# *Decision-making and dialogue relating to large dams and hydraulic infrastructures*

## Diversity of approaches; evolution of policies and practices applying to project preparation and implementation; case studies from Cameroon and Senegal

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## Acknowledgments and disclaimer

This is the report of a study on the approaches to decision-making and dialogue on large dams and hydraulic infrastructures in developing countries and emerging markets, particularly the policies and practices applying to environmental and social aspects, and engagement of stakeholders around projects, including project-affected populations.

This research project has comprised three parts:-
- a 'scoping' at international level of perspectives of organisations participating in, or observing, the policy debate relating to large dams/hydraulic infrastructure projects;
- a case study in Cameroon, of decision-making on the *Lom Pangar Hydropower Project*, to be constructed at the confluence of the *Lom* and *Pangar* Rivers in the Eastern Region of the country;
- a case study in Senegal on decision-making and dialogue relating to the management of the River Senegal, as proposed in the Charter of the Waters of the River Senegal (*la Charte des Eaux du Fleuve Sénégal*), including participation of water users and civil society organisations.

This study was commissioned by the **International Union for the Conservation of Nature-IUCN**, through the Regional Programme on Integrated Management of Natural Resources for Poverty Reduction and Climate Change Adaptation in West Africa (PREMI). This research is designed to support IUCN's steps to enhance civil society's contribution to debate on dams and large hydraulic infrastructures, internationally, and as part of river basin dialogue in the West Africa and Central Africa regions - a decade after publication of the Report of the *World Commission on Dams* (WCD) in 2000.

The study has included review of the status of the WCD recommendations, and comparison with four other policies, namely: the World Bank's Safeguard Policies, the Performance Standards of the International Finance Corporation-IFC, the 'Equator Principles' adopted by the 'EP' Financing Institutions and the Hydropower Sustainability Assessment Protocol produced by the Hydropower Sustainability Assessment Forum and published by the International Hydropower Association. Other practice, including lesser levels of performance, with or without published policies, has also been considered, in order to take stock of the diversity of approaches to decision-making.

This report has been written by **Peter Newborne**, researcher and consultant based in London, specialising on water and environment/development policy and programmes. The scoping interviews at international level were carried out in July-September 2010 and the key informant interviews in-country took place between September 6$^{th}$ and 17$^{th}$. The reports of the case studies set out in Sections 3 and 4 are based on the information which was available at those times.

Thanks are expressed to the officials of government and of donors in Yaoundé and Dakar, as well as non-governmental actors involved in infrastructure projects in Cameroon and Senegal who took time to speak to the researcher about the evolution of policies and practices of project preparation and implementation, and who provided documentation on dam projects and river management.

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Responsibility for collection of the information gathered during this study and its presentation and interpretation in this report rests exclusively with its author and should not be attributed to the IUCN or any of the other institutions and organisations consulted. Feedback on this report would be appreciated at peter.newborne@blueyonder.co.uk

Photo on front page: photo of the *Manantali* Dam on the *Bafind* River in Mali, tributary of the Senegal River (source: *Organisation pour la Mise en Valeur du Fleuve Sénégal*-OMVS).

## Executive Summary

This report considers approaches to decision-making/dialogue on large dams and hydraulic infrastructures in developing countries and emerging markets, particularly policies/practices relating to environmental and social aspects, and engagement of stakeholders, including project-affected populations.

The purpose has been to take stock of the diversity of approaches set out in leading international policies, with a focus on three Strategic Priorities of the *World Commission on Dams* (SP 2, 3 and 5) compared with equivalents in other policies.

International legal instruments, e.g. human rights declarations, were not included, although in the two case study countries conducted in Cameroon and Senegal, national laws/regulations were reviewed, relating to environmental impact assessment (EIA).

Decision-making processes around infrastructure projects include varying degrees of participation by stakeholders. The 'space for participation' (to use the language introduced in Box 5 on page 33 of the present report) by civil society organisations (CSOs) in the two countries has been investigated.

Key informants to the present study noted that the WCD report, published to a global audience in 2000, was not accepted by all actors in the dams debate. The WCD Strategic Priorities were embraced by CSOs more than governments in developing countries, banks and financing institutions, and industry. Hydropower developers and operators, for example, did not feel adequately represented in the deliberations among the twelve WCD commissioners. Banks/financing institutions, public and private, apply, first and foremost, principles and procedures set out in their own policies (as discussed below).

As to the merits of the WCD, opinions are divided. Some actors consider it set the right standards. Others believe it sought to push policy too fast/too far. Whichever view is held, 'raising the bar' was the effect desired by the WCD and, despite disagreement as to whether the WCD represents good/best practice (essentially a value judgement), the WCD clearly constitutes the most *demanding* set of standards, hence the placing of it on the 'upper floor' of policy/practice in Figure 3 on page 32 of this report.

The effect of the WCD was to polarise debate. The UN Dams and Development project provided a dialogue process for assimilation of the WCD and discussion of its implications. The project helped establish, over time, greater understanding between actors. But differences of perspective clearly remain. That is, surely, a natural function of large, complex development projects, with multiple parties. Rather than seeking to resolve all differences across the range of actors, efforts are more usefully focused on identifying areas of common agreement, as well as highlighting the mutually reinforcing roles of the leading policies - the Table on page 25 summarises characteristics of the five policies reviewed here.

