

INAUGURATION OF THE 1ST CONFERENCE ON ENVIRONMENTAL ECONOMICS AND SOCIETY

J. Carlos del Álamo Jiménez
Environment Councillor

As Environment Councillor it is my pleasure to open this *1st Conference on Environmental Economics and Society*, which will undoubtedly help to clarify several pressing questions in this area.

It is now clear, as a consequence of growing ecological awareness, that there is a need to take into account the multiple relationships between society and environment. The new paradigm being reformulated is based on global sustainability in development, through ecological economics. This new economic structure will allow world-wide economic-ecological balance to be maintained, and a greater understanding of reality to be gained. It is necessary, but not easy, for national budgets to include use of natural non-marketed goods, and the losses resulting from exhaustion and degradation of natural capital.

In Program 21 from the Rio '92 Conference on Environment and Development, it was stated that: "a first step towards integration of sustainability in economic management is a more exact determination of the fundamental function of the environment as a source of natural capital and

dump for by-products generated by production from man-made capital and other human activities”.

However, until very recently, economic growth was focused on Gross Domestic Product (GDP), with no regard for social and environmental aspects.

This vision did not consider dependence of the economic subsystem on natural resources. Production of goods and services needs inputs from environmental resources, and in turn has an effect on the environment. These effects are exhaustion of natural resources and production of waste which returns to the environment.

We must take into account that any product included in GDP has used natural goods as an input or as receiver of waste, and that any accounting system that does not take natural capital into account will be incomplete and could be erroneous.

Continued destruction of woodlands, soil and water - basic resources in a country's economy - is a loss in productive value of the economy which is not reflected in national budgets. For example, when a wood is cut down and the timber sold, the region or country seems to be becoming richer, even though natural capital depreciation could create future losses that are much more substantial than today's gains. The UN national budgets system, designed with a Keynesian vision, does not properly reflect natural resource values. This paradigm is an ecological predator, socially unjust and economically nonviable, that is, unsustainable.

Within the framework of integrated natural resource management, the economy is a basic tool in the search for balanced solutions to dilemmas arising between conservation and development. Sustainable development necessarily implies consideration of the environmental economy.

Landscape, water, leisure or protection of biodiversity do not have market prices for comparison with other resources. However, their valuation is essential for environmental management decision taking. Nature's resources have a much greater value than just an economic one. They also

represent social, cultural, scientific and aesthetic riches that are a heritage we have a moral obligation to employ correctly and carefully, so that they can be passed from generation to generation.

The objective is to make human activity compatible with necessary preservation so as to avoid irreversible losses through deterioration. A proper environmental perspective should not start so much from a conservation viewpoint but rather from one of support for sustainable development, and that is how the Xunta de Galicia approaches it.

I must congratulate the organisers of this event for their fine choice of discussion issues, and the various contributors who will give the lectures throughout the day.

I would also like to thank all those attending, both professionals and those interested in subjects related to business and the environment, who will, I am sure, see their horizons broadened in the understanding of a subject of such interest and perspective for the present and future alike.

In the hope that conferences such as this are held often enough to allow closer contact between professionals in the field, I hereby inaugurate the *1st Conference on Environmental Economics and Society*.

Santiago de Compostela, 8th May, 2000

Francisco Díaz-Fierros Viqueira
Consello da Cultura Galega

The Science, Technology and Society Section is the youngest in the Consello da Cultura Galega as it is less than one year old. In fact, this Conference witnesses its public debut.

What was the reason for the Section? Firstly, because one cannot, or rather, one must not understand contemporary culture without bearing in mind the influence of science and technology upon it. We speak, think, even behave, though unaware of it, influenced to a great extent by values and forms of representation transmitted to us by science and, above all, technology. Secondly, it was understood that the work of scientists and technologists was being done in an increasingly closed off way, paying little attention to signals being sent to it by society. It had its own way of communicating and working, and what was removed from it lost value or had none. And if culture is understood to be a set of codes, representations or identification signals for a people or an age, a good part of these were outside the interest of scientists and technologists. Galicia was not unaffected by this, and therefore, work had to start urgently on enlightenment in this field if the desire was to be faithful to the institutional mandate of the Consello da Cultura Galega.

