

SEA at the Policy, Plan, and Program Levels

by John Bailey

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Welcome to this lecture on strategic environmental assessment at the policy, plan, and program levels. This is one of the lectures within the first module looking at the basics of strategic environmental assessment.

By now you've heard from other presenters as to the origins of strategic environmental assessment, the merits of undertaking strategic environmental assessment, its history, and other introductory material. The task that I've been given is to focus more specifically on policies, plans, and programs, and the strategic environmental assessment of each of those.

If we can move on to the first slide, I need to explore with you what are the three P's, that is, policy, plan, and program.

A policy, generally speaking, is a broad statement of intent. That intent may be expressed with an objective and a course of action designed to meet that objective. Quite often, it's important to also prioritize those objectives and the course of action required to meet a given objective.

For example, you may have in China a policy to move to the sustainable utilization of a natural resource, be that surface water, ground water, forests, fisheries, or whatever. The policy then will contain an objective to manage that resource sustainably and a series of requirements to achieve that sustainability objective.

Around the world, policies are sometimes private, more often public policies. They're often explicit, but not always. Some policies can be contained implicitly within, for example, a land use or sectoral plan. They can be statutory, that is, have the backing of law, or they can be informal or non-statutory. In all cases, though, they operate at a very broad level, establishing an environmental objective and the requirements to meet that objective.

At a more specific level, we have plans and programs. Plans provide a specific outline for implementing a policy, and as we'll see in a moment, there are different types of plans in many countries, including China; whereas, programs provide an agenda to achieve the implementation of a policy. By way of example, then, a plan may be a water development plan for a subnational

region within China. A program may be a program to explore for petroleum within a region of China or may perhaps be a program to upgrade wastewater treatment plants within a city.

If we move on, one of the important relationships between policies, plans, and programs is that they form a hierarchy. In the strategic environmental assessment language, that is often referred to as a tiered relationship; that is, a policy provides constraints for the plan that follows, and the program then fits within the plan.

So, for example, there may be a policy to open up a region within China for road transport. The plans then provide for a regionwide development process for those regional roads where individual sections of roads are developed under the heading of the programs.

The strategic environmental assessment community is strongly of the view that this tiered relationship enables the environmental consequences of the programs to be partly taken care of through the assessment of the plans, and the environmental consequences of the plans to be partly taken care through the assessment of the policies. That is, the environmental conditions that might be attached to a policy inform the development of the later plan and, later on still, the program that fits within that plan. And that relationship can also be extended into traditional environmental impact assessment when we look at individual projects that lead to on-the-ground development and the environmental impacts accruing, the management and mitigation measures being put into place.

While I've described this tiering relationship between policies, plans, and programs fairly simplistically, in practice there is considerable overlap between all three levels, and in later presentations, you'll hear about some of that through case studies.

In addition, I think it's important to recognize that the business of decisionmaking is rarely quite that straightforward, that is, policies don't always precede plans and likewise for programs. It may very well be important for a country to develop plans and programs at the same time as policies, so the relationship is more a two-way relationship rather than only occurring in one direction.

As we move down from policies to programs, the level of specificity and certainty increases. The environment affected becomes more limited in scale. The impacts that occur become perhaps more limited in time. And the management details can become more prescriptive and more specific.

Having said that, it's important to remember, though, as I previously pointed out, that a lot of the conditions can be identified at earlier levels, plans conditioning programs and policies conditioning plans.

The implications of these different definitions for policies, plans, and programs vary by different country and by different agency. As we move between developed and developing countries, countries with different forms of government, the significance of the tiered relationship can vary. For example, in those countries that are federal states or countries which have strong provincial government, the policy, plan, program hierarchy can be particularly important when policies

might be set at the national level, with the programs and the plans being set at the state or provincial level. So at the very generalist level of the governance of a country, significant implications can be realized for the relationship between policies, plans, and programs.

The different definitions from country to country and from agency to agency within a country lead to different possibilities in terms of the level of integration that can occur within a policy, plan, or program assessment, and also, and as a result, the appropriate methodologies that can be used. We speak of vertical integration within an agency and horizontal integration between agencies.

