be described, in general, as follows:

- Environmental Diagnosis. An analysis of the weaknesses and threats, and of the economic, social and environmental strengths and opportunities presented by the territorial entity where Program 21 is intended to be implemented.
- Environmental Action Plan. A coherent set of strategies and activities oriented towards solving the environmental problems of a municipality or other local entity in a sustainable manner.
- Tracking Plan. A set of different techniques geared towards determining whether the execution of the Environmental Action Plan is correct, in other words, to determine whether the actions undertaken entail fulfillment of estimated goals.
- Social Participation Plan. Social organization of the process which comprises the setting-up and use of extensive participation networks by different players, with diverse interests, which aim to develop and implement a common future vision for the municipal area. This social organization is usually linked to social participation instruments and to social communication plans.

The effort made by each municipality in the field of sustainable development or, in other words, the degree of implementation of Local Agenda 21, is being analyzed by different types of public entities and institutions and by researchers. These reports analyze the process used to implement Local Agenda 21 by studying cases and sending out surveys. The case studies usually involve a description and an analysis of the activities carried out by specific local authorities, whereas the studies completed using the survey technique show the results obtained by municipalities in the Local Agenda 21 implementation process. Out of the existing contributions, Table 2 shows the most noteworthy.

3. POLICY IMPLEMENTATION: RESEARCH HYPOTHESIS

Policy implementation studies emerged in the 1970s within the United States, as a reaction to growing concerns over the effectiveness of wide-ranging reform programs. Up until the end of the 1960s, it had been taken for granted that political mandates were clear and administrators were thought to implement policies according to the intentions of decision makers (Hill and Hupe 2002: 42). The process of “translating policy into action” (Barrett 2004: 251) attracted more attention, as policies seemed to lag behind policy expectations.

The American scholars Van Meter and Van Horn (1975) offered one of the most elaborate theoretical models. They were concerned with the study of whether implementation outcomes corresponded to the objectives set out in initial policy decisions. Their model

included six variables that shape the relationship between policy and performance. Out of these variables, Interorganizational Communication is an element which is vital to policy implementation (op. cit. 466).

Effective implementation requires a program, in this case Local Agenda 21, to be understood by those individuals responsible for its fulfillment. Hogwood and Gun (1984. 205-206) explain the importance of communication for coordination between individuals and institutions by saying that "communication has an important contribution to make to coordination and to implementation generally" although "coordination is not, of course, simply a matter of communicating information or of setting up suitable administrative structures."

The abovementioned statements lead one to think that communication is not an end in itself, but a basic means to achieving knowledge, acceptance and, as a consequence, the coordinated participation of individuals and institutions in an implementation process. This is thus confirmed by different papers on Local Agenda 21, whose conclusions ratify that consensus, the participation of different departments and the existence of coordination, even with the private sector, facilitate its development and implementation (ICLEI, 2002; Evans et al., 2005).

These statements allow the following hypothesis to be made:

H₁: A statistically significant relationship exists between the level of integration of Local Agenda 21 into the municipal system and the degree of advancement of the Local Action Plan.

Moreover, as Neustadt (1960. 18) affirmed, successful implementation requires the presence of action-forcing mechanisms. In this regard, Van Meter and Van Horn (1975. 466) suggest that these institutional mechanisms and procedures should be established by higher authorities (superiors) as they may increase the likelihood of implementers acting in a manner which is consistent with a policy's standards and objectives.

In respect of Local Agenda 21, municipal administrations are the organizations which are responsible for its development, but it is higher level administration, such as the European Union, the State and other minor supra-municipal administrations, which must promote sustainable development through several policies.

Experiences such as that of the ICLEI (2002) or Lafferty (1999, 2001) make it clear that the State, or regions or federal-states' (Kern et al., 2004) policies to promote sustainable development can have the effect of adding momentum to the development of local program 21.

A consideration of the impact of promotion policies by top level administrations on the municipality allows the following hypotheses to be made:

H₂: A statistically significant relationship exists between the policies to promote sustainable development, developed by supra-municipal administrations, and the degree of advancement in the Local Action Plan.