How could this be done? There was a classic way - institutionalised by many professions - that consisted of combining professional work with other, more “cultured”, interests such as poetry, painting, music or theatre. There were excellent examples like those of the doctor and writer Laín Entralgo or the pharmacist and poet León Felipe. Yet this, it was thought, was not the best

way, since it was understood that cultural insertion should be done from within the profession itself and not by generating a dualism that eventually and inexorably ended up labelling one activity as noble and another as ignoble. Science and technology, if interpreted with all the potentiality that humanity has to face reality, show themselves to be activities with a great capacity to transform the world and therefore influence its economic logic. It also appears to be an activity with its own values and which feeds the values of society, therefore, there were scientific and technological ethics and sociology. There was, of course scientific and technological history and logic. Because of all this, our way of understanding their cultural acquisition passed through an opening in the mental horizon towards interpretation and evaluation of the scientific or technological deed itself with much broader and enriching implementations for humanity, such as those that may derive from interpretations of the tasks that are ethical, logical, historical or economic. All this is without leaving out the work as scientists and technologists, which would be more useful to feed or foster that cultural evaluation rather than to distance us from it.

On this basis, it would be enough to understand all the sense and importance that this Conference has for the Consello da Cultura Galega, where the Environment (that object of desire for both scientists and technologists today) is analysed starting from its economic implications and interpretations, and therefore from its most direct repercussions on the interests of humanity. An objective, as one can easily understand, which is clearly concurrent with our way of understanding culture.

Congratulations, then, to the organisers, Albino Prada and María Xosé Vázquez from the Departament of Applied Economics, and I hope all those attending make the most of the work done here.

INTRODUCTION

The seminar that the Consello da Cultura Galega held in May 2000 seemed to us an opportune occasion to state how in tune that initiative was with one of the most lucid – in our judgement – cultural attitudes of the people of the Xeneración Nós and, therefore, of our valuable intellectual heritage.

We think that in the five essays collected in this work (and debated at the time) it will become clear what path economists are taking to account for values that are not reflected in prices, impacts that are not being evaluated and the balance between the natural patrimony bestowed by forebears and that which we leave to future generations. A path that, as we have more results to share and discuss from far flung parts of the world, will allow us to leave behind analyses that only discussed the short term, or that which has a price and scarcely mentioned, if at all, any environmental damage done.

It is a path that coincides with the deep reflection set by Castelao or Risco in the 30s, when they moved away from those they called superstitious of progress, that:

Worshipped the mystery of electricity in the miracle of the voltaic arc, believed that culture comes through wires, saw the world's salvation in machines, and for whom the printed word could not lie...

they looked down on the science of the peasants and seafarers, painted the balconies of their homes the colour of aluminium and felt very proud of the fact that palm trees from Africa grew in their parks.

(Castelao, Sempre en Galiza, 1935: 18)

Because, to keep on reducing economic analysis to the superstition that the only important thing is what is reflected in the market can lead us, indeed has led us for too long, to decisions that put environmental conditions in our lives at risk and can deny future generations the right to a proper quality of life.

Yet, by chance, in the best of European humanist and scientific traditions, Environmental Economics introduces doubts, sees nuances in simplifying profitabilities and quantifies aspects that lay outside analysis in order to – by introducing the future and environmental benefits and impacts into the terrain of monetary values – take ever more fewer of those biased decisions. Another great Galician intellectual – Otero Pedrayo – observed those nuances, and was therefore far from simplification, when he noted more than thirty years ago that:

Now a controlled wood is imposed, just as the powerful and forgotten fluvial energies of Galicia are controlled.

(Otero Pedrayo, Ensaíos, 1965: 175)

In this Seminar, we are trying to describe the methods we are working with, the empirical results we are getting, and the institutional use being made of work done in Environmental Economics, both in Spain and abroad, so that the social agents in Galicia (public administration decision makers and experts, the scientific community unrelated to the economy, companies, etc.), who surely wish to carry on that outstanding Galician cultural tradition of the Xeración Nós, recognise a tool in this field of Economics that can be used to achieve sustainable use of our resources and that respects an environment that is only on loan to us and which will be the most valuable legacy we leave to our heirs.

We will thus be contributing to the preservation and updating of that cultural tradition which, often, will be enough to improve environmental

quality, giving legitimising bases for institutional regulations when it is necessary to condition the conduct of social agents and, to a lesser extent, calculating the monetary amounts for penalising damage caused or remunerating benefits generated from the Environment. All these are tasks which, being required of the powers that represent and carry out the collective interest (legislative, judicial, executive), can find decisive arguments in the work of environmental economists as a counterpoint to the simplifications and superstitions (of which Otero, Castelao or Risco spoke) that usually dominate our approach to economics and social sciences.

