Updating a Transboundary Diagnostic Analysis as Part of Adaptive Management

Abstract: The GEF Black Sea Ecosystem Recovery Project (BSERP) supports regional aspects of the GEF Strategic Partnership for Nutrient Reduction in the Danube/Black Sea Basin and it assists and strengthens the role of the Black Sea Commission (of the Bucharest Convention for the Protection of the Black Sea against Pollution). The BSERP ensures the provision of a suite of harmonised legal and policy instruments for tackling the problems of eutrophication and the release of certain hazardous substances in order to facilitate ecosystem recovery. The first Transboundary Diagnostic Analysis was finalised in June 1996, and formed the basis of a comprehensive SAP. The original (1996) Black Sea TDA didn't contain many of the items that a modern TDA should contain. It therefore became very clear than in updating it, a new approach and structure was required. The document utilises GEF TDA-SAP good practice in terms of its content, including causal chains, governance, socio-economic, stakeholders and hot-spots analyses, together with the identification and examination of major transboundary problems. This note offers a broad scope of analysis and lessons-learned on how to go about revising and updating a TDA, a critical element of adaptive management. Key lessons cover investment and staff-time required, scope and context, and methodologies on how to successfully implement the activity. Thus, this experience offers practical advice to other projects seeking to update and revise TDAs, overcoming the inevitable difficulties of doing so, to reflect changing environmental conditions.

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Black Sea Ecosystem Recovery Project

Updating a Transboundary Diagnostic Analysis as Part of Adaptive Management

Experience of the GEF sponsored

"Black Sea Ecosystem Recovery Project (BSERP)" (UNDP/GEF Project)
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PROJECT DESCRIPTION

The Ecosystem Recovery Project builds upon a series of GEF IW projects for the Black Sea that together represent one of the most extensive and consistent interventions in the GEF IW portfolio.

Initial GEF efforts on Black Sea ecosystem Project dates from 1993, and was originally given the acronym BSEP. The BSEP 'label' served an important function of making the various interventions coherent and comprehensible to the public and to the governments. It is also attracted donor interest to the increasingly popular cause of 'Saving the Black Sea ', to which the BSEP label became closely associated. Under BSEP a series of background studies were completed, and a Transboundary Diagnostic Analysis was finalised in June 1996. On the basis of this document senior government officials negotiated the original Black Sea Strategic Action Plan, signed on 31st of October 1996, during a Ministerial Conference in Istanbul.

In the period 1997-1999, National Action Plans were developed and implemented with the help of funding from a regional GEF intervention. GEF-PDF-B support also enabled completion of reviews of the current legal, policy and institutional provisions for limiting nutrient discharges to the aquatic environment at the national level in the year 2000.

This latest effort (BSERP), started in 2002 and was linked under the Danube / Black Sea Strategic Partnership with the Danube Regional Project (GEF-UNDP), and the Black Sea Nutrient Reduction Facility (World Bank). The Strategic Partnership has been a US$ 97 million support framework, providing investment and capacity building to 17 countries of the Danube / Black Sea basin, to improve water quality and reduce nutrient loading.

The BSERP was split into two implementation phases - Phase I (Apr 2002 - Oct 2004) and Phase II (Nov 2004 - June 2008), based on a reconsideration of priorities and a re-evaluation of the need for earlier delivery of certain project outputs. These have provided essential inputs to other activities within this integrated project.

The US$10 million BSERP supported regional aspects of the Black Sea Partnership for Nutrient Control and it assists and strengthens the role of the Black Sea Commission (of the Bucharest Convention for the Protection of the Black Sea against Pollution). The BSERP has ensured the provision of a suite of harmonised legal and policy instruments for tackling the problems of eutrophication and hazardous substances in order to facilitate ecosystem recovery. An important feature of the project has been its encouragement of broad stakeholder participation.

The BSREP has been part of a broader multi-donor Black Sea Environmental Programme. Mechanisms have been established to ensure donor co-ordination, as they were originally to assure co-ordination/co-operation and the sharing of objectives with the Danube and Dnipro GEF Projects.

