

INTRODUCING AND DEVELOPING ENVIRONMENTAL REPORTING IN THE LAZIO REGION BETWEEN NATIONAL GUIDELINES AND PILOT EXPERIENCES OF LOCAL GOVERNMENTS IN ITALY.

AUTHORS¹ : Noemi Rossi, Raffaele Trequattrini

ABSTRACT

The need to support traditional annual financial balance sheets with an environmental report is a relevant priority for public institutions, which need to explain and communicate the use of public resources to their citizens through the processes of governance, above all under the perspective of sustainable development.

Currently environmental reports are still not widespread (there have been approximately 20 experiences in Italy), yet a lot of social reporting experiences have taken place in regions, provinces and municipalities (currently over 150 at national level).

There are different methods for environmental accounting, which can be distinguished as physical environmental accounting methods, monetary environmental accounting methods and integrated environmental accounting methods (physical and monetary).

In recent years, APAT, the Italian Agency for Environmental Protection and Technical Services (now ISPRA), which coordinates a network of 20 regional environmental agencies, began a process of harmonization of environmental reporting methods at a local level, by analyzing the implemented experiences. This process led to the formulation of the "Guidelines for the preparation of reports on the state of environment at a local level".

This work examines the experimental application of the methodological guidelines proposed by APAT for defining a model of integrated environmental reporting in the Lazio Region.

KEY WORDS: *accountability; sustainability; social report/statement; environmental report; physical, monetary and integrated environmental accounting.*

1 Introduction

In Italy many public administrations have implemented experimental new forms of accountability in recent years (in particular municipalities, provinces, regions, health departments, chambers of commerce and universities). Thanks to this, public organizations “account for” their actions by building a relationship of trust and ongoing dialogue with the various stakeholders involved.

Environmental reporting may be considered as one form of the social accountability process. Even though it is circumscribed in a specific area sector, its objective is to make the public administration socially responsible for the quality of the environment.

The growing need to manage environmental problems (which are increasingly more complex and frequently conflicting) and to redirect collective interest towards objectives that improve the quality of the environment and life, should lead public organizations to equip themselves with tools that are able to provide adequate accounting of the costs and environmental benefits of their actions and increase the levels of transparency externally.

Research conducted at a national level in Italy on the many experiences of accountability implemented in Regions, Provinces and Municipalities highlights that the diffusion of environmental reports is limited (around 20 at a national level, mostly experienced by local governments, CERIECA, 2007) as are other types of accountability documents different from social statements, such as gender budgets, participatory budgets and sustainability reports.

In this context, this paper proposes to determine whether those guidelines for producing an environmental report developed for local governments (municipalities and provinces), organizations which provide direct services to the community, and which have until now shown interest in producing environmental report, can be applied to Regions, organizations which, on the contrary, formulate and implement policies and which are timidly moving toward introducing tools of accountability.

To attempt to answer this question, we have chosen the following logical path: we began with the recognition of models and methods of environmental reporting disseminated at the national and international level so as to focus on the analysis of the EMBA Guidelines proposed by APAT (the Italian Agency for Environmental Protection and Technical Services), and have proceeded to the experimental application of the guidelines to the case of a Regional Government such as the Region of Lazio.

We used a research method (Thietart, 2001) based on a case study analysis (Yin, 1984). We conducted interviews to regional political decision makers and public servants and analyzed official documents; moreover the authors were directly involved in the project of implementing social reporting in Lazio region, started in 2007.

Before getting through the analysis of the case study, we first discuss some of the theoretical background of environmental accounting and reporting in public sector. We also sketch briefly on some issues of the stakeholder theory.

Finally, in the conclusions, we discuss and assess the impact of variables and factors that are considered to influence the outcomes of any pilot project for introducing environmental accounting and reporting in Regional Governments and public institutions in Italy.

2 Environmental reporting in public sector

Social responsibility is a very current theme in the private sector that has been introduced into the Italian public administration system in past years. In the public sector, social responsibility is strictly connected to the institutional mission of each single administration, which is called to generate positive effects for the local community by its actions.

The primary tool for accountability that has been widely diffused in recent years is the social report or statement, which many public administrations have adopted voluntarily.

The social report is a tool that the administration can use to clearly demonstrate decisions that were made, actions that were taken, resources that were used and the results that were reached in terms of public value created (Moore, 1995) and impact on communities. This allows the various stakeholders to formulate opinions and evaluate the activities undertaken by the administration, and its reliability.

