Report of the Causal Chain Analysis Workshop in view of the Development of the Transboundary Diagnostic Analysis (TDA) of the Volta River Basin

31st August – 2nd September 2010, Volta Hotel, Akosombo - Ghana

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List of abbreviations and acronyms

Abbreviation	Definition
APNP-VRB	Action Plan for the National Part of the VRB
CCA	Causal Chain Analysis
DGEF	Division of GEF Coordination
GEF	Global Environment Facility
PMU	Project Management Unit
RPC	Regional Project Coordinator
SAP	Strategic Action Program
TDA	Transboundary Diagnostic Analysis
UDC	UNEP DHI Centre for Water and Environment
UNEP	United Nations Environment Program
UNOPS	United Nations Office for Project Services
VBA	Volta Basin Authority
VRB	Volta River Basin
VRA	Volta River Authority

Executive summary

The Volta Basin CCA Workshop was held in Akossombo- Ghana from 31 August – 2 September 2010. The main objective of the workshop was to identify common and transboundary problems in the basin and develop a causal chain analysis for each of the identified priority transboundary problems. The workshop also reviewed the draft national reports and agreed on the timeframe for their finalisation.

The Workshop was organized by the UNEP-GEF Volta Project entitled *'Addressing Transboundary Concerns in the Volta River Basin and its Downstream Coastal Area'* and attended by 22 participants, including regional and national TDA consultants and expert scientists from the riparian countries to continue the process of developing the Volta River Basin TDA through series of analysis which was carried out in a cross sectoral manner, focusing on transboundary issues without ignoring national concerns and priorities.

Discussion during the workshop led to the following 8 priority tansboundary concerns/problems

- Changes in water quantity and seasonality of flows
- Degradation of Aquatic Ecosystems
- Degradation of Surface Water Quality/Pollution
- Invasive Aquatic Species
- Land Degradation/ Loss of Vegetative Cover
- Loss of Biodiversity
- Water related diseases
- Coastal Erosion

For each priority transboundary problem, a casual chain analysis was developed: immediate and underlying causes per sector, root causes, environmental impacts and socioeconomic impacts

1 Opening of the workshop

1. As part of the implementation of the UNEP GEF Volta Project, the TDA prepared during phase 1 of the GEF Volta project in 2002 is to be updated. It is within this frame work that the Regional Workshop on the Development of the Transboundary Diagnostic Analysis (TDA) of the Volta River basin was held.
2. The main objective of the workshop was to identify common and transboundary problems in the basin and develop a causal chain analysis for each of the identified priority problems. The workshop also reviewed the draft national reports and agreed on the timeframe for their finalisation.
3. The meeting was held at the Volta Hotel, Akossombo Ghana from 31st August to 2nd September 2010, and attended by 22 participants including the Regional/National TDA Consultants, representatives from VBA, UDC and some National/ Regional resources persons (see list of participants in Annex 1).
4. The opening remark made by Mr. Hubert Onibon, Regional Project Coordinator, noted that a review of the gaps in the preliminary TDA has been carried out and a detailed methodology prepared for TDA finalisation. Further to this, a set of national consultant team for each basin country as well as a regional TDA integration team have been appointed to develop six country reports, regional synthesis reports as well as the final TDA. Work on the country reports started in the first quarter of 2010 and draft country reports have been submitted in July 2010 and been reviewed by the regional team in July/August 2010.
5. Mr. Hubert Onibon also used the opportunity to introduce participants at the workshop and expressed his thanks to all the participants for their support to the process so far. He then presented the regional lead TDA consultant Mr. Daniel Malzbender, as the workshop facilitator.
6. During the following intervention by Mr. Malzbender, it was emphasised that the CCA workshop is the most important stage during the development of the TDA. He then expressed his thanks to all the consultants and the invited participants for their presence at the workshop. He also reviewed the objectives for the workshop and the draft agenda (see annex 2). On the agenda, he suggested that the discussion of the national report review was postponed till the end of the CCA exercise while the workshop session would proceed straight into the CCA session.
7. Hereafter, he proceeded to give an overview of the workshop objectives and the expected outcomes of the meeting. He explained that at the workshop, the participants were expected to:

- undertake/finalise a joint review (national consultants and regional team) of the draft country reports
- agree on the scope of work required and work plan for the finalisation of country reports
- identify key priority problems in the national parts of the Volta River Basin
- identify/ synthesise common problems and transboundary problems in the basin
- agree on key priority problems for the basin (environmental, social, economic)
- develop a causal chain analysis for each of the identified priority problems

8. He further highlighted the Key Expected Outputs of the workshop as follows:

- Detailed review comments on national reports discussed with national consultants and work plan for report finalisation agreed
- National and basin-wide priority problems (common and transboundary) identified
- Causal Chain Analysis developed for each priority transboundary problem

2 Presentation on the Overview of the review findings

9. The Regional lead TDA consultant once again expressed his thanks to all the national consultants for the work done so far. He then presented the overview of the observations and other key observations made on the reports including the recommendations from the regional consultants. It was remarked that it is necessary to point out in the reports if the information required is not available. He observed that governance aspects of most of the reports are the least addressed by the consultants and concluded that the reports prepared so far have a lot of information, but that there are gaps to be addressed by the consultants.

10. During the follow-up comments, Mr Komla Sanda expressed concern about the paucity of data and the difficulty of obtaining available data at the national level in Togo. Mr Albert TONOUHEWA from Benin expressed appreciation with the way the comments were presented and agreed that the report could be improved upon. He reiterated general lack of data to address the expectations in the outlines. .

