Consulting services in natural resource and knowledge management

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Social risk analysis in the Lake Chad Basin [1/]

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The logic of the Lake Chad Basin Commission (LCBC) / Global Environment Facility (GEF) project (the LCBC / GEF project or the project) preparation and process, of which the Environmental and Social Risk Assessment (ESRA) assignment is a part, is as follows (see Figure 1):

Figure 1 – Relationship of key steps in project preparation

ESRA assignment → Stakeholder Analysis assignment → Transboundary Diagnostic Analysis (TDA) → Strategic Action Program (SAP)

Essentially, the former two are data collection and analytical exercises, while the latter two are concerned specifically with project preparation and implementation. It follows that the function of the former two are to provide inputs into the latter two.

This background paper addresses some aspects of the ESRA and Stakeholder Analysis assignments from the vantage point of analyzing these assignments within the overall data collection, analytical and project preparation exercise. In general terms, the purpose is to analyze the position of social risk assessment in this set-up, including its relationship with environmental risk assessment and with the Stakeholder Analysis assignment. More specifically, the key focus is on the conclusions and recommendations on social risk assessment to come out of the ESRA assignment, and their implications for the Stakeholder

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Analysis assignment as well as the TDA and SAP project preparation exercises. The goal is to construct a more realistic – as well as complex – model for the relationship between the social / culture, on the one hand, and environment / ecology, on the other hand. This is necessary in order for the TDA and SAP exercises to arrive at a correct understanding of the key variables operating in the complex interrelations between people, cultures and the environment found in the Lake Chad Basin (Basin) and, consequently, to be able to act upon this knowledge and devise a project that is optimally suited to implement correct actions.

The paper builds upon the Terms of Reference (TOR) for the ESRA assignment and the ESRA draft final report. Furthermore, it addresses the TOR for the Stakeholder Analysis assignment. The paper should be understood as a commentary on how the ESRA TOR treats social risk assessment, including its understanding of: (1) social risk assessment and (2) the relationship between environmental and social risk assessment. It would appear that the overwhelming emphasis in the TOR is on environmental risk assessment. [2/] It follows that it is difficult to get a sense of how social risk assessment is understood, and what the relationship between the two is. The paper aims to provide more content and structure to social risk assessment and its relationship with environmental risk assessment and, in this way, contribute to increase the value of the ESRA assignment – and the following Stakeholder Analysis assignment – for monitoring and evaluation as well as development of a decision-support framework.

On risk analysis

This section presents how risk assessment and risk management is understood in this paper, including the key terms employed.

The understanding of risk, including analysis of risk, is changing. It used to be that risk was all about the probabilities that this or that scenario would happen or not, or "… the estimation of the relative likelihood and magnitude of alternatives where the outcome of a course of action is uncertain" (Kuper and Kuper 1985:709). While this view still is important, it is now expanded in different ways: in terms of subject matter, methods and disciplinary foci. The traditional focus, now properly referred to as *risk assessment*, is the technical stage in the process of *risk decision-making*, and addresses the probabilities of various scenarios taking place, with applications within technical fields, natural sciences and finance, using a range of formal methods, typically Bayesian analysis. The focus is today broadened to include the range of different perceptions of risk, together with techniques for assessing their social acceptability. This broader focus is increasingly referred to as *risk analysis*, and this term is used in this paper.

Risk in this broader sense is here understood as: "… the potential impact to an asset or some characteristic of value that may arise from some present process or from some future event" (Wikipedia 2006). Risk analysis thus encompasses two approaches: (1) risk assessment, as briefly outlined above and (2) approaches and tools connected with psychological and sociological / anthropological factors. This is the area of *risk perception*, the part of risk analysis concerned with "… the psychological and sociological factors affecting the selection of some risks for concern and the unself-conscious minimizing of

[2/] While the ESRA TOR refers to both environmental and social risk assessment in the title, in the text, however, there are few references to social risk assessment. The draft final report of the ESRA assignment nonetheless contains a wealth of data and information on social risk assessment.

others" (Kuper and Kuper 1985:710). This latter aspect is given special emphasis here. In risk perception, two paradigms are commonly recognized: (1) the *psycho-metric paradigm*, which "… examines individuals' abilities to make accurate estimates of probability, and the disparities between their stated attitudes to different probabilities and actual behaviour under laboratory conditions" (Kuper and Kuper 1985:710) and (2) the *socio-metric paradigm*, which views perceptions of risk and their degree of acceptability as part of a culturally and societal determined moral order. Risk understood in this way is part of culturally specific types and forms of knowledge that cover, among others, the specific relationships between the culture and the encompassing environment (Worsley 1997). It follows from this culturally specific view that understanding of what risk is and what it entails, that risk is subjective and relative and, moreover, that the complications in analyzing, understanding and managing risk are increasing. Furthermore, this approach aims to identify culturally and societal specific *portfolios of risk* that are commensurate with the respective culture's unique social structure, social organization and value system(s). In this paper the socio-metric paradigm in particular, together with its implication for developmental work in the Basin, are explored in some detail.