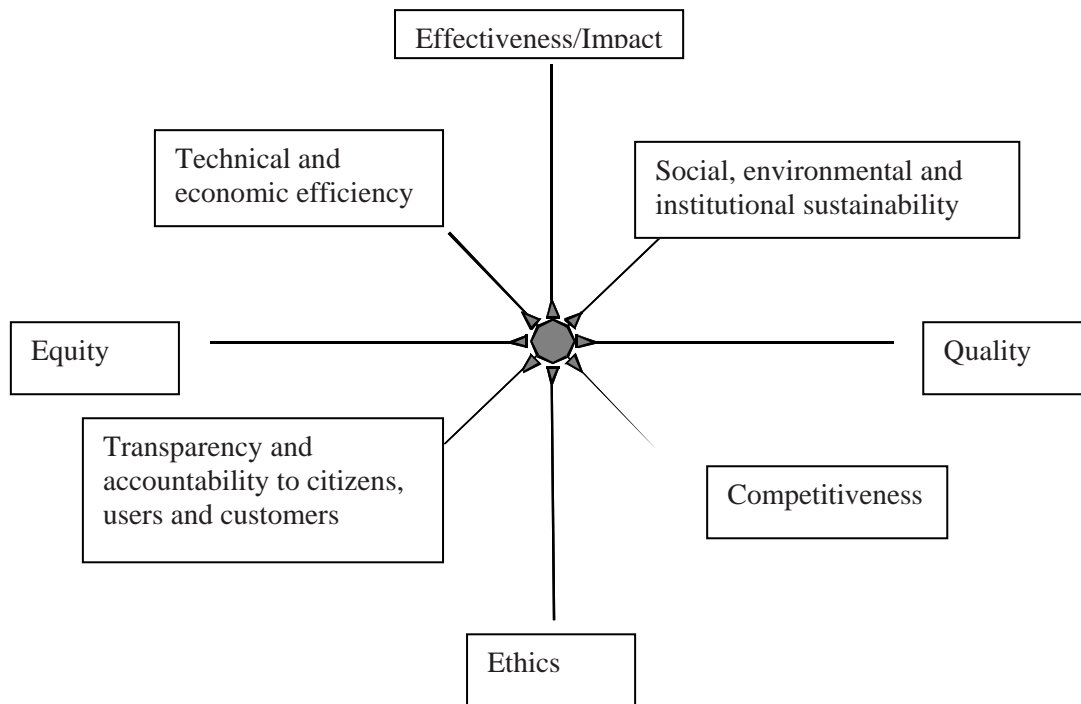
In this light, social reports should try to supply the most complete view possible of the public administrations' different performance areas and results (Hinna, 2004; Tanese, 2004; Lattanzio e associati, 2004; Formez, 2005).

One characteristic of the accountability process is its dynamicity, since it is used by decision-makers to evaluate actions, interventions and policies as well as plans and programs (which means that it is able to modify future strategies). It is also an assessment tool that is available to stakeholders.

There is a direct relationship between performance evaluation and affirming and consolidating accountability necessities in the policies and activities implemented by Public Administration for citizens, civil society, private companies and non profit institutions (Formez, 2005; Guarini, 2003).

The areas of the Public Administration's performance evaluation based on the traditional 3E model (efficient, effective and economic) were integrated into a multi-dimensional evaluation model of the results (GRI, 2005; CIPFA 2004; GBS, 2005). This model contains themes of equity (which are particularly important to groups of external users and stakeholders with weak contracting capacity) including contributing to competitiveness, respecting ethics, improving quality, the economic, social and environmental sustainability of the various intervention policies enacted by the public administrations, presented in a multidimensional evaluation perspective, like the one illustrated in the following figure.

Multidimensional evaluation of public administration performance



Taken from “Misurare per decidere”, a publication published by the Department of Public Function, Presidency of the Council of Ministers, 2007

While introducing social or environmental reporting systems, it's important to dedicate attention to the activities of stakeholders mapping and stakeholders involvement/engagement. Universities, research centers and professionals studied the conditions of applicability to public administrations of the stakeholder theory, developed for the enterprises in the years 70.

Special attention has been dedicated to the identification of the relevant stakeholders for public administrations, by adapting the management scholars' definition to the public sector (Freeman, 1984: “*Any group or individual who can affect or is affected by the achievement of the organization's objectives*”).

Citizens, other public administrations, families, private firms, non profit and voluntary associations, financial institutions, media, environmental groups can be considered relevant categories of stakeholders in social and environmental reporting.

