

THE ENVIRONMENTAL OVERVIEW IN DEVELOPMENT PROJECT FORMULATION

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THE UNDP ENVIRONMENTAL MANAGEMENT GUIDELINES

The United Nations Development Programme (UNDP) *Handbook and Guidelines for Environmental Management and Sustainable Development* was published and distributed after two years of development and consultations (UNDP 1992). The guidelines were developed, in part, as a response to UNDP Governing Council decision 90/20 and were directed at ensuring the application of environmental guidelines to all UNDP programming activities. This resulted from a greater awareness of, and increasing support for, measures to promote sustainable development that required the integration of environmental considerations into development planning. The guidelines have undergone changes since first introduced, but little on either the original guidelines, or their revisions, has appeared outside of the 'grey' literature of agency reports and memoranda. One exception is Sen et al. (1992) who held the view that the UNDP guidelines constituted an important step forward in environmental assessment for development assistance by being the first serious attempt to introduce environmental assessment into all stages of a country's program and project cycles and by their required application at the earliest stage of the development process. The authors applauded recognition of the need for "up-front pro-active" guidelines aimed at altering how projects are chosen and designed, rather than concentrating merely on mitigating the impacts of already chosen projects. They were less complimentary about the nonoperational part of the UNDP guidelines, which consisted of a generalized discussion on environmental management (Sen et al. 1992).

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UNDP initially presented several tools in the operational component of their guidelines: the environmental overview of the project/programme (EOP), the environmental management strategy (EMS), and the environmental overview of the country (EOC). These are described in the 1992 guidelines (UNDP 1992). These tools underwent revision after a year of experience and the first two tools were collapsed into an environmental overview of a project/programme and management strategy (EOP/MS) (UNIDO 1994). The tools are likely to undergo further revision, since experience has shown that there is only *one generic analysis* underlying each of the different tools. It is this single generic tool, the *environmental overview*, that is described in this paper. The environmental overview is flexible. Experience shows it can be applied to projects, programs, sectoral analyses, and policies. The UNDP guidelines, and most development contexts, properly define *environment* as including social, cultural, health, and economic dimensions, not just the biological and physical. The environmental overview process as described in this paper has emerged in the light of UNDP's training its own officers and government counterparts in well over 100 separate training exercises in developing countries around the world.

This paper redresses the poor availability of information on the environmental overview process. It describes the content and the operational processes of the environmental overview, examines the niche that it occupies in the environmental assessment family of project and program appraisal tools (it is a form of strategic environmental assessment), and discusses why it has proved to be an effective and efficient tool for use in the formulation of projects, programs, and policies. Environmental overview is a creative, not just a review, tool, and experience shows it can have widespread application outside the narrow confines of UNDP development activities for which it was initially developed.

DEVELOPMENT ASSISTANCE AND ENVIRONMENTAL ASSESSMENT

Amongst United Nations agencies, multilateral development banks, bilateral donors, and other intergovernmental aid organizations, the United Nations Development Programme came late into the field of environmental appraisal for the aid projects it supported. The World Bank, the Asian Development Bank, USAID, and many others had at least fledgling guidelines in place during the 1980s (Mikesell and Williams 1992) and these have been

successively refined (Roe, Dalal-Clayton, and Hughes 1995). **By** contrast, it was not until 1992 that the UNDP published its first environmental guidelines (UNDP 1992) intended for application at the project-level, program-level, and country-level activities in which it was involved. The development of these guidelines was important for two reasons. First, while the UNDP aid funds per country are generally small relative to those of many donors, the UNDP is the one international organization that has a presence in nearly every country in the world. Second, the UNDP works in a close “partnership arrangement” with the government of each country. Projects and programs are developed jointly between government and the UNDP, and the procedures and guidelines that the UNDP uses in formulating, implementing, and monitoring projects with their government counterparts, including the environmental overview procedures, potentially provide both a model and experience for these counterparts.