Risk analysis covers also *risk management*, an ongoing process where stakeholders function as risk assessors or *risk managers*. In the Basin, the LCBC and its senior staff function as key risk managers on a macro level, directly through the project's activities, and indirectly in the way that they manage and coordinate supranational political processes in their capacity as implementers of the LCBC / GEF project. There are other key risk managers, of course, which operate at different levels, are based on different rationalities and have different means and goals, to be outlined below. Chief among them, for the purpose of the overall argument advanced here, is the local population, be they farmers, fishermen or herders. [3/]

An important aspect of risk analysis is that, depending upon the characteristics of the stakeholders involved, it operates at different levels. Generally speaking, risk perception operates at the local level, while risk assessment operates at several macro levels. For another characteristic, consider that risk assessment basically takes place at, and operates external to, the culture or cultures in question, while risk perception – and accordingly also risk analysis – is fundamentally about activities and processes operating within – in the sense of being internal to – a culture.

This internal or intra-cultural level or aspect of risk analysis is important in order to understand how and why it currently is undergoing dramatic change, in the face of the present large-scale and macro-level phenomena that increasingly affect and determine the security and quality of human lives and existence. In the Basin, the major variable operating is drought. How does it operate? A brief answer is that the socio-metric paradigm increasingly is being determined by factors external to it, that is, as located in space and time – in other words: globalization.

The particular aspect of risk analysis of concern in this paper will be referred to as *Social Risk Analysis* (SRA).

[3/] There is overlap between risk management and risk decision-making (see above on this concept), on the one hand, and the project's emphasis on developing a decision support framework, on the other hand. More specifically, risk management and risk decision-making should be understood as part of the decision support framework (see on decision theory below).

The framework

On a general level it is useful to begin by considering the idea of *systems*, not so much in the sense of *systems theory* as in the less complex sense of units that are open to the outside in certain respects and at the same have a unique and separate internal consistency. Along this line of thinking, in the Basin one can delimit two broad such systems, namely an *ecological system* and a *social system* (Burnham and Ellen 1979). These two macro-level systems relate to each as Nature does to Culture. These systems are gross simplifications of the reality, they are heuristic devices, and they are models of a reality that is much more complex in that they contain a large number of smaller and more-or-less overlapping systems that are related in very complex ways. The ecological system comprises the natural resources in the Basin, as organized in a very large number of ecosystems located at different levels. The social system comprises the human populations in the Basin, as organized in a very large number of smaller social systems located at different levels. They include, among others, nation states, racial and ethnic groups, kinship group, villages, neighborhoods, occupational/subsistence groups, workgroups, religious groups and age groups that exist in a complex pattern of overlapping boundaries.

Within each system, again for modeling purposes, one can distinguish fundamental driving forces or *driving factors*. These driving factors operate not only internal to its own system, but affect also the other system. The recognized driving factors are:

- *Climate.* Specifically patterns of rainfall. Located in the ecological system, and
- *Demographics.* Specifically immigration, but also migration. Located in the social system.

Below, the key aspects of the social system are presented in some detail. To focus the argument, three central concerns to sustainable management of natural resources are identified, namely:

- Culture,
- Social organization, and
- Property rights.

The social system

The internal driving factor in the social system is the prevailing level of immigration. [4/] The problems following from the current pattern of lowered rainfall and drought, that is, the key external driving factor, interacts with patterns of immigration to produce synergies that are many times more serious than if either driving factor were to operate alone.

