### Annex 8 — Portugal country case study

BLOSSOM: Support to analysis for long-term governance and institutional arrangements



European Environment Agency

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The opinions and conclusions presented here are the sole responsibility of the consultants and do not necessarily reflect those of EEA.

### Acronyms

BLOSSOM	Bridging LOng-term Scenarios and Strategic analysis – Organisation and Methods
CECAC	National Coordination Commission for Climate Change
DCP	Central Department of Planning
DPP	Department of Foresight and Planning and International Affairs
EEA	European Environment Agency
ENE	National Strategy for Energy
EU	European Union
GRI	Gabinete de Relações Internacionais/Ministry of Foreign Affairs
IPCC	Intergovernmental Panel on Climate Change
MAOT	Ministry of the Environment and Spatial Planning
NSSD	National Strategy for Sustainable Development
PNAC	National Programme for Climate Change
PNAAS	Portuguese Environment and Health Action Plans
POLIS	National programme for urban environmental rehabilitation policy
PROTOVT	Regional Spatial Plan for the West Region and Targus Valley Region
SEA	Strategic Environmental Assessment
SIAM	Climate change in Portugal: Scenarios, Impacts and Adaptation Measures project

### **1** Introduction

#### 1.1 Introduction

This report sets out the current status of the main institutional and governance arrangements for futures thinking in Portugal with respect to environmental - and environment-related policymaking and overall governance culture. It is based on a review of documentation and other available resources and a set of interviews with officials and experts in relevant government departments and institutions directly and/or indirectly involved in futures thinking studies. The aim has been to understand better if, and how, futures thinking is undertaken in Portugal, the relationships between different futures thinking initiatives and how these relate to, and influence, environmental policymaking. The report particularly tries to identify the success factors in ensuring futures thinking is embedded in environmental policymaking; however, barriers to success are also identified. It does not seek to explore the whole range of futures work, only those aspects of most relevance to environmental policymaking, and is mainly focused on the institutional and governance structures, not the details of the futures studies or the quality of those studies. Further detail can be found in the appendices.

At the outset, we wish to acknowledge that interviewees had differing views of what constitutes forecasting/foresight in Portugal. Sometimes, this reflects perhaps a more medium-term view of strategic planning, or even of spatial planning, rather than long-term futures thinking in environmental policy, which is the intended focus of study within this project. Given the limited resources available for this project, this report is not intended to be either exhaustive or comprehensive, but rather to highlight particular examples that illustrate institutional and governance arrangements for embedding long-term futures thinking in environmental policy, while recognising that some forms of futures thinking may exist in other sectors.

This report, along with similar reports for 11 other EU Member States, forms the basis for a further cross-country analysis to identify common themes and issues in institutional and governance arrangements, as well as distinctive aspects of different cultural and administrative traditions and approaches to futures thinking.

This study presents the results of an attempt to synthesise and evaluate current practices within a context of limited time and resources: it is meant to shed light on important developments and stimulate discussion but it is not meant to be understood as a comprehensive and concluding assessment of futures-oriented studies or their impacts on decisionmaking.

### 2 The landscape for long-term thinking and governance in Portugal

Portugal is a parliamentary representative democracy, a republic since 1910, with the most recent republican constitution established in 1976. Over the 20th century a conservative decision culture and limited cross-sectoral collaborative approaches characterised successive governments with limited development vision (five-year planning), low economic incentives and even lower investments in social dimensions, such as education. Consequently, the country did not achieve a competitive capacity and developed an economy dominantly dependent on imports and foreign investment.

The Portuguese Government consolidated the intention to adopt foresight programmes by the end of the 20th century when the DPP – Departamento de Prospectiva e Planeamento (Department of Foresight and Planning) was established in 1995 in the context of the ministry with development planning and spatial administration responsibilities. The term 'foresight' was included in naming this public organisation as the central body for foresight studies. The DPP followed previous government departments responsible for central planning, particularly to assist in the development of the economic medium-term development plans. These activities were restricted to central government planning and limited to a five-year (medium term) period (therefore, a view limited to the next five-years future), very much to identify priority investment projects, revise and assess previous planning periods.

After 1974, Portugal went through periods of intense political and economic instability. The situation improved in the mid 1980s when European policies had a strong influence in driving many political and economic priorities, and while European Structural Funds were pumped into the Portuguese economy to help overcome structural bottlenecks, such as spatial infrastructures. Throughout this period, the decision culture hardly changed. The government in Portugal still maintains a highly hierarchical and compartmentalised structure, with weak horizontal coordination mechanisms between sectors and departments. Ministries have limited autonomy and connect mainly via the Council of Ministries and the prime minister. Very seldom are there operational partnerships between one or more ministries (renewable energy is perhaps the most outstanding case connected to hydro and wind energy development that linked the Ministry of Environment, Spatial Planning and Regional Development and the Ministry of the Economy, Innovation and Development). The development visions are still limited to the four-year electoral periods on some issues, and to the Structural Funds' seven-year periods on others; these are the reasons that help to understand Portugal's limited outcomes concerning long-term thinking and policy governance.