11. Mr. Yaw Opoku Ankomah added his opinion that the climate change information in the reports is not adequate. He suggested that information on climate variability and trends is needed and that this could be presented as a table in the report. Mr Jerôme THIOMBIANO from Burkina Faso also re-echoed earlier view by the national consultant from Benin that the scheduled time for the assignment is very limited, and also re-emphasised the difficulties encountered in acquiring required data.

12. In his response to the comments, Mr. Onibon confirmed that the project is not asking consultants to re-invent data. This view was also shared by Mr Oumar Fall and the TDA Consultant who underlined that the information requested is needed to aggregate the regional report in order to present clear information to politicians and the people in the region that would read the report and that most of the requirements in the outline could be presented in the form of tables.

3 Causal chain analysis

3.1 Presentation of the Role of CCA in TDA/SAP

13. The presentation made by Mr. Daniel Malzbender provided an overview of the TDA, complementarities between the TDA and the SAP, Identification and prioritisation of transboundary problems and the reason for prioritisation. He also highlighted the need to identify root causes for the identified problems and role of CCA as the link between the TDA and the SAP. The presentation by the lead consultant also featured a detailed explanation of the template for the CCA. The template follows GEF TDA/SAP methodology by clearly showing a priority transboundary problem, its immediate, underlying and root causes on the one hand and the resulting environmental impact and socio-economic consequences on the other hand. Using the CCAs as a basis, this allows the TDA to present the linkages between causes, priority problems and environmental and socio-economic consequences in a structured and systematic way, thus allowing a focused analysis of problems and development of recommendations for addressing the priority problems. The use of the proposed CCA template was adopted by all the participants after extensive deliberation on its merit.

14. Following the above presentations, Mr. Biney wondered if natural conditions could be a reason for addressing a concern. In his response, Mr. Malzbender suggested that natural conditions could be listed and that when the cause is outside the basin like in the case of global trade, then it could be pointed out even though we may not be able to offer solutions to it. Mr. Yaw Opoku also added that natural phenomenon could be included but that normally anthropogenic activities can increase its effects. Finally Mr. Malzbender further suggested that even though templates only capture anthropogenic problems, natural factors could be added.

3.2 Identification and prioritisation of Transboundary Problems

15. As a first step participants were asked to each submit a list of five environmental problems they

viewed as the most critical ones in their respective country. From this, an initial long-list of environmental problems was identified, with most of the problems listed being relevant to most/all basin states. Participants were then asked to score the identified problems according to severity and geographical scope using a prepared scoring sheet (score sheet presented in Annex 3). The scoring sheet was used as an indicative guide for the subsequent technical discussion through which the final list of eight priority problems was agreed upon. The determination of the transboundary nature of a problem followed accepted GEF TDA/SAP methodology. Part of the technical discussion was an in-depth deliberation on the environmental linkages in the basin. Based on this deliberation the initial long-list of problems could be reduced as it emerged that some identified problems were in fact causes or consequences of other problems, thus would be captured in different sections of the CCAs. Eventually, the list of eight priority problems was identified and agreed upon, and CCAs for these eight problems were subsequently developed.

16. During the follow-up discussion, Mr. Biney suggested that the workshop should take note of the impact of the Volta basin on the coastal zone and emphasise this in the CCA. On the second day of the workshop, the transboundary issues were categorized and some issues merged in order to have limited number of issues to develop CCA on.

17. By following the GEF approach, the findings of national discussions and studies, eight priority transboundary issues were identified:

- Changes in water quantity and seasonality of flows
- Degradation of Aquatic Ecosystems
- Degradation of Surface Water Quality/Pollution
- Invasive Aquatic Species
- Land Degradation/ Loss of Vegetative Cover
- Loss of Biodiversity
- Water related diseases
- Coastal Erosion

3.3 The CCA of transboundary issues in the Volta basin

18. In order to prepare the CCA for the identified transboundary issues, two casual chain analyses were developed in plenary and the remaining six in two groups facilitated by Mr. Niels IPSEN and Mr. Olumide Akinsola respectively. As rappoteurs for the group exercises, they also presented the outcomes of the groups during the plenary of the workshop. During these exercises, immediate and underlying causes were identified for different sectors, followed by the identification of cross-cutting root causes. Likewise, environmental impacts and socioeconomic consequences of each of the eight transboundary problems were identified and captured in the CCA templates (see Annex 4).

19. After the CCA for the eight problems were developed, the participants also discussed and identified several impacted stakeholders in the basin.

4 Closing remarks and closure of the workshop

4.1 Synopsis of the Workshop

20. During the final overview of the workshop, Mr. Biney of the VBA expressed the view that it would be good to include groundwater issues as part of the transboundary issues in the basin. In his response to this comment, Mr. Onibon confirmed that groundwater would be addressed and in their support to this opinion, Mr. Yaw Opoku and the regional lead consultant agreed that regional consultants would take the groundwater issue into consideration. Mr. Daniel Malzbender also remarked that the process for the TDA/CCA development is long but worth the while as it would

help the basin in the long run.

21. At the follow-up meeting with the consultants at the end of the workshop exercises, the consultants discussed the requirement for the governance aspect of the reports, it was suggested that the consultants re-arrange and make use of tables to represent most of the texts in their report. The proposed tables would then cover overall policy responsibilities, tables on constraints for different sectors, and current reforms including key changes going on in the country. Mr. Daniel Malzbender concluded that the reports were generally good and the consultants agreed to submit national TDA reports by 30 September 2010.