However, the millions of people living in the Basin, as well as the millions that will arrive in the years to come, cannot be reduced to a simple argument of demographics. They have different and unique cultures, languages, patterns of social organization, value systems, patterns of livelihood and subsistence, as well as likes and dislikes. They are largely farmers and herders. Along with these subsistence practices come certain patterns of societal

[4/] According to the ESRA TOR, the population in the Basin is projected to reach 35 million by 2020.

structure and social organization. Given the complex patterns of cultures and ethnic groups, there will obviously be marked variation, but certain general patterns can be discerned. They include:

- Large and smaller tribal groups, often divided in more or less clearly separate sub-units,
- Large kinship groups,
- Emphasis on the extended family group,
- Value systems and mores (i.e., moral norms) that give emphasis to various forms and levels of collectives of people rather then to fragmented groups, together with the cultural rationale and processes that maintain them over time,
- Importance of the family within the larger whole,
- Importance of religion, and
- A strong identification with, and connection between, people and their environment.

As is common among millions of farmers and herders throughout Africa and elsewhere, access to land and other natural resources is governed by complex property rights systems. [5/] These systems govern all forms of access, including rights to use, forms of ownership, and what resources can be taken out, how, by whom and when (Benjaminsen and Lund 2001; Bromley 1992; Bruce and Migot-Adholla 1994; Goldman 1998; McCay and Acheson 1987; Meeker-Lowry 1995; Ostrom 1990; Spiertz and Wiber 1996). There are three recognized types of property rights, namely *state property rights*, *private property rights* and *communal property rights*. [6/] State property rights hardly exist anywhere in the Basin, while common property rights is most common, and is accordingly of most concern here. The form of communal management of resources that is found under common property rights' regimes is often referred to as *collective action* (Meinzen-Dick, Knox and Di Gregorio 2001). In the framework presented here, the changes in property rights, which is from common property rights to private property rights, and likely also from common property rights to open access, should be understood as an *indicator* for the overall condition in the social system, as well as for the relationship between the social system and the ecological system.

The driving forces and the central concerns in each system do not operate alone, but are connected in complex ways in an ongoing and evolving process that reflect the two systems, and gradually change the circumstances and conditions of life in the Basin. These processes of change are currently taking place faster and faster, and with correspondingly less possibility and ability to predict the outcome.

[5/] In addition to land, the types of natural resources available in the Basin include fish, forests, rangelands and wild vegetation. In addition to these surface resources, there is one specific sub-surface resource that is of growing concern in parts of the Basin, namely oil.

[6/] The absence of any recognized form of management and property rights is called *open access*, by some referred to as a fourth management form.

Social analysis methodology

Part of the overall argument of this paper is to construct a comprehensive methodological framework for researching and studying SRA. Key elements of such a framework is provided by work done by social scientists in the World Bank since the early 1990s, culminating with the present focus on Social Analysis (World Bank 2006). [7/] Here only a brief summary of this methodology will be offered, aimed at providing an overview, as well as locating the specific position of SRA and stakeholder analysis within the overall methodology.

The methodology comprises the following elements or *entry points*:

1. *Social diversity and gender.* Concerned with diverse social groups that can be identified on the basis of gender, ethnicity, religion, age and culture. Spatial / geographic and economic characteristics are also covered,

2. *Institutions, rules and behavior.* Addresses the relationship between organizations and institutions, that is, the formal and informal rules operating in society. Put differently, it addresses the relationship between organizations and the rules and values that underlie and govern the operation of organizations, [8/]

3. *Stakeholders.* Stakeholders, whether located in the public sector, private sector or civil society, whether countries, organizations, NGOs, groups or individuals, all have *interests* in the project and its outcome. At the same time they have varying degrees of *influence* over it. Some stakeholders are very visible, while others are largely invisible. Some may be opposed to the project while others try hard to capture its benefits. The key stakeholder category focused upon in this paper is local people, and this category have few views on the project as it largely is unknown to them, and they also have little influence over it. These local people are, at the same time, one of the project's key *beneficiaries*. It follows that effective management of stakeholders requires an understanding of their *interests* and degree of *influence*,

4. *Participation.* The term *effective participation* refers to participation of project beneficiaries in project design as well as participation in the opportunities created by the project, and

5. *Social risks.* Here the focus is on what can go wrong. The next question is what sort of risk management measures need to be taken to address risks that are identified. The recognized social risks can be divided in five categories:

    - *Vulnerability risks.* Covers increased exposure or susceptibility, especially of the vulnerable and poor, to endemic risks or external chocks,

    - *Country risks.* Includes, for example, political instability, ethnic or religious tensions, violent conflict and the militarization of society,

[7/] The literature on this methodology is very large, see the World Bank website at <www.worldbank.org> for details. The key reference is World Bank (2006), available online.

[8/] The latter position is commonly referred to as institutional economics.