In addition to the use of conventional environmental impact assessment (EIA) when assessing a development, often in the scaled-down form of initial environmental assessments (see, for example, Kennedy 1988), many of the guidelines used by aid agencies to assess the environmental dimensions of development projects are variations of a checklist approach: (For example, *Does the project have any adverse effect on the environment?* or *Have women’s issues been considered in formulating this project?*). Roe, Dalal-Clayton, and Hughes (1995) note that despite the profusion of international aid guidelines, few are implemented because of insufficient levels of human and financial resources and more fundamentally, because guidelines are too general or too mechanistic to be of relevance to real tasks and problems. Ortolano and Shepherd (1995) also note that there are many examples where environmental assessments of aid projects are meaningless efforts done only to satisfy procedural requirements and that the challenge is to implement them in a way that is both productive and sensitive to the local context. Scanlon (1994) also notes a failure to achieve stated policy with respect to environmental assessment of aid projects, primarily as a result of a lack of resources being directed at the level where most of the critical decisions regarding environmental impact assessment are made.

Another issue is changes in the nature of much aid activity, particularly that supported by the UNDP. Whereas aid in the past was often what conventional **EIA** practitioners would see as “projects”—irrigation, well digging, agricultural schemes, industrial support—much aid today is of a ‘softer’ nature. Aid projects consisting of institutional building, sectoral support,

development of in-country capabilities, and similar efforts are common, if not the norm. Along with changes in the nature of aid from “hard” to “soft,” many aid activities now consist of programs of interrelated activities, not just individual projects. These changes pose new challenges to environmental assessment, necessitating tools that operate at a more strategic level. Lee and Walsh (1992) noted that some of the multinational and binational aid agencies and banks are showing interest in the extension of environmental assessment to the more strategic levels of planning and decision making, but actual practice to date was fairly limited.

By coming late to the development of environmental guidelines, the UNDP has had the advantage of learning from the considerable experience and, in many instances noneffectiveness, of other agency guidelines. They also were able to respond to the need for environmental guidelines that could be applied to the softer developments and could be applied at all scales of development programming—whether at the local level or the national level. In addition, interest in the environment and sustainable development has continued in nearly all developing countries, particularly as addressed by the United Nations Conference on Environment and Development and its follow-up programs, such as Capacity 21. This has sharpened the understanding of the need for environmental assessment of development activities and the requirement for integration of environmental considerations into all sectors of development.

As a result of this experience, the UNDP environmental management guidelines categorically rejected a checklist approach to the environmental screening of development projects. This rejection, despite strong demands from officers working in the field that a checklist was needed, was based on the belief that checklists are a mechanistic and trivial form of assessment. A checklist mentality prevails with respect to much project evaluation and thematic checklists were seen to accomplish little other than bureaucratic compliance and have little impact on program formulation. Environmental assessment checklists also generate a misplaced faith that environmental matters were being attended to. In addition, the UNDP guidelines focused strongly on environmental analysis at the project or program *formulation stage*, not at the post-formulation environmental audit stage or the approval stage. How this has been achieved with the environmental overview is explained below.

The next sections describe the essential components of the environmental overview and what is required for the process to work. For simplicity, the environmental overview is described in terms of its application to projects and programs, though this understates its overall versatility since it can be applied equally to sectoral or policy analyses.

THE ESSENTIAL COMPONENTS OF THE ENVIRONMENTAL OVERVIEW PROCESS

There are four critical aspects to the successful application of an environmental overview to development activities:

1. The project/program must be in its *draft* formulation stages.
2. There must be sequential completion of each of the structured “questions” of the environmental overview.
3. The environmental overview must be undertaken using a broad mix of specialists and others.
4. The process must include modification of the draft project/program, (if required) as an integral part of the environmental overview.

The project/program must be in a draft stage of formulation

It is during the formulation stages of a project/program when the broad systems view provided by an environmental overview is most useful in illuminating its weaknesses, omissions, and externalities, and in suggesting new opportunities that could be considered. The speed with which the environmental overview can be completed and its involvement of proponents and other stakeholders allows its use in project selection (or abandonment) and modification. Of course, there is no reason why the environmental overview could not be used as a post-design checking tool in the same way that project-based **EIA** is used, but its real power is as a *project formulation* tool.

Completion of the structured “questions” of the environmental overview tool

Conventional EIA asks a set of questions about a proposed project:

- What are the elements of the project'?
- What is the environment in which the project will occur'?
- What are the environmental and social effects of the project?
- Can these effects be mitigated?

The environmental overview asks a similar set of questions, but with some different emphases. First it asks questions concerning the *baseline* conditions for the project/program:

What are the biophysical and social environments of the project area?

What are the major environmental and social issues that currently exist in the project area'?

What are the economic forces that are currently operating in the project area?

What are the current management practices and capabilities in the project area'?