Finally, as is indicated by Agyeman and Evans (1994), Local Agenda 21 is profoundly democratic in nature not only due to the fact that it emphasizes the need to adopt policies and strategies which allow the problems and deficiencies identified to be solved, but because it promotes the involvement of affected groups in decision-making and in the implementation of the strategy adopted.

This promotion of the intervention of different citizen groups in its diverse facets is what Astleithner and Hamedinger (2003, p. 56-57) call “social organization of Local Agenda 21”, and it is closely linked to a process of opening-up to different social players by means of social participation which seeks the involvement of citizens and socioeconomic agents in policy decision-making processes (strategic planning) in the area of sustainable development.

It means, therefore, direct intervention in the identification, valuation, prevention and correction of environmental and social problems in the municipality where the individuals live or act, favoring the design and implementation of Local Agenda 21.

These statements allow the following hypothesis to be made:

H3: A statistically significant relationship exists between the participation of citizens and private enterprises in the municipality and the degree of advancement in the Local Action Plan.

4. ANALYSIS METHODOLOGY

This section lays down the criteria applied to the basic aspects of the analysis, such as the population to be analyzed, and the variables and the methodology which will be used to compare the proposed hypothesis.

4.1. Obtaining the sample

The selected scope of the study is municipal administrations, due to the fact that Chapter 28 of Local Agenda 21 considers the activities carried out by local authorities to be a decisive factor in achieving the objectives of Program 21.

The sample population is made up of the 2,277 European municipalities that signed the Aalborg Charter on April 28, 2005, the last information available when this paper was begun, on the basis of which a statistically representative sample of all the European municipality signatories was obtained. As can be seen in Table 3, the distribution of these municipalities by country is totally unbalanced, because two of them, Italy and Spain, make up 80.98% of the population, which is why the sample was generated by applying the following criteria:

- i) Obtaining the samples from the municipalities in Italy and Spain: they were selected by using a stratified random procedure applied to the population which was divided into eight segments, on the basis of the number of inhabitants in each municipality.
- ii) Obtaining the samples from the municipalities in the remaining countries of the European Union: this was performed by using a random procedure without stratification, given the low number of individuals in each city and town.

In accordance with the aforementioned criteria, a total sample of 928 municipalities was chosen and their distribution by country is shown in Table 3. In order to obtain the information, we used the survey technique, by sending questionnaires to the chosen municipalities.

The questionnaires include 35 basically closed items, grouped into 14 sections: identification data; geographic and environmental data; economic and management data; political data; implementation process for Local Agenda 21; specifications regarding said process; coordination between municipal government departments; participation by other public entities and bodies; participation by the people; systems for divulging information; environmental education; development methodology used; assessment of resources, and the environmental management system.

A total of 105 responses were received, representing 11.31% of the selected theoretical sample, or 4.61% of the population analyzed, including information from 60% of the countries which currently make up the European Union, as shown in Table 3.

4.2. Variables

The variables used to compare the hypotheses proposed are included in Table 4.

The COMUNICACION and COORDINATION variables are used to test the first hypothesis.

We use the EUROPEANUNION, STATES, SUPRAADMINISTRATIONS and OTHERORGANIZATIONS variables to compare hypothesis H_2 .

The two remaining variables, PRIVATE and CITIZENS, are used to validate the latter of the hypotheses proposed, H_3 .

4.3. Methodology

The empirical analysis carried out was performed in two phases or stages:

1. Analysis of the data obtained in the survey. Frequency tables were used that show response repetition to the questions posed, in absolute terms and percentages.
2. Analysis of the behavior of the participation variables. A comparison of hypothesis H_1 with H_3 entails an analysis of the behavior of the components obtained in the third stage, using dependency models or multiple linear regression that make it possible to explain their importance in the level of advancement in the stages of Local Agenda 21.

The variables which represent the level of advancement of Local Agenda 21 correspond to the dependent variables to be predicted by a set of independent variables which show the participation of citizens and private companies (H_3), other local government departments (H_1) and other public entities (H_2).