- *Political economy risks.* These are risks that might affect the intended beneficiaries as an indirect result of the project. Good examples include inability to reach the goals and elites that capture project benefits,

- *Institutional risks.* Includes inappropriate institutional arrangements, weak governance, limited technical and administrative capacity, design complexity and low capacity, and

- *Exogenous risks.* Good examples are regional conflicts, macro-economic changes, terms of trade and climate effects that are likely to affect social development outcomes.

These entry points would, in order to ensure an optimal result in understanding all relevant aspects of the project, need to be implemented and pursued in parallel. The project is so far focusing on only two of the five entry points for Social Analysis (see above), and only partly, namely: (1) stakeholders (corresponding to the Stakeholder Analysis assignment) and (2) social risks (corresponding to the ESRA assignment). Moreover, the order is turned around, in that the focus is first on risk and then on stakeholders. This approach makes sense given that the main focus of the ESRA assignment appears to be on environmental risk assessment. As viewed from the position of SRA, however, it makes less sense in that one would need to know details about the stakeholders in order to assess relevant risks.

Social risk analysis: scenarios, social risks and conflicts

Data is available on a number of factors that are central to arriving at an understanding of the future developments in the Basin and associated social risks and conflicts. The above mentioned driving factors are central to such trend and consequence analyses. For the purpose of this argument, three broad areas of concern and focus are delineated: scenarios, social risks and conflicts.

Scenarios

As a macro-level planning tool, scenario building is most useful. Four broad and partly overlapping scenarios can be identified, listed below according to their key causal factors:

1. *Increased drought combined with high population growth.* This is the "traditional" scenario, and the only one that has received some attention so far,

2. *Oil exploration.* In this scenario, oil spills would take place in parts of the Basin, presumably in Cameroon or Central African Republic (CAR). These would be caused, for example, by technical problems or by similar type activities that are found in the delta of Nigeria. If so, and if a similar type scenario were to play out in the Basin, it means that potentially serious interethnic and micro-macro type conflicts would occur, and

3. *Involuntary resettlement / forced displacement.* This scenario comes into play if and when LCBC or the project finds it necessary to move people, for example, from the partly reclaimed lake bed as a way of avoiding unnecessary local level conflicts and/or because of possible conflicts between the riparian countries. It would also apply in the case of scenario no. 4,

4. *Congo / CAR water transfer channel.* If this channel is indeed to be built, a whole series of social risks are likely. Here also scenario no. 3 would come into play.

Various forms and levels of conflicts are likely elements in these scenarios. SRA should ideally be done to cover these four more or less likely scenarios, and *before* they happen, not after the fact. Below a general set of social risks, likely to be part of scenario no. 1 above, are outlined.

Social risks

In the available literature on disasters, a large number of ecological risks have been identified, while there are virtually no references to social risks. Again, the applied social science literature together with the focus of Social Analysis is helpful. While the number of identified social risks may be much smaller than the number of identified ecological risks, their impact on the short term, and certainly on the longer term, are likely to be much more important. It is important to differentiate between social risks that have their origin within the ecological system, and those that have their origin within the social system itself. However, in practice this may often be complicated because of synergetic effects and causal connections between the two systems and their combined effects on social risks. A provisional list of social risks in the Basin includes:

1. *Vulnerability risks*. There are a large number of factors operating here, all of them related in complex ways, via feedback loops. Of key importance is the accelerating transformation of traditional common property resource rights to private property rights and open access. This renders especially the poor more vulnerable, as they are deprived of access to resources, including forests and agricultural land. The process of immigration are likely to increase this process, as immigrants will often settle on lands that are under commons regimes, and at the same time they will be hard put to realize their own rules for commons management. Important here is also the fact that traditional knowledge of how to utilize natural resources is not easily implemented in new surroundings. Furthermore, as commons regimes become less utilized and effective, this will have a negative effect on traditional patterns of social organization. For example, old cooperative work groups will be less and less utilized, that is, earlier widespread and culturally sanctioned *collective action* will gradually disappear. Difficulties of making a traditional living in farming and herding leads to internal migration to urban centers in search of work. This labor migration impacts kinship relations in general and the division of labor and role patterns within the family or household in particular,

2. *Country risks*. The key risk here is the ability of the riparian countries to collaborate with each other and the LCBC in general, and with the project in particular. The evidence so far clearly shows the problems existing here, and there appear to be no ready solution at hand. One particular problem may occur as settlement of the former lake bed increases. Already there are reports that Nigerian citizens have moved beyond the area under control and jurisdiction of Nigeria. As and when local-level conflicts over control of agricultural land in this area increases, the responsible countries will have to take joint action, hopefully under the guidance of the LCBC,