Despite the overall situation described above, some ad hoc initiatives exemplify the adoption of a foresight perspective in the context of selected environmental related policy actions. Some cases suggest a long-term thinking/planning process rather than a structured foresight approach. Examples include the preparation of a policy document to support the participation of Portugal in the first United Nations Conference on Environment and Human Settlements in Stockholm in 1972, the discussion process around the formulation, adoption and enactment of the National Environmental Policy Act in 1987, the subsequent foresight thinking, supported by an ad hoc task force, that led to the preparation of the White Book on the Environment in 1990. There is limited documentary record of these previous examples and they are, therefore, not described in further detail in this report. It was only in more recent years that structured foresight thinking started to take place, even though still in a rather ad hoc way: for example, the preparation of the National Environmental Policy Plan in 1995. The foresight work relating to this plan was, however, limited to a small supporting task force. A few years later, the preparation of the National Strategy for Sustainable Development (NSSD), between 2001 and 2005, engaged a foresight thinking effort led by a task force of four experts, including an academic, a policymaker and two high-level administrative officers, to reflect on possible future trends and establish a vision for 2015. The outcome was a

proposal for a sustainable development strategy that would be further modified to adjust to government priorities. The NSSD subsequently connected to the establishment of the National Strategic Development framework programme to access European Funds in 2007–2013, whereby the DPP was asked to develop possible plausible development scenarios. It should be noted that the foresight exercises in these various cases is not sufficiently well documented, which reflects the lack of formalisation of foresight studies.

Foresight studies that are developed in Portugal engage the DPP, at least partially, predominantly to provide quantitative, as well as qualitative, scenario studies, on the evolution of the Portuguese economy. Usually the approach used is based on scenario-building linked to a narrative approach, developed by a small team of DPP experts. Scenarios are built considering a number of macro-sectors, predetermined elements, or trends, crucial uncertainties and wild cards. Based on these elements, scenario configurations are built. Combining pairs of configurations with crucial uncertainties enables the most plausible scenarios to be reached. These then act as strategic options associated to the identification of possible development pathways. In some cases, these studies have been influential in designing policy approaches, but there is no effective follow-up in the subsequent decision-making processes.

There is no legal framework establishing formal requirements for long-term analysis in environmental policy. The National Law on the Environment, enacted in 1987, does not identify a specific foresight body or demand foresight studies. Nevertheless, and as described below, several studies have been developed on an ad hoc basis to support several environmental policies and strategies, although not in a particularly formalised way. Most of these cases were assisted by the DPP.

 Strategic Environmental Assessment (SEA) of the location of the new international airport in Lisbon (2007) — national development scenarios were prepared to support the assessment and decision on one of two possible locations for the new airport in Lisbon. Scenarios considered the international travel demands and north-south/ east-west possible links, as well as national economic dynamics and challenges in the face of the role this airport can play in European and international contexts. Scenarios were quite informative in relation to social and economic options, with some consideration in relation to energy and biodiversity issues. Scenarios provided a background for the assessment undertaken. They did not act as decision factor but were certainly quite influential. Despite formal, legal required public consultation after the SEA was completed, no wider discussion was conducted on the future vision for national development and scenarios considered: it was mainly an analytical exercise.

- The Regional Spatial Plan for the West Region and Tagus Valley Region (PROTOVT) (2007) regional development scenarios were prepared to provide the main drivers and uncertainties with respect to the social and economic development options for the region, in view also of establishing a development vision. Scenarios provided a background for the development of the regional plan with mainly an indicative role. Plan proposals were generally driven by the scenarios. Again, despite formal, legal required public consultation after the SEA was completed, no wider discussion was conducted on the future vision for the region and scenarios considered: it was mainly an analytical exercise.
- The regional spatial pan for the Lisbon Metropolitan Region (2009) — very similar to the above situation, but adapted to the specificities of the region. Being the capital region, national drivers were much more influential of scenarios developed.
- Post-Kyoto Portuguese response to the European Commission Climate-Energy Package, contribution to the 20-20-20 European policy (2008) — a team of seven DPP experts developed scenarios for the Portuguese economy in the post-Kyoto period, looking at scenarios for energy demand in the period 2007–2015, and then up to 2030. Four economic development scenarios were developed which are referred to in the preparation of the National Climate-Energy Package, developed by the National Coordination Commission for Climate Change (CECAC).
- Energy alternatives for sustainability, initiated in 2009, looking at long-term scenarios (2050) of the Portuguese economy, exploring different pathways of energy alternative technologies (ongoing) — there is limited information on this process and no documentation was available to provide supporting evidence.
- A National Strategy for Energy 2020 (ENE 2020) establishing concrete targets to be achieved by Portugal by 2020 is being implemented. Moreover, it is expected that before the end of 2012, a second generation National Program for Climate Change (PNAC) will be developed based on a national road map for low carbon, and on a 2050 prospective horizon.

Other environment-related studies included a strong foresight component developed in the context of international frameworks, however, without the assistance of the DPP.

