

Portugal

Answers to the questionnaire prepared for the Avosetta meeting on 'Weighing environmental risks and socio-economic benefits in view of alternative solutions', Dublin 11/12 June 2010

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I. Balancing with non-environmental criteria

1. *What kinds of non-environmental criteria are to be considered in particular contexts - EIA, SEA etc? (e.g. socio-economic benefits or costs? More specific concerns such as jobs, regional development, satisfaction of consumer demands, scientific progress, etc.)*

In Portugal non-environmental criteria are rather relevant in the EIA context.

The historic reason is the concern over the risk of environmental assessment being overridden by other criteria for evaluating projects, namely the assessments of social impacts. These political concerns lead to the decision of bringing the assessment of social impacts into EIA as an additional competence of the Ministry of Environment.

The result was a very broad legal concept of environmental impact: "environmental impact is the set of favourable and unfavourable changes in **environmental and social parameters**, in a certain period of time and in a certain area, produced by the execution of a project, compared with the situation that would occur, in the same period and in the same area, if the project were not to be implemented".

A Decree adopted in 2001¹ harmonizes the developer's obligations, *materializing* the precise content of the study, of the non-technical summary, and of several other documents to be delivered during EIA. This decree describes in detail the information to be provided by the developer, explaining what is meant by "characterization of the environment to be affected by the project": it is "the characterization of the environment in its present state, which is likely to be considerably affected by the project and its foreseeable evolution in the absence of the project, using adequate factors as well as the interrelationship among these factors in two dimensions: natural (namely biological diversity, fauna, flora, soil, water, atmosphere, landscape, climate, mineral resources) and social.

Unlike the natural impacts, the methodology used for identifying the social impacts has to be clearly identified and explained. The social dimension covers, *inter alia*:

- a) populations and peopling (it is a great concern in Portugal to know how the project will affect people's distribution over the territory, due to the "desertification" of the rural areas, abandoned by people looking for better opportunities in the coastal urban areas);
- b) cultural heritage (including both material heritage — like historic buildings, archaeological sites, palaeontology vestiges, paintings, sculptures, or handicraft —, and immaterial heritage — like literature, music, folklore, language or practices —);

¹ Portaria n.330/2001, an administrative regulation.

- c) Servitudes and restrictions (limitations to private property for reasons of public interest, imposing strong limitations to the rights of real estate owners in the development of projects)
- d) Conditioning (territorial aspects to be taken into account when authorizing a project. Conditioning is designated for the preservation of certain human values, but do not entirely forbid the project as servitudes do);
- e) Structuring systems or networks (energy networks, roads, railways, rivers, etc);
- f) Spaces and uses defined in planning instruments (territorial planning, water planning, waste planning, etc. define certain uses which must be taken into account);
- g) Social-economy (regional development, jobs, push - pull effects, housing areas nearby, psychological impacts: is the project accepted or rejected by the populations? etc.)

The 2001 Decree originated several technical reference documents on best practices² applying the above mentioned list of natural and social impacts to different projects: waste water treatment systems, electric power transmission, irrigation, hydroelectric dams, etc.

The most interesting is the “Methodological Guidance for EIA of infrastructures of the national network for electricity transportation. Installation of aerial cables”, finalized in 2007³. In this technical document the importance of the social aspects is highlighted: “from the moment when information on the existence of a certain project circulates, people, groups, communities start to develop appreciations on how they can be affected, positively or negatively. Fears and expectations start to be built, translating into attitudes and eventually public actions favourable or unfavourable to the project. This phenomenon is in itself an impact of the project. It shall be considered as such and managed during the development of the project (...) People’s appreciations can be partially or even totally incorrect. The concerns can be deprived of objective reasons. That doesn’t make them, however, less real, since they are real for the people who express them and can have individual or social consequences”.

It is recognized that the presence of overhead power lines and respective masts can affect the functionality and uses, present and potential, of the soil and of the territory (housing, amusement, cultural, touristic, agricultural, forestry, etc.). Therefore particular attention shall be given to the description of the following aspects: constructed areas (including leisure and worship), urban areas (including seasonal movements) , touristic areas, other social areas outside urban regions (festivities, worship, leisure) and isolated buildings with relevant social importance, agricultural areas and infrastructures (irrigation, drainage, water reservoirs), forestry areas (importance of areas and revenue), cultural heritage (of national, public, and municipal interest, including *non aedificandi* areas, other non classified elements included in inventories). The assessment of some of these aspects is performed through environmental parameters like noise, risk assessment, safety measures, etc.