3. *Political economy risks*. An obvious factor here is the extent to which the project is slow in reaching its goals (this appears to be the case at the present time), or is not able to reach its goals. The extent to which well-off and well-connected stakeholders may be able to affect project implementation progress and capture project benefits, is uncertain but apparently small,

4. *Institutional risks*. In all likelihood, the presence of the five riparian countries in the area surrounding the lake, and especially on the reclaimed lake bed, is very weak. At the same time, due to fast social change which is aggravated by large-scale immigration, tribal social organization is likely to become weaker together with a gradual disappearance of fundamental integrative values. With traditional social organization becoming less functional while the nation state does not extend its reach and fill the vacuum, the result will invariably be weaker governance systems. The LCBC is not mandated to become involved at this level, and accordingly cannot do much besides pointing out the obvious, and

5. *Exogenous risks*. Beside the impact of climate, other obvious exogenous factors are at the present time not discernible.

Conflicts

When realized, the above risks turn into *hazards*, understood here as a general term for a wide range of phenomena that pose a threat to humans, human populations and human societies. Such hazards, in and off themselves, and in synergies with each other, often result in *conflicts*, which in turn results in further and/or aggravated levels of risk (see Figure 2).

Figure 2 – Causal relationship between risks, hazards and conflicts

Conflicts take place partly over natural resources, connected with disagreements over access, use and ownership of natural resources, grievances over lost land and disagreement over compensation in connection with transfer of rights to natural resources. [9/] They also take place partly over issues connected with economic, political and status-related differences. Increasingly, in the emerging much more complex cultural and inter-ethnic situation, these more-or-less separate causes and foci for conflicts are being merged. The socio-metric focus

[9/] Some form of compensation, invariably in the form of intangibles, often exist in traditional cultures. However, this aspect only becomes important in a more or less monetized economy, as and when land has begun to be privatized, and it becomes a commodity that is sold and purchased in a market place. Data on the extent to which this is occurring in the Basin at the present time is not available.

of SRA is of key importance here. It is also crucial for conflict mediation and conflict management, in that one get knowledge about all sides and can share such knowledge. [10/]

Conflicts are located at different levels, with the parties belonging to the same or a different ethnic group and with often differing subsistence practices. However, in most cases conflicts likely occur at the community level and are over natural resources. Furthermore, the typical local level conflict will increasingly be between parties belonging to different tribes, either between tribes traditionally living in the area and immigrant tribes, or else between immigrant tribes. Such conflicts are even harder to address and mediate, as both parties will refer to often widely different value systems and means of traditional mediation. To further increase the potency of such conflicts, the parties will increasingly lack knowledge about each other, which translates into a lack of understanding and empathy. This will be the case not just on the personal level, but the other tribe as such will be largely unknown. To make matters worse, one can imagine situations where the parties do not understand each other, or do not understand each other well, because they speak different languages or communicate by means of a *lingua franca* (in most cases presumably French) that they may or may not master well. Conflicts at this level, if not mediated, often result in *social cleavages* within and between the parties to the conflicts, along different variables, including age, culture, ethnicity, gender and religion.

The causes for violence and conflict very often lie in poverty, but also in crime and corruption. In this respect the situation in the delta of Nigeria represent a disturbing picture of how not to manage resources and deal with local people (International Crisis Group 2006). Conflict management also covers awareness of conflicts that may occur in the future, and how to prevent them from happening. It would accordingly seem to be prudent policy for the relevant countries in the Basin, specifically Cameroon and CAR, to study the lessons from the Nigerian delta, with a view to adopt relevant approaches and policies, in order to prevent this from happening also in the Basin.

Conflicts at the macro-level will, if they should ever occur, realistically be between the riparian countries, and a likely scenario would be over the location of international borders in the former lake bed, together with how to utilize these areas. There is, of course, the ongoing conflict in Darfur and the way in which it has spilled over into Chad, to consider. However, so far there are no indications that this would affect the relationships between the five riparian countries and their collaboration through the LCBC / GEF project.

Systems and interactions

The systems, driving forces and factors discussed above do not, as already hinted at, operate apart from each other. The integrated social and ecological systems – Culture and Nature – in the Basin are extremely complex – and the overall Basin system is becoming increasingly complex due to fast social change, coupled with high levels of immigration.