4.2 Closing remarks

22. At the closing remark Mr. Onibon expressed his thanks to the participants and wished them safe trips back to their base. Mr. Biney recalled on his part that the process is a follow-up to the Lome workshop in Togo. He then noted that the participants would have another opportunity in future to visit the dam site at Akossombo. He finally conveyed sincere gratitude to the VRA for allowing the use of the meeting venue and facilities.

5 Annexes

5.1 Annex 1: List of participants

N°	Country/Organisation	Name/Address/Tel & Email
Participants		
1.	South Africa TDA Team Leader Regional Consultant	**Mr. Daniel MALZBENDER** African Center for Water Research (ACWR) 3rd Floor 47 On Strand Cape Town 8000 Tél: +27 (0) 214244946 Fax: +27 (0) 866849997 Cel: +27 (0) 834589729 dbmalzbender@acwr.co.za
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5.2 Annex 2: Workshop agenda

Day 1: Tuesday 31st August 2010

Time	Activity	Responsible
08:00 – 08:30	Arrival and registration	PMU
08:30 – 08:45	Opening remarks	Regional Project Coordinator
08:45 – 09:00	Overview of agenda and workshop objectives	Ousmane Diallo
09:00 – 09:30	Summary of (general) national report review findings	Daniel Malzbender
09:30 – 10:00	Discussion on review findings	All participants
10:00 – 10:15	Tea/Coffee Break	
10:15 – 12:30	Detailed discussion with each national consultant on work remaining to finalise national reports	Regional Team
12:30 – 14:00	Lunch	
14:00 – 16:00	Identify key priority problems for each basin state	Facilitated discussion (All)
16:00 – 16:15	Tea/Coffee Break	
16:15 – 18:00	Identify Common and Transboundary problems in the basin and initial prioritisation	Facilitated discussion (All)
18:00	End of day 1	

Day 2 (1 September 2010)

Time	Activity	Responsible
08:00 - 08:30	Recap - Relevance of CCAs in TDA/SAP methodology	Daniel Malzbender
08:30 – 10:30	Development of Causal Chain Analysis for each identified priority problem & preliminary list of potential actions	Facilitated discussion (All) Daniel Malzbender to provide template for CCAs
10:30 – 10:45	Tea/Coffee Break	
10:45 – 12:30	Development of Causal Chain Analysis for each identified priority problem & preliminary list of potential actions	Facilitated discussion (All) Daniel Malzbender to provide template for CCAs
12:30 – 14:00	Lunch	
14:00 – 16:00	CCA development continued	Facilitated discussion (All)
16:00 – 16:15	Tea/Coffee Break	
16:00 – 15:00	CCA development continued	Facilitated discussion (All)
18:00	End of day	

Day 3 (2 September 2010)

Time	Activity	Responsible
08:00 – 10:30	Development of Causal Chain Analysis for each identified priority problem & preliminary list of potential actions	Facilitated discussion (All) Daniel Malzbender to provide template for CCAs
10:30 – 10:45	Tea/Coffee Break	
10:45 – 12:30	Development of Causal Chain Analysis for each identified priority problem & preliminary list of potential actions	Facilitated discussion (All) Daniel Malzbender to provide template for CCAs
12:30 – 14:00	Lunch	
14:00 – 16:00	CCA development continued	Facilitated discussion (All)
16:00 – 16:15	Tea/Coffee Break	
16:00 – 17:45	CCA development continued	Facilitated discussion (All)
17:45 – 18:00	Closing remarks	Regional Project Coordinator VBA Executive Director
18:00	End of day	