Next, it asks questions concerning the project/program's *impacts and opportunities, design options, and operational strategies*:

- What are the major natural and socioeconomic impacts and opportunities associated with the implementation of the project?
- What project design modifications/alternatives exist'?
- What operational strategy for implementation of alternatives would address impacts and baseline conditions?

Answering these questions results in a brief document. However, it is the *interactive process* of assembling the environmental overview document, including any consequential changes to the project/program, rather than the document itself, that is the heart of the process. Table 1 illustrates what **must** be considered in the questions of the environmental overview. Table 1 paraphrases and modifies slightly the original guidelines (UNDP 1992) and is presented here at length to provide **an** accessible record of the process, which to date only has been available in short-run UN agency documents. The material in table 1 is for general guidance only. In order to produce a relevant environmental overview, the content needs to be modified to fit the circumstances of each particular project/program.

The environmental overview as described in table I is for an activity with a *geographical base*. The tool is flexible, however, and has been applied to nongeographically based projects and programs, to sectoral activities, and to policies. Small changes to the questions in table 1 are needed to make them meaningful to other project/program types. For example, if “building capacity in industrial sector development” was proposed, the environmental overview would ask, “In what biophysical and social environment will the industrial sector operate?”; “What are the main existing environmental and social issues?”; “What are current environmental management capabilities in the industry sector?”; etc. This flexibility was demonstrated by successful application to a national shelter strategy proposal in Namibia, tourism sector development in Cambodia, a regional scheme for resettling of reclaimed tsetse fly land in Zimbabwe, and road development in a range of countries.

The environmental overview must be undertaken using a broad mix of specialists and others

While the scope of an environmental overview could be written by a project/program proponent alone or a consultant, this would be to misconstrue how the tool functions. Its essence lies in the wealth of expertise that rapidly can be brought to bear by interactively involving many parties in a group and by the constructive dynamics of this group.

To generate a diversity of views for past projects/programs, the overview participants have included professional UNDP staff and their government counterparts responsible for project formulation, local representatives of other UN agencies, and representatives of major environmental nongovernmental organizations (NGOs). Government counterparts have included representatives of many line agencies, such as health, energy, women, forestry, agriculture, water, industry, tourism, fisheries, coastal management, planning, and finance. While this mix was originally chosen for training purposes, it has proved to be a model of how an environmental overview should be conducted in practice. A wide breadth of line agency representation in environmental overviews is critical since development projects/programs always result in complex changes to the biophysical and social environment beyond those created by the activity itself. For example, a pre-judgement that a road project need only involve the transport and the environment line agencies would neglect the wider systems changes that could result. Desirably, preparation of the environmental overview would include participation by of those affected by the development.

Despite rhetoric to the contrary, in most development planning there has been little participation by affected parties. The environmental overview process provides a practical mechanism to apply participatory development techniques to the project formulation process. Where the development proposal involves a specific geographical location, field visits by participants is highly desirable.

The wide range of views provided by a mix of participants is essential to set a proposed project/program in the context of its environmental and social systems. For example, during an environmental overview of a project to build in-country capacity in tourism, the contributions of health professionals demonstrated a major failing in the original project concept and led to modification of the project. In a program designed to build capacity for export promotion, officers of the environmental agency were able to draw attention to a national conservation strategy. This was critical to the inclusion of sustainability objectives that were not included in the original program. The national conservation strategy was official government policy, but the government trade agency had never heard of it. To the proponents of these developments, these omissions and subsequent modifications were surprising outcomes of the environmental overview. These proponents also found that by taking into account issues outside of their own disciplinary and line agency interests, the resulting projects were more likely to be both successful and sustainable.

Further, because these modifications were suggested by the environmental overview at a very early stage of project/program development, when budgets, terms of reference, and timelines were still quite flexible, proponents were able to be receptive to proposed modifications. Their receptivity was greater than had modifications been suggested after the project design had been largely finalized (as is not uncommon with conventional EIA).

For most proposed projects/programs the environmental overview can be completed in one day or less, depending on the complexity of the project/program, and the availability of background information. In practice, two sessions, separated by a period when information gaps identified in the first session are filled, is likely to be successful.

The environmental overview process includes modification of the draft project/program

The operational strategy of the environmental overview is one of building into a modified project/program ways of investigating and addressing environmental and social issues associated with the project and environmental issues that already exist. This function is clear in figure 1. Since an environmental overview is undertaken at the earliest stages of a project/program, new budget items, time lines or personnel requirements can be readily added to the proposal. The nature of most development activity is such that, unless these matters are resolved early in project/program planning, or at least as a part of additional projects/programs to specifically address them, then they are unlikely to be resolved by any other action.