In the last years public managers and professional paid increasing attention to institutional and public communication, to the satisfaction of key stakeholders and to the introduction of specific tools of stakeholders management

Environmental accounting was developed from experiences with social reports and therefore, from public and private organizations' increasing need to fine tune accountability systems; not only economic-financial ones, but social and environmental ones as well, in order to quantify the overall impact of their activities

on civil society, the environment and territory (Odum, 1996; Gray Owen Adams 1996).

The structure of environmental accountability is represented by a system of accountability that integrates with the governance processes. The aim is to reform governance, by internalizing the environmental variable in the public decision-making process.

Environmental report is intended as a document diffused to the public and drawn up periodically with which the administration describes its primary environmental issues, its strategic approach, its planning and environmental management organization, as well as the actions that have been carried out for environmental protection.

In the environmental report the public institution documents its own environmental impact and the related financial aspects with statistical data and indicators.

Beyond serving as a tool for communicating with the various stakeholders involved, environmental reporting represents a fundamental element for the strategic management of the “environmental” variable within the Institution’s planning process. (Van Dieren, 1995).

Adopting a document for environmental accountability allows the Institution to monitor the efficiency and effectiveness of the policies implemented and to redefine objectives and priorities based on the stakeholders’ varying needs.

That document must be developed with a strategy for managing the environmental assets, and therefore with tools for programming and control.

The information system for controlling the environmental variable and the balance sheet must go beyond exclusively financial parameters regarding cost control and move towards strategic programming, listing all of the interventions that will be carried out at the start of each political term, as “capital to be invested” for managing environmental resources.

3 A general overview of international environmental reporting models and an analysis of the Italian national guidelines

As previously stated, a small yet important number of local administrations (Provinces and Municipalities) have measured themselves on the basis of environmental reporting.

The experiences included the public administrations’ “best practices” (used in Italy as a reference at a national level in the field of environmental reporting) and public administrations that decided to integrate social accountability interventions with environmental reporting.

Those initiatives and experimental projects developed in the field of environmental certification (the ISO 14000 municipalities) and in the field of sustainability reporting

(such as those implemented in the Autonomous Province of Bolzano) may supply a useful reference for in-depth benchmarking and comparison.

In all of the experiences analyzed, the same “core” is found in the document structure and the content. It is an accountability system that is made up of the defining environmental policies, accounting systems and environmental reporting.

The moment that environmental policies are defined is the moment that the institution assumes responsibility for an environmental issue by determining aims and objectives. It involves specifying all of the actions that have an effect on the environment (those already undertaken by the institution and those to be undertaken in the future).

While defining the accounting system, the parameters for measuring and evaluating the impact of the public policies, are chosen (CLEAR, 2003). The accounting system is designed as a list of indicators that are strictly connected to the different policies (not only environmental ones, but also those related to energy, urban planning, transportation and more).

The different methods for environmental accounting may be categorized as physical, monetary and integrated (physical-monetary).

TYPE	METHOD
ENVIRONMENTAL MONETARY ACCOUNTING	SERIEE – EPEA
	Economic value: tangible components
	Economic value: intangible components
PHYSICAL ENVIRONMENTAL ACCOUNTING	DPSIR Indicators
	ECI Indicators
	Ecological footprint
	EcoBudget
	Materials Flow Analysis (MFA)
INTEGRATED ENVIRONMENTAL ACCOUNTING	NAMEA
	CLEAR
RESEARCH AND EXPERIMENTATION	EMBA Guidelines
	RAMEA
	ANTEO Research
ACCOUNTABILITY STANDARD	GRI
	GBS

Chart by ARPA (Regional Agency for Environmental Prevention) in Emilia-Romagna, National coordination of the Local Agenda 21 Association and the University of Bologna

Reporting is the moment when environmental policies and their effects are evaluated, approved and communicated.

Through the analysis of the financial documents, which is carried out by re-classifying the environmental-related costs, it is possible to identify and reorder (according to the different areas) the program objectives that the administration carried out by deciding to allocate resources.

Reclassifying all of the cost items of environmental value highlights the connection between resources allocated and the goals of allocation.

The document is made up of an organized system of environmental accounts (both physical and monetary) that are related to the policies and tasks of public institutions. It is created in order to allow for comparison with the strategic plans, medium term programs and balance sheet documents as well as to evaluate the environmental impact of sector, social and development policies that have been and will be implemented by the institution.

The objective is to create a set of eco-efficiency indicators, divided according to accountability areas so as to compare the environmental variables and the economic variables.