But the social value of the geographical spaces depends on affective and symbolic values, besides its material value. The *social space* has complex dimensions: spaces, objects, functionality, relations, memories, identities.

The assessment of social impacts shall be centred on the people considering their diversity and based on equity approaches. For instance, the social impacts on a slum or illegal

² Officially approved by the Ministry and available in the Portuguese Environmental Agency website <http://www.apambiente.pt>.

³ Also available online in the Portuguese Environmental Agency website http://aiacirca.apambiente.pt:8980/Public/irc/aia/aiapublico/library?l=/documentos_normativos/infra-estruturas&vm=detailed&sb=Title

quarter should not be considered less relevant than those in a new high quality residential quarter. The social impacts on a small agricultural parcel shouldn't also be underestimated when comparing with a large agricultural field.

In sum, both objective and subjective social value should be taken into account although only in qualitative terms and by approximation.

2. *Do only provable and factual risks and benefits count, or are public perceptions considered relevant in considering risks and benefits?*

Public participation is optional in the moment when the developer presents a scoping proposal and is mandatory from the moment when the information gathered by the developer is available. "Public concerns and opinions" which are "representative" (i.e. statistically frequent) must be "taken into account" in the final decision on the impacts of the project.

In practice if these "public concerns" are considered to express "irrational fears" they give origin to "elucidations"⁴ but don't influence the final decision.

By the way, the precautionary principle is under suspicion in Portugal and has been denied by superior courts.

3. *If the benefit must be one in the public interest, how is public interest defined? Give examples. What interests do not count, what do count as being in the public interest?*

Besides the usual public interests, private investments are also considered to be of public interest. There are two laws⁵ speeding up the administrative processes and loosening the bureaucracy required for the authorization of large private investments.

In the first law, the mentioned projects can be qualified as "Projects of Potential National Interest" as long as they are considered as "environmentally and territorially sustainable", if they represent a global investment superior to 25 million Euros and fulfil four of the following additional criteria:

- production of goods and services having an innovative character in markets with potential growth;
- having push or pull effects namely in small and medium companies,
- interacting and cooperating with scientific and technologic entities,
- creating or qualifying jobs,
- having regional development potential,
- having relevant external economic balance,
- promoting energetic efficiency or favouring renewable energies.

In the second law, the projects can be qualified as "Projects of Potential National Interest of Strategic Importance" depending on:

- representing an investment above 200 million Euros;
- exceptionally, an investment of 60 million Euros can be enough in the case of projects having an unquestionable character of excellence for their innovative contents and technological singularity or, in the case of touristic projects, when it promotes the differentiation of Portugal and contributes decisively to the requalification, increased competitiveness, and diversification of touristic supply in the region where it is located;
- using eco-efficient practices and technologies in order to reach high levels of environmental performance, namely in the fields of water, soil, waste and air, through the use of best international practices in the respective sector;

⁴ All the "requests for elucidations" must receive a personal answer.

⁵ Resolution of the Council of Ministers no. 95/2005 and Decree-law no. 285/2007.

- promotion of efficiency and energetic rationalization, maximizing the use of renewable energetic resources;
 - integration of development priorities such as defined in strategic guidance plans and documents in force, namely the “National Strategy for Sustainable Development”, “Technologic Plan”, “National Programme for Territorial Planning Policy”, “National Strategic Plan for Tourism”, “National Energetic Strategy” and “Logistic Portugal”;
 - Confirmed economic viability;
 - Confirmed idoneousness and credibility of the developer as well as recognized experience and technical and financial capacity for the development of the project.
4. How is the benefit calculated? In qualitative language or in monetary terms? In what way?
In qualitative language, describing the great socio-economic progress boosted by the project.
5. Is environmental risk calculated in cost terms in order to allow comparison with benefits? If so, how is it calculated? Is there a practice of monetarizing intangible goods?
No.
6. Are mitigation and compensation measures counted as reducing environmental risks, or do they come in at a later stage of risk management?
They are counted as reducing environmental risks.
7. When risks and benefits are balanced is it ensured that no benefits may outweigh serious environmental damage/significant environmental pollution?
There is no such a *principle* as “minimal protection” or “no serious damage” for the protection of environmental values, either in the law or in court decisions. It can be considered an implied principle only for public health.
8. Who bears the burden of proving socio-economic benefits, the operator, the competent administrative body or third parties, if the benefit of the project is difficult to assess?
There is a generalised public presumption of socio-economic benefits associated with any investments and any economic initiatives. It’s up to anyone (namely competing developers but often the NGOs) who wants to contest the socio-economic *goodness* of the project to prove that there are no real socio-economic advantages.
9. Do opponents have standing in administrative proceedings and before administrative courts to argue that the non-environmental criteria were not properly applied (e.g. because the benefits of projects were overestimated)?
Yes, but they will hardly win. Only in cases of “manifest error” of the competent authorities.