Experience has shown that a group consisting of a mix of interests, together with appropriate resource documents, can provide answers to all questions in table I. The answers are in sufficient detail to ensure that the environmental and social setting is understood, and the most significant issues are raised and addressed. As Dixon and Montz (1995) have noted in a different, but related, context, this is based on the proposition that predictions based on sophisticated modelling may not be required to enhance decision making. Development practitioners with no environmental training can readily introduce modifications into a project/program once environmental issues and opportunities are brought to their attention and clear environmental objectives are set.

The environmental overview is based on the premise that knowledge and skills to *recognize* (not necessarily *to solve*) the broad environmental and social issues associated with development proposals, and to maximize opportunities within development proposals, reside within a country and can be harnessed through a participatory group process. If solutions are not obvious to groups completing the environmental overview, then they must build into project/proposal planning the budgets, specific tasks, and specialized personnel to generate the solutions. For example, in the tourism capacity building project referred to above, the solutions to the associated health problems of tourism were addressed by modifying the terms of reference for the project to include health responsibilities and the budget needed for a multi-skilled health team to be a part of efforts to build tourism capacity.

Table 7. The environmental overview**IN THE PROJECT AREA...*****What are the biophysical and social conditions?***

Those participating in the development of the project need basic information on the physical and social characteristics of the environment in the project area. This description highlights any aspect that might be a *determinant* of the selection and design of the proposed project. It may briefly describe, for example, the major relevant land, water, and natural ecosystems that characterize the project area (such as plains, valleys, mountain ecosystems, lakes, climate, biological and or mineral resources) and whether any of these represent untapped environmental opportunities or areas of particular environmental concern. If the projects are urban, the form and functioning of the city can be described. Equally, the broad socio-cultural context in the project area (population size, ethnicity, poverty and gender indicators, etc) are part of this description.

What are the main environmental and social issues?

For example, is the area is prone to flooding, is there ongoing desertification, or is the fish catch smaller each year (sustainable potential being smaller than present exploitation)? An area may be severely polluted, or have waste management problems. Issues such as under-employment, poverty, quality of life of the local population, natural hazards, role of children and women, and overcrowding may exist. Consultations with local groups would improve the quality of this information. This section is the base line setting *before* the project. It becomes particularly useful when looking for opportunities that can be integrated into the project.

What are the economic situation and forces?

A clear picture is required of the prevailing economic situation and forces that exist in the project area. Prevailing national or local economic issues and policies that affect the project area are considered; agricultural subsidies, export promotion, structural readjustment, income distribution, traditional measures of wealth, economic instruments, nonavailability of finance, peasant loan systems, etc., can all prove relevant. Enforcement mechanisms for such policies and regulations also may be pertinent, as could information about the population's socioeconomic situation, if not already described.

What are current environmental management practice and capabilities?

What is the current capacity of the people and institutions working in the project area to cope with environmental and social problems, achieve appropriate environmental management, and promote sustainable development? A simple listing of laws and regulations is not what is required here, but instead a thoroughly realistic appraisal of the strength and resources of institutions in the project area, and their staff capabilities for management and enforcement. Broad thinking beyond government environmental management regulations and capabilities is essential. For example, the strongest management in an area may be traditional agricultural practices, local land husbandry, or management through cultural and religious practices. The description should include legal and regulatory matters and explicit environmental policies and regulations relevant to the project area. It should be asked whether these have enforcement mechanisms and appropriate technical and financial support to be effective. The major actors in the project area should be described: government authorities, international organizations, private sector, NGOs, women's groups, grass-roots organizations, individuals, etc., and their objectives and strategies. Existing and possible conflicts among the actors should be identified.

What are the major natural and socioeconomic impacts and opportunities associated with the implementation?

This is a familiar step for those experienced in environmental impact assessment. Corresponding to the scoping stage in a project-based EIA, it lists the major potential socioeconomic and biophysical impacts associated with the project. Given the participatory approach required in the environmental overview, this step is best approached through brainstorming. In addition to determining the scope of impacts, it is used to identify the range of *opportunities* that can be associated with the project. Identifying opportunities is far more than identifying positive project impacts. It involves setting the project in the context of the environmental and social issues existing in the area before the project and some lateral thinking about how the current proposal could be extended to address non-project-related issues and broader development objectives. Brainstorming on impacts and opportunities must clearly extend beyond the particular goals of the development proposal.