5.3 Annex 3: TDA Prioritisation overall scoring

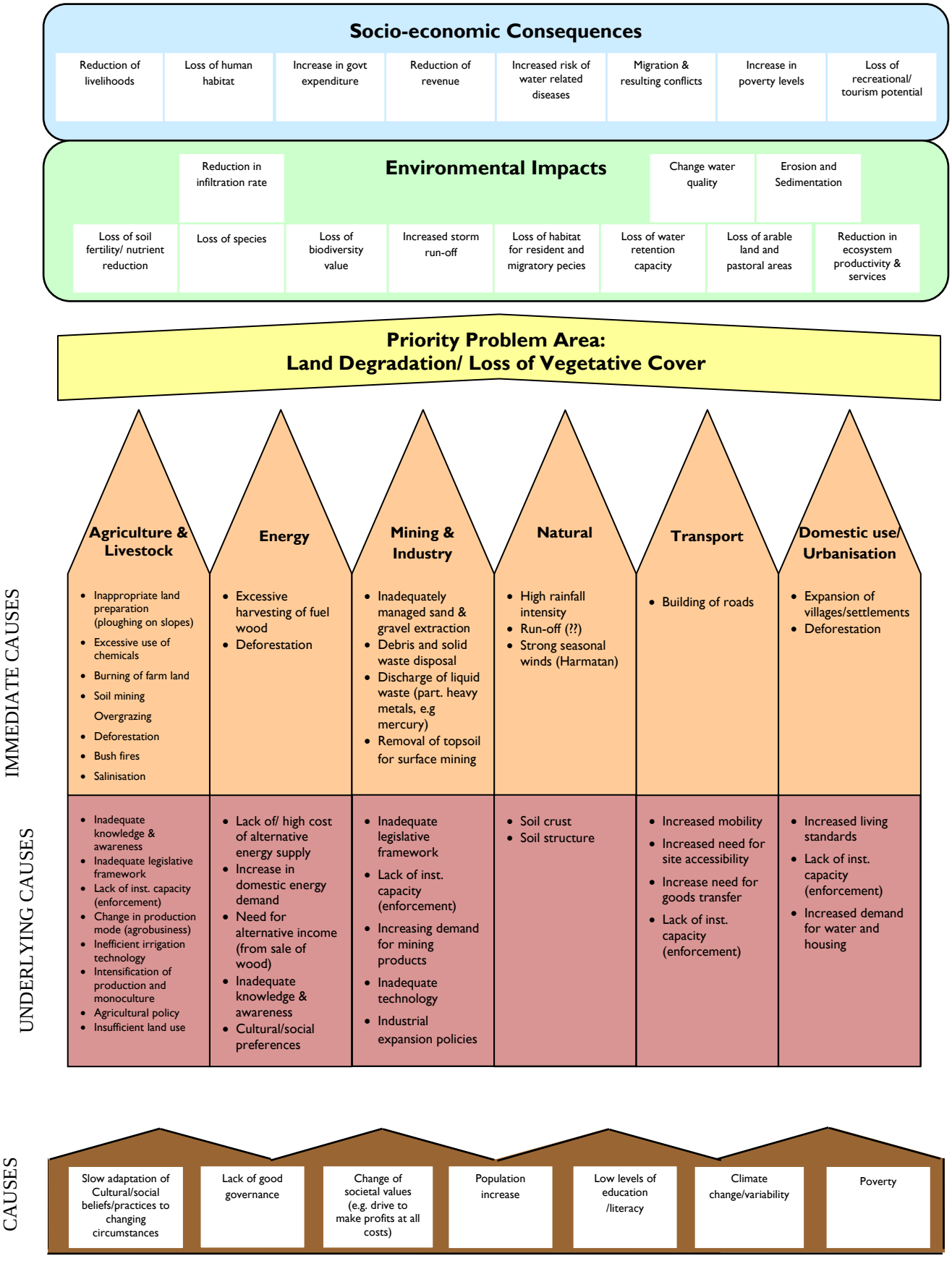
N°	Problem	Benin	Burkina	Côte d'Ivoire	Ghana	Mali	Togo	Total score	TB[1]	CMM[2]	
1	Degradation of Aquatic Ecosystems	6	6	3	5	6	6	32	x		
2	Wetland degradation	3	3	3	4	2	3	18	x		merge with 3
3	Degradation of surface water quality/pollution	5	2	6	2	5	5	25	x		
4	Groundwater									x	further studies necessary
5	Soil degradation	6	6	5	5	3	3	28	x		
6	Lack of vegetative cover/ land degradation	5	5	3	6	6	2	27	x		
7	Erosion	5	3	6	3	5	3	25	x		consequence of 9
8	Sedimentation of lakes and rivers	3	6	6	3	3	3	24	x		
9	Siltation	0	6	3	3	1	1	14	x		
10	Deforestation	3	6	6	5	6	6	32	x		
11	Coastal erosion	0	0	0	4	0	3	7	x		see GCLME studies
12	Water related diseases	2	3	3	3	3	4	18	x		
13	Flooding	1	5	1	5	5	5	22	x		
14	Changes in water quantity and seasonality of flows	3	6	3	2	6	5	25	x		
15	Drought	6	6	3	2	6	5	28	x		
16	Loss of biodiversity	5	6	6	5	6	5	33	x		
17	Invasive aquatic species	2	1	3	2	0	3	11	x		