Through comparison with the physical indicators, it is possible to evaluate if the resource allocation is coherent with the needs and issues expressed by the local community. With eco-efficiency (and possibly eco-effectiveness) indicators, it is possible to evaluate long-term efficiency (and effectiveness) of policies and to improve institution responsiveness.

Over the past years, APAT (the Italian national agency for environmental protection), launched a survey of the methods in use for environmental reporting which brought about the elaboration of “guidelines for drawing up reports on the status of the environment at a national level.”

These are the EMBA (Elaborazione di Modelli di Bilancio Ambientale - Elaborating Environmental Report Models) guidelines, which are defined by a technical chart that includes all of the Italian environmental agencies at a regional level.

The process is made up of three phases:

- defining the procedure for formulating the environmental report;
- preparing the environmental report;
- presenting the environmental annual budget.

While defining the procedure for formulating the environmental report, it is necessary to clearly identify who it is aimed at through a detailed mapping of the internal and external stakeholders. The motivations that led to the environmental report (scoping the accountability) must be identified and the availability of financial resources must be verified.

When preparing the environmental report, it is necessary to monitor the indicators, control information quality, draw up the final version of the document, approve it and communicate it externally.

Finally, presenting the environmental annual budget requires revising the quantitative budget objectives, identifying feasible targets connected to concrete advantages for sustainable development, drawing up and approving the document and communicating it.

The originality of the proposed approach should be underlined. It modifies the traditional budgeting process in public administrations, which begins by formulating the preliminary annual budget (ex ante phase), then it continues with budget

management and ends with drawing up and approving the final balance sheet (ex post phase).

With reference to the first point, organization of the environmental budgeting and reporting process is reported in the chart below, which has been provided by APAT.

The final goal to achieve is verifying the consistency among environmental policy objectives, financial figures (forecast and final), management and physical result indicators. The most delicate and strategic phase in the process of defining an environmental accountability model is the creation of suitable performance indicators for each strategic objective.

The use of integrated indicators that are able to compare economic and financial variables with environmental performance help in evaluating eco-efficiency and the effectiveness of environmental spending and, as a result, the managerial capability of public managers as well.

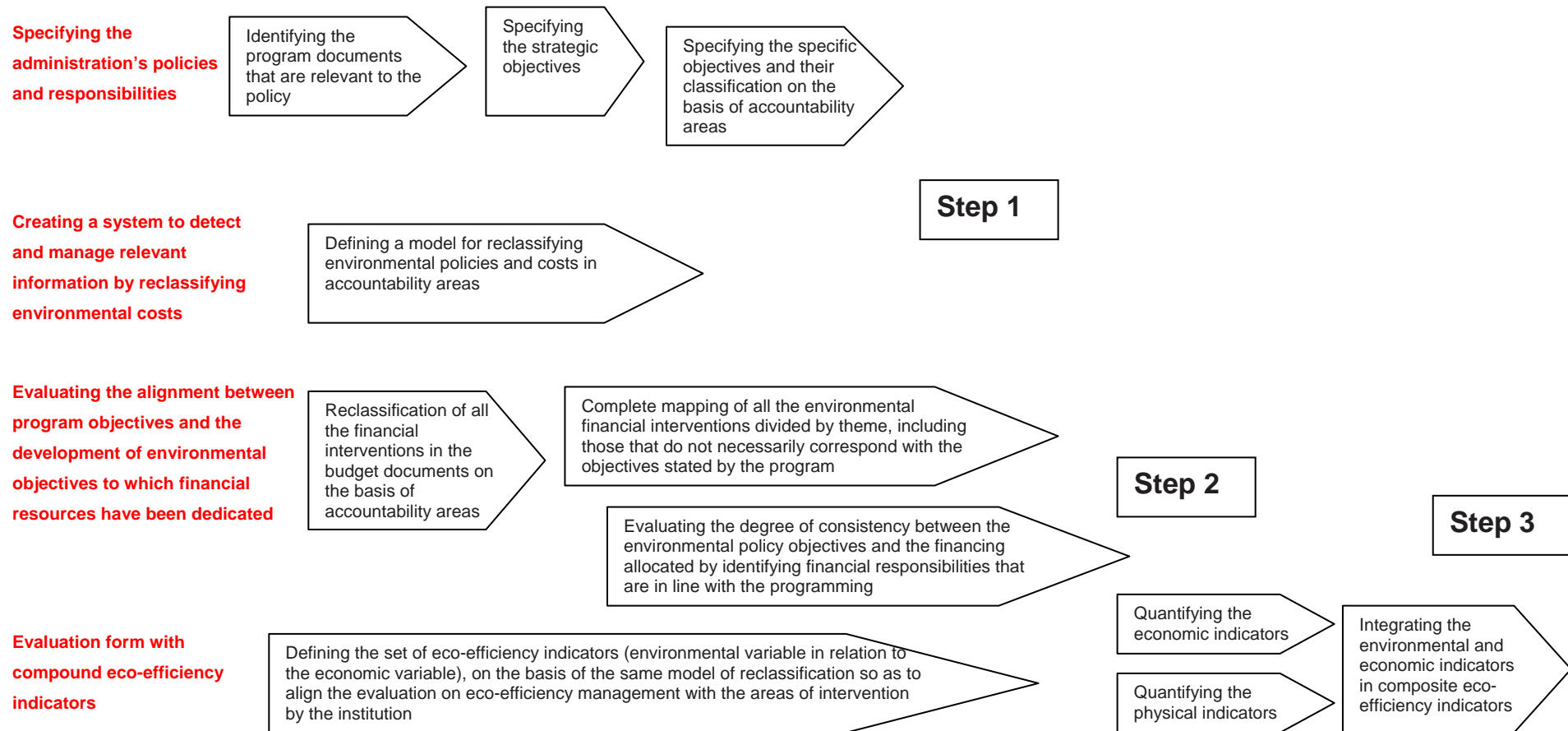
The final objective is to have indicators that demonstrate the evolving use of natural resources and the environmental impact produced by the public administration's interventions over time.