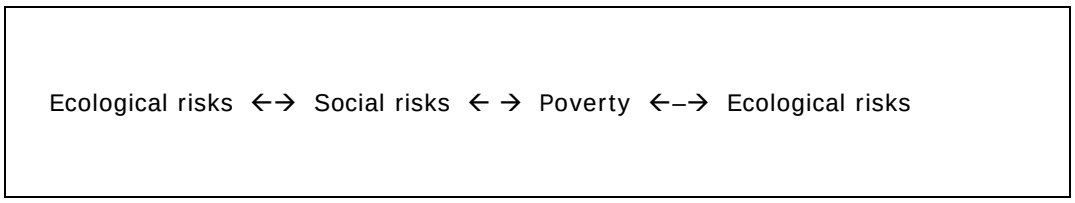
A full-fledged systems analysis of the integrated and interactive nature of the Basin is beyond the scope of this paper. [11/] One important integrative variable (which very well can – and should – be addressed separately) will, nonetheless, be mentioned here, namely *poverty*.

[10/] This is useful, among others, in situations where conflicts arise because of lack of understanding of the other side(s) as regards, specifically, understanding of the actions, knowledge, positions, situation and/or views.

[11/] It would certainly be a worthwhile and useful task to do a Basin-wide systems analysis.

This aspect is becoming more and more apparent. Far from the result of a straightforward simple causal connection, like, for example, drought, the causes for – and persistence of – poverty is very complex. By shorthand notation this is often referred to as the *environment-poverty nexus*, but it should probably more correctly be referred to as the "environment-social-poverty nexus". The factors operating as driving forces result in increasing levels of poverty among the population in the Basin. A seemingly unimportant factor, namely the disappearance of natural resources managed under common property regimes, can be shown to be of key importance. Disappearance of traditional knowledge for managing natural resources, together with gradual decreased importance of tribal social organization and traditional mechanisms for conflict mediation, are other seemingly unimportant factors in this broad picture of a region and its cultures under increasing social change. Another factor is the importance of environmental degradation for increases in poverty levels. A simplified way of showing a general causal set of the variables operating and their links – including negative feedback – and that has both heuristic and predictive value, is presented (see Figure 3).

Figure 3 – Relationship between risks and poverty



If follows that there are close links between poverty and risk, including both objective macro-level risks and socio-metric risks.

Conclusions

This paper has proceeded from locating and discussing the focus on SRA within the framework of the social and ecological systems in the Basin, and further within the methodological and analytical framework of Social Analysis. It sets forth a clear connection between SRA and stakeholder analysis as regards hypotheses, methodology, stakeholders involved, results and remedial action.

The following general conclusions are put forward:

1. The risks in the ecological system of the Basin may be dramatic in how they affect sustainability and productivity. However, the implications of these risks on the ecological system pale in comparison to how they may affect the social system. The negative feedback effect of this on the ecological system would, in turn, further aggravate the situation. It is accordingly of fundamental importance to focus more attention on, first, the overall and evolving social system in the Basin and, second, the complex interrelations between the social and ecological systems located at various levels,

2. It is easy to understand the hesitation on the part of some stakeholders, in particular, those at the national levels and those representing the riparian states. They are likely to have thought along the lines of a more or less passive participation of local people, meaning local people are expected to contribute or volunteer data and leave the rest to the public sector and the politicians in each riparian country. There may be concerns about a kind of snowball effect. The fear of losing control appears to be deep and strong. This paper argues the contrary: an increasing emphasis on decentralization, democratization, devolution, participatory approaches and transparency is noticeable throughout Africa. It is strategically wiser to involve local people through laws and in an orderly way, compared with the alternative. This speaks to the importance of *legal reform.* The fundamental issue here is that, in order to have a fair chance of addressing the multiple and fundamental questions and problems that will determine the lives and well-being of countless millions of people, the politicians really have no choice but involve these very people in searching for solutions. People may, rightly or wrongly, be understood as being *part of the problem* (if not *the* problem). By the same token, local people are most definitely *part of the solution*. Moreover, this is not just a question of searching for solutions, but of involving and informing people as a valuable goal in its own right. To opt for and implement a transparent and democratic process is as important – and probably more so – as the goal or outcome itself. In this sense the process *is* the goal,

