

**6. INSTRUMENTS FOR
ENVIRONMENTAL KNOWLEDGE
AND AWARENESS**

Introduction

This closing chapter of the volume is meant to present an overview – concise and definitely not exhaustive – of the different instruments that can be utilised to ensure that the various components of society are able to obtain more in-depth knowledge regarding an ever increasing number of environmental matrixes and factors, while, at the same time, the general level of knowledge regarding environmental issues is raised, making it easier to engage in styles of living that prove eco-compatible.

Instruments available to society for the formulation of a strategy of response to the environmental problems that it is called on to address.

According to the DPSIR model, an effective action of response, as indicated in numerous documents on both the national and international level, consists of “environmental education”, meaning a form of activity not limited to school but extending into adulthood, in the field of continuing education and professional training.

The definition and objectives of environmental education have changed over time. In the broader sense of the term, environmental education can be defined as a tool for inducing citizens to take responsibility for, and to modify, their environmental behaviour.

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As is the case with other spheres of individual civic training, environmental education, together with its distinguishing characteristics and objectives, must be viewed within its specific context: it has evolved in response to changes in both global and local scenarios, as well as the uprooting of environmental givens, often characterised by full-fledged emergencies, that has occurred throughout the Planet, and especially in recent decades.

Environmental education first takes the form of the defence and conservation of nature (1970 – Conference of the International Nature Conservation Union). Then, during the 70’s, its scope expands to include anthropic activities, the causal relationship between health and the quality of the environment and technological progress: the environment consists not only of the natural environment, but also the constructed and social environments. During this period, the ongoing advances in scientific research create a situation in which information and training are the main objectives of environmental education. “Using the discoveries of science and technology, education must take a leading role in establishing a clear-cut awareness and an improved comprehension of environmental issues. It must give rise to positive forms of behaviour towards the environment and the use of the nation’s resources.”¹

In 1970 the International Nature Conservation Union established the first definition of environmental education understood as education in the defence and conservation of nature.

During the 80’s, environmental education, dominated by the underlying concept that correct information can lead individuals to make a

¹ 1977 – The Tbilisi Declaration of UNESCO

significant change in the way they approach the environment, becomes a major area of activity in quantitative terms. However attention is focussed on the individual disciplines, with many European countries tending to confine the scope of environmental education to biology-related disciplines.

The Earth Summit held in Rio de Janeiro in 1992, and the Global Forum of NGOs that took place at the same time, undoubtedly mark a moment in which the gravity of the environmental problem gains widespread awareness. The Summit's primary agreement, known as "Agenda 21", proposes a strategy of global action to guide policies worldwide. The document makes unequivocal reference to the right of citizens to receive ongoing environmental information and education. The treaty approved by the Global Forum on *Environmental Education for a Sustainable Society and Global Responsibility* upholds "the central role of education in cultivating social values and actions", in addition to reiterating the need for formation of an active citizenry capable of understanding the complexity of relations between nature and the activities of man. There is an increasing awareness that knowledge of risks alone will not result in the modification of forms of behaviour and policies, and that the most widespread model of knowledge – one that reflects a mechanistic vision of the world, holding that man is able to control the effects of his actions and dominate nature – falls short when it comes to understanding the complexity of the man-nature relationship, as well as the entire system of existing relations. At present, as the European Union has repeatedly stated in acts and documents, the primary objective is not simply a transfer of knowledge, but the start-up of a process of maturation in which all citizens gain a new awareness that translates into a capacity to modify forms of environmental behaviour and to contribute to the identification of adequate solutions for specific environmental problems. The learning experience is no longer one that begins and ends during one's school years, but that extends into adult life as ongoing education, continuous learning, training and updating of professional know-how. "Environmental education forms an active citizenry, making it possible to understand the complexity of relations between nature and human activities, inherited resources and those to be saved and transmitted, together with the dynamics of production, consumption and solidarity. Environmental education is global, and it extends throughout one's entire existence, preparing the individual for life. Environmental education includes formal instruction, heightening of awareness and training".²

As things currently stand, the objective of environmental education is the process through which citizens mature to the point of obtaining a new awareness that translates into a capacity to modify forms of behaviour.

The tools selected for presentation in this chapter as examples of how to arrive at a broader and more in-depth environmental knowledge and awareness include the activities carried out by the Measurement Laboratories of the Environmental Agency System, the reporting

² "Charter of Principles of Environmental Education Geared towards Sustainable, Informed Development" Fiuggi 1997

activities and their products, the level of use of telematic equipment for accessing environmental data/information, library services and environmental training in the strict sense, plus the enactment of the European EMAS and Ecolabel regulations.

It is held that the topics listed provide an overview, approximate but meaningful, not only of the disparities between the different types of instruments that can be used to obtain the set objective, but also the variety of the sectors of society that can be involved in such efforts.