Modifications/alternatives for project design?

This section examines the possibility of altering the project design (e.g., project technology project objectives, staffing, or method of implementation) to take better advantage of the environmental and social opportunities offered by the environment in the project area and to mitigate and eliminate the environmental disadvantages the project might create. It also may address the *need* for the project and major alternatives to assist with project selection. It should state clearly and succinctly the *environmental and social objectives* that will be addressed by the modifications/alternatives, particularly if these are not explicit in the original project. In considering modifications, *conflicts of interest* between different actors must be identified and articulated. For example, the interests of companies that commercialize chemical fertilizers will conflict with activities aiming to promote organic fertilization. Projects aimed at alternative sources of energy use and energy conservation may conflict with the energy production goals of central energy authorities. The environmental overview must identify such conflicts of interest and devise possible alternatives to avoid them.

Formulation of an operational strategy

This is the most important part of the environmental overview and is action oriented. It involves the formulation of an operational strategy for incorporating modifications/alternatives into the project or additional projects that would aid in meeting the project's environmental objectives. The strategy can include determining whether the modifications/alternatives or additional projects have merit. The strategy must be formulated in consultation with the staff proposing the activity, as well as other sectors of the economy, such as industry, trade, health, transport, etc. The objective is to identify who and how to influence in the decision making process to achieve the environmental objectives. The operational strategy must develop a plan of activities, timetable, and budget for implementation. Most often this will be by adding to or altering the activities included in the draft project document and by altering the specifications or the terms of reference of key personnel to be appointed for the project. The plan must include when the supplemental activities are expected to occur, who will be responsible for them, and how they are compatible with the primary activities and their timetable. Where there are major difficulties in directly incorporating all the necessary changes into the original project, the plan should focus on supplementary projects to be developed in parallel with the original project.

Monitoring

All development aid projects include some process for regular monitoring to ensure that the project's objectives are being achieved in the time framework envisaged. Environmental objects *need to be part of* the modified project. They also will need to be monitored and evaluated as a matter of course.

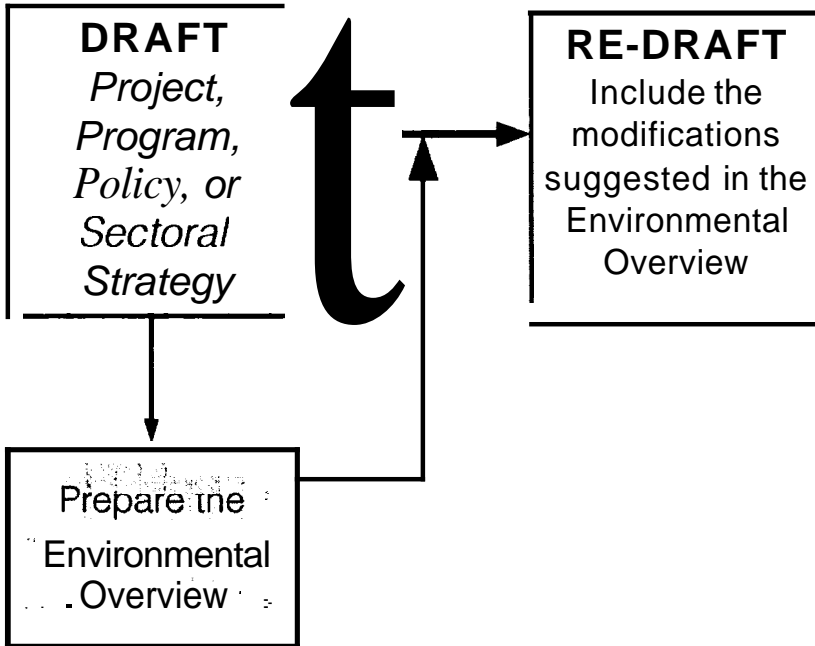


Figure 1. Role of the environmental overview in the formulation/reformulation of projects, programs, policies, or sectoral strategies.

"Redrafting" can include abandonment of the project or use of an alternative proposal; hence the environmental overview also *is* a tool for project selection. All projects go through multiple iterations of draftire-draft in their passage from concept to approval; and for maximum effectiveness the environmental overview should be conducted at the earliest possible stage of this process.

DISCUSSION: WHY DOES THE ENVIRONMENTAL OVERVIEW WORK?