Three policies reviewed here - the World Bank's Safeguard Policies, the IFC Performance Standards and the 'Equator Principles' - apply to their particular financing activities. Alongside 'Level 3' under the Hydropower Sustainability Assessment Protocol, they represent a substantial body of 'good' international practice', beginning before the WCD and continuing to evolve after it - the 'middle floor' in Figure 3. As for the Protocol, instead of setting a standard, it provides an assessment tool. Several key informants to this study see it as a useful platform for engagement with power utilities, for promotion of more progressive working practices. Key informants commented on increasing commitment of banks/lending institutions to reduction of environmental and social risks, e.g. the fast growing group of 'Equator banks'. The primary driver is seen as reputational. A second step will be to further articulate the business case.

The WCD meanwhile continues to be a reference point, particularly for promoting assessment of a range of development options, through an open process, and in relation to its 'rights and risks' approach, based

on human rights and designed to address "imbalances in political power". CSOs in the study countries support that goal, while recognising the evolution in political climate/process which is entailed.

For infrastructure projects in Africa, non-OECD countries offer alternative funding. As far as the approach of Chinese companies to environmental and social impacts is identifiable, their activities present a range of practice, including lesser standards - the 'lower floor' in Figure 3.

It is the role of sovereign States to determine which policies are appropriate and practices acceptable within their jurisdictions, as decided by successive governments. Without, however, a strong national regime applying to project preparation/implementation (EIAs, resettlement, and benefits-sharing), in practice the source of finance, and the extent of environmental/social safeguards accompanying that finance, is likely to be the critical factor. A key priority is strengthening of national regimes in developing countries, to arrive at greater consistency in standards of practice. Without this, there is no environmental and social 'safety net'.

Inclusion of environmental/social measures requires design of extended projects, as portrayed in Figure 2 on page 17. For an extended project to function, the commercial/financial and the environmental/social parts need to be present, with the project retaining at its core the commercial/financial transaction, essential to the project's viability as a whole, including its ability to generate the intended outputs (e.g. benefits for sharing). Incorporation of the environmental/social components entails contractually attaching them to the core transaction, with developers/operators ceasing to regard them as 'externalities'.

In preparation of the *Lom Pangar Hydropower Project* in Cameroon, the primary driver is currently the World Bank's Safeguard Policies. The design of the 'LPHP' is taking it towards the 'middle floor' of good practice. The Government of Cameroon (GoC) will reveal how far, in practice, it is ready to pick up the cost of the environmental and social components as designed, estimated at c.8% of the total project cost (all components).

Further, a test of implementation will be the nature and extent of compensation paid to project-affected populations. In both Cameroon and Senegal, the gap between national and international compensation standards has been highlighted by the World Bank.

As to benefit-sharing, the LPHP is to provide electricity to towns/villages in the region, including first-time connections, although studies are yet to determine which households will benefit. Benefit-sharing needs to be incorporated in enforceable agreements with bodies which will be present, indefinitely, during the operation phase.

Rules and procedures relating to EIA have been recently introduced into national laws in Cameroon. EIAs have become part of formal institutional practice (a secondary driver), although some key informants consider the short periods of consultation under EIAs constitute a limited 'invited' space for participation (as per Box 5, page 33). CSOs in Cameroon commented on a lack, generally, of open processes for dialogue on policy-making between government and civil society. Openness to public debate around large infrastructure projects is, they say, not yet part of GoC culture and official mindsets. On either side, there seems to be little confidence that dialogue is in the common interest, for constructing better projects.

The Senegal River basin is an example of a trans-boundary regime where policy on river and water management is framed by the four contracting States, in international agreements, and developed and applied in the rules/procedures of the river basin agency, the *Organisation pour la Mise en Valeur du Fleuve Sénégal* (OMVS). It is OMVS' approach, as well as traditional donors such as the World Bank as financiers of large infrastructure projects, which are leading policy and practice.

The 2002 *Charter of the Waters of the River Senegal* sets out, on paper, a policy for participation by water users in decision-making. Eight years since the signing of the Charter, however, the contracting States have not brought into operation this framework treaty.

A new institution created by the OMVS is the River Basin Committee, *Comité de bassin*, with four 'colleges' covering a range of actors, including CSOs. This *Comité* provides a forum for dialogue, subject to its application in practice.

At local level, the institutional model of the Local Coordination Committees (*Comités Locaux de Coordination*) is not functioning and will continue not to operate while local democratic politics remain relatively undeveloped.

Despite CSOs carrying out an important function as 'watchdogs', there emerged from the key informant interviews a lack of solidarity between them. Improved coordination would increase their ability to influence policies and actions of government - civil society may also evolve and develop its practice.

In the Senegal River basin, uncertainties in forecasts of future rainfall call for an examination of how existing/future dams on the river are capable of serving energy and water storage uses, as well as maintaining a flow regime to sustain ecosystems and livelihoods, while itself functioning as a natural storage facility.