- Climate change in Portugal: Scenarios, Impacts, and Adaptation Measures (SIAM) project (1999–2003) in this particular case, quantitative scenarios were developed by the SIAM project team, based on the climate scenarios developed by the IPCC but then adapted to different sectors and territorial contexts in Portugal. The scenarios fully influenced the study, which was developed as a research report. So far, it has had limited policy impact.
- Millennium Ecosystem Assessment: Portuguese Assessment (completed in 2005) — in this particular case, scenarios were developed based on the millennium ecosystem assessment project and then adapted to Portugal. Similar to the previous case, this was based on a research study, this time developed internationally. Policy impact has also been limited, even though its effect was rather significant now with the International year of Biodiversity.

### 2.1 Responsibilities

The above reveals increasing efforts to effectively engage a foresight culture in environmental decision-making, in most cases involving the DPP. Whether intentional or coincidently, the fact is that the DPP, which used to be in the framework of economic development and spatial planning, is now (since 2007) within the institutional framework of the ministry with environmental and spatial planning responsibilities (Box 1).

The DPP's mission and operational objectives have changed in relation to its predecessors. In the early days, different institutions acted as the main body for central economic planning (Box 1), supporting the government with the development of medium-term economic development plans. In the late 1970s and during the 1980s and early 1990s, such institutions developed as social and economic planning departments, preparing studies and scenarios for macro-economic development, regional planning and socio-economic plans. In the mid 1990s, with the establishment of the DPP, and thereafter during the 2000s, the focus has been dominated by the European context and its influence in the Portuguese economy. Studies have been driven by the issue of natural resources limits, such as oil and gas. It was only in 2007 that the DPP was formally integrated within the ministry with environmental and spatial planning responsibilities, widening its area of studies to also include environmental policy issues.

The DPP is the public institution in Portugal, considered of a foresight-oriented body, providing the technical support required for the formulation of public policies in the areas under the supervision of the ministry with environmental and spatial planning responsibilities, including the technical support needed for strategic and operational planning, and to monitor the evolution of economic, social and environmental indicators so as to follow

Box 1 Institutional location of the DPP				
Date	Name applied to department with foresight responsibility	Location		
Since 2007	DPP — Department of Foresight and Planning	Ministry of Environment, Spatial Planning and Regional Development (currently named Ministry of Environment and Spatial Planning — MAOT)		
1995-2007	DPP — Department of Foresight and Planning	Ministry of Planning and Spatial Administration		
1980-1995	DCP — Central Department of Planning	Ministry of Finances and of the Plan		
1975-1980	DCP — Central Department of Planning	Ministry of the Plan and Economic Coordination		
1962-1975	Technical Secretariat of the Council of Ministers			

the implementation of a sustainable development strategy for Portugal (according to Decree 51/2007 of 27 April 2007). The DPP has the authority to undertake futures thinking studies on its own initiative, within its allocated budget. The DPP acts as a department for foresight studies, occasionally involving external experts from academia, the business sector and, mostly, public administration, but on an informal basis. Its foresight activities with a higher degree of policy impact are those that result from specific governmental requests or within planning processes, such as those cases above presented.

To fulfil its mission, the DPP pursues the following tasks, according to Decree 51/2007 of 27 April 2007:

- (a) To prepare possible scenarios and road maps required for the definition of regional development strategies, fostering the integration and articulation between the different sectoral perspectives and policies so as to contribute for a sustainable economic, social and environmental development of the whole country.
- (b) To conduct foresight analysis and other types of technical studies on the different factors promoting the economic and social development of the different regions, cities and metropolitan areas in Portugal and abroad, that can contribute to a better definition of the main public policy guidelines, as well as supporting the monitoring and strategic coordination efforts over the application of EU Structural Funds in order to optimise their economic and social development impacts at the national level.
- (c) To guarantee the continual development and improvement of the methodologies used in foresight studies and scenario planning, with an emphasis on spatial planning and on the interaction between economic, social and environmental issues.
- (d) To implement vocational courses in these areas.
- (e) To participate in the process defining the MAOT public investment policy strategic framework.
- (f) To monitor the public investment policy, the strategic priorities and the services evaluation system of the Ministry of Environment and Spatial Planning.
- (g) To support the Minister of Environment and Spatial Planning in the definition and execution of foreign policies with the European Union, other governments and multilateral international organisations.

- (h) To support and ensure MAOT representation at international forums, in coordination with other services and bodies.
- (i) To coordinate, support and develop MAOT international activities with states and international organisations, within the European Union framework and to ensure technical, legal and negotiation support to the activities undertaken by the European Union institutions and international organisations.
- (j) To coordinate and support the activities related to cooperation for development particularly with countries where Portuguese is the official language.
- (k) To take part in the transposition to Portuguese law of Community legislation on the environment and follow its implementation.
- (l) To promote and guarantee the coordination of international activities of the numerous MAOT services and bodies, as well as to ensure the coordination of the ministry with competent bodies of other public administration services, in order to prepare multidisciplinary positions.
- (m) To make available to the European Union institutions the information related with the implementation of the Community legislation in internal law. Together with the Ministry of Foreign Affairs, the Gabinete de Relações Internacionais/Ministry of Foreign Affairs (GRI) ensures that MAOT international activities are compatible with the national foreign policy goals, especially concerning to European affairs, multilateral international relations and cooperation for development.