6.1 Dissemination of environmental information

One of the most important actions, when it comes to increasing the environmental awareness of citizens, is the correct transmission of data and information. It may be useful to state the definition of environmental information: “Any information available in any form, written, visual or audio, or contained in a database, regarding the state of waters, the soil, fauna, flora, the territory and natural spaces, as well as activities, including those that are harmful, or measures that have, or could have, a negative impact on the aforementioned environmental components, plus activities, administrative measures and programs for the management of the environment”.³

In line with the Aarhus Convention, as well as the Community directives and the relevant national legislative measures, in particular Legislative Decree 195/2005, “Implementation of Directive 2003/4/EC on Public Access to Environmental Information”, as is also emphasised in National Report I on the implementation of the Aarhus Convention, the Agency System (APAT-ARPA/APPA) disseminates environmental information and data through the channels of the web, reporting, library services and the mass communications media. The Agency System also promotes other activities of environmental communication geared towards presenting the general public with technical-scientific information through the organisation of conferences and conventions, the dissemination of informative documentation, access to available information and the creation of multimedia products.

The Environmental Agency System disseminates environmental information and data through the channels of the web, reporting, library services and the mass communications media.

The legislative framework outlined above confirms and acknowledges the importance of providing citizens with the knowledge in the possession of the public authorities. At the same time, increasing participation and attention on the part of public opinion has been observed with regard to environmental problems and their effects on day-to-day life. Information and communications on environmental topics and data thus constitute not only a fundamental support benefiting citizens, but also a key tool for the policies of national and extra-national governments.

The involvement and participation of citizens, plus, in more general terms, of whomever may hold an interest, whatever the reason, is of fundamental importance in improving the quality of public policies and decision-making processes, seeing that it contributes to the development and consolidation of a democratic policy, based on a dialogue between the institutional and social sectors.

The involvement and participation of citizens is of key importance when it comes to improving the quality of the public policies and decision-making processes.

The social demand, the legislative framework and the very nature of environmental protection make necessary actions designed to reinforce

³ Legislative Decree. 39/1997, which transposed into Italian law Directive 90/313/EEC regarding freedom of access to information on the environment

and consolidate within society the culture of sustainability: to this end, the promotion and dissemination of environmental culture, in accordance with the DPSIR model, constitute an effective action of response, being geared towards increasing awareness of environmental issues among citizens while guiding them towards sustainable forms of behaviour.

6.1.1 Environmental information through reporting

For a number of years now, APAT, through publication of the Yearbook of Environmental Data, has made known the results of the monitoring of the reporting products of the Agency System, meaning reports on the state of the environment / yearbooks, manuals/guidelines, thematic reports and proceedings of technical-scientific events (conventions, seminars, study days etc.). It should be remembered that, on both the European-Community and international levels, the reporting activities are not the subject of a structured analysis based on widely shared indicators. In late 2007, the OECD asked its member countries to provide elements of information on the instruments they utilised for the dissemination of environmental data/information, both to the general public and among decision-makers. If the initiative started up a process of defining indicators for the systematic monitoring of reporting activities, then APAT should be credited with having had the foresight to promote – on the level of the Environmental Agency System - reflection on the methodological tools best suited to representing this form of response to the sum total of environmental demands.

Though no historic set of data on the monitoring of reporting products is yet available, in the strict sense of the term (on account of the lack of uniformity in the data-collection methods used in different years, the fact that there was only partial spatial coverage etc.), still – based on the information collected from 2002 onward – an attempt can be made to draw up, at least in general terms, and in a completely provisional manner, both a balance of what has been done to date and a forecast of future developments.

The reporting product most widely used by the Environmental Agency System is the “thematic report”.

Among those referred to earlier, the most widely used reporting product of the Environmental Agency System is the “thematic report”, roughly a hundred of which have been published, on the average, in each of the last few years. Among the individual Local Environmental Agencies, this proves to be the reporting product to which preference is given in policies for the dissemination of environmental data/information.

As for “manuals/guidelines” and “proceedings of conference”, the number published each year has consistently stood in the dozens.

In the case of the product “reports on the state of the environment”, it should be noted that, in many cases, these are actually “yearbooks” (lists of statistics on environmental components and factors) rather than “reports” in the full sense of the term (documents that contain not only

statistical data on environmental components and factors, but also information on the underlying assumptions of environmental policies). In the case of the combined “yearbook/report” type of product, the quantity published in any given year is in the dozens.

The figures for 2006 (Table 6.1) confirm what is stated above. And, in years to come, it can reasonably be foreseen that the results will differ little from those registered to date.

Table 6.1 : Environmental information by means of reports and publications – (2006)⁴

Agency	Environmental data yearbooks	State of the environment reports	Manuals and guidelines	Thematic reports	Conference proceedings
	n.				
Piedmont	1	1	0	0	0
Val d'Aosta	0	1	0	2	0
Lombardy	1	1	1	12	2
Bolzano-Bozen	1	1	3	2	4
Trent	0	0	0	0	1
Venetia	1	1	3	5	-
Friuli Venetia Julia	1	1	1	4	1
Liguria	0	1	2	7	1
Emilia Romagna	1	0	0	0	3
Tuscany	0	1	1	1	1
Umbria	0	0	0	0	1
The Marches	1	1	3	28	7
Latium	0	1	1	0	0
Abruzzo	0	1	0	3	4
Molise	0	0	0	0	5
Campania	0	0	1	1	1
Apulia	0	0	0	24	1
Basilicata	1	1	0	0	1
Calabria	0	0	0	0	0
Sicily	1	0	2	1	1
Sardinia	0	0	0	0	4
APAT	1 + 2cd	0	11	39 + 2cd	1

The reporting product most widely used by the Environmental Agency System is the “thematic report”. In the case of the combined “yearbook/report” type of product, the annual number of publications stands in the dozens.