## Sommaire

Ce rapport fait le point sur les processus de prise de décision et de dialogue dans le cadre des projets de grands barrages et infrastructures hydrauliques menés dans les pays et les marchés émergeants du Sud. Il s'intéresse plus particulièrement aux politiques et pratiques relatives aux aspects environnementaux et sociaux, et les relations avec des acteurs locaux.

Le but de cette étude est d'étudier les différentes manières dont les politiques internationales les plus proéminentes traitent les thèmes abordés dans trois des Priorités Stratégiques de la Commission Mondiale des Barrages-CMB (Priorités 2, 3 et 5).

Les instruments juridiques internationaux n'ont pas été pris en compte dans cette étude (par exemple, les déclarations des droits de l'homme), quoique les lois nationales au Cameroun et Sénégal (les deux pays retenus comme cas d'étude) aient été étudiées - dans leur manière de réglementer l'évaluation des impacts environnementaux (EIEs).

Les processus de prise de décision autour des grands projets d'infrastructures permettent la participation de la société civile à des degrés variables. Dans les deux pays, 'l'espace de participation' disponible aux organisations de la société civile (OSCs) (selon le langage dans la Case 5 à la page 33) a été étudié.

Les personnes interviewées au cours de cette étude notent que les recommandations du rapport de la CMB, publié au plan global en 2000, n'ont pas été acceptées par tous les acteurs impliqués dans les projets de grands barrages. Les Priorités Stratégiques de la CMB ont été accueillies favorablement par les OSCs plutôt que par les gouvernements des pays du Sud, les banques et institutions financières, et l'industrie. Les constructeurs et opérateurs des centrales hydroélectriques, par exemple, ne s'étaient pas sentis représentés dans les délibérations des douze commissaires de la CMB. Les banques et institutions financières, publiques et privées, appliquent, prioritairement, les principes et procédures établis dans leur propre secteur (voir ci-dessous).

Pour ce qui concerne les mérites du rapport de la CMB, les opinions sont partagées. Certains acteurs estiment que la CMB a proposé des standards justes. D'autres acteurs considèrent que les commissaires de la CMB ont tenté de pousser trop loin la politique, et trop rapidement. Quelle que soit l'opinion retenue, l'effet souhaité de la CMB était de 'hausser le niveau', et, en dépit des désaccords autour des recommandations de la CMB - représentent-elles ou non la 'bonne pratique' (voire la meilleure pratique), ce qui relève au fond d'un jugement de valeur - il est clair que la CMB a proposé le niveau de pratique le plus exigeant parmi les politiques existantes. La CMB se situe donc à 'l'étage supérieur' des politiques et pratiques dans le Diagramme 3 à la page 32 du présent rapport.

L'effet des recommandations de la CMB a été de polariser le débat. Ensuite, le projet de l'ONU sur 'les Barrages et le Développement' a offert un processus de dialogue favorisant l'assimilation des propositions de la CMB et un débat autour de leur signification. Le projet a permis d'avancer le degré de compréhension mutuelle entre les acteurs. Cependant, des perspectives différentes demeurent. Etant donnée la complexité des grands projets de développement impliquant de multiples acteurs, ceci est sans doute naturel. Au lieu donc de chercher à résoudre toutes les différences entre les prises de positions de tous les acteurs, il est plus constructif de rechercher et d'identifier les points communs, et reconnaitre où les rôles des politiques publiées internationalement sont complémentaires (le Tableau à la page 25 fournit un résumé des caractéristiques clés des cinq politiques étudiées au cours de cette étude).

Trois des politiques étudiées - les Politiques de Sauvegarde de la Banque Mondiale, la Politique et les Critères de Performance en matière de Durabilité Sociale et Environnementale de la Société Financière Internationale et les 'Principes Equateurs' - s'appliquent aux activités propres de l'institution financière en question. A côté du 'Niveau 3' du 'Protocole pour l'Evaluation des Performances des Projets

Hydroélectriques', celles-ci représentent un ensemble de 'bonnes pratiques' substantiel au niveau international, ayant démarré avant la CMB tout en continuant d'évoluer après - c'est-à-dire à 'l'étage intermédiaire' du Diagramme 3. Quant-au Protocole, au lieu d'essayer d'établir une norme, il offre un outil d'évaluation des performances des projets hydroélectriques en matière de durabilité sociale et environnementale. Plusieurs personnes interviewées ont exprimé leur appréciation du Protocole en tant que 'plateforme' de dialogue avec des compagnies d'électricité, afin de promouvoir des pratiques plus progressives. D'autres entretiens conduits dans le cadre de cette étude servent de témoignage de l'engagement croissant des banques et institutions financières pour une réduction des risques environnementaux et sociaux, par exemple le nombre accru de banques ayant adopté les Principes Equateurs. D'après les personnes interviewées, la première motivation a été la protection de leur réputation. Une deuxième étape sera d'articuler les raisons commerciales les poussant à mieux prendre en compte les aspects environnementaux et sociaux.