To support foresight studies, the DPP developed the 'Horizon scanning DPP' project, which is a systematic process of identification, categorisation and analysis of information, enabling monitoring and warning of trends, potential paradigm shifts, disruptions and emerging issues. This project aims to be useful for different objectives, applications and users, encouraging them to better anticipate and understand the external environment and how this environment interacts with and influences their policies and strategic decisions.

The overall objective of the 'Horizon scanning DPP' project is to improve the DPP's ability to participate and lead processes based on the anticipation of and preparation for new challenges, risks and opportunities. The project seeks to achieve a set of more specific objectives, of which the following are emphasised on the DPP's website:

- monitoring of Critical Issues;
- report on emerging issues;

- conduct benchmarking activities;
- analysis of opportunities and risks for new activities and/or regions;
- technology monitoring and foresight;
- to foster creativity and be able to capitalise on new ideas;
- accelerate organisational learning and agility;
- foster networking (national and international).

The 'Horizon scanning DPP' project includes several outputs:

- publication of analysis of trends, uncertainties, weak signals and wild cards (organised by theme or industry);
- regular publication of a 'Horizon Scanning DPP' project newsletter;
- project development in collaboration with other public institutions and/or territorial responsibilities;
- inputs to the organisation of scenarios workshops, trend analysis, Delphis, etc.;
- inputs for the production of articles, reports and working papers.

The DPP is clearly the government foresight department that operates foresight programmes. However, other actors could have, at least in theory, a greater foresight role at national level. That is the case of the National Commission on Sustainable Development and the Environment, which was established in the context of the Ministry of Environmental and Spatial Planning (MAOT), and has some degree of influence in environmental and sustainable development long-term decisions. However, in practice its role is only consultative and rather reactive, with limited futures thinking involved in its deliberations.

### 2.2 Resources, staffing involved

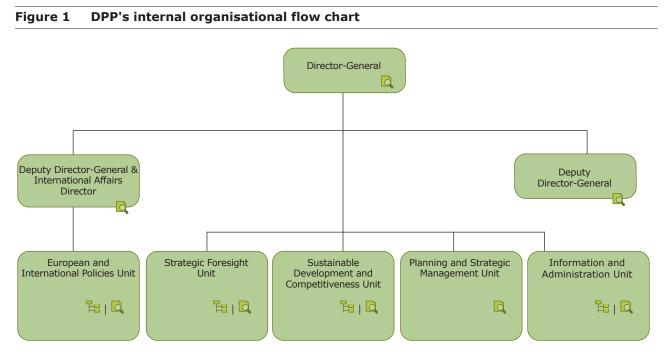
The financial resources available for foresight studies at the DPP are dependent on budget allocation within the MAOT. These studies are collaborated by around seven department staff in charge of foresight studies, trained as economists, policy analysts, planners, geographers and engineers. Figure 1 presents the organisational flow chart of the DPP.

To address these functions, the DPP is organised into the strategic units set out below. The unit objectives are included for those units with relevance to foresight.

#### • European and International Policies Unit

Not involved in foresight work

• Strategic Foresight Unit



Source: The DPP's website (http://www.dpp.pt/pages/dpp/organigrama.php?cmr=1&cm=2).

With the following objectives:

- (a) to identify the main global trends at European and world level in economic, technological and environmental terms, relevant to the definition of strategies and public policies in the area of sustainable development;
- (b) to analyse the regional and metropolitan dynamics, as attractiveness, competitiveness and sustainable poles at world and European level, to identify those factors and policies;
- (c) to promote initiatives with national and foreign actors about new development opportunities and the attraction of new activities and economic functions to the Portuguese economy;
- (d) to participate in foresight studies in order to evaluate natural and anthropogenic risks and to define the best strategies to mitigate their negative effects;
- (e) to develop skills and methodologies in the areas of foresight and scenarios, participating in their diffusion within public administration.

### • Sustainable Development and Competitiveness Unit

With the following objectives:

- (a) to analyse the Portuguese economic and social evolution, in terms of the position of Portugal in Europe, namely in what concerns competitiveness and sustainable development, as a contribute to development strategies;
- (b) to analyse Portuguese regional dynamics an economic attractiveness of cities and territories;
- (c) to evaluate the economic, social and environmental impact of public policies at the national, regional and sectoral levels;
- (d) to develop models and methodologies that can yield medium and long term quantified scenarios and projections;
- (e) to manage economic and social databases at national and regional level.

#### • Planning and Strategic Management Unit

Not involved in foresight work.

#### • Information and Administration Unit

Not involved in foresight work.

Further information on the DPP can be found on the DPP's website (http://www.dpp.pt/pages/projectos/horizon\_scanning/index.php?cmr=8&cm=1).

# 2.3 Stakeholders and external relationships

The interviews carried out for this case study indicate that stakeholder engagement in foresight studies is usually limited to government and administrative officers. Occasionally, experts, consultants and academics are also involved, and even less usually NGOs and the business sector.