⁴ Source: APAT analysis of ARPA/APPA data

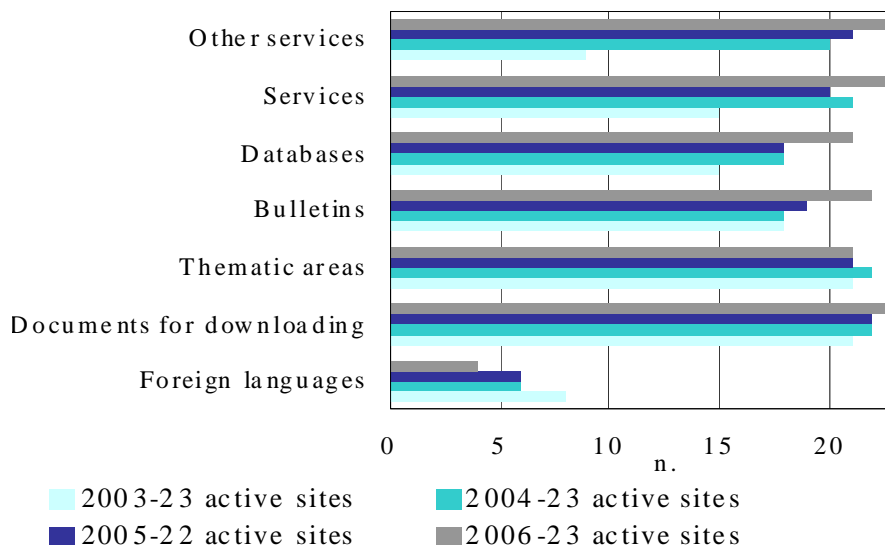
6.1.2 Environmental information and communications on the web

The importance of Internet as an instrument of environmental information dissemination is constantly on the rise, due to its flexibility and dynamism. It also provides a way of overcoming the burden of paper document printing and distribution. Its relevance is further demonstrated by the increasing quantity of information provided on the state of the environment and by the possibility of dialoguing with users.

The research results show that the offer of environmental information available on the agencies' websites has increased. Growth was observed in several services, such as periodical bulletins, databases with connected cartography and general services, including information meant for businesses, other administrative bodies and users. The increase is only partially influenced by the number of active sites (22 in 2005 and 23 in 2006).

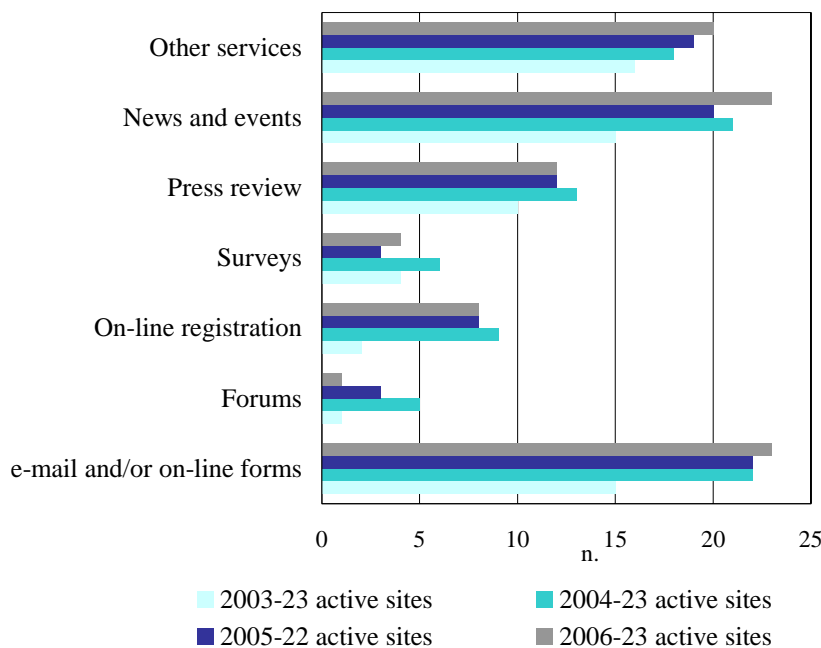
As Figure 6.1 shows, the Agency System generally meets users' requests for environmental information in a fairly satisfactory way. The research results show an increased presence of all the services, except for the translation of web pages in foreign languages. (only 4 sites out of 23 in 2006).