[1] TB : Transboundary problem

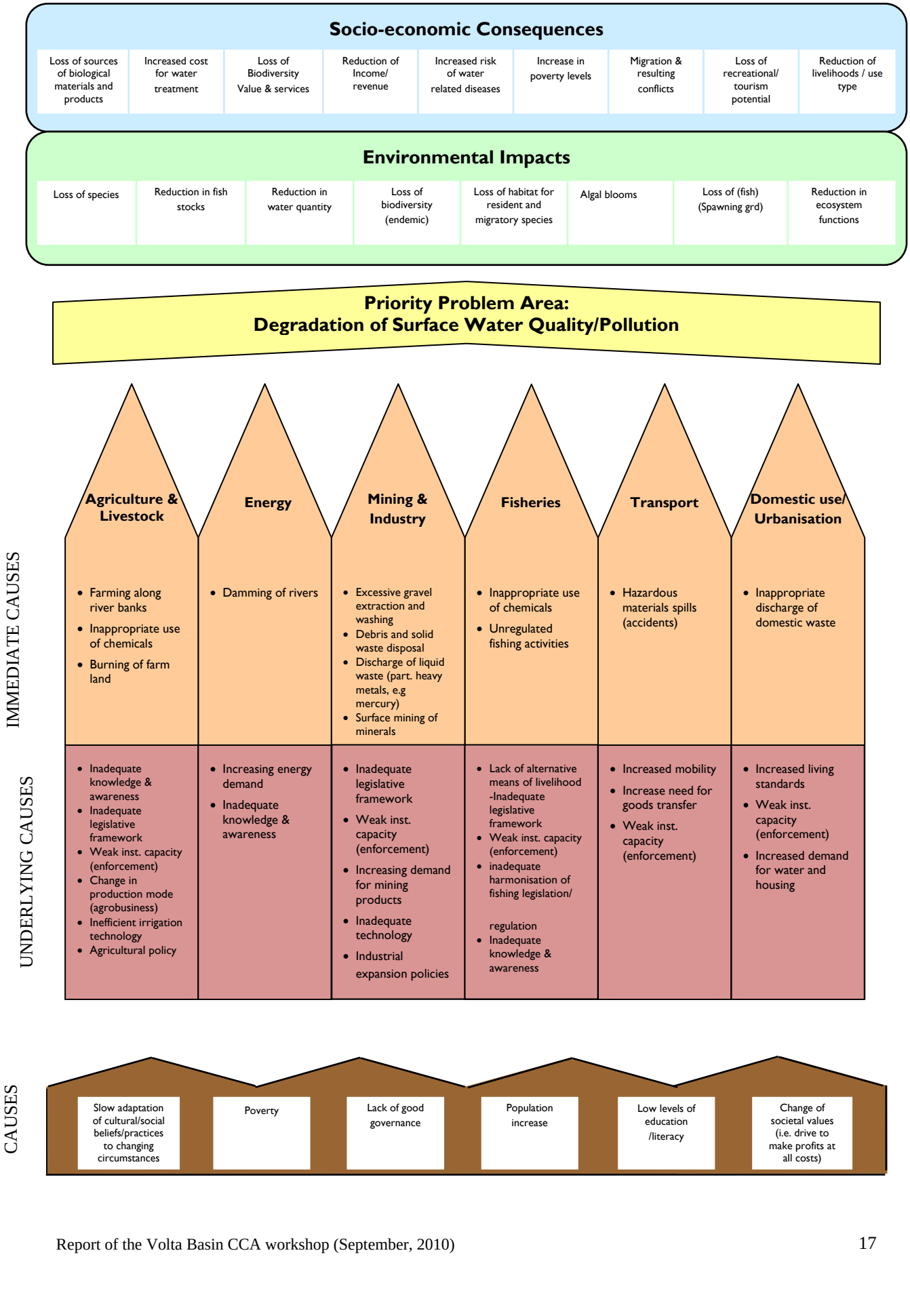
[2] CMM : Common problem

5.4 Annex 4: CCA Diagrams for the Prioritized transboundary problems

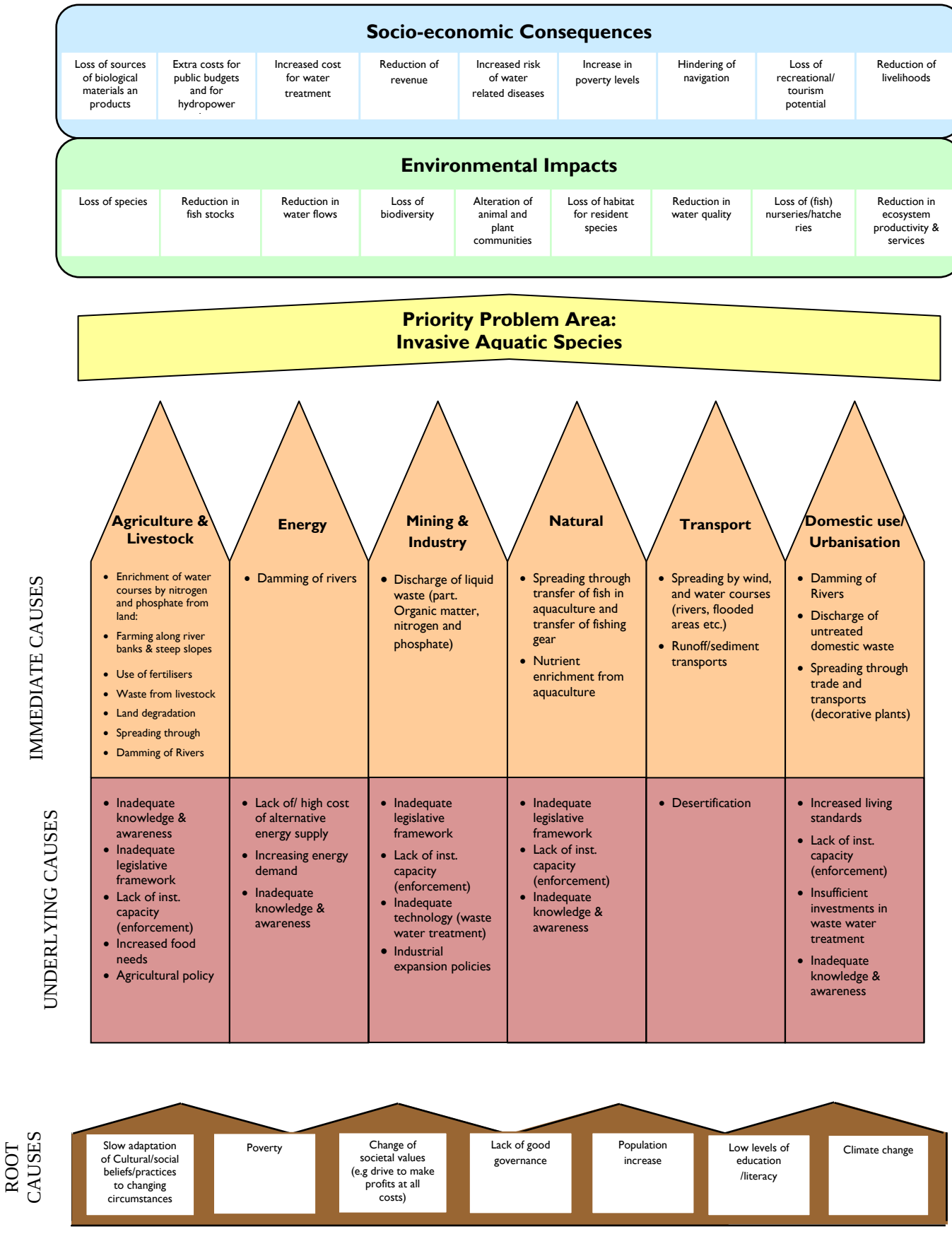
5.4.1 CCA: Land Degradation/ Loss of Vegetative Cover