II. Alternatives

1. What is the scope of alternatives that must be tested?
The Portuguese law on environmental impact assessment (Decree-law 69/2000, amended in 2005) considers the balancing of alternatives a mandatory step of the assessment process.

According to extensive description of the law (article 2), “environmental impact assessment” is “a preventive instrument of environmental policy, based on studies and consultations, with effective public participation and analysis of possible alternatives, and which aims at gathering information, identification and prevision of the environmental impacts of certain projects, as well as the identification and proposal of measures to avoid, minimize or compensate these effects, aiming at a decision on the feasibility of executing these projects and its relative post-assessment”.

As in the EIA directive⁶, in Portugal the EIA study must describe the reasonable alternative solutions, including the “zero option” (the national expression for the “zero option” is “non intervention”). This obligation is stated in annex III, corresponding to annex IV of the Directive. The precise content and extent of the obligation to balance alternatives is thoroughly explained in the complementary Decree adopted in 2001 (annex I and II).

When preparing a scoping proposal, the developer shall consider alternatives⁷, namely (annex I): “siting alternatives, dimension alternatives, conception or design alternatives, alternative techniques or construction processes, alternative techniques and procedures for operation and maintenance, alternative decommissioning procedures, alternative scheduling for construction, operation, maintenance and decommissioning phases”.

After the scoping proposal has been approved, when preparing the assessment, the developer has to describe both the project and “the alternatives considered including, when applicable, the main technological processes involved, and whenever relevant, the previous mechanisms to generate and eliminate alternatives, mentioning, whenever applicable, the decision on the scoping proposal” (annex II).

The developer has also to describe the siting of the project and the “foreseeable time planning for the construction, operation and decommissioning, in relation with the necessary authorizations” not only for the project but also for “complementary or subsidiary projects (for instance, road access, energy paths, water pipes, waste water collectors, and stone-quarries to get the raw materials)”.

For each alternative, the developer must describe and quantify all the materials and energy to be used, all the emissions (liquid, solid, gas) to be produced, all the sources and levels of noise, vibration, light, heat, radiation, etc... In sum: all the environmental impacts for each alternative have to be described.

Finally, the most environmentally favourable alternative (in terms of siting, technology, energy used, raw materials, dimension and design) has to be identified, indicating the criteria that guided the choice.

2.

a) *Only those the operator would legally be able to perform?*

No.

Only those which it would be practicable to ask the operator to perform?

No.

Or even those other persons including the state would be more suited to perform?

Yes.

b) *Only those voluntarily considered by the operator*

No.

or those required by objective criteria?

Yes.

⁶ Article 5: (...) “3. The information to be provided by the developer in accordance with paragraph 1 shall include at least: (...) an outline of the main alternatives studied by the developer and an indication of the main reasons for his choice, taking into account the environmental effects (...)”. The same norm is repeated in annex IV.

⁷ The range of alternatives in Portugal seems to be in accordance with the “checklist of alternatives” included in the “Guidance on EIA scoping” (Luxembourg, June 2001, page 36). See annex I.

- c) Is there a difference made between alternatives within a project (e.g. different routes for a planned road) and alternative projects (e.g. high speed train vs. regional airport)?

Legally, no.

If so, how is "project" defined?

The definition is the same as in the directive.

- d) Are projects defined as those meeting the operators narrow objective, or also those which would serve a broader goal?

Only those meeting the operator's narrow objective.

- e) Only those which are not more costly than the project proposed by the operator?

No.

- f) Must the zero alternative be considered?

Yes.

3. Must the environmental effects of the alternatives proposed be as thoroughly checked as that of the proposed project?

In the law, yes. In the reference documents providing technical guidance for the developer, no. In practice, they aren't.

4. Do opponents have standing in administrative proceedings and before administrative courts to argue that certain alternatives were not (adequately) considered?