The analysis points out a general increase in the availability of the communication and interactive communication services (Figure 6.2), in order to maintain and increase direct relations between users and pertinent offices (e-mail, registration forms, news and events). On the other hand, the use of direct communication instruments, such as forums and surveys, has decreased over the years, probably as a result of a lack of adequate technology and properly trained personnel.



The supply of environmental data on the websites of APAT and the ARPA/APPA has been constant over time, with increases in bulletins, databases and services in general.

Figure 6.1: Statistics on environmental information on the web⁵



The Agency System's readiness to establish direct relations with users has increased. The preferred tools are: electronic mail, news and involvement in national and local events.

Figure 6.2: Statistics on environmental communications on the web⁶

⁵ Source: APAT

⁶ Source: APAT

6.1.3 Library services and resources for users

As for the libraries and/or documentation centres specialised in the Agency System's environmental topics, the research results show a clear connection between the assignment of economic and human resources and the offer of services and information to users. The trend is partially improving.

The organization, the offer of services and the territorial distribution of the libraries are not homogeneous (15 local agencies have a library). Increases in acquisitions and in services to users were registered in ARPA Lombardy, ARPA Venetia, ARPA Liguria, ARPA Tuscany, ARPA Latium, ARPA Campania and APAT. Worthy of note are new library start-up projects (ARPA Sardinia).

6.2 Instruments for Quality Environmental Information

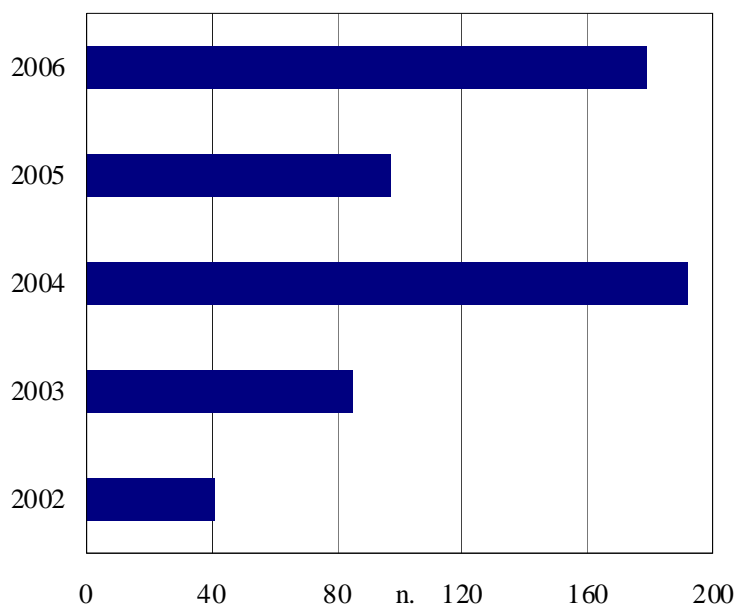
Ensuring that the information disseminated is well founded in technical-scientific terms is of key importance when it comes to forming knowledgeable citizens capable of understanding the complexity of environmental issues.

The agency network has the task of arranging for environmental monitoring of the territory and ensuring the quality and the reliability of the environmental data collected. More specifically, the environmental regional agencies are responsible for the environmental monitoring of their territory, while APAT has the task of assuring the quality and comparability of the collected data.

These objectives are commonly ensured by the use of standard methods, the implementation of quality control programs within the laboratories and participation in proficiency testing schemes (PTs). Within this framework, a key role is played by the (certified) reference materials (CRMs/RMs). The use of CRMs/RMs makes possible validation of measurement methods and the control of instruments and analysts' performances, while ensuring that the data obtained by the different laboratories are reliable and comparable. To this end, APAT established in 2002 a laboratory for the production of reference materials, to be used for inter-laboratory comparisons, proficiency tests and internal quality control within the laboratory. These activities were performed according to international rules and guidelines, such as ISO Guide 34 and 35 and ISO Guide 43-1.

The reliability and comparability of the data obtained by the different regional environmental laboratories is commonly guaranteed by standard methods for the implementation of quality control programs and the participation in circuits of contact and comparison.

In 2006, 179 laboratories participated in PTs and interlaboratory comparisons, confirming the interest of the Environmental Agencies in establishing a network of laboratories within the territory capable of guaranteeing a constantly improved quality of measurements (Figure 6.3).



There has been active participation by laboratories in PTs and interlaboratory comparisons organised by APAT free of charge.

Figure 6.3: Laboratories that have participated in PTs and interlaboratory comparisons⁷

⁷ Source: APAT

6.3 Programs of Education and Training

As has been noted on a number of different occasions, in both international and national documents, environmental education constitutes an experience that does not begin and end in school, but that extends into adulthood, in the fields of continuing education and professional training.

The agency system has promoted a variety of environmental education initiatives and training courses, both face-to-face and remote, in accordance with the objectives of the “Decade of Education for Sustainable Development” proclaimed by the UN – UNESCO for the period 2005-2014.