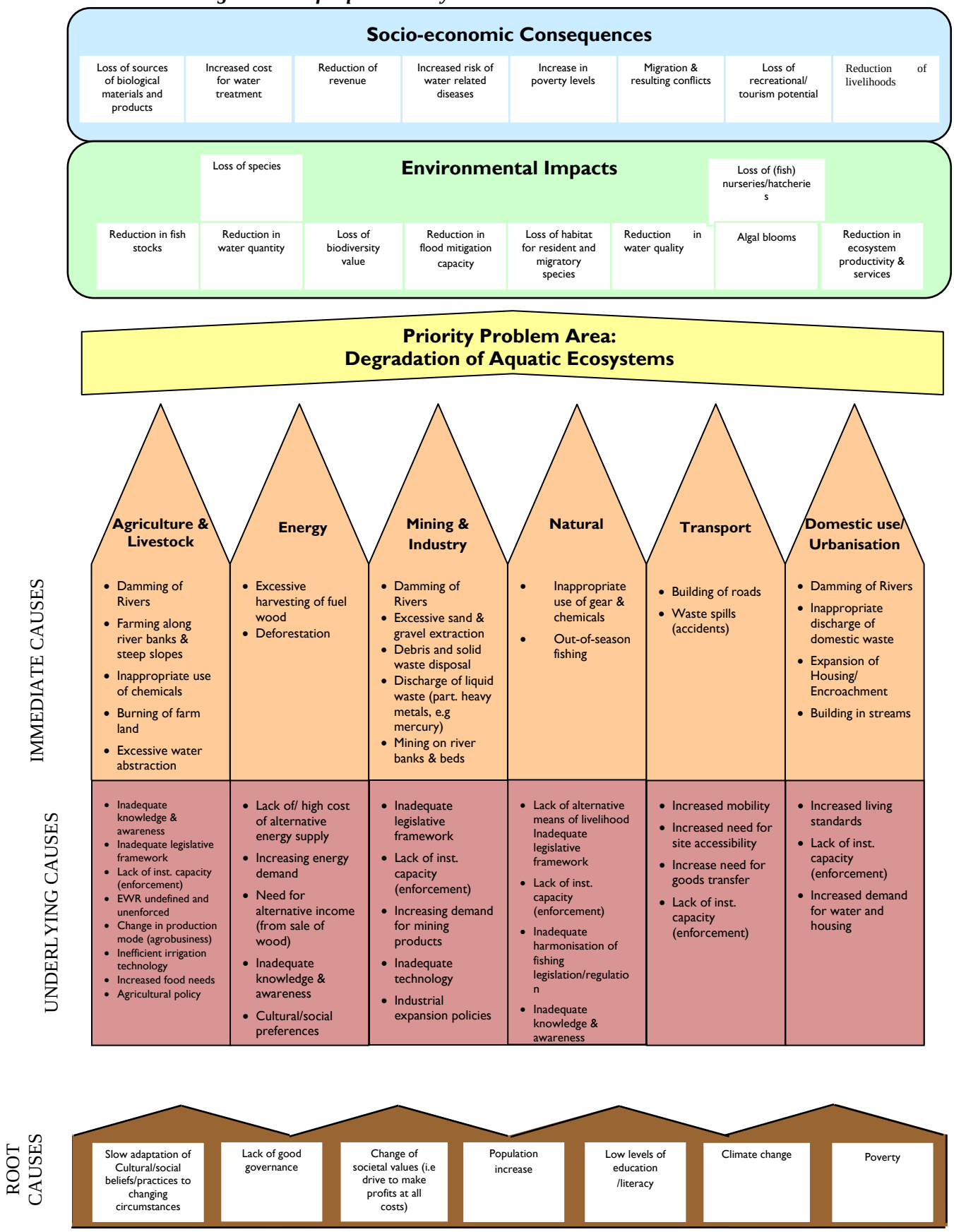
5.4.2 CCA: Degradation of Surface Water Quality/Pollution