Yes, but they will hardly win. Again only in cases of "manifest error" of the competent authorities.

5. What reasons have been raised to challenge the fair balancing of alternatives?

Arguments in favour of incinerating dangerous wastes. Plaintiff (NGO): the alternative of previous sorting of wastes to divert some fluxes from incineration was omitted. Should have considered intermediary steps after collection but prior to incineration. Defendant (Minister and developer): it is better to incinerate than to leave the wastes abandoned. The defendant won.

Argument for choosing a malfunctioning installation for waste incineration: The performance of the installation is so negative and the environment around it is in such a bad condition that proceeding with the project is better than doing nothing at all. The minimization measures will allow the requalification of the site.

Argument for choosing a state of the art installation for waste incineration: if functions so well that it is safer for people and the environment to incinerate there.

Castro Verde highway⁸ in 2001. Supreme Administrative Court: the favourable opinion on the construction of the highway is not judiciously attackable because it only causes a potential damage and not an effective damage.

Castro Verde highway in 2006. Supreme Administrative Court: only the final expropriation is judiciously attackable and not intermediate acts.

Castro Verde highway in 2010. Supreme Administrative Court. Plaintiff (NGO): there were several other alternatives which were not considered at all, the damages are serious, the authorization is null and void. Defendant (Concessionaire "Brisa"): some alternatives were

⁸ The same highway whose EIA omitted the assessment of alternative routes, according to the ECJ in case C-239/04, decided on the 26th October 2006.

indeed considered, the layout of the road was redesigned during EIA, the final decision was not disproportionate, it was not proven that the decision to authorize and the subsequent functioning of the road, caused any serious damages to the birds (namely extinction). The defendant won.

Salvaterra de Magos highway: Declaration of public interest of a road project after a negative EIA. Declared null by the Supreme Administrative Court because the law requires it to be previous in order to be taken into account in the EIA.

High speed road in Açores. Plaintiff (neighbour): not enough consideration of alternatives. Defendant (Secretary of State): the alternatives were considered in the first place but they were abandoned because of its obvious advantages: less traffic jams, best geometric features of the layout, easier construction, no interference with existing traffic, lower construction costs, regional development. The defendant won.

III. General questions

6. *What is your overall assessment of experiences with balancing environmental risks with socio-economic benefits in relation to alternatives?*

My feeling is that there is always a way to justify the need to authorize a project which has undeniable environmental impacts. The justification can be either based on its socio-economic benefits or even based on its environmental advantages.

The socio-economic benefits

The inclusion of socio-economic impacts in the broad concept of “environmental impact” and the competence of environmental authorities to balance socio-economic benefits against environmental disadvantages, during environmental impact assessment, was never an obstacle to approve environmentally questionable projects. However, very often, the socio-economic benefits are over estimated.

The environmental advantages

In cases of energy projects the balancing of different conflicting environmental impacts (*stricto sensu*) makes it difficult to control the results of the balancing process.

In Portugal the need to comply with Kyoto Protocol was the perfect excuse to justify the construction of 10 large hydroelectric dams. The *greenwashing* of the dams was convincing enough to persuade the public and to hush the main dissenting voices.

The balancing of alternatives

In spite of the fact that the law obliges the developer to consider various kinds of alternatives, sometimes the alternatives are carefully chosen to serve as arguments in favour of the intended option. In cases like these all the other alternatives, in terms of their environmental impacts, are worse than the main project.

For instance: an EIA for a large resort for upper class tourists in the Algarve was performed. The resort is to be developed around artificial lakes with access by boat from the dwellings to the marina and to the sea. The first option as to the origin of the water was using water from the sea (in spite of the risk of soil salinization). But finally, two other alternatives were analyzed: using water from a nearby river (risk of water shortage for human consumption during dry summers) or using treated waste water (risk for public health due to mosquito plagues).

These are **fraudulent alternatives** because they were only considered for two reasons. One: to fulfil the formal duty to analyse alternatives. Two: to reinforce the positive assessment and social acceptance of the project, that appeared, in the end of the day, as the least harmful of the three options.

How alternative is alternative enough?

There isn't a straight line separating the concepts of **alternatives to a project** and **alternative projects**. It can be difficult to tell one from the other because in some cases the distinction is gradual: not a qualitative but only a quantitative distinction can be made. When slight and gradual changes are introduced in a project in order to prevent or minimize its impacts we are in front of four situations in a chain: fake alternatives (1), alternatives to a project (2), alternative projects (3), different projects (4).