Entretemps, la CMB continue de servir de point de référence - un repère clé pour la promotion de l'évaluation des options de développement (*options assessment*), à travers un processus ouvert - et, également, pour la prise en compte par la CMB des droits et des risques. Celle-ci est basée justement sur les droits de l'homme et vise à redresser les 'déséquilibres en termes de pouvoir politique'. Dans les deux pays étudiés ici, les OSCs soutiennent ce but, tout en reconnaissant l'évolution que cela impliquera dans le climat politique.

De nouvelles sources de financement, provenant de pays en dehors de l'OCDE, se sont ouvertes aux projets d'infrastructure en Afrique. Les activités des sociétés Chinoises (autant qu'il a été possible d'accéder aux informations sur ce sujet pour cette étude) montrent une gamme de pratiques, y compris des pratiques de bas niveau - 'l'étage inférieur' dans la Diagramme 3.

Il relève surtout du rôle des Etats souverains de déterminer quelles politiques sont appropriées et quelles pratiques sont acceptables sur leurs territoires, selon les décisions de leurs gouvernements successifs. Toutefois, sans un régime national fort pour réglementer la préparation et l'exécution des projets d'infrastructures (les EIEs, la réinsertion et le partage des bénéfices), la réalité est que l'institution financière fournissant les fonds, et ses propres politiques de sauvegarde contre les risques environnementaux et sociaux, constituera le régime qui s'applique. Une priorité clé sera de renforcer les régimes nationaux dans les pays du Sud, afin d'arriver à une plus grande cohérence dans les niveaux de la pratique. En l'absence de celle-ci, il n'existera pas de 'filet de sûreté' environnemental et social.

L'inclusion des mesures environnementales et sociales implique le design de projets de barrages/infrastructures hydrauliques dans un schéma de projet élargi, comme illustré par le Diagramme 2 à la page 17 de ce rapport. Pour que ce schéma fonctionne, les composantes commerciales/financières et environnementales/sociales doivent être présentes et bien incorporées. Le projet élargi maintien en son centre l'opération commerciale/financière, qui est indispensable a la viabilité du projet entier, y compris sa capacité de générer des résultats attendus (par exemple, les bénéfices à partager). L'incorporation des volets environnementaux et sociaux requiert le rattachement contractuel de ceux-ci a l'opération centrale, et leur prise en compte par les constructeurs/operateurs en tant que des composantes à part entière, au lieu de les considérer comme des 'externalités'.

Dans la préparation du *Projet de la Centrale Hydroélectrique de Lom Pangar* au Cameroun, ce sont les Politiques de Sauvegarde de la Banque Mondiale qui s'appliquent actuellement au processus de prise de décision. Le design du projet le pousse vers l'étage intermédiaire de la bonne pratique. Le Gouvernement Camerounais (GC) montrera dans quelle mesure il est prêt à assumer le coût des composantes environnementales/sociales selon le design, estimé à 8% du coût total du projet (toutes composantes comprises).

Un test de la mise en œuvre du projet de Lom Pangar sera la nature et le niveau d'indemnisation accordés aux populations affectées. Au Cameroun et au Sénégal, le décalage entre les standards nationaux et internationaux d'indemnisation a été signalé par la Banque Mondiale.

Quant-au partage des bénéfices, le projet de Lom Pangar fournira de l'électricité aux villes/villages de la région, y compris aux ménages qui se rattacheront au réseau pour la première fois. Or, des études doivent toujours déterminer quels ménages bénéficieront des ses services. Pour être pérenne, le partage des bénéfices requiert la mise en place d'entités ou de mécanismes pérennes accordant des contrats durables.

Des règles et procédures relatives aux EIEs ont été récemment introduites au Cameroun. Les EIEs font désormais parties de la pratique officielle (ce qui constitue pour le projet Lom Pangar la deuxième politique s'appliquant au processus de prise de décision). Néanmoins, certaines personnes interviewées considèrent que les brèves périodes de consultation officielle n'ouvrent qu'un espace limité pour la participation de la société civile. Les OSCs au Cameroun ont constaté le manque, en général, de processus ouverts pour le dialogue entre le GC et la société civile autour de la formulation des politiques publiques. L'ouverture au débat public des projets d'infrastructures ne fait toujours pas partie, disent-elles, de la culture habituelle gouvernementale et de la pratique normale des fonctionnaires. Des deux cotés, il y a peu de confiance que le dialogue sera dans l'intérêt commun, et qu'un dialogue accru servira à créer de meilleurs projets.

Le bassin du Fleuve Sénégal est un exemple d'un régime transfrontalier où la politique de l'aménagement des eaux et du fleuve est formulée par les quatre pays contractants, dans le cadre de conventions internationales, puis développée et appliquée à travers les règles et procédures de l'agence de bassin, *l'Organisation pour la Mise en Valeur du Fleuve Sénégal* (OMVS). C'est l'approche de l'OMVS, en même temps que la politique de bailleurs de fonds tels que la Banque Mondiale, qui déterminent actuellement le régime qui s'applique.

*La Charte des Eaux du Fleuve Sénégal*, signée en 2002, élabore, sur papier, une politique de participation des usagers dans la prise de décision sur l'utilisation des ressources en eaux. Cependant, huit ans après la signature de la Charte, les Etats contractants n'ont toujours pas mis en œuvre cette convention cadre.