THE EXPERIENCE

Issue

The original (1996) Black Sea TDA was one of the first ever produced and was a ground-breaking document. However, guidance has changed since this document was originally produced, so it didn't contain many of the items that a modern TDA should contain, e.g. a stakeholders analysis, or a full causal chain analysis. It focused very heavily on direct point source emissions to the Sea and, although presented well, it was clear that much of the

environmental data/information was wanting. It was obvious that in updating it, a new approach and structure was required. Also, GEF encourages periodic review of TDA and SAP as a part of adaptive management and the BSERP was one of the first GEF projects to revisit its initial TDA. It has been 10 years since the first TDA was completed and it needed to be updated.

Addressing the Issue

The first task was to hire a contractor to assist and guide the Project Team through the TDA process. None of the Project staff had previously been involved in TDA/SAP production. The next task was to identify what the major transboundary problems were. The original (1996) Black Sea TDA dealt with 7 problems, but we were keen to focus on 4 or 5 at the most. National experts from the 6 countries were therefore invited to a meeting, at which a brainstorming session produced an initial list of over 20. Following discussions this was reduced to 7, and these were then prioritised, producing a list of 5. Two of these (changes in biodiversity / habitats and alien species introduction) were later merged because of their close inter-relationship, leaving 4 major transboundary problems to be dealt with:

- Nutrient over-enrichment / eutrophication
- Changes in marine living resources (fisheries)
- Chemical pollution (including oil)
- Habitats, biodiversity and alien species introduction.

Based on personal knowledge and individuals' comments made at this meeting, 6 technical task team (TTT) Leaders were selected, and each of the 6 BS Commissioners was asked to provide the names of national representatives (i.e. TTT Members) to supply data/information for each of the TTT Leaders to analyse. All TTT Leaders and Members were contracted by the Project. The TTT Leaders were then asked to provide a series of spreadsheets and/or questionnaires requesting specific data within their area(s) of expertise. These were copied to the Project Team who amended the requests in light of their own technical/regional knowledge and the information requested by other TTT Leaders. The importance of collaboration between the various TTT Leaders was stressed

and they were requested to produce thematic reports on the following issues:

1.   Biodiversity/habitats/alien species
2.   Causal chain analysis
3.   Fisheries
4.   Pollution loads
5.   Pollution status
6.   Stakeholders analysis
7.   Socio-economic assessment
8.   Governance analysis

The intent was for these reports to form the technical basis of the TDA, an outline structure for which had previously been agreed, as had formatting guidance for the production of maps, graphs and other figures. From the start, it was intended that Project staff would be responsible for writing sections on eutrophication and governance analysis, based on their particular areas of expertise and regional knowledge. However, the late- or none-delivery of many of the thematic reports required a change of plan (see Difficulties encountered below).

RESULTS AND LEARNING

The 2007 Black Sea TDA is structured and looks very different to the original document. This presented considerable difficulties with some individuals, who expected the two TDAs to be structured and look very similar – in effect, for graphs to be updated to include data gathered during the intervening years and the text to be adjusted to reflect the new information. Early on in the process, we sat through a series of discussions in which uses of the words "update" and "revision" were exhausted. So, while the 1996 TDA clearly laid the ground for the 2007 analysis, in essence the 2007 version was written from scratch, with a more critical assessment of the quality of data used. To link the two versions, blue-coloured summary boxes were incorporated to demonstrate differences in approach and progress made in tackling the problems.

Linkages between national assessments and the TDA

Early on in the TDA production process it was decided that data from the 6 BS countries should to be analysed in the same way. Different methods of assessment usually produce different results, so even if there were differences of opinion over the methods used,

individual countries would be less likely to object than if their data presented an overall optimistic/pessimistic picture than other countries. Thus, national assessments were used only where regional data were not available or to highlight specific points / examples of good practice.

Common issues

The Black Sea TDA utilises GEF good practice in terms of causal chains, governance, socio-economic, stakeholders and hot-spots analysis, together with the identification and examination of major transboundary problems, except for nutrient loading.

Considerable effort was spent on including background information to place the 4 transboundary problems in context.