In some cases, what happens is that formal public participation will eventually address foresight issues, as in the case of the Portuguese Environment and Health Action Plan (PNAAS), even if public consultation is not legally required. Nevertheless, stakeholders and public engagement with respect to foresight studies are still relatively limited in Portugal, often used as a supplementary input to the technical core of foresight studies.

#### 2.3.1 Parliamentary and external scrutiny

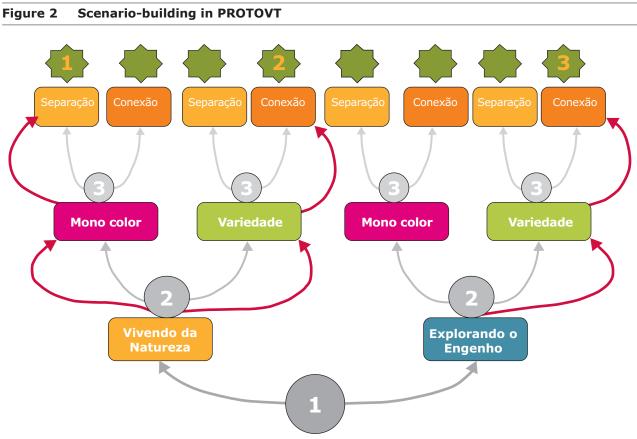
There is no formalised long-standing body. Occasional, punctual workshops, committees, have been organised.

#### 2.4 Relative balance between quantitative and qualitative approaches

Normally, a combination of qualitative and quantitative techniques, usually through scenario-building and visioning techniques, is the most popular approach to foresight studies in Portugal. In the Regional Spatial Plan for the West Region and Tagus Valley Region (PROTOVT) for example, one of the good practice cases analysed, the DPP assisted in the development of scenarios and, subsequently, in setting a vision for the region through a narrative approach. Scenarios were built upon a number of uncertainties and strategic options that resulted in the identification of three possible paths of territorial development (Figure 2).

In the POLIS (<sup>1</sup>) case, the other good practice example analysed, a less formal approach was conducted. A large group of multidisciplinary experts met for one morning for a brainstorming session to discuss the key challenges and priorities, contributing to set the vision and conceptual framework for the urban rehabilitation program. Neither of them involved a wider public participation and engagement.

<sup>(1)</sup> http://www.polis.maot.gov.pt.



Source: CCDR, 2009.

# 3 Analysis

# 3.1 Relationship between futures programmes

The above description on the use of foresight studies in environmental policymaking in Portugal reveals the DPP as clearly the official foresight government department. Its activity could be considered a foresight programme, albeit dominated by studies that are identified as relevant by the DPP to be undertaken. There have only been a few foresight programmes specifically designed for environmental policy. Practice shows, however, that demand for these studies is increasing, even though still as ad hoc studies (essentially on demand), mainly in the fields of energy and climate change, as well as, in a more limited way, in the field of territorial planning, which is relevant to environmental policymaking. In an interview, the DPP indicated that foresight is still not seen as a key part of planning and policymaking and, therefore, fails to follow systematic development at all levels. The relatively limited resources made available for foresight studies is also, perhaps, an indication of the importance that government attributes to formal forecasting.

The fact that the DPP gets involved in most cases does, however, bring some assurance to the relationship between the different futures exercises. However, there are two drawbacks: (a) the DPP mostly promotes quantitative or qualitative scenario-building on economic trends for Portugal, and occasionally assists with brainstorming forums; and (b) futures studies are not formally undertaken on a systematic basis. There is, in effect, therefore, no structured relationship between futures programmes and/or studies, either formal or informal.

Nevertheless, there are cases where foresight studies influence one another, normally when inter-sectoral policies are in play, as in the example between the National Programme for Climate Change (PNAC) and the National Strategy for the Energy 2020 (ENE 2020). In this case, the ENE 2020 foresight objectives were developed according to PNAC greenhouse gases emission projections and follow-up action strategies, presenting an evident relationship between them.

### 3.2 Impact on policymaking

The impact of foresight studies on policymaking in general is very difficult to ascertain, as no studies or evaluations have been carried out to measure it. Interviews conducted in the context of this project, and the lack of supplementary documented information, suggest that most of the foresight efforts are not having a significant influence on policymaking. Strategic decision-making processes in Portugal can be seen to consider, in general, a range of other subjective and short-term political factors.

One specific example where foresight activity has been directly linked to, and influenced, policy is through the POLIS cities programme (2000 (<sup>2</sup>), see Appendix 2). POLIS is a national programme for urban rehabilitation and environmental enhancement policy, with the aim of improving the quality of life in cities. As part of the POLIS programme, 'instruments for implementation' were identified, including the regulatory framework, incentives and partnerships. The programme has directly influenced the urban environmental rehabilitation programmes in 28 cities across Portugal. In addition, all environmental rehabilitation initiatives are now following a similar pattern to the POLIS cities programme, with a POLIS coastal programme currently underway and a POLIS rivers programme proposed.