1	2	3	4
fake alternatives	alternatives to a project	alternative projects	different projects

In the present state of affairs only one can be reasonably required from the developer: the analysis of **alternatives to a project** (2).

In the case of **fake alternatives** (1) the changes on the original project are so subtle that there is hardly any reduction of impacts. For instance, the mere rotation of a project from north to south, normally will not have any effect on the impacts. There are exceptions, however: the rotation of an airport runway can have a major influence in the impacts of aviation, reducing the risk of bird strikes on approaching, landing and take-off.

In the case of **alternatives to a project** (2) the variations on the conception, design, execution, time planning, siting, exploitation, etc. are enough, as a rule, to reduce significantly the impacts of the project. The objectives aimed by the developer can still be attained although with increased costs for the developer. These are the real alternatives which can reasonably be required from the developer.

However, sometimes, what looks like an **alternative to a project** at the first sight, can really turn into an **alternative project** (3). The example is an alternative localization further and further away from the "originally intended" site. One kilometre will not make a big difference, but what about 10km? And 100km? For instance, if the intended project is to build up a new airport in a certain city, building it 300km away will probably change the very nature of the project. It is not *the same airport* in another place. It will not serve the developer's objectives... it is in fact, an **alternative project**. If the alternative project is not attractive for the developer it is not reasonable to require him to go on with it. Depending on the extent of the impacts, the zero option is the most likely decision.

Finally, there is the case of **different projects** (4). In this circumstance the differences in nature, scale or siting, compared with the original project, are so huge that it becomes a new project. But the different project can serve the same public objectives. Again, if the project is a new airport, a **different project** could be the construction of a high speed rail. Indeed, both trains and planes serve the purpose of mobility but running an airport or a railroad are different businesses and require different developers.

7. *Would you suggest another way of how to structure the risk-benefit calculus?*

The mandatory assessment of alternatives to a project is important but the way in which this obligation is being fulfilled, at least in Portugal, shows that it clearly not enough.

If we want to reverse the course of events, putting each individual project in the larger context of sustainable development, we must adopt two attitudes: one is to take the "zero option" seriously, and the other is to consider not only **alternatives to a project** but also

alternative projects and even **different projects**. Of course it is not possible to impose the implementation of **any project** on the developers. Namely **projects** which are quite **different** from the original proposals or **alternative projects** with doubtful economic return and profitability.

But when:

- there are no viable alternatives;
- mere conditions are not enough to prevent serious environmental damages;
- in broad terms, the goals of the project will bring some social, economic or environmental benefits;
- an **alternative project** or a **different project** will fulfil the same goals of the original project with no severe environmental damage;
- but it is not possible (due to his entrepreneurial goal) or it is not economically reasonable to impose the developer the prosecution of such **alternative** or **different project**...

...why not considering the idea of a joint venture, a public-private partnership for the prosecution of mixed interests?

ANNEX I

Guidance on EIA scoping, Luxembourg, June 2001

CHECKLIST OF POTENTIAL ALTERNATIVES AND MITIGATION MEASURES

One aim of Scoping is to identify alternatives and mitigation measures which it may be appropriate for the developer to consider in finalising the project proposals.

The following checklist provides examples of the types of alternatives and measures which may be available and which could reduce the environmental impact of the project.

The EU Directives do not require developers to consider alternatives in EIA but it is generally considered to be good practice to give some consideration to whether there are any feasible alternatives to a project which ought to be considered. If any alternatives are considered the Directives require the developer to describe them in the EIS and to explain their reasons for choosing the proposed project.

Types of Alternatives and Mitigating Measures to be Considered

- Measures to manage demand for goods or services
- Measures to conserve or reduce wastage of resources
- Different approaches to meeting demand
- Locations or routes
- Processes or technologies
- Working methods
- Site plans and layouts
- Design of structures
- Types and sources of materials
- Product specifications
- Timetable for construction, operation and decommissioning including any phasing of the project
- Start and finish dates
- Size of the site or facility
- Level of production
- Responsibilities for implementation
- Pollution controls
- Waste disposal arrangements including recycling, recovery, reuse and final disposal
- Access arrangements and routes for traffic to and from the site
- Ancillary facilities
- Management methods and systems
- Environmental management responsibilities and procedures
- Employment and staff training
- Monitoring and contingency plans
- Decommissioning arrangements, site restoration and after-use
- Do Nothing or Do Minimum