In order to isolate the effect of the aforementioned factors, one control variable was introduced to represent the size of the municipalities, expressed in terms of the number of inhabitants.

5. EMPIRICAL ANALYSIS

5.1. Degree of implementation of Local Agenda 21

a) Process evaluation

As a first step, the Aalborg Charter was signed by municipalities on average 1,690.23 days prior to the date used as a reference for the analysis or, in other words, approximately in late 2000. The main reasons which led to the signing of the charter were a decision by the municipality itself (54.60%), or a combination of factors such as informational campaigns and/or the influence of other municipalities (18.60%), as shown in Table 5 (5.1).

Signing the charter entails the implementation of Local Agenda 21 through the application of a methodology that usually requires the execution of a set of stages that we have decided to call: Environmental Diagnosis; Environmental Action Plan; Tracking Plan, and Social Participation Plan. The most usual methodologies and their level of usage by the municipalities are synthesized in Table 5 (5.2).

In terms of the average degree of advancement in the five aforementioned stages of implementation, Europe's municipalities have practically reached the halfway point in the process, whether expressed in terms of the degree of advancement in the stages (46.47%) or on the basis of the work load that the persons responsible consider they have completed (44.45%). The first factor corresponds to the dependent variables in the analysis.

Focusing on the stages that are involved in the execution of direct environmental activities by the municipalities, the results obtained are as follows:

- Environmental Action Plan. From an execution perspective, the Plan lacks a timeline in 29.90% of the municipalities, whereas a duration of between four and six years is foreseen by 22.70% and between seven and ten years by 10.30% of those surveyed, as can be seen in Table 5 (5.3).

In terms of the relevance of the different facets of its contents, the cities and towns assess them in the following way (assigning values from 1 to 5): environmental aspects (2.74), social aspects (2.43) and economic aspects (2.14).

- Tracking Plan. This has only been developed in 22 of the municipalities analyzed, with an execution term of more than one financial year in fifteen of them. Nevertheless, 80.00% relate the delay to a feedback process intended to create corrective actions in the event of abnormal or unsuitable situations.

It includes control indicators of different types: environmental; social; economic, urban planning-related; and other types, such as those related to cultural initiatives or people's satisfaction. Their relevance is shown in Table 5 (5.4). Its characteristics are quite heterogeneous, given that only in 5.20% of the cases are they uniform in terms of their annual contents.

- Social Participation Plan. This is one of the basic elements in the process and has been developed in 60 of the municipalities examined (61.9%); it is in a developmental stage in 5 (5.2%); and it is in the project stage in another 12 (12.4%).

The forms of participation used, associative, personal and public, display the frequencies shown in Table 6 (6.1).

The most commonly used instruments for participation are, as shown in Table 6 (6.2), Forum Meetings, Public Hearings and Sector-based Discussions. The people's level of participation was average in 39.20% of the cities and towns, and low or high in 10-15% of the municipalities analyzed.

In terms of the processes for communicating the information on sustainable development, websites (60.8%) and specific publications (51.5%) are the most commonly used, followed by magazines (33.0%) and books (10.3%).

In 64.9% of the cities and towns, activities are already being performed in the field of environmental education; they are under development in 10.3%; and they are in projects in 9.3%. The frequencies of the different forms of education: associative, personal and public, are shown in Table 6 (6.3).

b) Evaluation of resources

In order to implement the different stages of Local Agenda 21, the responsible offices or municipal departments have an average annual budget of 5.4 million euros/dollars, or 1.44% of the total average municipal budget. The municipalities themselves believe that the resources are very limited because, on a scale of 1 to 5, they scored the economic, human and technical resources they have at 1.86, 2.13 and 2.13 points, respectively. Perhaps this poor assessment justifies the widespread trend, in nearly 56.80% of the municipalities analyzed, to use staffed teams which are mixed internally and externally in the implementation of municipal Program 21.