This author has participated in the application of environmental overviews to more than twenty projects, programs, or policies in more than a dozen countries. The environmental overview works. It captures the interest of participants in developing countries and is seen as an appropriate and realistic tool. Why is this the case? The simplicity and the speed of the process are attractive, but these are not the only reasons. Why it produces results also may be because it overcomes many of the inherent failings in existing project evaluation and impact assessment tools (Boothroyd 1995) for handling environmental and sustainability issues. That the environmental overview works as a form of strategic environmental assessment in developing countries is sufficient reason for its adoption, but why it does so warrants some examination. The following is a first attempt at defining why the new tool works:

- The environmental overview blurs distinctions between the social and biophysical dimensions of a development activity.
- The emphasis is on the whole system in which the development occurs, requiring participants to step outside their disciplinary and line agency boundaries.
- The environmental overview sets a clear and integrated baseline against which sectoral managers and decision-makers can effectively judge needs, impacts, and opportunities.
- The environmental overview brings economics, environment, current environmental management, and capacity to manage into clear counterpositioning.
- The mix of participants brings a broad range of knowledge and perspectives to the development problem.
- The process, provided it occurs at the earliest stages of project/program formulation, is relatively unthreatening to the proponent.
- The environmental overview process provides the right environment for creative and lateral thinking.

- The environmental overview effectively empowers, possibly for the first time, a diverse range of professionals to incorporate environmental and social objectives into development planning.

The environmental overview clearly has its origins in **EIA**, but it is a new component that can be described *as* part of a *tiered* system of environmental assessments (Therivel et al. 1992). Its position in this *family* of environmental assessment tools is as an effective and efficient means of evaluating a proposed development activity *during its early formulation stages*. It responds to what Jiggins (1995) describes as the “growing appreciation that the tools of technical assessment (including environmental impact assessment) commonly used in industrialized countries at the project, company, or enterprise level, are not wholly suitable for development impact assessments ...). It also responds to the long-standing criticisms that conventional environmental assessment occurs far too late in the project/program cycle to be effective (Graybill 1985; Beanlands 1988; Brown and Hill 1995) and that conventional environmental assessment is a passive tool (Brown and McDonald 1995). The environmental overview serves to overcome the compartmentalization of development activity within line agencies and furthers the important concept that environmental responsibilities lie within all agencies. The process calls for the integration of environmental and social concerns into project formulation. The environmental overview is at the cutting edge in this area of early assessment and design of development projects.

The environmental overview will not please many **EIA** purists, who will criticize it on lack of rigor, its short time frame, the absence of collection of data, its impressionistic overview, lack of predictive expertise, etc. But the environmental overview process is not, and was never intended to be, a substitute for conventional **EIA**. In many countries, conventional **EIA** has never been applied to more than a few large infrastructure development projects, and at present many development activities escape with no, or cursory, examination of their environmental impacts or opportunities. Because it requires very few resources, the environmental overview is a tool that can be effectively applied routinely and can be implemented in every country with the expertise that already exists within each country. As required, a full **EIA** still can be prepared at a later stage. One of the modifications that an environmental overview might make to a project, for example, is that a complete **EIA** is required to determine appropriate mitigation strategies. Preventing the implementation of unsustainable and

environmentally unsound programs or policies, or appropriately modifying them while they are still in their early formulation stages, moves development planning towards the goal of sustainability more than a few EIAs on a few large projects ever will.

CONCLUSIONS

The objectives of environmental assessment in development is to produce projects, programs, sectoral strategies, and policies that are environmentally and socially sound or sustainable. The assessment should be conducted efficiently and effectively, with minimal hindrance to the process of development and minimal use of scarce in-country resources. The UNDP's environmental overview has proved to be a rapid environmental assessment tool for use during the formulation stages of development proposals. It is a mechanism for incorporating impacts and opportunities directly into the selection and redesign of the proposal. It has evolved from UNDP experience with its own development activities, but is proving to be a versatile tool. First, it is not restricted to UNDP operations, and it performs equally well as an environmental assessment tool in the early formulation stages of development activity outside the UNDP system. Second, it works at any scale, whether at project level, program level, or country level. It is applicable to hard or soft projects, such as capacity building. It is even applicable to the assessment of policies. The environmental overview is a proven form of strategic environmental assessment with proven application through extensive field testing in developing countries, albeit to date, primarily in training activities.

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