In addition, foresight analysis undertaken in support of the development of the following strategies and programmes is considered likely to have had an indirect and diffuse impact on policymaking:

<sup>(&</sup>lt;sup>2</sup>) Further information is available online (http://www.polis.maot.gov.pt).

- White Book on the Environment (1990)
- National Environmental Policy Plan (1995)
- National Strategy for Sustainable Development (2005)
- Strategic Development Framework Programme (2007).

Other examples of cases where futures thinking and scenario development may have influenced environmental policymaking include the 'Climate Change in Portugal: Scenarios, Impacts, and Adaptation Measures' (SIAM) project (1999–2003); the 'Millennium Ecosystem Assessment: Portuguese Assessment' (completed in 2005); the post-Kyoto Portuguese response, contribution to the 20-20-20 European policy (2008); and 'Energy alternatives for sustainability', looking at long-term scenarios (2050) of the Portuguese economy, to explore different pathways of energy alternative technologies.

# 4 Conclusions

There is no firm and strong tradition in Portugal in using futures thinking for long-term policymaking and planning in public decision-making. Even though medium term (five to six years) planning forecasts have been prepared in Portugal, almost continually since 1953, to set development priorities, the decision-making culture is mostly driven by a short-term or immediate action perspective. Furthermore, the government in Portugal is highly hierarchical and compartmentalised. Horizontal (inter-sectoral) coordination mechanisms tend to be rather weak, as well as between central and other levels of government. Some cross-sectoral mechanisms that have been put in place are punctual and can be considered largely ephemeral.

Consequently, the practice of futures thinking in Portugal has been used mostly on an ad hoc basis. The DPP foresight programme is the only formal and continuous programme to be recognised as such, with some degree of influence in environmental policymaking. The DPP experiences are mainly driven by socio-economic studies, by their own research agenda and by one-off environmental driven foresight studies, commissioned by government institutions to generate information deemed necessary for planning and policymaking. Most studies developed concern socio-economic development, national security, the Portuguese economy in the context of international and European development and energy and climate change related studies. The influence on environmental policies and strategies has been limited.

### 4.1 Success factors

Despite the DPP being in place for more than half a century, foresight experience with environmental policy impact is limited in Portugal. Interviews conducted revealed that it is hard to provide a clear indication of success factors based on empirical evidence. However, in theory, it is felt by actors involved that the success of foresight studies in Portugal depends on keeping a strategic line of thinking and action in policymaking while meeting the requirements of the planning process in question and being timely and relevant to the decision(s) being made. Success factors also depend on keeping clear responsibilities in governance structures and institutions, engaging different actors at different levels, and keeping a certain environmental memory alive.

In addition, foresight studies are more successful when they are aligned with a political opportunity, whenever they include an economic perspective, and address social and public concerns.

### 4.2 Barriers to success

Current barriers to the formal and routine use of foresight studies in Portugal include the absence of formal foresight programmes operating systematically and with a defined agenda and sufficient budget allocation, as well as the lack of clear responsibilities to undertake foresight studies ahead of particular long-term decisions, ensuring that foresight studies are effectively used and that follow-up studies take place.

In addition, barriers to success arise when foresight studies are not aligned with a political opportunity. The still dominant decision-making culture in Portugal is, to a large extent, responsible for this kind of barrier pointed out in interviews. Foresight is often not seen as a key part of the planning and policymaking exercise which represents one of its most severe limitations, hence the ad hoc nature of the examples referred. There is no tradition to starting a foresight exercise with the review and analysis of trends. Despite existing efforts and punctual examples, it appears, therefore, that clear governance and institutional frameworks may be lacking to ensure that foresight studies are a systematic component of policymaking and planning efforts.

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# **Appendix 1 Approaches to futures studies**

Title of 'futures' programme(s):		<ul> <li>Department of Foresight and Planning (DPP) (Departmento de Prospectiva e Planeamento — DPP) of the Ministry of the Environment and Spatial Planning</li> <li>NB: There are currently no foresight programmes in Portugal but rather only foresight studies.</li> </ul>	
		Portugal is highly centralised with very little power on environmental policy devolved to local authorities or at regional level. The Azores and Madeira Islands are the only constitutionally mandated regional autonomous regions; since 1980 for the Autonomous Region of the Azores and, since 1976, for the Autonomous Region of Madeira.	
		In terms of environmental policy and legislation, the central government, through its central agencies, defines the policy and legal framework, predominantly reflecting the requirements of EU regulations.	
		Government in Portugal is highly hierarchical and compartmentalised. Horizontal coordination mechanisms tend to be rather weak, as well as those between the central and other levels of government. Some cross-sectoral mechanisms that have been put in place are punctual and ephemera. A silo mentality is dominant	
		Participative culture is generally weak in Portugal, often attributed to its past under a relatively recent dictatorship. However, important advances have been made concerning transparency and public participation especially following the introduction of environmental impact assessment legislation and generalisation of its practice.	
	Nature of futures organisation(s)	The DPP is a department of the Ministry of the Environment and Spatial Planning, a permanent and central supporting body. Only recently (three years ago, in 2007) it became formally part of the ministry with environmental responsibilities. For many years, it was part of ministries responsible for finances and economic development.	
		Its current mission is to provide technical support to policy formulation, strategic and operational planning, as well as to support inter-ministerial cooperation for environmental transversal, inter-sectoral, policies at EU and international levels, as well as development cooperation.	
	Date programme(s) introduced	The first studies were developed by the DPP in 1953.	
	Responsibility	Currently, the responsibility lies with the Department director, under the Minister.	
	Resources	Dependent on budget allocation within the Ministry of the Environment and Spatial Planning: studies and advice provided by the department staff, trained as economists, policy analysts, planners, geographers and engineers	
	Tradition	The DPP has been a supporting department from its inception in the 1950s (even though initially as a Central Planning Department) as a central government dependent agency.	