Manuel Varela (Chair of Applied Economics at Universidade de Vigo) has published a manual on Natural Resource Economics and leads a renowned research team in fishing resource economics. He opened the Seminar and presented a paper – co-written with Albino Prada and María Xosé Vázquez – placing Galicia within the theatre of environmental problems faced by developed countries. He highlights evidence that the path followed to achieve growth in wealth per inhabitant coincided with the appearance of impacts that were unknown to conventional economics, but with eventual effects on activities (agricultural, industrial, urban, consumption, etc.) that fed growth itself, thus destroying the very basis for growth and impeding its future maintenance or increase. Thus the basis is set for the growing interest that the various applications of Environmental Economics collected in this book can have for Galician society.

Pere Riera, Professor of Applied Economics at Universitat Autònoma in Barcelona (where he was Vice-dean for Environmental Quality) is a pioneering researcher in Spain in evaluating the impact of infrastructures, benefits derived from natural goods and urban solid waste management; he is also a frequent collaborator with other researchers in these fields in the rest of Spain. In his report he includes the origins and central arguments for the methods we use, their connection – sometimes – with the needs of public management, the diversity of impacts and sectors in which they have been used. He does so not only from a Spanish perspective but also from a more external one. He states the place of academic research work and what can be covered by models from environmental consultants.

On the double premise (of the environmental situation in Galicia and the situation in Spain and in the field of Environmental Economics) the

book presents an intentioned divide. On the one hand the application of this methodology in the rural world when we are interested in measuring the conserved benefits from nature and the rural landscape, and on the other hand the application in the urban world in the case of impacts (on water, health, life, etc.) that are ever more frequent in countries with a high degree of wealth.

José Manuel Santos (researcher and professor at the Instituto Superior de Agronomía de Lisboa, author of a recent and notable book on evaluating rural landscape in Europe) brings together thorough agronomic and economic training, in both cases with an in-depth knowledge of Environmental Economics as done in the EU (particularly in the UK) with regard to the rural world. He argues the importance that environmental policies and the economic evaluation studies of the effects of the CAP are going to have on CAP reform; thus stating the interest and potentiality of Environmental Economics methods (with recourse to one of the many empirical applications that have been carried out both in Portugal and other places) in order to define and give hierarchy to rural development policies that are an alternative to outdated price fixing.

The importance of his line of argument for Galicia needs no reiteration. Given that we already have applications to natural spaces included in the Rede Natura 2000 (Aloia, Cíes, O Courel) which have had recreational value and conservation value quantified in relation to their public management costs. Thus, Manuel González and other researches from the Universidade de Vigo show results gathered from these cases and how similar the ratios are – which is good news – to those obtained in countries such as the United Kingdom or the United States. Also, a study carried out for the Dirección Xeral de Calidade e Avaliación Ambiental da Consellería de Medio Ambiente gives an estimation of the total economic value of natural resources in the Serra do Courel, as well as a complementary analysis of the economic, environmental and social dimensions of various options for use the contribution of each to sustainable development in the area.

The other side of the divide has to do with quantification of impacts associated to industrial activity and/or metropolitan areas. Vivien Foster (an economist for the World Bank and an experienced researcher for renowned environmental consultants in the UK) cites institutional use (judicial and

governmental) as the explanation for proliferation in cost-benefit analysis. Such analysis attempts to supply data on the value of impacts caused by production and consumption activities which are not included in the costs for these activities, among which we find effects on health and life. She explains the value of the results when evaluating the efficiency of policies or different technical options in specific cases. The route takes us back from the United States to Europe, particularly the UK and, therefore to countries such as Galicia where demand from institutions and researcher training are still in their infancy, yet the impacts are not now so different.

Finally, it seems fit to close the book with an overview of emerging Environmental Taxation in the EU and Spain. If Environmental Economics is concerned with the analysis of public goods (or impacts), Public Economics, at the taxation end of things, can sometimes be a vital instrument. Alberto Gago and Xavier Labandeira give us the exceptional summary of outstanding training in taxation in a research work on control of impacts in the EU. Their analytical synthesis of the use of taxation tools in the EU to correct environmental problems is preceded by an accurate typology of both existing figures and their effects, and thoroughly circumscribes what can be expected or not from this intervention tool according to how it is designed.

In short, this is an attempt to inform of the possibility for self-centered, sustainable progress, which can be achieved as long as there is sufficient leeway from society and its decision making bodies in the face of information that can give new points of view on reality such as that which is provided by Environmental Economics.

Albino Prada and María Xosé Vázquez