IWRM Action Hub

IWRM TOOL - C1.08

Transboundary Diagnostic Analysis

Summary

Transboundary Diagnostic Analysis (TDA) collects and analyses information to determine the socio-economic impact related to transboundary problems. TDA conclusions are used to identify priority mitigation actions, depending on ecosystem benefits and governance gaps. This Tool discusses the content and rationale for TDA, presents its key principles, outlines the Strategic Action Programme (SAP) process derived from TDAs, and identifies relevant considerations for practitioners.

Content and Rationale for TDA

Originally developed by the Global Environment Facility (GEF) International Water Programme, TDA became an indispensable tool to identify transboundary environmental problems (GEF, 2020). It is a procedure that aims to provide means for identifying the proximal, intermediate, and fundamental causes of environmental problems and threats in transboundary water basins (Teng, 2006). The TDA process allows to breakdown complex transboundary issues into smaller components for action. The main objectives of TDA are to:

- Identify and prioritise the transboundary problems and challenges.
- Collect and analyse information on environmental impact and socio-economic dimension of each problem.
- Assess immediate, underlying and root causes of each problem, suggesting areas suffering from or under threat of environmental degradation.

For the purpose of TDA, environmental impact comprises the effect of a particular transboundary problem on the whole ecosystem, while socio-economic impact can be characterised by any

fluctuation in welfare of people, that is attributable to the problem in question or its impact. To determine such impacts, the TDA process should include an assessment of ecosystem value (economic valuation), which quantifies the ecosystem benefits and its impacts on people's welfare (Tool C1.05).

Within subsequent TDA stages, potential preventive and mitigative actions are identified by assessing the root and immediate causes of the main transboundary concerns. The analysis begins as a joint fact-finding to fill in the information gaps and ensure that each state understands the situation in neighbouring countries. The TDA integrates scientific input into water management so that the decision-makers could conduct appropriate reforms within the water governance system to change the behaviour within a particular sector.

Key Principles

In order to create enabling conditions for effective cooperation in the transboundary water management, TDA must feature several elements, such as setting appropriate boundaries, involving all relevant stakeholders, conducting analysis by joint fact finding, identifying the socioeconomic causes of transboundary concerns, evaluating institutional capacity and sharing the information in a concise manner with all stakeholders. Another aspect of successful TDA-SAP is the enabling environment to go through the process by riparian countries: willingness to collaborate and trust, which also affects interpretation and importance of data.

Gathered from lessons learned in numerous TDAs (over 35 TDAs and SAPs completed in 1996-2017), the GEF Secretariat has developed a methodology to reflects best practices and streamline the steps taken throughout TDA/SAP process. Below you will find a summary of the key principles that should be taken into account within TDA/SAP approach as per developed by GEF (GEF, 2020):

- **Adaptive management:** Assess the problem, formulate SAP with M&E process, implement SAP, monitor results;
- **Ecosystem approach:** Integrated management or land, water and living resources (Tool C1.05);
- **Sustainable development:** As set out in 4 objectives of GEF:IW programme (GEF, 2020);
- **Poverty reduction:** Poverty reduction or alleviation practices to be incorporated into SAP development;
- **Gender mainstreaming:** gender mainstreaming practices to be incorporated into SAP development (Tools C5);
- **Climate variability and change:** Thorough analysis of climate change effects;
- **Collaboration**: Synergy with other approaches (IWRM, LME, RBMPs etc);
- **Stakeholder consultation and participation:** Shared vision between stakeholders (Tool C2.02);
- **Stepwise consensus building:** Clear stakeholder representation for consensus-building (Tools C6);
- **Transparency and accountability:** Public information sharing and full accountability of parties involved (Tool B1.05);
- **Inter-sectoral policy building:** aim for cross-cutting solutions (Tool A1.02);
- **Donor partnerships:** Effective donor partnerships as incentives for SAP commitment (Tools D1);
- **Government commitment:** Endorsement of SAP as binding agreement between governments.

Strategic Action Programme (SAP)

TDA provides a technical basis to develop a Strategic Action Programme (SAP) for the region. Having TDA conclusions as analytical background, the SAP builds on the analysis and involves strategic thinking, planning, and implementation. Figure 1 provides a schematic outline of TDA-SAP process.

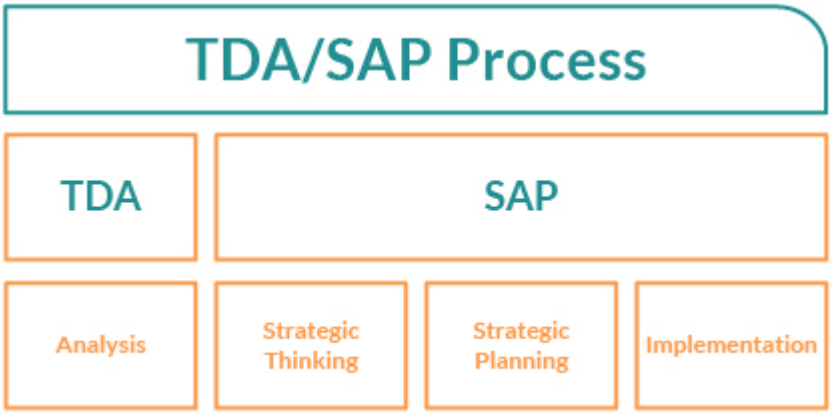

Figure 1. Outline of TDA/SAP Process (GEF, 2020)

The first phase of strategic thinking comprises developing shared vision among the stakeholders, setting common goals to implement this vision, collecting innovative ideas for reaching the goals and prioritizing them as alternatives (Tool C2.02). Within second phase of strategic thinking, the parties to the process are expected to conduct national and regional consultations, design implementation strategies, set timelines and performance indicators, as well as take first steps towards SAP implementation.

Upon development, the SAP is endorsed at the highest political level from each riparian State as a joint policy document or a binding intergovernmental agreement. The SAP follows the conclusions of the TDA and sets out priorities for action to resolve the key problems as identified in the TDA.

The SAP should contain a set of indicators upon which the progress on tackling the issues, identified by the TDA, is continuously assessed. The current Transboundary Diagnostic Analysis/Strategic Action Programme approach of the GEF uses indicators in three categories – process, stress reduction and environmental status (GEF, 2020). The indicators should be developed for each goal, objective and action planned. In addition, the proposed SAP Monitoring and Evaluation framework will have to include gender responsive indicators, taking into account both the SAP goals and national priorities.

Implementation Challenges and Lessons Learned

Difficulties may occur when projects make a poor distinction between regional and local benefits, do not identify social and economic root causes of transboundary problems, or fail to identify and incorporate stakeholders. Throughout the TDA-SAP process, the discussions often put more focus on involvement of governmental actors and lack local or indigenous knowledge from local communities due to their weak participation. It has been argued that for implementation of TDA recommendations countries need to take measures on all scales, starting from inter-state negotiations to the level of local communities (Mahon et al., 2017).

Several TDAs have concluded that unsustainable use of resources within transboundary water systems has occurred as a result of weak governance at the national and transboundary levels (Raykov and Oros, 2007; Teng, 2006; Duda, 2016). To address such governance issues, the revision of the initial TDA might be needed to ensure adaptive water management within the first several years upon adoption of the SAP.

Thematic Tagging
Transboundary