The Decade, based on the recommendations found in the international implementation guidelines of UNESCO and the strategy for education for sustainable development of the UNECE, is developed in the member countries through a national coordinating body, which, in the case of Italy, is the Italian National UNESCO Commission. The Commission has promoted the establishment of a national network whose members include numerous subjects – both institutional and non-institutional – that deal not only with the environment, but also with different aspects of sustainable development (the Ministry of the Environment, Land and Sea and the Ministry of University Affairs and Research, APAT and the 21 ARPA/APPA, the regional scholastic offices, public sector organisations, networks and associations). The UNESCO Commission organises an annual National Week of Education for Sustainable Development and it recognises, by awarding the “DESS” logo (Decade of Education for Sustainable Development), all initiatives that contribute to achieving the objectives of the Decade.

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6.3.1 Environmental education and training offerings

The Agency System, as well as its individual components, has promoted, in recent years, a number of different initiatives meant to raise awareness and provide education on environmental sustainability as part of the Decade, or, at the very least, in keeping with its underlying goals. Initiatives involving environmental education can essentially be grouped in two categories: environmental education projects and specific activities for raising awareness and disseminating environmental information and education, with the term “projects” referring to integrated initiatives that extend over time, while “specific activities” are the other, individual educational initiatives promoted by the Agencies at the request of scholastic institutes or on the occasion of events regarding the topics in question. In the case of the interagency working group CIFE, whose members are the representatives for Communications, Information, Training and Environmental Education

The Junior Conference, organised by APAT, in collaboration with a number of environmental agencies and with the CTS for the Environment, as part of the National Conference on Climate Changes for 2007, has proposed use of a highly interactive methodology (“game simulation”) to

of the Environmental Protection Agencies, and which is coordinated by APAT, the focus has been development of a course addressing some topics of education for sustainable development. The Course – an environmental education workshop started in September 2005 and held in the form of a series of teaching modules organised on each separate occasion by a different ARPA/APPA, is currently nearing conclusion. Another important education initiative that obtained official recognition from UNESCO is the Junior Conference organised by APAT, in collaboration with a number of regional environmental agencies, as well as the CTS Environment, as part of the 2007 National Conference on Climate Changes, an event that proposed the use of a highly interactive methodology (“game simulation”) to introduce and involve young people in gaining an understanding of topics tied to environmental sustainability.

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The projects recorded for 2006 numbered 224, of which 16% are multiyear initiatives and 89% were developed as co-planning efforts. In terms of the target, the percentage of the projects aimed at the adult population has reached approximately 54%. Of particular note is a significant increase in recent years in education activities directed at adult citizens, in keeping with the principles of “life long learning”, meaning learning that extends through every phase of life, by means of different methods and procedures.

Figures for 2006 show that there were 224 environmental education projects.

APAT and the agencies also run training programs designed to develop the skills and know-how of professionals who operate in the field of the environment. In addition to providing an opportunity for the dissemination of technical and scientific knowledge, training initiatives also allow technicians active in different environmental spheres to share their methodologies and instruments of application. Increasing use is made of innovative teaching approaches that offer higher levels of effectiveness, being based primarily on practical applications, as well as theoretical concepts. In a number of cases, the e-learning, mode is used, heightening the flexibility of the training procedure.

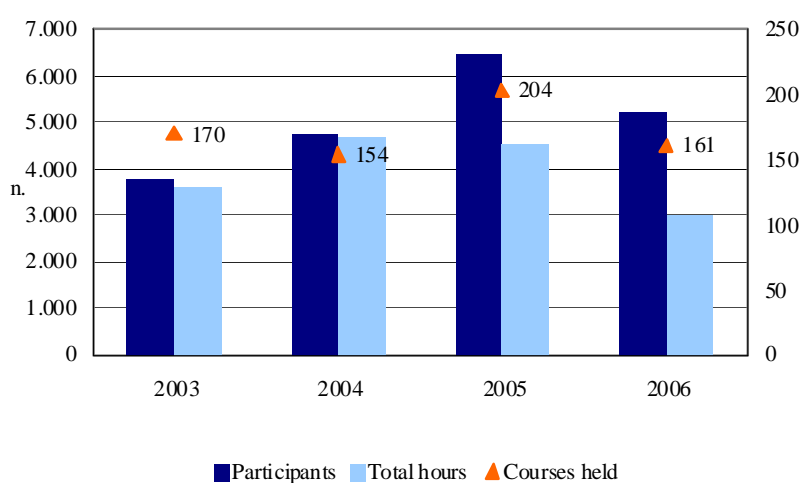
Training initiatives give technicians who operate in different environmental spheres the chance to share methodologies and instruments of application.

Thematic workgroups have organised a number of courses addressing elements of environmental emergencies, such as the “Blossoming of the *Ostreopsis ovata* algae along Italian coasts”, organised in 2007, as well as topics of current interest, with an example being the course promoted in 2005 on “Eco-Compatible Design, Methodologies Instruments for the Innovation and Improvement of Production Cycles”, plus topics pertinent to all sectors, such as the “Workshop Course on Environmental Education in Sustainable Development” described above.