After the Institution's environmental policies and the specific program interventions have been defined, the performance analysis chart may be prepared by taking into account both economic management results as well as physical environmental impact results.

This requires highlighting how the analysis is influenced by certain factors, such as:

- the institution's ability to define clear and specific objectives that can be measured at a later date;
- defining those objectives within the strategic plan;
- the lapse in time that may pass between defining and achieving the objective;
- any possible incongruence of the cost item content.

PHASES OF THE PROCESS FOR DRAWING UP THE ENVIRONMENTAL REPORT



Step1: Reclassifying the environmental costs contained in the financial statements

Step2: Evaluating the alignment between environmental policy objectives and financial allocations

Step3: Integrating the environmental and economic indicators in composite eco-efficiency indicators

In the last years in Italy there have been significant contributions (Catalfo, 2007-2008; Cerieca, 2006-2007) in developing the Environmental report model for Public Administrations moving from the results of pilot projects of environmental reports in some Italian municipalities.

From that research and experimental application, there arose a need to reconsider the idea of the environmental report from the perspective of environmental performance accountability, considering it as an idea which includes managing governance, planning and monitoring processes together with the management of local institutions' environmental assets. Then it becomes necessary to correlate financial-management input with environmental output to be able to reach a vision of costs that includes not only the financial situation, but also the strategic perspective on investment and management.

According to that model, measuring performance is aimed at analyzing the management capacity of the local institution through the creation of a management efficiency indicator (IEG - indicatore di efficienza gestionale - managerial efficiency indicator). The indicator compares the spending allocated by formal decision to the sum actually paid, which allows for evaluating:

- the efficiency of the local institution's environmental policy programming activities;
- the efficiency of financial management processes.

Physical performance may be measured and calculated by creating an impact indicator (see chart below). The measurement of that indicator can have critical issues tied to the availability of data banks, which are absolute necessary for establishing it.

Efficiency indicators

TYPE OF INDICATOR	PURPOSE	EXAMPLE
Pressure agent removed/Financial resources	Indicates intervention productivity in terms of reducing environmental pressures	Waste incinerated/Investment
Pressure agent removed /Physical dimension of the intervention	Indicates intervention productivity in terms of reducing environmental pressures	Tons of waste treated/Surface area occupied Surface area reduction. Eroded coast/meters of barrier
Pressure agent removed / Pressure agent generated	Indicates intervention productivity in terms of reducing environmental pressures per unit of pressure agent generated that impacts a different environmental theme	Decrease in eroding channel/ increase in length of eroded coast tons of waste treated/tons of biogas produced
Environmental improvement achieved/Financial resources	Indicates investment productivity in terms of improvement in associated environmental quality	Reduction N levels/Investment Decrease in frequency of disruptive hydro-geological occurrences/Investment

Effectiveness indicators

TYPE OF INDICATOR	PURPOSE	EXAMPLE
Removal achieved/removal objective	Indicates the intervention's effectiveness in achieving the established removal objectives	Tons of waste incinerated/tons of waste to incinerate
Costs sustained/cost objective	Indicates the intervention's effectiveness in achieving the established cost objectives	Intervention costs/cost allocation for the intervention
Physical dimension/objective	Indicates the intervention's effectiveness in reaching completion in physical terms according to what is established in the objectives	Surface area repaired/ Surface area to repair Length of waterways with embankments /Length of waterways requiring embankments

At the end of the process, the integrated performance evaluation is reached (rating/scoring). This consists in a summarized combination of the previous results. It must be specified that in the case in which one is able to complete steps 1 and 2 thanks to availability of information, an intermediate level may be used (defined as step 1.5) in which “effort indicators” or “expected impact indicators” may be identified.