Une récente innovation institutionnelle a été la création par l'OMVS du 'Comité de Bassin', avec quatre collèges pour les différents acteurs, y compris pour les OSCs. Ce Comité offre en principe un forum pour un dialogue ouvert, sujet à un bon fonctionnement dans la pratique.

Au niveau local, le modèle des *Comités Locaux de Coordination* n'est pas opérationnel, semble-t-il, et ne fonctionnera que quand les politiques locales démocratiques se renforceront.

En dépit du rôle des OSCs en tant que 'chiens de gardes' (*watchdogs*), veillant au le bon design et à la bonne mise en œuvre des projets d'infrastructure, il ressort des entretiens conduits au cours de cette étude, un manque de solidarité entre elles. Une plus grande coordination augmenterait la capacité des OSCs d'influencer les politiques et les actions des institutions publiques - la société civile se doit d'évoluer ses propres pratiques.

Dans le bassin du fleuve Sénégal, les incertitudes concernant les prévisions des futurs niveaux et époques des pluies incitent à une réflexion : dans quelle mesure les barrages existants/futurs sur le fleuve seront-ils capables de répondre aux demandes en énergie et en stockage des eaux, tout en de maintenant les flux d'eau nécessaires aux écosystèmes et à la vie des populations riveraines - laissant le fleuve fonctionner comme une 'infrastructure naturelle' de stockage des eaux.

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## List of abbreviations

| | |
|---|---|
| AES Sonel | *Société Nationale d'Electricité du Cameroun,* the private electricity utility in Cameroon |
| AfDB | African Development Bank |
| ADu | Water users' association - *association d'usagers* |
| AER | Rural Electrification Agency, Cameroon |
| AFD | *Agence Française de Développement* |
| ANAFOR | *Agence Nationale de Développement des Forêts,* Cameroon |
| ARSEL | *Agence de Régulation du Secteur de l'Electricité,* Cameroon |
| BDEAC | *Banque de Développement des Etats de l'Afrique Centrale* - Development Bank of the Central African States |
| CAS | Country Assistance Strategy |
| CEMAC | *Communauté Economique des Etats de l'Afrique Centrale* - Central African Economic and Monetary Community |
| CEW | China International Water and Electric Corporation |
| CLC | Local Coordination Committee (*Comité Local de Coordination*), in Senegal River basin |
| CPE | Permanent Water Commission (*Commission Permanente des Eaux*), Senegal River basin |
| CSO | Civil society organisation |
| DSCE | *Document de Stratégie pour la Croissance et l'Emploi* - Growth and Poverty Reduction Strategy, Cameroon |
| EA | Environmental assessment |
| ECAM | Survey of Cameroon Households - *Enquête Camerounaise auprès des Ménages* |
| EDC | Electricity Development Corporation, Cameroon |
| EIA | Environmental impact assessment |
| EIB | European Investment Bank |
| EMP | Environmental Management Plan |
| EPs | Equator Principles |
| EPFIs | Equator Principles Financial Institutions |
| ESMP | Environmental and Social Management Plan - *Plan de Gestion Environnemental et Social* |
| ETS | Emissions trading system |
| EU | European Union |
| FCFA | Francs of the African Financial Communities (Central Africa; West Africa) |
| FIDIC | *Fédération Internationale des Ingénieurs Conseils* |
| FPIC | Free, prior and informed consent, of indigenous people |
| GDP | Gross domestic product |
| GEF | Global Environment Facility |
| GIRE | *Gestion intégrée des resources en eau* (IWRM in French) |
| GIS | Geographical information system |
| GoC | Government of Cameroon |
| HSAF | Hydropower Sustainability Assessment Forum |
| IA | Impact assessment |
| IBAMA | *Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis,* Brazil |
| IBRD | International Bank for Reconstruction and Development, of the World Bank |
| IDA | International Development Association, of the World Bank |
| IDS | Institute of Development Studies, UK |
| IFC | International Finance Corporation, of the World Bank group |
| IHA | International Hydropower Association |
| IIED | International Institute for Environment and Development, UK |
| INS | National Statistics Institute, *Institut National de la Statistique,* of Cameroon |
| ISDS | Integrated safeguards data sheet |