Since 2003, APAT has promoted initiatives of environmental training, some in response to specific requests from the Ministry of the Environment, Land and Sea, aimed at the technicians of the environmental agencies and other public bodies. The courses have

addressed topics involving environmental defence and restoration, new methodologies and instruments for analysing the risk of contaminated sites, techniques of environmental reclamation and clean-up, environmental regulations and instruments for sustainable land management.

To increase the dissemination of technical knowledge on the environment, APAT has published the technical-scientific contents of the courses held on its website for environmental education and training (www.formeducambiente.apat.gov.it).



During the period 2003-2006 the Agency System promoted 689 training initiatives. There were more than 20,000 participants in the courses.

Figure 6.4: Environmental training offerings 2003-2006⁸

Environmental training activities have provided opportunities for contact and exchanges of experiences in the field of environmental protection, at times through initiatives of international cooperation. One such initiative, a cooperation project between APAT and the Egyptian Environmental Affairs Agency (a bilateral agreement between the Italian Ministry of the Environment, Land and Sea and the Egyptian Ministry of State for Environmental Affairs), initiated in 2005 and scheduled for completion in the first six months of 2008, involves the organisation of training workshops for the reinforcement of skills and know-how regarding technical and specialised aspects of environmental protection, as well as the publication of a yearbook of environmental data.

A similar effort has been undertaken as part of the working relationship formally established in 2005 between APAT and the Moroccan Ministry of the Environment, with specific training encounters organised for the development of technical skills meant to improve the management of environmental policies.

⁸ Source: APAT

During the period 2003-2006 (Figure 6.4), 689 training initiatives (for a total of 15,838 hours) were organised by the Agency System, with more than 20,000 participants taking the courses. In the year 2006 more than 160 training initiatives were organised on specific topics involving environmental protection and sustainable development, with more than 5,000 participants attending the courses. An analysis of the statistics shows that the individual agencies promote training activities to varying degrees, based in part on the powers and responsibilities assigned to them under their legislative acts of foundation.

It is important to point out that a number of agencies have obtained regional/provincial accreditation, and/or accreditation from the Ministry of University Affairs and Research, such as the ARPAs of Venetia, Tuscany, the Marches, Latium and Apulia, meaning that they are authorised to issue training credits for the courses held. A number of agencies have obtained certification demonstrating compliance with the UNI EN ISO 9000-9001 standards, while others, such as APAT, have initiated the procedures for entering their environmental training activities in the quality certification process.

6.3.2 Operational performance of the local environmental education network

The participation of the Agencies in the reference network for environmental education in local systems and in educational networks consists primarily of coordination activities (or participation in coordination groups), carried out under an institutional mandate, as part of the regional/provincial educational systems (normally involving the INFEA network and/or the inter-agency group CIFE). Another area of activity where the ARPA/APPAs play a significant role, increasing their contribution over the years, concerns functions of support for the activation and performance of participatory processes of local sustainability (first and foremost local Agenda 21), including tasks of promotion, dissemination of information, raising of public awareness etc..

6.4 Instruments for Improving Environmental Services

The growing awareness that the protection of the environment must necessarily involve all the pertinent subjects, in particular through the activation of new forms of collaboration with the leading market operators (firms and consumers), places increasing importance on improving the environmental quality of companies, organisations and products; the primary reference sources for this objective are the European EMAS and Ecolabel Regulations, together with the international standards of the ISO 14000 series.

Increasing importance has been placed on improving the environmental quality of businesses, organisations and products for the sake of protecting the environment.

EMAS (EC Regulation no. 761/01) and Ecolabel (EC Regulation no. 1980/2000) are representative of the environmental policy initiated by the European Union under the Fifth Action Program (1992-1999). The traditional mechanism of command and control has been supplemented with new instruments of voluntary participation aimed at improving resource management, plus the assumption of direct responsibility for the environment and the promotion of public information with regard to the environmental performance of processes and products.

The first years of application have confirmed the notable value of the above regulations as instruments of environmental prevention and improvement. The key underlying objective of the Sixth Action Program and Integrated Product Policy (IPP) can be considered the development and consolidation of a set of measures which, stressing forms of production that respect the environment, together with ecologically aware consumption, should lead to the creation, over the medium/long period, of a “green market”, as well as activation of the principles of Sustainable Production and Consumption (SPC).

The tangible manifestations of this new approach are:

- the intent, as expressed in the Sixth Action Program of the EU, to increase the dissemination of EMAS and Ecolabel Regulations, to promote Green Procurement, in order to accelerate the growth of the “ecological market”, and to improve business to business and business to consumers environmental information, in part by providing incentives for the formulation of Environmental Product Declarations (EPDs);
- the request for the development in each member state of strategies which, by combining the voluntary instruments available (EMAS, ECOLABEL, Product Declarations, ECO Design etc.) and the legislative measures, put into practice the environmental efficiency” principle;
- the innovations introduced on the occasion of the revision of the EMAS and Ecolabel schemes, and in particular: an approach based more on quantitative than qualitative considerations, in order to focus attention on indicators of environmental performance (EMAS III); the extension of EMAS from the industrial sector to all

activities; the introduction of the indirect environmental impact (EMAS II) concept and the extension of the field of application of Ecolabel from products to services;

- the strategic role assigned to the public sector and to citizens-consumers as subjects capable of developing the “demand for ecology”.