The following chart represents the format for gathering and reporting information when applying the theoretical model of environmental accountability proposed by Cerieca (Centro Ricerche Economia Aziendale di Catania – *Economics and management research center of Catania*).

STRATEGIC OBJECTIVE	ENVIRONMENTAL MANAGEMENT ACCOUNTING		RATING/SCORING			
	MANAGEMENT INDICATOR	PHYSICAL INDICATOR	OVERALL RATING		OVERALL RATING	
			COMBINED EVALUATION		IN BRIEF	
	IEG - management efficiency indicator	TREND%	MANAGEMENT EFFICIENCY	ENVIRONMENTAL TREND	MANAGEMENT EFFICIENCY	ENVIRONMENTAL TREND

4 A pilot project of environmental reporting in the Lazio Region

The formulation and creation of environmental reports in the public administration is currently missing important stakeholders - the Regions. The Regions of Veneto², Lombardy and Lazio have already begun moving locally for accountability and social reporting. Lazio in particular has launched an ambitious and interesting project, to introduce integrated accountability tools, which is being implemented to varying degrees. Up to now, accountability initiatives of this kind have included the presentation of a first social report relating to the 2007 fiscal year and the launch of work groups of sensitization on the theme of gender budgeting through informal events and training intervention.

Environmental reporting is currently considered at a design level with respect to a system for physical environmental accounting and a programming document for environmental sustainability (DOSAPE, Document for environmental sustainability of economic planning - *Documento di sostenibilità ambientale della Programmazione Economica*) that have already been implemented.

Due to the lack of regulatory restrictions regarding accountability and social reporting, the Lazio Region should try to align to EC standards to be able to have an environmental reporting system that clearly states the direct or indirect impact of the environmental strategies adopted³.

Identifying which environmental policies have been created, defined and set down as formal program documents by the Institution is the starting point for launching the process of experimental implementation of environmental reporting.

For the purpose of this study, the Lazio Region's environmental policy strategies and program outlines were identified for the 2007 fiscal year.

The strategic outlines were identified by beginning with the Lazio Region's long-term objectives for 2007/2009. These objectives are supposed to be carried out with a series of programs and interventions that will be defined yearly.

The strategic objectives identified include:

- improving the integrated regional water system;
- preserving the natural patrimony (protected areas and forests);
- improving environmental quality (air, water and territory) and sustainable development;
- defending the territory;
- saving energy

The short term results that the Region should achieve can be traced back to the decision to improve and increase the environmental regulatory framework, finishing planning tools for the sector and optimizing the financial programming instruments.

One of the main objectives is to introduce sustainability and eco-compatibility criteria in diffused regional policy (not just environmental ones, but economic-social and infrastructural ones as well) including Agenda 21 programs.

Identification of the impact indicators began directly in the strategic intervention areas.

After having identified the strategic macro objectives the impact indicators were associated with the environmental programs, interventions and specific program actions dictated by the administration, according to the chart listed below:

<i>Strategic objective</i>	<i>Specific objective</i>
<i>“Improving the integrated regional water system”</i>	<ul style="list-style-type: none"> - <i>Managing hydro-geological and hydraulic risk</i>
<i>“Preserving the natural patrimony”</i>	<ul style="list-style-type: none"> - <i>Management of parks and nature reserves</i> - <i>Nature conservation</i> - <i>Forest conservation</i> - <i>Environmental monitoring</i>
<i>“Improving environment quality and sustainable development”</i>	<ul style="list-style-type: none"> - <i>Regional inventory listing sources of green house gasses</i> - <i>Kyoto help desk</i> - <i>Combating atmospheric pollutants and climate altering gasses</i> - <i>CO2 absorption</i> - <i>Green Public Procurement (GPP)</i> - <i>Certification instruments</i>
<i>“Defending the territory”</i>	<ul style="list-style-type: none"> - <i>Developing territorial surveillance and maintenance activities</i>
<i>“Saving energy”</i>	<ul style="list-style-type: none"> - <i>Developing renewable energy resources</i> - <i>Developing energy saving policies</i> - <i>Developing policies to reduce emissions</i> - <i>Developing policies for safety and differentiation of supply sources</i> - <i>Completing methane distribution in Lazio</i>

The process of initiating environmental reporting starts by identifying the specific nature of the investments made, according to an examination of where the resources were allocated. In this sense, financial resources allocated in the regional budget for strategic macro-objectives and interventions were reclassified.