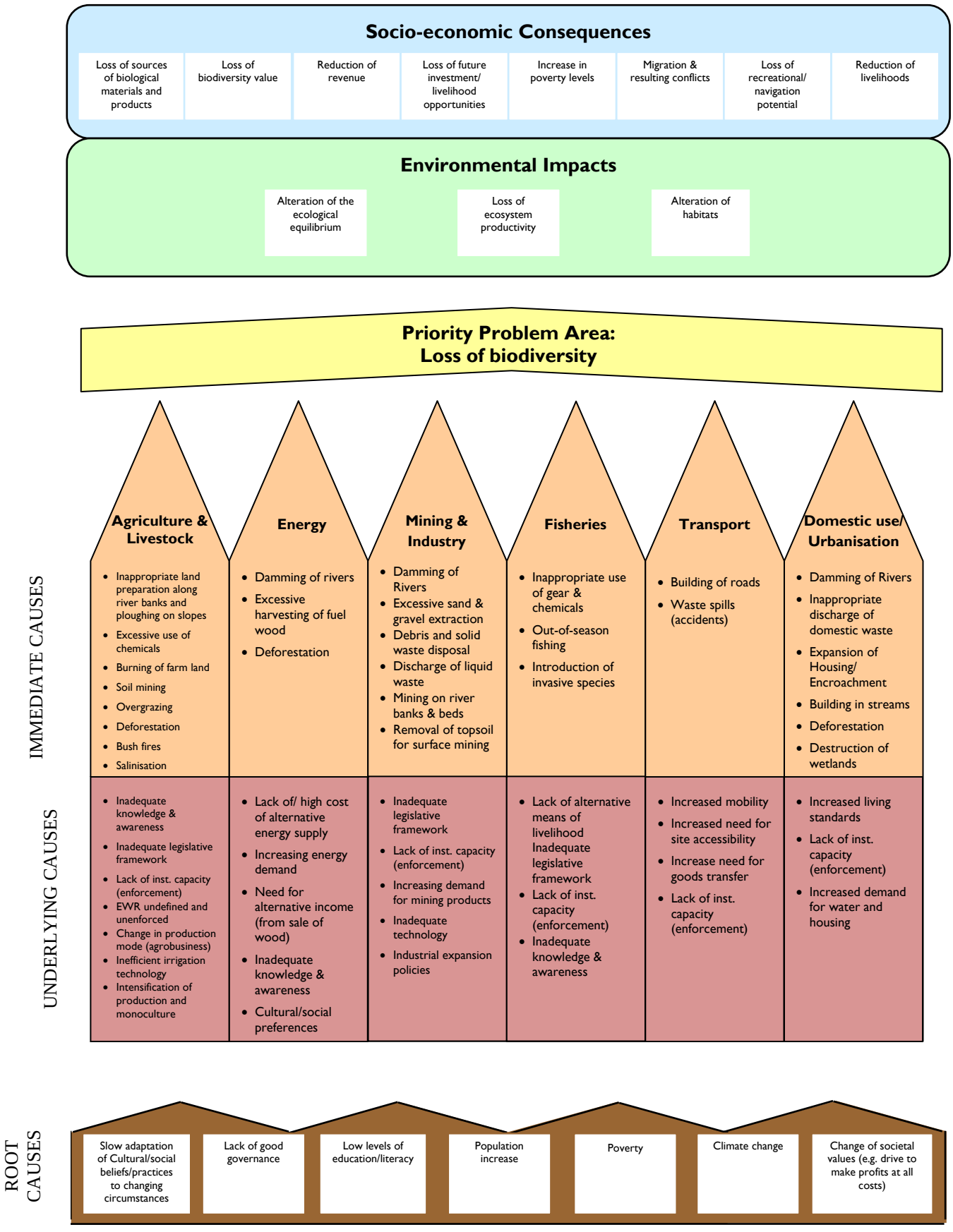
5.4.3 CCA Invasive Aquatic Species



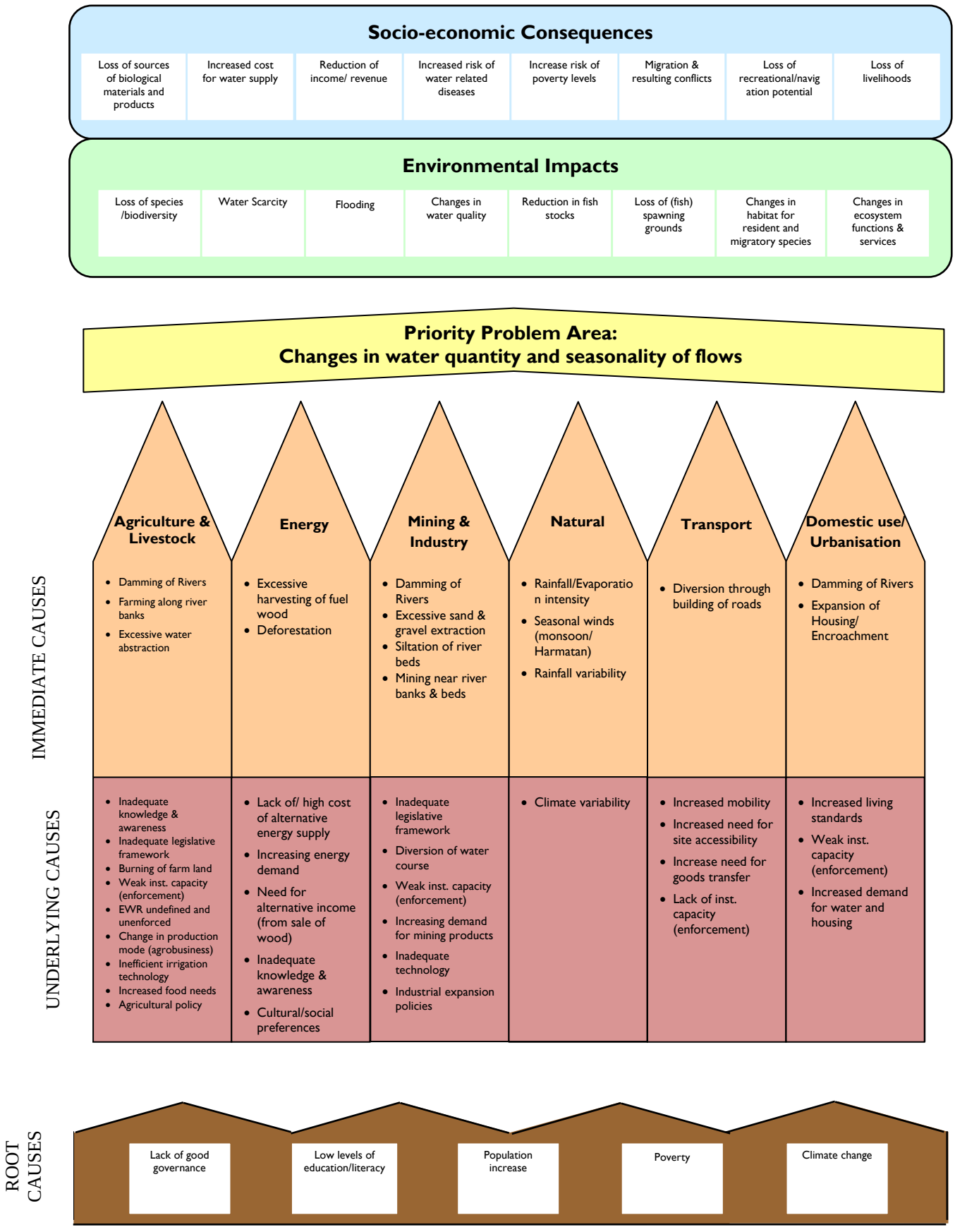
5.4.4 CCA: Degradation of Aquatic Ecosystems