Country: Portugal		
	Parliament	Not formally established as a long-standing body: occasional, ad hoc workshops, committees, may be organised.
	Advisory councils	The National Commission on Sustainable Development and the Environment is a consultative body of the Ministry of the Environment and Spatial Planning. The National Water Council, the Regional Water Basin Councils and the Forum for Climate Change are other advisory councils relevant for environmental policy.
	Legal framework	None identified
	Political framework	The National Law on the Environment was enacted in 1987 but, within the institutional structures for environmental policy, it does not identify a specific foresight body.
		The National Environmental Policy Plan was adopted in 1995.
		The National Strategy for Sustainable Development established, in 2005, a vision for 2015. It involved some ad hoc foresight workshop discussions basically to look at main trends in Portugal. It subsequently merged with the establishment of the National Strategic Reference Development framework programme to access European Funds 2007–2013.
	Role of environmental research/ foresight programmes	Several foresight studies have been undertaken on a rather ad hoc basis, in most cases involving the DPP at least partially, namely to provide scenario studies on the evolution of the Portuguese economy. In some cases, these studies have been influential; in other cases, there is no sequence to studies developed by the DPP.
	in providing futures thinking	Several recent studies have developed scenarios with the assistance of the DPP with an environmental purpose:
		<ul> <li>the 'Climate change in Portugal: Scenarios, Impacts, and Adaptation Measures' (SIAM) project (1999–2003);</li> <li>the 'Millennium Ecosystem Assessment: Portuguese Assessment' (completed in 2005);</li> <li>the post-Kyoto Portuguese response, contribution to the 20-20-20 European policy (2007);</li> <li>'Energy alternatives for sustainability', looking at long-term scenarios (2050) of the Portuguese economy, to explore the different pathways of energy alternative technologies.</li> </ul>
	Actors	Usually limited to government and administrative officers, also occasionally involving experts, consultants and academics, even less usually NGOs and the business sector.
	Perceived	There is insufficient tradition in Portugal in dealing with futures thinking.
	institutional need	Planning culture is mostly short-term to immediate action.
2. Institutional structure for environmental policymaking	Relevant government departments, ministers, agencies, etc.	<ul> <li>Strategic thinking has been very limited. The contribution is ad hoc and it is likely that it may have contributed to environmental policymaking, but not in a very formalised way, for example, in the following cases:</li> <li>White Book on the Environment, 1990;</li> <li>National Environmental Policy Plan, 1995;</li> <li>National Strategy for Sustainable Development, 2005;</li> <li>Strategic Development framework programme, 2007.</li> </ul>
		Other examples of cases where futures thinking and scenarios development may have influenced environmental policymaking:
		<ul> <li>the 'Climate Change in Portugal: Scenarios, Impacts, and Adaptation Measures' (SIAM) project (1999–2003),</li> <li>the 'Millennium Ecosystem Assessment: Portuguese Assessment' (completed in 2005),</li> <li>the post-Kyoto Portuguese response, contribution to the 20-20-20 European policy (2007),</li> <li>Energy alternatives for sustainability, looking at long-term scenarios (2050) of the Portuguese economy, to explore different pathways of energy alternative technologies,</li> <li>the POLIS programme for urban environment,</li> <li>some regional spatial plans.</li> </ul>

Country: Portugal				
3. Foresight/ scenario culture traditions	Approach to futures thinking	Usually it is a normative approach but, when less formal, an exploratory approach is also adopted.		
	Thematic or issue	Both		
4. Summary of programme(s)	Foresight studies in Portugal started in the 1950s in the area of economic development but were restricted to government central planning.			
as a whole, including within agencies	studies, commission information deeme	nes do not exist as such and experience is mainly in one-off foresight ned by either government institutions or the private sector to generate d necessary for planning and policymaking. Most studies developed concern nent, national security and energy and climate change-related studies.		
	The term 'foresight whenever needed.	' has been used only by the DPP, as the central body for foresight studies		