3. How to address SRA at the supra-national level, that is, at the level of the five riparian countries, is a very complex issue and process. The experience of the project so far shows this, and it is likely not going to be any easier in the future. The project should invest time and resources in discussions with national governments, involve them much more in the project, and make clear their responsibilities and obligations as well as their rights. In other to clarify the problems and consequences it is necessary to think and argue not on the long-term (as in 'the future') but on the short-term (as in 'tomorrow'). There *are* already evident problems for anyone that cares to see, within the ecological system as well as within the social system. If there is ownership – if the riparian countries *want* ownership and control – then they also have to take on the responsibility that comes along with it, and

4. Regarding the Stakeholder Analysis assignment: the idea and purpose of the final stakeholder workshop proposed in the TOR should be reconsidered. Alternatively, a tiered system of workshops in each country, on at least two levels, followed by a final Basin-wide workshop, should be considered. According to this approach, one or more levels of workshops would be organized in each country where participants, using ZOPP-type approaches, agree on issues and priorities, and send these on (together with representatives elected among the participants) to the next higher level of stakeholder workshop (World Bank 1997). [12/]

A number of relevant specific conclusions can be drawn from the above analysis, several of which are closely integrated or connected:

5. *Decision support framework.* Traditional decision theory is concerned with how real decision-makers make decisions, and with how optimal decisions can be reached.

[12/] Supras Consult devised such a tiered stakeholder consultation process for this World Bank sector work, and it was implemented successfully throughout the coastal zone of Ghana (cf. World Bank 1997).

The type of decision theory useful for managing the Basin is so-called *positive* or *descriptive* decision theory, which attempts to describe what people will actually do. It follows from the combined emphasis of the socio-metric paradigm of SRA and Social Analysis that *beneficiaries*, that is, local level stakeholders, should be involved in decision-making,

6. *Management of natural resources.* One practical approach to management of natural resources at the local level which addresses local needs and capacities is Community-Based Natural Resource Management (CBNRM). This approach, which is well known throughout Africa, is based in participatory approaches (see below), and should be implemented throughout the Basin (World Bank 1999), [13/]

7. *Knowledge management.* This is important, not just because of the fast population growth in the Basin, but especially as the population represents increasing numbers of more or less different cultures and languages. Knowledge management should be integrated with risk management (see below), risk communication (see below) and the decision-support framework (see above),

8. *Risk management.* This translates, in practical terms, largely into conflict management, including conflict mediation. Social risks are too often viewed by the riparian states as externalities to the overall equation of managing the Basin. It is absolutely necessary that risks and risk management be internalized, given due attention and addressed appropriately, and that this be done now rather than later,

9. *Risk communication.* This is concerned with communication of risk and risk management (see above) in a broad sense, including cultural communication, that is, communication across cultures and international borders. It is connected with the participatory approaches (see below) called for in Social Analysis. The purpose lies not just in the messages communicated, but in a dedicated process aimed at involving and interacting with beneficiaries, as well as with stakeholders more generally. The pre-eminent tool for such mass communication would be to set up a *Basin-wide radio station*. One added benefit of utilizing this means of communication is that it would contribute to integrating the countries and people throughout the Basin,

10. *Participation and participatory approaches.* As called for in the Social Analysis methodology and approach, this is not just a tool and means to collect necessary information and data about life at this level, but setting up and implementing such approaches is a goal in and off itself,

11. *Monitoring and evaluation regimes.* Such regimes have to be understood and implemented in tandem with other parts of the overall argument presented here, including the Social Analysis framework and participation and participatory approaches, and

12. *GIS and SRA.* The focus on SRA advocated here builds upon the outcome of the ESRA assignment. Specifically, the focus on GIS in the ESRA assignment would easily lend itself to application to and integration with the present focus on SRA.

[13/] The Community-Based Natural Resource Management Network (CBNRM Net), at <www.cbnrm.net>, contains a wealth of information on CBNRM, and is the most exhaustive resource available. Supras Consult is involved in the management of this global network.

Recommendations

The fundamental rationale and point of departure for the various interventions that the LCBC / GEF project will undertake in the ecological and social systems in order to reach its goals, should be based on understanding the project as a unique opportunity to address not only perceived problems (that is, a concern with the ecological system), but also make life in the Basin *better* for the people living there (that is, a concern with the social system). This ideal is the hallmark of all good developmental intervention, investment and social engineering. Apart from the humanistic focus, which is important in itself, this is good developmental work, given the integrated nature of the ecological and social systems. Specifically, in the case of the Basin, the key recommendation would be to use the opportunities that this project represent to address various types of *conflicts* at all levels, that is, to *solve* conflicts as well as to *prevent* that they appear in the first place. Social Risk Analysis (SRA), in combination with other elements including knowledge management, risk management, risk communication and participation and participatory approaches, is put forward as one key element of an overall approach aimed at achieving such results.