The environmental report is aimed to highlight the environmental costs in relation to the strategic areas/objectives that have been identified. The difficulty in this phase is connected with tracing the allocated resources back to the program objectives. Though it was fairly easy to trace the allocated resources or strategic macro-objectives that had been budgeted, reaching a clear relationship between the resources and the specific interventions was not so simple.

When identifying accounting costs, functional reclassification of costs or budget analysis is the proposed technique. All of the financial expenditures for the final balance sheet 2007 are analyzed to identify the costs deriving from interventions that were related to the Lazio region's environmental policy.

A cost analysis is carried out on each strategic objective in an attempt to divide the relative responsibilities and payments for the purpose of evaluating the existing correlation between environmental costs and achieving the objective, whenever this is possible.

Identifying the costs to create the indicators

STRATEGIC OBJECTIVE	SPECIFIC OBJECTIVE	ALLOCATION	RESPONSIBILITY/PAYMENT	VAR. SUMS PAID	SUGGESTED INDICATOR
Improving the integrate regional water system					
Preserving the natural patrimony					
Improving environment quality and sustainable development					
Defending the territory					
Saving energy					

Strategic objective	Indicators
<p align="center"><i>“Improving the integrated regional water system”</i></p>	<ul style="list-style-type: none"> -Length of water lines -Inhabitants served by water lines -Total water consumed for civil use -Average consumption of drinking water per person for all uses -Surface water used to produce drinking water -Quality of water for distribution -Leaks in drinking water distribution lines -Average sale price of drinking water -Number of inhabitants/users with sewer main hook-up -Length of the sewer -Number of depurators for civil use -Number of days the depurators function -Increase in the population served by the depuration facilities and sewers that were financed -Number of inhabitants (people served by the depuration and sewer systems that were financed)
<p align="center"><i>“Preserving the natural patrimony”</i></p>	<ul style="list-style-type: none"> -Number of natural protected areas established/year -Greenery surface area/Number of inhabitants -Trails and paths for walking and biking -Forest surface area consumed by fire/total forest area -% of regional surface area dedicated to nature areas/number of inhabitants -Number of policies for landscape conservation/number of interventions -Number of allocations to adopt technologies that respect the environment/number of total allocations -Waste water treated and reused/total waste water treated -Number of multi-year park development plans - % of increase in surface areas subject to forest management -Monitoring endangered species -Availability of nature areas for inhabitants -Surface area occupied by protected areas -Square meters of public parks -Urban waste subject to differentiated collection/total urban waste -Deforestation area/total forest area -Number of inhabitants reached by initiatives for historic or cultural itineraries organized in protected nature areas -Number of itineraries identified -% surface area subject to forest management -% protected areas (protected areas which have structural type projects) -% of planned surface area increase (increase in the surface area subject to forest management) -% community interest habitat (SIC - Sites of Community Importance and ZPS - Special Protected Areas) which are subject to intervention. -Financing allocated for accepted requests
<p align="center"><i>“Improving environment quality and sustainable development”</i></p>	<ul style="list-style-type: none"> -% atmospheric emissions from differentiated urban waste collected/total urban waste -Number of mobile pollution detection centers activated -Number of recharging poles for electric vehicles -Industrial waste sent to dedicated treatment and disposal facilities/total of industrial waste produced -Number of registered vehicles fed by fuels with lower environmental impact (LPG, methane, electric) -Number of days of traffic block -% of public transit with low emissions -Acoustic emissions -% areas improved/ total areas -Survey of the sources of water pollution -Acquiring available data and surveys -Number of inhabitants that use the information, training and educational programs for environmental sustainability -Level of climate altering gasses in the regional territory -CO2 Emissions -% of compliant power units (improving the regional air quality network) -% of the regional territory that is zoned (promoting acoustic classification of the municipal territory)