The strategic environmental assessment literature is very much focused on achieving both vertical and horizontal integration. Indeed, one of the reasons behind strategic environmental assessment is to achieve that level of integration. That means it is important for one agency that has responsibilities over different geographical areas to integrate its policies from the national to the local, and, similarly, for its policies to be integrated with those of agencies that are working in the same region, so that a water development agency needs to integrate its strategic assessments with a land use agency that might be working alongside it.

If we turn specifically to the implications of much of this for China itself, as you are well aware, policy level assessment is not mandated, it's not required under statute in China; whereas, planning level assessment is required under legislation.

Planning occurs at various scales and in various ways, in particular, land use and sectoral planning. Sectoral plans are closely linked to policies. A sectoral plan may indeed be the principal way in which a policy for, for example, the supply of electricity, is given effect to.

Land use plans are also particularly important in that it is through the hierarchy of land use plans from the national to the local that the tiering that I mentioned before is given effect to and the strategic environmental assessment that accompanies that land use planning can be most meaningful.

It's also worth mentioning that while policy level assessment is itself not required under statute, the capacity to include environmental considerations in the generation of policies is something that should not be lost sight of and, in addition, the development of plans and programs may very well have policy implications. So there is, if you like, a bottom-up relationship between the assessment plans and programs that operates at the policy level.

I'd now like to turn to consider some questions of methodology, starting out by mentioning that while benefits of strategic environmental assessment have been well explored in the literature, some of the methodological details are still few and far between. As you've already heard, though, generally speaking we can see strategic environmental assessment as either an extension of normal project environmental impact assessment or as sustainability-led.

To remind you of what you've already learned, EIA as an extension or into strategic environmental assessment works on the assumption that the techniques used at the level of project EIA are equally applicable to program, plan, and, indeed, policy assessment. These

techniques focus very much on the prediction and mitigation of impacts, techniques that are preferred to be quantitative rather than qualitative, and that also commonly provide for public involvement to various extents. Sustainability-led methodologies, though, differ in that they focus much more on impact identification, with perhaps less emphasis on the quantitative prediction of those impacts, still with an emphasis on their mitigation and management, but perhaps most importantly sustainability-led strategic environmental assessment places greater emphasis on integrating social and economic considerations into the environmental equation that is strategic environmental assessment. And as indicated on the overhead here, there is a growing focus to develop strategic environmental assessment that is sustainability-led. Indeed, in the literature, it is now possible to come across sustainability assessment almost as a synonym for strategic environmental assessment.

Irrespective as to whether we are looking at an EIA-led or sustainability-led methodology, both require key characteristics to be met. Methods that encourage public participation need to be identified and used whenever possible. The methods need to be transparent and open, that is, they need to provide an appropriate level of accountability for the particular context in which they're applied. Experience has also led to the conclusion that methods which can be used as early as possible and that consider alternatives and their potential impacts are far more beneficial than those that come late in the process and are used more as a justification for decisions already made and an opportunity to explore decisions before they have been made. That is, methods need to be applied in a timely manner and in a way that is relevant and influential in the decisionmaking process. After all, strategic environmental assessment, as with other environmental impact assessment, is a tool designed to influence decisions rather than to occupy the time of consultants and public servants.

There are, though, some key differences in methodology, depending upon whether you are looking at an EIA-led or sustainability-led approach to strategic environmental assessment. As I've already indicated, environmental impact assessment-led approaches tend to be limited in terms of their integration on social and economic considerations, and they, therefore, are able to build upon and follow traditional environmental impact assessment methods.

Sustainability-led approaches are much more difficult since we are still at the beginnings of learning how to integrate social, economic, and environmental considerations. Experience to date is very much that tailor-based approaches are proving to be more beneficial than prescriptive approaches; that is, rather than seeking to follow a set procedure, we are still at the stage of developing procedures to fit the circumstance and learning from the experiences case by case and time by time.

Some comments, though, can still be made, broadly speaking, in terms of methodology. While acknowledging that policy strategic environmental assessment is not mandated, it remains possible, as I've indicated before, that some measure of environmental thinking can occur at the policy decisionmaking level.