The creation of the “green market” is a commitment that involves:

- companies, which can improve the environmental characteristics of their products and services during the phases of design and operation;
- consumers, who can give preference to ecologically certified offerings and make correct use of what they purchase;
- the Public Administration, which can provide environmentally adequate services, work towards a correct use of the territory, pay close attention to what it consumes, inform citizens and guide their awareness and behaviour, in addition to introducing bonus incentives, promoting research and harmonising development policies.

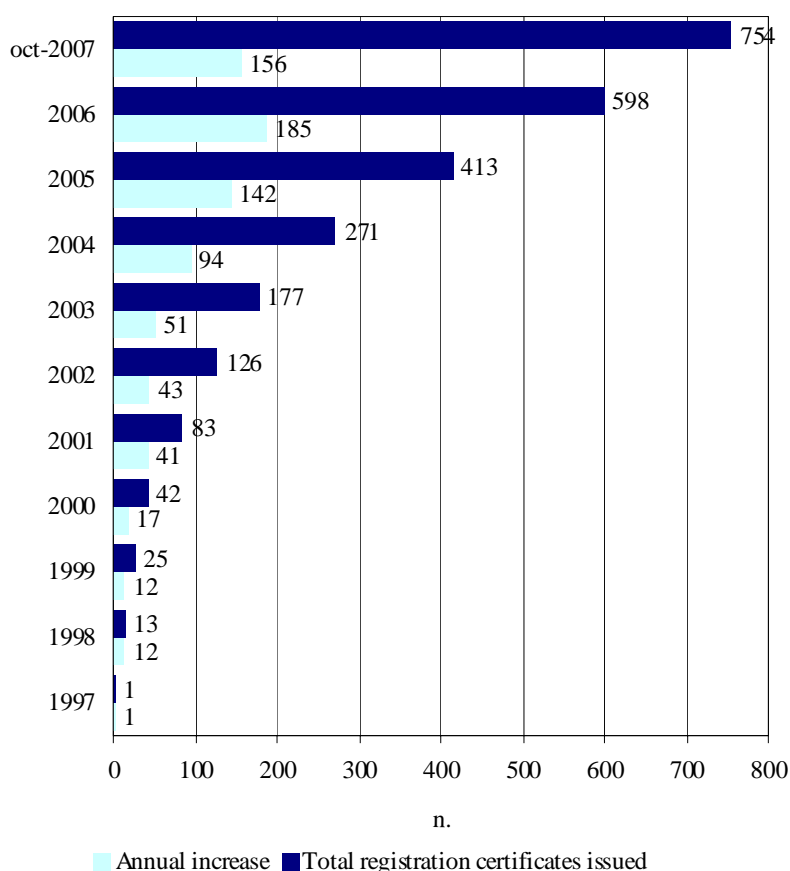
As is specified in the “Green Book” on IPP, “Ecological efficiency is an exercise in leadership”, to be developed with the objective of working towards a new mode of production and consumption. Many instruments are now available (EMAS, Ecolabel, GPP, DAP etc.), and they are technically proven: the way these instruments are combined in their actual application must be the result of strategies formulated on the company level, based on market competitiveness, and within the Public Administration, in terms of decisions and programs regarding development.

To summarize as concisely as possible, the driving factors on which harmonised strategies should be based are:

- attention to economic interests, using taxes/subsidies to internalise external costs, so as to identify the “fair price” (introduction of the principles of “if you pollute, you pay” and of the “responsibility of the producer”);
- development of instruments and incentives to promote a more ecological consumption, through initiatives regarding both demand and information, and through efforts aimed at heightening the awareness of the administrative bodies that manage public tenders;
- interaction with the offerings of ecological products and services, through the introduction of instruments for comparing information, plus encouragement of the transparency and dissemination of data, requesting that the regulatory sector take action to promote eco-compatible planning and design, plus compliance with environmental compatibility.

From 1997 (the year in which EMAS and Ecolabel Regulations became effectively operative in Italy) to the present, the penetration of the two

regulations has grown continuously, showing a significant annual increase (Figures 6.5 and 6.6).



The most virtuous regions, in terms of the number of EMAS registered organisations, are: Emilia Romagna, Tuscany, Lombardy, Piedmont and Venetia, with Campania holding sixth place, demonstrating a certain amount of attention on the part of Southern Italian regions. The lack of uniformity in development throughout the territory reflects the different levels of local awareness and/or incentives.

Figure 6.5: Number of EMAS registration certificates issued in Italy over time⁹

In Europe, Italy ranks third in terms of EMAS, coming after Germany, while Spain ranks first, followed by France and Denmark, in terms of Ecolabel. The most virtuous regions (Central/Northern Italy), in terms of the number of EMAS registered organisations, are: Emilia Romagna, Tuscany, Lombardy, Piedmont and Venetia, while Campania holds sixth place, showing a certain amount of attention on the part of Southern Italy. The largest number of Ecolabel licenses is registered in Trent Alto Adige, followed by Tuscany, Emilia Romagna, Piedmont and Lombardy.