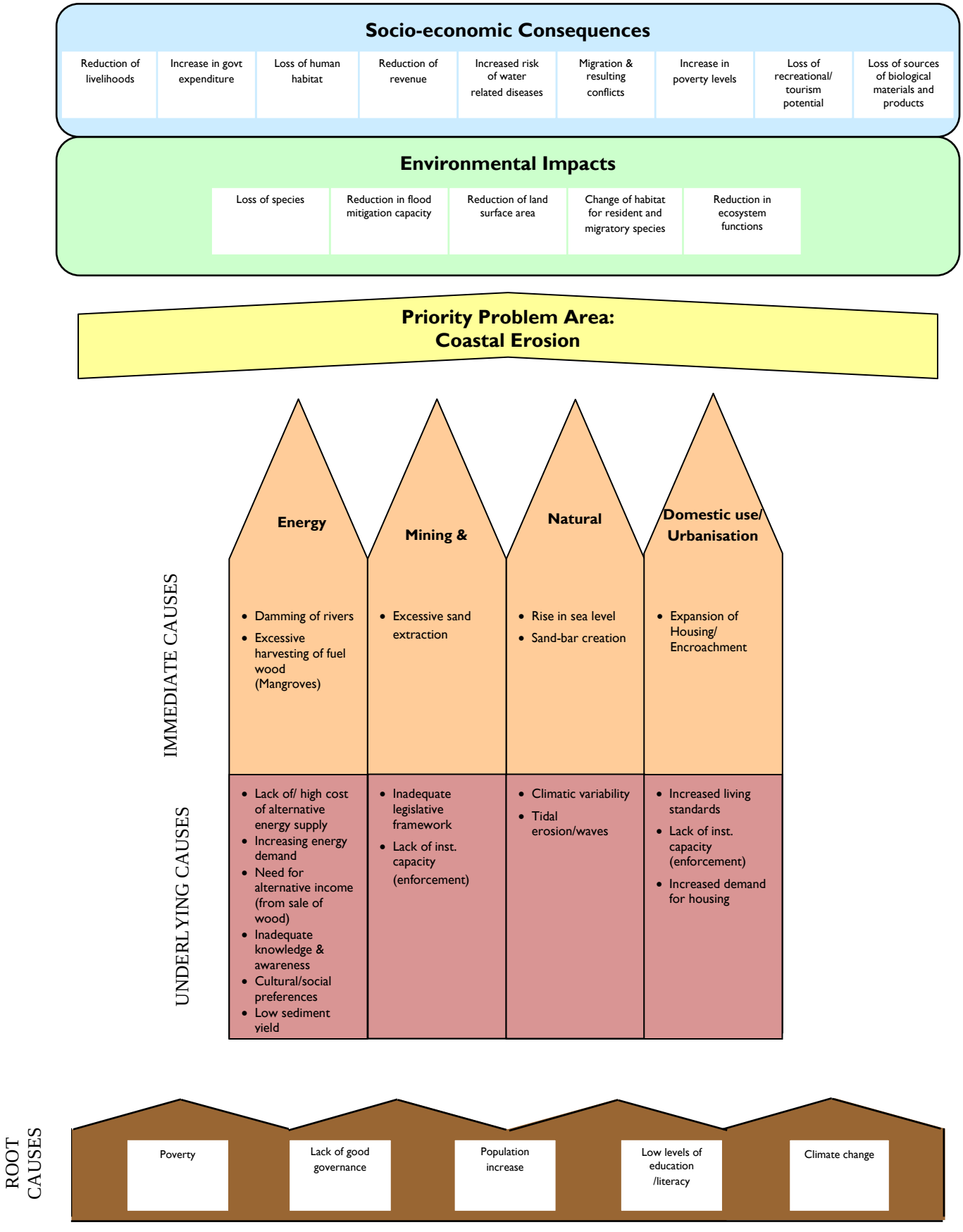
5.4.5 CCA: Loss of biodiversity



5.4.6 *CCA: Changes in water quantity and seasonality of flows*



5.4.7 CCA: Coastal Erosion



5.4.8 CCA: Water related diseases