The causal chain analysis undertaken did not provide a single, all-encompassing diagram illustrating how the various problems were inter-related. In retrospect, this would have been useful. However, the causal chains analyses proved to be particularly helpful in drafting the SAP. Poorly regulated coastal development and weak enforcement of existing legislation were notable contributory factors to most (or all) of the 4 major transboundary problems. Individual transboundary problems were clear immediate or underlying causes of other transboundary problems. Climate change and weak national economies were considered root causes of all the major transboundary problems.

Difficulties encountered

The complexity of the contracting and reporting process took a long time to organise. In order to check on progress, and to allow payment as individuals proceeded with their work, all contractors were requested to produce multiple deliverables. In total some 50 ToRs/ contracts were produced and a total of more than 220 deliverables (data tables and reports) had to be checked for completeness. When deliverables were incomplete, unclear (usually due to language difficulties) or contained unexpected / unusual data, contractors were asked to review their data/information for accuracy, clarification and/or data availability. This entailed the writing of over one thousand e-mails. Progress on delivery by national contractors was dealt with

by both Country Team Leaders (CTLs, employed by The Project) and PIU Staff.

Time delays were encountered almost the whole way through data compilation and writing of the TDA. A considerable number of national contractors failed to deliver everything they were requested to, and only 2 of the 6 TTT Leaders were judged to have performed well. Thus, PIU staff took on the responsibility of compiling / writing the majority of the document and undertook much of the analysis. Two delays in deadlines for delivery of national data were requested by the Project Steering Committee, but corrections to data originally supplied were still being received 6 months after the twice-postponed deadlines had passed.

The paucity of robust 'local' socio-economic information and the lack of 'internal' understanding of what a stakeholder analysis should contain meant that an international expert had to be contracted at a late stage to undertake this work. Both aspects were completed on-time and to a high standard, but the socio-economic analysis had to be based primarily on national, rather than local (Black Sea catchment) data, using information from the World Bank database.

Distinguishing between good and bad quality data has been a Black Sea problem for many years. Data may be compromised for a variety of reasons. For example, historically poor analytical quality assurance procedures; use of modelled instead of measured data (with its associated uncertainties); inappropriate method(s) of collection; large inter-replicate variability (for environmental biology and chemistry data), a belief that emission loads calculated from monitoring data are accurate, when they only represent most-likely estimates; or incomplete datasets. For this reason, an assessment was made of the 'trustworthiness' of all data/information collected, and only those which were considered to represent the real situation (or an approximation of it) were used.

Originally it was intended to include a full revision/update of the hot-spots analysis undertaken in 1996. From this, 50 regional hot-spots were identified, but criteria for inclusion/removal of hot-spots from the list had not been adequately addressed. The 'playing field' was uneven in terms of location and qualifying pollutant loads, with environmental

impacts assessed only on a national, rather a transboundary basis. Agreement could not be reached in time between different members of the Black Sea Commission Land Based Sources Advisory Group, so the focus changed to an assessment of completion of the required capital investments identified in 1996.

Despite targets being given for the size of all sections, the 2007 TDA is probably still too long. However, the final version is only about two-thirds the size of initial drafts. Editing is also a time-consuming process.

Facilitating factors (enabling the TDA process to proceed)

The TDA team faced and dealt with problems as and when they arrived. Unambiguous and realistic deadlines for delivery were made to all involved. Consistent late and non-delivery of reports/data were dealt with firmly but fairly; personnel were replaced or responsibilities re-distributed in the worst cases. Progress made and difficulties encountered were regularly reported to the Steering Committee.

As many regional personnel were involved in drafting the TDA as possible, both to increase access to national data and to improve buy-in to the process and the final document itself. The final list of contributing specialists amounted to 66 people, of whom all but 4 were nationals of one of the 6 Black Sea countries. National representatives were selected by Black Sea Commissioners (all members of the Steering Committee), not project staff, so any lack of reporting could be blamed on the Project. However, favours were asked and additional national contractors hired to improve access to specific information when difficulties were encountered to ensure that required information/data could be obtained.

Although an initial vision of the 2007 TDA was developed, adjustments had to be made to account for data/information availability. As progress began to be made, Steering Committee members and stakeholders suggested further items for inclusion, e.g. an overview of landfill status. This required national representatives to provide more data than was originally anticipated. The flexibility and willingness/determination of individual contributors was therefore the major reason for its completion.