On the other hand, the existing organizational structure scored slightly higher, at 2.20. This is probably due to the fact that there is quite generalized knowledge about the implementation and objectives of Local Agenda 21 in the Municipal Departments of almost all the cities and towns (70.10%), though in only half of the cases (48.50%) is there any coordination between them in the field of sustainable development.

c) Participation Evaluation

Leadership in the process for developing and implementing Local Agenda 21 tends to be assumed by the Mayor. However, at other times there is shared leadership between several responsible parties, or the competent technical department of the municipality simply assumes this role, as shown in Table 7 (7.1).

At the same time, there is notable participation by public entities, organizations and businesses in the application of Local Agenda 21, as can be seen in Table 7 (7.2). Most noteworthy in this participation are the contributions made by the administrations closest to the municipality, with cooperation in 42.30% of all cases through economic and technical support, whereas technical support alone is given in 18.60% of cases.

5.2. Verification of the effect of participation in the implementation of Local Agenda 21 between European countries

The results obtained after estimating the proposed model are shown in Table 8. The global significance of the model (R^2) reaches 32.60% for a confidence level of 99% (p-value < 0.01).

With regard to the variables analyzed, four out of the eighteen are statistically significant. In particular, PRIVATE shows a negative and significant impact for a confidence level of 99%. OTHERORGANIZATION, for the same confidence level, exhibits a positive effect. The coefficient of COMUNICACION, significant at 0.05, and CITIZENS, significant at 0.01, indicate a positive effect on the implementation of Local Agenda 21.

The STATE variable has a negative but non-significant effect on the estimated model. The remaining independent variables (COORDINATION, EUROPEANUNION and SUPRAADMINISTRATIONS), as well as the control variables (POPULATION) display a positive but non-significant effect.

These findings allow us to fully accept Hypothesis 3 but with a different effect depending on the participation typology we considered. In part, we cannot reject Hypotheses 1 and 2. In Hypothesis 1, the effect is only linked to the existence of communication between different departments of the municipality. In hypothesis 2, the impact is only significant for the participation of Other Organizations.

As regards the interpretation of the results obtained, it is worth indicating that the proposals of Van Meter and Van Horn (1975) have been partially compared. Thus, it has been observed that communication between the diverse municipal departments favors the implementation of Local Agenda 21. Nevertheless, this assertion cannot be extended to their coordinated participation in the process for implementing this policy.

Furthermore, it has been observed that the action-forcing mechanisms created by administrations higher than those at municipal level, such as the European Union, States, etc., lack their estimated impact as regards the promotion of sustainable development on a municipal scale.

Perhaps the reduced effect of these institutional factors is a consequence of the positive impact that citizen participation has on the development of Local Program 21. Thus, it has been verified that a more active citizen intervention in the design of a common future vision for the municipal area means greater political and administrative commitment in the implementation of the policy which enables the desired future to be obtained.

Nevertheless, it has been observed that when private companies intervene in said participation, the impact is negative, delaying the advancement of Agenda 21. This effect may be due to the priority that economic profits have over environmental and social benefits in the case of lucrative, economic units.

6. CONCLUSIONS

The most important expression of the collective feeling of concern for the environment was reached in the report completed by the World Commission on Environment and

Development, known as the Brundtland Report. This report describes a shift from a basically environmental idea of sustainability to another more general concept which practically encompasses the general range of facets of human life.

The United Nations Conference for the Environment and Development, held in Rio de Janeiro in 1992, was the event which built the foundations for sustainable development. Among the agreements reached was one considered by many experts to be the centerpiece of the Rio Accords: Agenda 21.

The successful execution of Program 21 depends fundamentally on governments. Nevertheless, international, regional and local cooperation is a key element for national efforts to become meaningful. Therefore, local administrations must play a decisive role in the process of educating and involving people.

Europe's cities were aware of the responsibility they took on in terms of leadership in Agenda 21 and, when they met at the First European Conference of Sustainable Cities and Towns, they created the foundations for a serious commitment to its enforcement: the Aalborg Charter.

The efforts made by each municipality in the field of sustainable development are being analyzed by public institutions and researchers, with a focus on either case studies or analyses of the general situation in municipalities within a restricted geographical area.