Some of the conclusions presented above, suitably operationalized, should be understood as recommendations. Some further specific recommendations, applicable to all riparian countries, are:

- Consider relevant legal reform, including in the areas of environmental management, property rights, traditional knowledge and revenue sharing,
- Increase the capacity to monitor, understand and predict changes in the social system, including in civil society, including non-governmental organizations,
- Do scenario-building for disaster situations,
- In the area of participation, risk communication and capacity-building, set up the dried-up lake as an area of international common property or as state property. This would have potentially very large benefits, including that that it would prevent conflicts at both the community and country levels, while securing very large tracts of land to be used as common property access areas for the poor, increase social and ecological resilience, and provide further possibilities for joint management and an increased role for LCBC and the project,
- Rethink the role of the Stakeholder Analysis assignment in the overall context of project preparation,
- Emphasize civil society, including non-governmental organizations that demonstrate capability and willingness to work with communities to take responsibility for their own development,
- Implement capacity building activities on two levels: (1) *local level* – target civil society aimed at increasing the capacity of this societal sector to function better within the nation states as well as within the supra-national entity of the Basin and (2) *macro-level* – target the public sector at handling better the totality of the interrelated nature of the Basin, and

- Initiate a credible and sustained dialogue, involving representatives of all stakeholders, on the future of the Basin (the stakeholder consultation process proposed above in connection with the Stakeholder Analysis assignment could very well function as the beginning of such a sustained dialogue).

References

Benjaminsen, T. A. and C. Lund, eds. 2001. *Property , property and production in the West African Sahel. Understanding natural resources management.* Uppsala, Sweden: Nordiska Afrikainstitutet.

Bromley, D., ed. 1992. Making *the commons work. Theory, practice and policy.* San Francisco, California, United States: ICS Press.

Bruce, J. W. and S. E. Migot-Adholla, eds. 1994. *Searching for land tenure security in Africa.* Dubuque, Iowa, United States: Kendall/Hunt Publishing Company.

Burnham, P. C., and R. F. Ellen. 1979. *Social and ecological systems.* A.S.A. Monograph 18. London, United Kingdom: Academic Press.

International Crisis Group. 2006. *The swamps of insurgency: Nigeria's delta unrest.* Africa Report no. 115. 3 August 2006. Dakar, Senegal & Brussels, Belgium: International Crisis Group.
URL: http://www.crisisgroup.org

Goldman, M., ed. 1998. *Privatizing nature. Political struggles for the global commons.* London, United Kingdom: Pluto Press.

Kuper, A. and J. Kuper, eds. 1985. *The social science encyclopedia.* London, United Kingdom: Routledge.

McCay, B. J., and J. M. Acheson, eds. 1987. *The question of the commons. The culture and ecology of communal resources.* Tucson, Arizona, United States: The University of Arizona Press.

Meeker-Lowry, S. 1995. *Invested in the common good.* Philadelphia, Pennsylvania, United States: New Society Publishers.

Meinzen-Dick, R., A. Knox and M. Di Gregorio, eds. 2001. *Collective action, property rights and devolution of natural resource management. Exchange of knowledge and implications for policy.* Proceedings of the International Conference in Puerto Azul, the Philippines, 21-25 June 1999.

Ostrom, E. 1990. *Governing the commons. The evolution of institutions for collective action.* Cambridge, United Kingdom: Cambridge University Press.

Spiertz, J. and M. G. Wiber, eds. 1996. The role of law in natural resource management. Gravenhage, Netherlands: VUGA.

Wikipedia. 2006. Several articles on aspects of risk and risk management.
URL: en.wikipedia.org

World Bank. 1997. *Towards an integrated coastal zone management strategy for Ghana. A sector work.* Accra, Ghana and Washington DC, United States: Ghana Environmental Protection Agency & Africa Technical Family: Environment, World Bank.

World Bank. 1999. “Nigeria. Issues and options for a community-based natural resource management program. A concept note for discussion.” Draft, 30 October 1999. Washington DC, United States: Agriculture and Rural Development (AFTR2), Africa Region, World Bank.

World Bank. 2006. *Social analysis sourcebook. Incorporating social dimensions into World Bank operations.* Washington DC, United States: World Bank. URL: www.worldbank.org/socialanalysissourcebook/home.htm

Worsley, Peter. 1997. *Knowledges. Culture, counterculture, subculture.* London, United Kingdom: Profile Books.