Although TDAs are technical documents, and therefore not supposed to be subject to negotiation, a final draft of the 2007 TDA was provided to the Project Steering Committee, as well as to heads of the Black Sea Commission Advisory Groups and to CTLs to check for factual errors. This allowed a final opportunity to provide missing data. and, assisted in improving acceptance of the TDA (including its conclusions/recommendations) - something required for drafting and negotiating an update of the 1996 Black Sea SAP.

REPLICATION

- The TDA should be regarded as an important deliverable of GEF funded projects, and this should be reflected in the resources allocated to its production. The subsequent SAP is based on the TDA and presents reforms and investments to address the key transboundary concerns.
- A robust TDA will usually take longer to write than originally anticipated. Start the TDA/SAP formulation / writing process as early as possible in a project.
- A far greater input from Project Staff may be required than originally anticipated – in addition to the time spent by all of the contractors, the 2007 Black Sea TDA also required the full-time input of two PIU staff for a period of one year each, as well as two months input from Black Sea Commission Permanent Secretariat personnel. Inevitably, this meant that delivery of other Project Activities was delayed.
- Place the transboundary problems dealt with in historical, socio-economic and political context.
- If contractors are performing poorly be fair, but be prepared to reduce contractual payments or replace individuals if they unacceptably delay production of the TDA.
- Always try to present a regional perspective, rather than a series of national views. Whenever possible, analyse data from different countries in the same manner. The importance of standardised regional (as opposed to national) procedures for data collection and assessment cannot be over-emphasised.
- A TDA is not a regional 'state of the environment' report. Ensure that contractors/authors fully understand what is required of them and of the TDA produced.

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- Keep the analysis concise. Where appropriate put lengthy tables into annexes. The final 2007 Black Sea TDA is probably too long, even though it contains a wealth of information.
- Where supporting information/data are absent or weak, ensure that expert opinion is regionally accepted, or that differences in opinion are expressed.
- Look carefully at the Project Implementation Plan to ensure that other project activities can best be undertaken to provide useable input to the TDA, e.g. the compilation of emissions inventories, governance analyses and agricultural assessments.
- The generation of socioeconomic data is both expensive and time-consuming, so needs to be planned as an early project activity, allowing it to be used as an input to the TDA process.
- Be prepared for difficulties; they will occur. Always be thinking of a 'plan B' to obtain requested data / information if you are confident it exists.
- Set deadlines for which data are provided (e.g. 2003-2008) and stick to them. Otherwise there will be a temptation to keep repeating/re-hashing 'old' data, when the idea is to present current or recent status.
- From the start it is important to have a vision of what a TDA should contain, its' likely structure and the key messages it should contain. However, be prepared to make changes to this vision (as determined by changing inputs and data availability).
- TDAs should present available national data in an optimistic light, but where information is weak or questionable, don't be afraid to say so. Where information/data is clearly poor or untrustworthy, don't use/include it. Standardised reporting formats are essential. Check and re-check the accuracy of data received. Take particular care over the use of units, commas and decimal points in data received.
- Structure and formatting are very important. Few people ever read a TDA from beginning to end, so it is important that readers are able to quickly navigate their way through

such documents to the information they need.
- If possible, use an 'external' editor – somebody who has not been involved in writing drafts of the document – or at least make sure that every section is edited by somebody not involved in its drafting.
- Keep the Project Steering Committee fully informed and seek their help in solving problems as they arise.

SIGNIFICANCE

While Black Sea teams developed the first ever TDA in the GEF IW community, they were among the first to completely update and revise the analysis within the spirit of adaptive management. Thus, this experience offers pragmatic lessons to other projects seeking to update and revise TDA's, overcoming the inevitable difficulties of doing so, to reflect changing environmental conditions.

REFERENCES

For more information on the BSERP and its activities, please visit the website at www.bserp.org. For more information on the TDA revision, please contact the BSERP Lead Scientist, Bill Parr, at dr.bill.parr@btinternet.com.

KEYWORDS

- Transboundary Diagnostic Analysis

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