Policy strategic environmental assessment then needs to be seen as an aid to policy formulation, not as a post facto justification tool. And it needs to bring about integration at the earliest possible opportunity. Experience has certainly led to the general conclusion that when that

doesn't occur, opportunities to achieve better triple bottom line across environmental, social, and economic factors can be foregone if decisions are made in an incremental way too soon.

The methods also need to acknowledge that at the policy level, uncertainty is much greater, something which is difficult to accommodate in many situations but needs to be addressed and recognized. That means that the outcome of a policy assessment process needs in some way to provide for those uncertainties to be reduced and resolved before the plans, programs, and eventual projects are given effect to.

Two examples of instruments that have given effect to policy strategic environmental assessment are the New Zealand Resource Management Act that seeks to ensure that natural resource management in New Zealand from the national level to the local government level is fully integrated with a raft of policies, plans, and accompanying environmental and strategic assessment instruments provided for. At one end of the scale, then, we have a very elaborate scheme in New Zealand. In a sense, at the other end of the scale, we have the simple and straightforward E-Test employed in the Netherlands, a test that enables a policy to be very simply addressed in terms of its environmental and social consequences.

More specifically, there are a number of methods available for policy assessment. One example is a standard checklist of issues that need to be considered by the policymaking process. That checklist may also provide for the generation of criteria to identify the level of significance of the environmental consequences of that policy and how those significant environmental consequences can be managed through the assessment of later plans, projects, and programs.

Other methods of cost/benefit analysis frequently employed and traditionally employed with a narrow economic focus on policy assessment increasingly are being expanded to include social and environmental considerations as well. And perhaps most importantly from my own perspective, there are cross-policy or cross-impact matrices beginning to be developed that enable one policy to be tested against others. Experience has often been the case that policies fail to be implemented successfully because they act at odds with other policies that are also being delivered at the same time. And a cross-policy matrix is a very straightforward way to identify these possible inconsistencies and resolve them from the beginning.

At the level of policy, certainty is at such a low level on many occasions that an appropriate methodology may be to do no more than exchange information with fellow agencies, to call upon panels of experts to offer their best expert opinion, and that is often a sufficient approach to policy assessment and, indeed, sometimes the only possible approach to policy assessment.

If we move to plans and programs, however, we can begin to make use of much more specific methodologies, both for the primary sectors of energy, transport, and waste management, and the secondary sectors of regional development and land use planning.

Under these circumstances, the available techniques are much more widely known and much more robust, and in a moment we'll be looking at several of those.

Looking specifically at plans, there are two potential approaches to the strategic environmental assessment of a plan. One focuses upon ensuring that integration occurs within the sector, that is, that we have appropriate integration from the national to subnational down to local level. The second option is to ensure that integration occurs across sectors, that is, vertical or horizontal integration.

In the case of both vertical and horizontal integration, it is also important to recognize that plans themselves are not directly implemented. Their implementation occurs through programs, projects, and a range of lower-level activities. So the assessment of the plan, as for the program, needs to recognize that it may be more appropriate for standard environmental conditions to be identified that can then be picked up and applied to specific and later developments than to try and achieve something which is more prescriptive and restrictive.

In the case of programs, the best-known example is perhaps the programmatic environmental impact statement used in both the United States at the federal level and at various state jurisdictional levels. The programmatic environmental impact statement is a way of seeking general approval for a program of developments, an offshoot of which is sometimes referred to as class or programmatic environmental impact assessment, where the class environmental impact assessment generates specific environmental conditions to be applied to later developments.

The methodology available for plan and program assessment includes many of those also available at the policy level, but from this overhead you can also identify more specific techniques, such as multi-criteria analysis, geographic information systems, and risk assessment.

In closing, I'd just like to remind you of the six criteria established by IAIA for strategic environmental assessment, that is, it should be integrated, sustainability-led, focused, accountable, participative, and iterative.

In conclusion, there are three points I would like to make, that is, that the implications of the definitions of policies, plans, and programs require one to focus the environmental attention and develop environmental conditions that are appropriate to the level. The methodologies need to be appropriate to the level and, wherever possible, be sustainability-led, and the selection of the appropriate methodology needs to take full account of the above two considerations.