From an analysis of the implementation of Local Agenda 21 achieved in the municipalities of the European Union, basically the following conclusions may be reached:

- Eleven years after the Aalborg Charter, the number of municipalities to have signed on is quite low in certain countries, and perhaps too high to be assumed realistically in other countries like Spain and Italy.
- A municipality's involvement in sustainable development processes depends basically on that municipality's own decisiveness, with a limited effect from informational campaigns and other factors.
- Once responsibility has been assumed by the municipality, the Mayor usually exercises strong leadership in its later development.
- The current degree of advancement of the phases or stages of Local Agenda 21 has reached the halfway point. In general, these stages have been implemented through the application of a methodology created by each municipality on its own.
- The implementation of Local Agenda 21 could be identified with a process that requires the execution of a set of stages described as follows: Environmental Diagnosis; Environmental Action Plan; Tracking Plan and Social Participation Plan.
- The Environmental Action Plan prioritizes, in this order, the environmental, social and economic aspects, and generally lacks a pre-established timeline for the fulfillment of its objectives.
- A Tracking Plan for Local Agenda 21 has been applied in nearly 23% of the municipalities, and in 80% of cases it creates a feedback process intended for corrective actions in previously established plans.

- The Social Participation Plan, a vital element for the success of the municipality's action, is only implemented in 61.9% of the cities and towns analyzed. The most commonly used instruments for participation are forum meetings and public hearings; information is mainly communicated through the use of websites and publications.

As regards the theoretical contribution, the analysis verified that participation by the people and the involvement of different departments within the municipal government in implementing Local Agenda 21 significantly promoted its implementation. On the contrary, intergovernmental enforcement activities such as the promotion of sustainable development through policies by the European Union, the State or other national or supra-administrations are of little relevance. Furthermore, in the process geared towards attaining sustainable development, the participation of lucrative economic units may temporarily delay their attainment.

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Table 1. Basic Aspects of Local Agenda 21.

Origin:	Rio Summit or Earth Summit
Form:	Action Plan
Basic Aspect:	Considers social and economic development and the environment in an integrated manner
Ultimate Goal:	Stopping the destruction of the environment and eliminating inequalities between countries
Objectives	The fight against poverty
	Protecting and promoting health
	Protecting the atmosphere
	Conservation and the rational use of forest resources
	The fight against desertification
	The protection of mountain eco-systems
	The development of agriculture without harming the soil
	The preservation of biodiversity
	The rational and ecological management of biotechnology
	The protection of ocean and fresh water resources
	Safety in the use of toxic products
The management of solid, hazardous and radioactive wastes	
Priority Activities	The prosperous world: revitalization of development according to sustainable criteria
	The fair world: a sustainable life
	The inhabitable world: population sites
	The fertile world: efficient use of resources
	The shared world: global and regional resources
	The clean world: management of chemical products and wastes
	The world of people: participation and responsibility of people
Scope of Applicability:	The whole municipal territory

Source: Spanish Federation of Municipalities and Provinces (2004).

Table 2. Evaluating Local Agenda 21: The State of The Art.

2.1. Contributions by public entities or institutions.		
INSTITUTIONS	SCOPE	COMMENTARIES
International Council of Local Environment Initiatives (ICLEI) (2002)	International	It provides technical consulting, training, and information services to build capacity, share knowledge, and support local government in the implementation of sustainable development at the local level. Its basic premise is that locally designed initiatives can provide an effective and cost-efficient way to achieve local, national, and global sustainability objectives.
Local Authorities' Self-Assessment of Local Agenda 21 (LASALA) (Evans and Theoblad, 2003)	European Union	One hundred and fifty municipalities took part in this project. This method of self-evaluation has developed into an Internet-based facility for local governments to self-evaluate their Local Agenda 21 processes.
Developing Institutional and Social Capacities for Urban Sustainability (DISCUS)	European Union	The results of the project are based on detailed analysis of forty local authorities from Southern, Western, Eastern and Central European countries and Scandinavia. The findings should enable the improvement and development of institutional capacity and social capital at a local level in order to achieve more effective and participatory decision-making processes for sustainable development.
SUSCOM	13 European countries	Active evaluation research on Local Agenda 21 since 1995. They have been able to establish and strengthen networks for the exchange of knowledge and experience within the field of sustainable development.
Project for Alternative Future Prosus (Lafferty et al., 1998)	Norway Nordic regions	
SUSNORD	Nordic and Baltic regions	
Norwegian Ministry of Environment (1997)	Norway	
Local Government Management Board (1995; 1996)	UK	
Ministry of Housing (Hernández, 2001; 2003)	Spain	