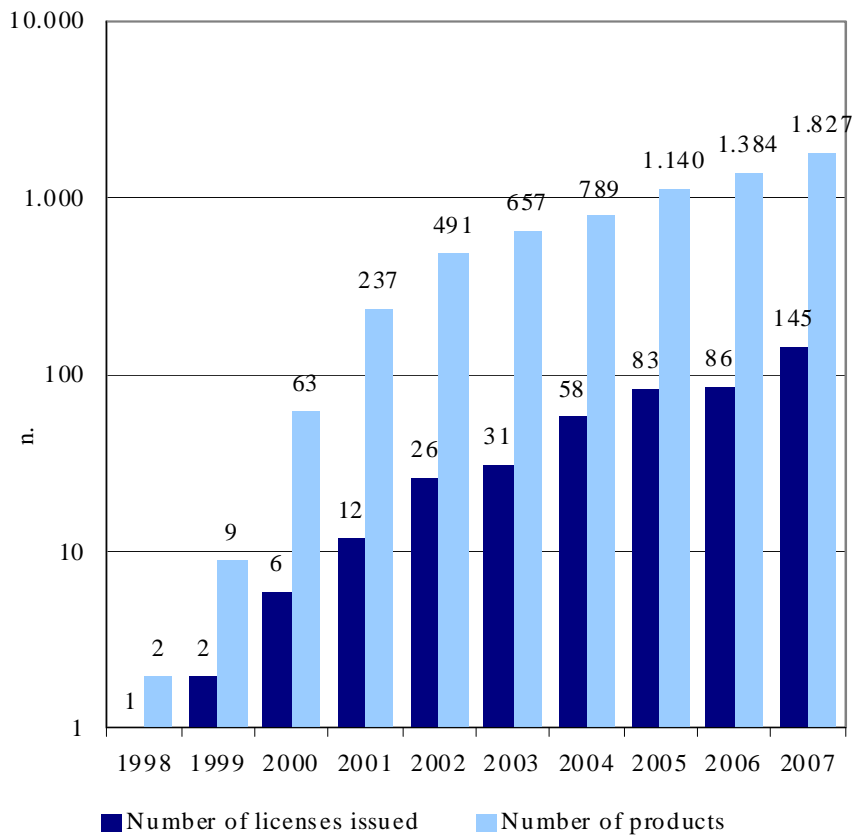
The increase in EMAS and Ecolabel has been favoured by, among other factors, the development of professional skills and know-how through attendance at local EMAS and Ecolabel schools, whose objective is to provide basic training to professional figures qualified to assist the organisations (EMAS environmental auditors and consultants and Ecolabel consultants), in addition to establishing, in agreement with the academic world, specific masters programs for advanced instruction.

⁹ Source: APAT

Still, this growth, though it places Italy among the European leaders, is not yet structural in nature, with development being inconsistent through the national territory, as a result of levels of awareness and/or incentives that differ from one region to the next, or among the various local government bodies, production sectors, professional associations etc.. Despite the good intentions regarding EMAS shown by the provisions of art. 18 of Law 93 of 23 March 2001 (though without the support, it should be said, of subsequent measures of application), as well as the new Unified Act on the Environment (Legislative Decree 152/2006), an effective and incisive sponsorship of voluntary instruments by the pertinent administrative bodies and the interested parties is still lacking.

In the case of EMAS, the crucial problems would appear to be:

- the lack of systematic involvement of the interested parties in the formulation of strategies designed to integrate environmental needs and competitiveness on the market, as well as the lack of development of incentive proposals for subjects that participate in the procedure;
- the large number of public entities involved in the procedures of authorisation and control, plus the scarce propensity to place priority on policies of prevention;
- the continued shortage of adequate professional skills and know-how within the territory.



Between 1998 and 2007, a total of 145 Ecolabel licenses were issued, making for 1,827 products/services labelled. The trend was positive for both licenses and products/services. Last year, the largest increase was registered in the tourism accommodation sector.

Figure 6.6 : Number of Ecolabel licenses and products/services in Italy over time¹⁰

As for Ecolabel certification, the fact that environmental criteria have been included in the calls to tender of the Public Administration, and that companies whose products are certified have been awarded points, has led to a significant increase in the interest shown by business enterprises in this instrument. A concrete demonstration of this interest is provided by the increase in certified products and licenses in a number of product groups such as detergents, textiles and paper. Nevertheless, the largest increase during the last year occurred in the tourism accommodation sector, where a far-reaching promotional effort throughout the territory, plus incentives offered by a number local public administrations, have stimulated the demand for participation in the EU Ecolabel scheme, increasing the number of licenses more than three-fold.

It should be noted, however, that even though more than 1,800 certified products, goods and services are available on the Italian market, knowledge of the Ecolabel scheme on the part of the general public, as well as awareness of the EMAS logo, continues to be scarce, still falling below levels able to move the market in the direction of “green market”

¹⁰ Source: APAT

status.