	-Number of inhabitants (people that use the programs for environmental education)
<i>“Defending the territory”</i>	-Km of coastline considered unfit for swimming/Km total Km of coast -Areas with danger of seismic or hydro-geological occurrences -Number of natural disaster episodes -Areas at risk that are subject to improvement projects/total areas at risk -Coastal areas subject to erosion (total and % of erosion) -% of improved areas/total areas at risk - Areas with danger of seismic or hydro-geological occurrences
<i>“Saving Energy”</i>	-Number of projects/number of initiatives undertaken -Reduction in CO2 emissions -% of energy produced by renewable resources -% of energy produced by waste -Number of interventions which may be considered for energy and material savings -Type of heating in the homes -Reduction in CO2 emissions -% of reduction in family energy consumption -% of reduction (reduction of family energy consumption)

5 Conclusions

The reflections that come from evaluating the process and results of the experimental application of an environmental reporting process in the Lazio Region lead to the conclusion that the model proposed by APAT can be applied both to municipal and provincial as well as regional public administrations.

This experimental procedure applied in the Lazio Region, which is connected to the system of indicators for evaluating performance and based on a preliminary mapping of the stakeholders and on a later identification of the objectives, implemental strategies and action programs, may serve as a reference model or a benchmark for other experiences to be developed in the regions, local administrations and regional agencies.

The results of this pilot project can be a basis in order to build a research that can be useful not only to describe the evolution of standards and their practical application, but also to reflect about applying environmental accounting and reporting to public institutions. They can offer important indications to two groups of stakeholders. The first group consists of public management researchers who are studying the theme of accountability and social reporting and the development of innovative forms of social responsibility and the second are professionals, managers and directors working within the administrations and public agencies.

The relationship between environmental reports, advanced forms of social responsibility and sustainability reports represents an important and qualifying area

of research in the field of corporate social responsibility. A challenge for public management researchers would be connecting the reflections on business-government relationships to these themes. As is well known, this theme continues to increase in importance in national and international research networks for management and business administration due to the direct impact it has on development (and success) conditions, on the strategies of corporate governance and on the performance of the companies themselves.

It could be asked what opportunities there are for the decision makers (politicians and technical-administrative personnel) and for the directors and internal managers in the public administration in reference to these new tools of accountability. An important answer may be found in the support offered to the implementation and enhancement of the strategic and managerial control process, on one side, and to the introduction of new tools of policy evaluation, like public review, for instance, on the other.

The process of experimenting with environmental reporting in the Lazio Region may also lead to the introduction of sustainability reports in that same administration in the future, which is an extremely relevant issue that involves both the public and the private sector⁴.

Public institutions and private firms show similarities and differences in the processes of introduction and implementation of social, environmental and sustainability reports. The elements of convergence will enable an interesting cross-fertilization between the two sectors.

Common issues are the integration between the different typologies of data, the structure of the documents and the focus on impacts, while significant peculiarities are related to the different external pressures from key stakeholders and the relationship between social/environmental reporting and strategic planning, which distinguishes public organizations.

In any case, the success of initiatives of this type in public sectors depend on certain critical variables which need to be considered:

First of all, with regard to time-consuming projects requiring a link with internal information processes and systems as well as the active involvement of the personnel, it is appropriate to make a cost-benefit analysis, which allows us to carry out an evaluation of the advantages in implementing the initiative itself.

Furthermore, it must be stressed that effectiveness in implementing any public accountability tool is guaranteed by the introduction of a real cultural change, which includes:

- activation of a continuous learning process within the organization;
- integration with strategic and managerial control systems in order to create synergies in the information processes inside and outside the Regional government;

- introduction of other accountability tools, like social reports, on the one hand, and policy evaluation and public review tools on the other;
- benchmarking with other public administrations

Attention to these aspects on part of stakeholders inside the Regional Body, on the one hand, and the need to conduct further research and experimentation in specific standards for the Regions involving the scientific community on the other hand, undoubtedly constitute critical variables in success of the accountability and environmental reporting processes in regional public administration.

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1 Although the work is the result of both authors, the paragraph 1 has been developed by Raffaele Trequattrini and the paragraphs 2, 3, 4 and 5 by Noemi Rossi.

2 On this subject please see the Veneto Region's "Verso il Bilancio Sociale." Veneto Region, 2003;"Continua l'impegno verso il Bilancio Sociale," Veneto Region, 2004.

3 Pre-formulating an environmental report responds to recent indications on social responsibility integrated with economic and environmental areas, which are contained in the current considerations stated in the introduction of ISO 26000 certification.

4 There are already some interesting sustainability report applications at a European level. Among these we make reference to the experience of sustainability reports of the European soccer championships in 2008 and to the those of the Autonomous Province of Bolzano and of some municipalities in the Emilia Romagna Region.

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