2.2. Empirical studies performed by researchers		
AUTHOR	SCOPE	METHODOLOGY
Hovik and Johnsen (1994)	Norway	Survey
Naustdalslid (1994)	Norway	Survey
Whitakker (1996)	Australia	Survey
Jackson and Roberts (1997)	Scotland	Studying case
Kitchen et al. (1997)	UK	Studying case
Selman (1998)	UK	Studying case
Grochowalska (1998)	Poland	Studying case
Bond et al. (1998)	UK	Survey
Wild y Marshall (1999)	UK	Studying case
Avanzi (1999)	Italy	Survey
Scott (1999)	UK	Studying case
Jörby (2000; 2002)	Sweden	Studying case
Font and Subirats (2000)	Spain	Studying case
Mercer and Jotkowitz (2000)	Australia	Survey
Joas (2000; 2001)	Finland	Survey
Aall (2000)	Norway	Survey
Kelly and Moles (2000)	Ireland	Survey
Blasco (2001)	Spain	Survey
Vallitu and Lehtimaki (2001)	EUROCITIES	Survey
Grewwe et al. (2002)	US	Studying case
Lindstrom and Groholm (2002)	Union of cities of the Baltic	Survey
Sharp (2002)	UK	Studying case
Kelly and Moles (2002)	Ireland	Studying case
Barrett and Usui (2002)	Japan	Survey
Cuthill (2002)	Australia	Survey
Aguado and Etxebarria (2003)	Spain	Survey
Astleithner and Hamedinger (2003)	Austria	Studying case
Rowe and Fudge (2003)	Sweden	Studying case
Corbiere-Nicollier et al. (2003)	Switzerland	Studying case
Etxebarria et al. (2004)	Spain	Studying case
Feichtinger and Pregernig (2005)	Sweden and Austria	Survey

Table 3. Municipalities of the European Union that had signed the Aalborg Charter as of April 28, 2005.

Country	Population (1)	Theoretical Sample	Final Sample	% Response Theoretical Sample	% Response Population
Austria	27	25	5	20	18.52
Belgium	10	10	0		
Cyprus	1	1	0		
Czech Republic	2	2	1	50	50
Denmark	10	10	1	10	10
Estonia	6	6	1	16.67	16.67
Finland	32	30	5	16.67	15.63
France	32	30	8	26.67	25
Germany	69	59	12	20.34	17.39
Greece	68	58	1	1.72	1.47
Hungary	3	3	0		
Ireland	1	1	0		
Italy	687	247	22	8.91	3.2
Latvia	5	5	0		
Lithuania	6	6	0		
Luxembourg	2	2	0		
Malta	0	0	0		
Netherlands	12	12	1	8.33	8.33
Poland	8	8	0		
Portugal	42	38	6	15.79	14.29
Slovak Republic	3	3	0		
Slovenia	4	4	0		
Spain	1,157	289	35	12.11	3.03
Sweden	23	22	2	9.09	8.7
United Kingdom	67	57	5	8.77	7.46
Total	2,277	928	105	11.31	4.61

(1) Source: The European Sustainable Cities & Towns Campaign.

Table 4. Variables used in the analysis.