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| IWRM | Integrated water resources management |
| KPIs | Key performance indicators |
| LP | Lom Pongar site, at the confluence of the Lom and Pangar rivers, Cameroon |
| LPHP | Lom Pangar Hydropower Project, Cameroon |
| MINEE | *Ministère de l'Energie et de l'Eau*-Ministry of Energy and Water, Cameroon |
| MINEP | *Ministère de l'Environnement et de la Protection de la Nature,* Cameroon |
| MINEPAT | *Ministère de 1'Economie et de la Planification et de 1'Amènagement du Territoire,* Ministry of Economy, Planning and Regional Development, in Cameroun |
| MINFOF | *Ministère des Forêts et de la Faune,* Ministry of Forests and Fauna, Cameroon |
| MDGs | Millennium Development Goals |
| MW | Megawatts |
| NGO | Non-governmental organisation |
| ODA | Overseas development assistance |
| OMVS | *Organisation pour la Mise en Valeur du Fleuve Sénégal,* Senegal River basin authority |
| PACO | Central and West Africa Programme of IUCN |
| PAD | Project appraisal document, of the World Bank |
| PAGIRE | *Plan d'Action pour la Gestion Intégrée des Resources en Eau* - Action Plan for Integrated Water Resources Management, Senegal |
| PANERP | National Energy Action Plan for Poverty Reduction (*Plan d'Action National Energie pour la Réduction de la Pauvreté),* Cameroon |
| PAP | Project-affected person |
| PASIE | Plan for Mitigation and Monitoring of Environmental Impacts (*Plan d'Atténuation et de Suivi des Impacts sur l'Environnemen*t) of existing dams on the Senegal River |
| PDSE | *Plan de Développement du Secteur de 1'Electricité* - Development Plan, Electricity Sector |
| PGESE | Environmental and Social Management Plan for the contractor - *Plan de Gestion Environnemental et Social de l'Entrepreneur,* Cameroon |
| PID | Project information document, of the World Bank |
| PDO | Project Development Objective |
| PGES | *Plan de Gestion Environnemental et Social* - Environmental and Social Management Plan |
| PreCESSE | *Projet de renforcement des capacités environnementales et sociales dans le secteur de 1'Energie* - Environmental & Social Capacity Building for the Energy Sector, Cameroon |
| PREMI | Regional Programme on Integrated Management of Natural Resources for Poverty Reduction and Climate Change Adaptation in West Africa, led by IUCN |
| Protocol | Hydropower Sustainability Assessment Protocol, published by the IHA |
| PRSP | Poverty reduction strategy paper |
| RAP | Resettlement Action Plan |
| REPES | Network of MPs for the Protection of the Environment, Senegal |
| SA | *Société Anonyme,* company incorporated under Cameroon law (or laws of other countries) |
| SAGE | *Schéma d'aménagement et de gestion des eaux*-Plan for River Development/Management |
| SDAGE | *Schéma directeur d'aménagement et de gestion des eaux* - Strategic plan for development and water resources management in river basins (French model being adopted in Senegal) |
| SESA | Strategic Environmental and Social Assessment |
| SP | Strategic Priority, of the World Commission on Dams |
| SPV | Special Purpose/Project Vehicle |
| TI | Transparency International |
| ToRs | Terms of reference |
| US$ | Dollars of the United States of America |
| WANI | Water and Nature Initiative, led by IUCN |
| WCD | World Commission on Dams |
| WHO | World Health Organisation |
| WWF | World Wide Fund For Nature |

# 1. Introduction

## 1.1 Purpose and scope of study

This is the report of a study on the approaches to decision-making and dialogue on large dams[1] and hydraulic infrastructures in developing countries and emerging markets, particularly the policies and practices applying to environmental and social aspects, and engagement of stakeholders around projects, including project-affected populations.

This study has comprised an international component and two case studies in-country. At international level, the policy debate relating to large dams/hydraulic infrastructure projects has been 'scoped' through the perspectives of organisations participating in, or observing, that discussion.

The first case study focuses on the *Lom Pangar Hydropower Project*, a large retaining dam and reservoir which the Government of Cameroon is planning in the Eastern Region of the country, designed to regulate flows on the Sanaga River for existing and future hydropower plants downstream, with also a small 30 megawatt (MW) hydropower plant to be built at the foot of the *Lom Pangar* dam, for electrification in the region.

The second case study focuses on the Charter of the Waters of the River Senegal (*la Charte des Eaux du Fleuve Sénégal*) and efforts in Senegal, as one of the States party to the Water Charter, to promote participation of water users and civil society organisations (CSOs) in dialogue on the management of the river and utilisation of its waters.

The aim of this research study is to support IUCN's steps to enhance civil society's contribution to debate on dams and large hydraulic infrastructures, internationally and as part of river basin dialogue in the West Africa and Central Africa regions - a decade after publication of the Report of the *World Commission on Dams* (WCD) in 2000.

The objectives of the study, as per the terms of reference (ToRs), are set out in **Box 1.**

**Box 1. Objectives of study**

1. Review the status of the recommendations of the *World Commission of Dams*-WCD, in terms of actors, policy prominence and their part in evolution of the debate on dams and development.
2. Identify other sets of recommendations relating to large dams/hydraulic infrastructures which are being promoted, globally, and assess their status: actors, policy prominence, their part in evolution of the debate.
3. Conduct case studies in Central/West Africa: Sanaga River, Cameroun; the Senegal River basin, to investigate how the Strategic Priorities of the WCD, or equivalent priorities of other international bodies, are being adopted and implemented by the promoters/supporters of those projects (actors, prominence in practice), including the role of civil society.

As specified in Box 1, the focus at international level is on sets of policies and recommendations applying to

[1] The International Commission on Large Dams defines a large dam as a dam with a height of 15 metres or more from the foundation. If dams are between 5 and 15 metres high and have a reservoir volume of more than 3 million cubic metres, they are also classified as large dams.

projects for large dams and hydraulic infrastructures, especially environmental and social aspects. Instruments of international law, such as UN declarations on human rights, are beyond the scope of the present study[2]. National laws/regulations are, however, considered in the country case studies, particularly national rules on environmental impact assessment (EIA) [3].