### **Appendix 2 Examples of futures studies**

Country: Portugal				
Futures programme(s):				
1. Description/ characteristics of future study	Examples of specific studies	<b>POLIS programme (2000)</b> National programme for urban environmental rehabilitation policy, with the purpose of improving the quality of life in cities, through key urban environmental rehabilitation interventions	Regional Spatial Plan for the West Region and Tagus Valley (PROTOVT) — 2009 A component of the regional planning concept, it sets the main forward-looking challenges for the regional spatial development, which in turn establishes the framework for the development of municipal spatial master plans	
	Exploratory/ normative?	Exploratory Brainstorming to discuss the key challenges and priorities, contributing to set the vision and conceptual framework for urban environmental rehabilitation policy	Exploratory Alternative futures (through scenario-building, with limited stakeholder engagement) and vision	
	Qualitative/ quantitative?	Qualitative, narrative, very informal	Qualitative, narrative	
	Thematic focus?	Environmental and urban development planning	Regional spatial development	
	Specific Issue focus?	Broadly defined: land use, water and air quality, noise, built environment	Land-use, biodiversity and nature conservation, energy, urban and transports development	
	Spatial/ temporal scale	National scale, no temporal scale was defined (ways forward)	Regional scale, 13-year horizon (2007–2020)	
	Ad hoc/ongoing established futures process?	Ad hoc	Ad hoc	
	Sector/cross- sector-based?	Cross-sector, urban rehabilitation and environmental enhancement	Cross-sector, spatial planning	

<b>Country: Portugal</b>			
	Science-based/ multiple stakeholders?	<ul> <li>A large group of multidisciplinary experts met for one morning:</li> <li>a Prime Minister's Office representative;</li> <li>academic researchers (from leading universities and research centres);</li> <li>external expert at the Department of Foresight and Planning and International Affairs (public advising body);</li> <li>President of Parque Expo, SA (operational company for the implementation of public urban policies);</li> <li>three city council presidents.</li> </ul>	<ul> <li>Science-based</li> <li>Foresight studies conducted by an external expert at the Department of Foresight and Planning and International Affairs (public advising body).</li> <li>Stakeholders involved in providing feedback: <ul> <li>the proponent of the plan (Commission for the Regional Development Coordination of Lisbon and Tagus Valley — CCDRLVT);</li> <li>planning team (group of external consultants);</li> <li>SEA team;</li> <li>multi-sectoral Statutory Review Commission set up for PROTOVT that includes sectoral public bodies and municipalities within the region.</li> </ul> </li> </ul>
2. Original purpose and application	For what purpose?	To discuss urban rehabilitation priorities, identify models of intervention and reflect on possible instruments for implementation, with particular focus on the improvement of urban environmental conditions and attractiveness	To establish a desirable route for the future territorial development of the region, thus influencing the strategic objectives of the PROTOVT
	Requested by a specific entity?	Initiative led by the Minister of Environment	Initiative of the coordinator and proponent of the plan (CCDRLVT) coherent with the strategic methodological approach adopted to develop the regional plan
	How used?	<ul> <li>Brainstorming discussion that influenced the conceptualisation of the POLIS Programme, namely in terms of:</li> <li>1. environmental motivation — focus on quality of life and urban attractiveness;</li> <li>2. conceptual driving force — key demonstrative interventions to establish a national urban development paradigmatic model;</li> <li>3. instruments for</li> </ul>	Scenario-building established a vision and possible scenarios for the spatial development of the region for 2020. The vision set the strategic basis for the development of the PROTOVT objectives and subsequent regional spatial planning model.
		implementation — regulatory framework, incentives and partnerships operational models.	

Country: Portugal			
	By whom?	Directly: the Ministry of Environment, POLIS office Indirectly: the 28 cities elected by the programme through the development and implementation of their specific urban rehabilitation programmes	Directly: by the regional plan coordination (CCDRLVT) and planning team (external consultants) in interaction with the Multi-sectoral Statutory Review Commission set up for PROTOVT (law enforcement). Indirectly: the PROTOVT affects public policy at the municipality level, which means that its strategies and spatial norms are to be lawfully followed by the municipalities within the region through their respective municipal spatial plans.
3. Outcomes (immediate and long term)	Where and how used in policy (if at all)	All environmental rehabilitation policy initiatives are now following the same pattern. After POLIS cities, a POLIS coastal programme is under way to rehabilitate coastal areas, and a new POLIS rivers programme is about to start.	The vision set the basis for the definition of the strategic objectives of PROTOVT, although the plan is not entirely explicit how the strategic vision links with the final regional spatial model and normative (the regulations).
4. Evaluation	Any formal evaluation of effectiveness or updates	Not evident since it was too informal	PROTOVT was published in 2009 and, formally, it is supposed to be reviewed within a 10-year period from approval.
	Success factors/drivers	Not evident since it was too informal	Uptake of results is not yet evident: therefore, no long-term success factors can be identified at this stage.
			However, an evident success factor was to get the planning team and the Multi-sectoral Statutory Review Commission to think and discuss the strategic territorial options in accordance with the future prospects for the region opening an opportunity also to think about strategic environmental assessment in a futures context.
	Barriers to success	Not evident since it was too informal	Uptake of results is not yet evident: therefore, no long-term barriers to success can be identified at this stage.
			However, an evident barrier to success was the gap between the foresight study and the planning process where a weak link was made by various actors. This weakened the influence of the strategic options on the final proposal of the regional spatial model, thus compromising the effectiveness of the plan to act in accordance with the desirable future territorial development.
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#### Annex 8 – Portugal country case study

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