NAME	CLASS	DESCRIPTION
<i>DEPENDENT VARIABLES</i>		
IMPLEMENTATION-AL21	Numerical	Degree of advancement in the various stages of Local Agenda 21 according to the four phases or stages on the basis of the methodology of analysis
<i>INDEPENDENT VARIABLES</i>		
COMUNICACION	Dichotomous	Shows whether or not the municipal government's departments are aware of Program 21.
COORDINATION	Dichotomous	Shows whether or not there is coordination between municipal departments in its implementation
EUROPEANUNION	Dichotomous	Shows whether or not the European Union cooperates in its implementation
STATES	Dichotomous	Shows whether or not the State cooperates in its implementation
SUPRAADMINISTRATIONS	Dichotomous	Shows whether or not other Supra-municipal administrations cooperate in its implementation
OTHER ORGANIZATIONS	Dichotomous	Shows whether or not different Organizations cooperate in its implementation
PRIVATE	Dichotomous	Shows whether or not the private sector participates in its implementation
CITIZENS	Numerical	Shows the citizens who cooperate in its implementation, taking values from 1 to 5.
<i>CONTROL VARIABLES</i>		
POPULATION	Numerical	Number of inhabitants in the municipality

Table 5. Factors, methodology and development of the process for implementation of Local Agenda 21.

Concept	Frequency	Percentage
5.1. Factors which led to the signing of the Aalborg Charter		
International Information Campaign	2	2.1
National Information Campaign	5	5.2
Autonomous Regional Information Campaign	9	9.3
Influence of other municipalities	1	1.0
Internal municipal decision	53	54.6
Informational campaigns in general	2	2.1
Resulted from the relationship between municipal governments	3	3.1
Combination of all these factors	18	18.6
5.2. Methodology used		
FEMP methodology	5	5.2
ICLEI methodology	15	15.5
Own methodology	38	39.2
Supra-municipal administration methodology	16	16.5
Methodology from other experiences	18	18.6
Other methodologies	8	8.2
5.3. Timeline for the Environmental Action Plan.		
From 1 to 3 years	8	8.2
From 4 to 6 years	22	22.7
From 7 to 10 years	10	10.3
From 11 to 20 years	9	9.3
More than 20 years	1	1.0
Does not include a timeline	29	29.9
5.4. Contents of the Tracking Plan in terms of indicators.		
Environmental Indicators	38	39.2
Social Indicators	33	34.0
Economic Indicators	33	34.0
Urban Planning Indicators	22	22.7
Other Indicators	2	2.1

Table 6. Forms and instruments for social participation in the process for implementation of Local Agenda 21.

Concept	Frequency	Percentage
6.1. Forms of Social Participation.		
Associative (aimed at associations, entities and companies)	55	56.7
Personal (aimed at people on an individual basis)	47	48.5
Public (aimed at the staff of the municipal government)	42	43.3
6.2. Instruments of Social Participation.		
Forum meetings	49	50.5
Department of the Environment	15	15.5
Sector-based discussions	28	28.9
Public hearing	38	39.2
Consultations by survey / referendum	20	20.6
Other	22	22.7
6.3. Forms of Environmental Education.		
Associative (aimed at associations, entities and companies)	45	46.4
Personal (aimed at people on an individual basis)	58	59.8
Public (aimed at the staff of the municipal government)	40	41.2

Table 7. Internal and external participation in the process for implementation of Local Agenda 21.

Concept	Frequency	Percentage
7.1. Leadership in implementation of Local Agenda 21.		
Mayor	26	26.8
Deputy Mayor	10	10.3
Councilor / Municipal Dept. Head	12	12.4
Technical department	15	15.5
Shared leadership	25	25.8
7.2. Participation by other entities in implementation.		
European Union	14	14.4
State	17	17.5
Other administrations	64	66.0
National and international organizations	21	21.6
Private sector	26	26.8

Table 8. The Effect of Participation in the Development of Local Agenda 21 in the European Union.

INDEPENDENT VARIABLES	COEFFICIENT
Constant	0.000***
POPULATION	0.014
COMUNICACION	0.289**
COORDINATION	0.029
EUROPEANUNION	0.57
STATES	-0.093
SUPRAADMINISTRATIONS	0.105
OTHER ORGANIZATIONS	0.191*
PRIVATE	-0.186*
CITIZENS	0.348***
R² = 0.326	
F = 6.164***	
Multiple regression. Significant values in bold	
* p-value < 0,10	
** p-value < 0,05	
*** p-value < 0,01	