Further - as per the ToRs also - the focus here is on dams for hydropower generation and water management (e.g. flow regulation); infrastructures which are not 'hydraulic' are outside the immediate scope of the present study[4].

**This report addresses the following questions:-**

**1.** What diversity of approaches exists in the policies and practices of decision-making applying to projects for large dams and hydraulic infrastructures - processes of project preparation and implementation/operation, particularly (in line with the remit of this study) relating to environmental and social aspects and engagement of stakeholders? What evolution is occurring in the perspectives and policies of key actors, and what appear to be the drivers of that?

What is the place of the WCD recommendations, as compared with other internationally-published policies?

**2.** What policies and practices apply to the *Lom Pangar Hydropower Project* in Cameroon, and management of the River Senegal under the *Charte des Eaux du Fleuve Sénégal*, including dialogue with water users? What is the extent and nature of participation by CSOs in the debate/dialogue in Cameroon and Senegal?

**3.** Ten years after the publication of the WCD report, what conclusions may be drawn from evolving policies/practice, as evidenced by this study?

Under the first question, the role of the UN Dams and Development project is considered.

## 1.2 Methodology

The international component of this study has been conducted by a combination of (a) key informant interviews, conducted by telephone, and (b) desk study, carried out between July and September 2010.

The in-country components comprised face-to-face interviews with representatives of leading actors and study of documentation supplied from them. The key informant interviews in Yaoundé took place between 6th and 11th September and in Dakar between 13th and 17th September. The reports of the Cameroon and Senegal case studies in Sections 3 and 4 are based on the information which was available at those times.

The full set of institutions and organisations consulted during the course of this study is show in **Annex 1**. The key informants at international level are listed in Part A of Annex 1, and the institutions and organisations consulted in Cameroon and Senegal are noted in Parts B and C, respectively, of that annex.

[2] The report of International Rivers (2010) provides a recent survey of principles of human rights and the extent of their observance in listed dam projects.

[3] The case study in Section 3 of the present report considers how far national laws/regulations in Cameroon provide a working national regime of EIA governing infrastructure projects.

[4] Although, as noted in Section 2 of this report, several of the internationally-proposed policies, reviewed in that Section 2, apply to a range of infrastructure types, both dams and other structures, including investments in sectors other than water and energy.

The above represent relatively rapid research methodologies. More in-depth study would require further interviews at international level, and additional research time in-country, with, for example, visits to project sites on the Lom/Pangar and Senegal rivers.

### 1.3 Background/context

The WCD Report recommended a 'framework for decision-making' including seven 'Strategic Priorities' (SPs), as listed in **Box 2.**

**Box 2. The WCD Strategic Priorities (SPs)**

1. Gaining public acceptance
2. *Comprehensive Options Assessment*
3. Addressing Existing Dams
4. *Sustaining Rivers and Livelihoods*
5. *Recognising Entitlements and Sharing Benefits*
6. Ensuring Compliance
7. Sharing Rivers for Peace, Development and Security

Source: WCD (2000), emphasis added

As per the ToRs for the present study, the particular focus of the scoping interviews at international level has been on the **three SPs highlighted** (in italics) in Box 2 which are key to establishing basin-wide visions, with outcomes respectful of ecosystems and affected people.

**SP 2** refers to formulation of a river basin development strategy, instead of a narrow project approach: it calls for a range of alternatives to be explored before a decision is made to promote any individual dam/infrastructure project, including a deliberative process for assessment of options.

**SP 4** calls for decision-making which values ecosystems and species, and takes account of affected peoples' livelihoods and social and health concerns.

**SP 5** relates to key principles of the WCD relating to equity and participatory decision-making, including "recognising rights[5] and assessing risks", whereby "involuntary risk-bearers" - people affected by dam/infrastructure projects who have had risks imposed on them involuntarily - must be engaged by risk-takers (the actors promoting or financing the projects)…" (WCD, p.xxxiii). The focus of the present study

[5] The WCD recommendations were based on international human rights instruments, including the Universal Declaration of Human Rights and the UN Declaration on the 'Right to Development'. Review of how far actors involved in dam projects do, or do not, accept these instruments as the "internationally accepted framework of norms" (WCD, 2000, p.202) could be a subject for further study, to follow the review by International Rivers (2010). Section 1.4 of the present report discusses the incorporation within hydropower projects of legal entitlements written into agreements/contracts aiming to provide legal protection to project-affected populations as well as other actors, thereby constituting a form of *contractual* right complementary to claims under *human* rights conventions (the degree of legal protection actually afforded in practice will depend on the status of the intended entitlements under national law, including the extent of their enforceability in national courts). For discussion of an example of human and contractual rights, as well as property rights, in the water sector, see Newborne P. (2004).

has been on the extent and nature of that engagement, including the degree of participation of civil society in decision-making, as well as study of how projects apportion risks between parties.

The above three Strategic Priorities were those which the survey by the World Wide Fund For Nature (WWF), 5 years after publication of the WCD report, noted as being inadequately implemented or ignored by the promoters of large dam projects in six countries (WWF, 2005).

The present study has looked at how far these WCD SPs are reflected in other sets of internationally-published policies (in Section 2 of this report). The case studies in Cameroon and Senegal also raise issues relating to SP 1 on 'Gaining public acceptance'[6] and SP 6 on 'Ensuring compliance' - see Sections 3 and 4. Further, the Charter of the Waters of the River Senegal is a trans-boundary agreement between riparian States as referred to in SP 7. Section 4 considers how the three WCD focus SPs are reflected in the Charter text.

The ToRs of the present study note that (in the words of IUCN) "the WCD recommendations are neither all applicable or relevant in all contexts or regions" and that different countries, basin organisations and international organisations have tackled the question of the sustainability of dams and other big infrastructures in different ways and "reached *different sets of recommendations*" (emphasis added). As referred to in the first research question above, **a key interest of this study is in reviewing the diversity of approaches manifested in leading policies and current practice** (see Section 2).

As to the continuing relevance of the issues addressed in the WCD Strategic Priorities, there is no doubt, as Smith 2010 notes (p.440) that:-

> "The threat of climate change and the high priority internationally for mitigation of greenhouse gas emissions has led, since the WCD report, to a re-awakening of interest in hydropower ... advocated by proponents as an important component of mixed energy portfolios that are needed to successfully transition to a low-carbon energy future".

Smith adds a warning that because climate change is "adding a sense of urgency to investment in dam construction ... there may be a tendency to downplay the priorities laid out by the WCD" (ibid, p.441). In the present report, the different approaches to decision-making and different standards applied in practice, are considered, in Section 2.

In the face of the risk of increasing droughts and floods exacerbated by climate change, *built* infrastructure for water storage is one route to managing uncertainty. Acreman et al (2009) consider the range of water storage possibilities, including groundwater and other *natural* options. They note the advantages of large dams as a means of storing large volumes of water in large reservoirs. Disadvantages of large dams include, they comment (p.4), social and environmental impacts which may be high and in some cases "lack of hydrological flexibility" where dams are not designed for multi-purpose use - if, for example, they have limited capacity to make releases of water for regulation of the downstream flow regime.

The upsurge in interest in dams/hydraulic infrastructure has seen an increase in availability of finance for large dam/infrastructure projects in recent years, as well as evolution in the type of funding sources which are

[6] WCD SP 1.4 recommends that: "Decisions on projects affecting *indigenous and tribal peoples* are guided by their *free, prior and informed consent* achieved through formal and informal representative bodies". According to the key informants to this study in Cameroon, indigenous peoples are not present among the communities likely to be affected by the *Lom Pangar Hydropower Project.*

prevalent. According to a 'background' (unpublished) study commissioned in 2008 by WWF on the financing of a sample[7] of 21 major hydropower projects carried out in the preceding 15 years:-

> "These projects were on average financed by a mixture of private bank loans (31%), equity (28%), loans by national development banks (16%) and multilateral development banks (13%). Bonds played a small role (4%), just as direct export credit agency loans (3%). For projects with a capacity less than 1,000 MW, the share of private bank loans was even higher: 45%".

The findings of this 2008 study are striking in the extent of participation by private banks (31%) which is equivalent to that of the development banks (national and multilateral), 29%[8].

## 1.4 Projects and project finance

For the purposes of this study, it is important to note the difference between 'project finance' and 'corporate finance', as explained by Merna and Njiru writing on 'Financing Infrastructure Projects' (Merna and Njiru, 2002). Corporate finance, they state, is "traditional finance where payment of loans to lenders comes from the organisation, backed by the organisation's entire balance sheet" (ibid, p.5). Lenders look to the overall financial strength of borrowers as a prerequisite to lending. Corporate finance may include funding of investments in infrastructure, but, in that case, even if a particular project fails, the lenders "can still remain confident of being repaid because the organisation owning the project has a strong financial base" (ibid).

In project finance, because the project is undertaken by a special project/purpose vehicle (SPV) and is an off-balance sheet transaction, lenders can expect significant losses if the project fails (ibid), because they do not have any recourse to the main organisation's assets, or at least limited recourse - see **Box 3.** This type of financing is usually for large, complex and expensive installations.

### Box 3. Project finance: non-recourse and limited recourse

The term 'project finance' is used to refer to a range of financing structures which have one feature in common: those providing the funds place a substantial degree of reliance on performance of the project itself. The project is viewed largely as a discrete undertaking and the Special Project Vehicle (SPV) which is generally created is a company set up as an entity separate from the project promoter's organisation. The sponsors usually provide seed equity capital for the SPV, but the SPV is generally highly geared (ratio of debt to equity).

In *non-recourse* project financing, the lenders to the project, both debt and equity, have no recourse to the general funds or assets of the project sponsor. In *limited recourse* project financing, access to the sponsor's general assets/funds is provided to the extent the sponsor provides a guarantee of repayment, subject to defined limits and for certain specified risks. In each case, the future income stream produced by the project is the most critical element. Evidence of future income may be provided by the sponsor in the form of, for example, a sales contract for the power which will be generated by the project once the construction phase is complete.

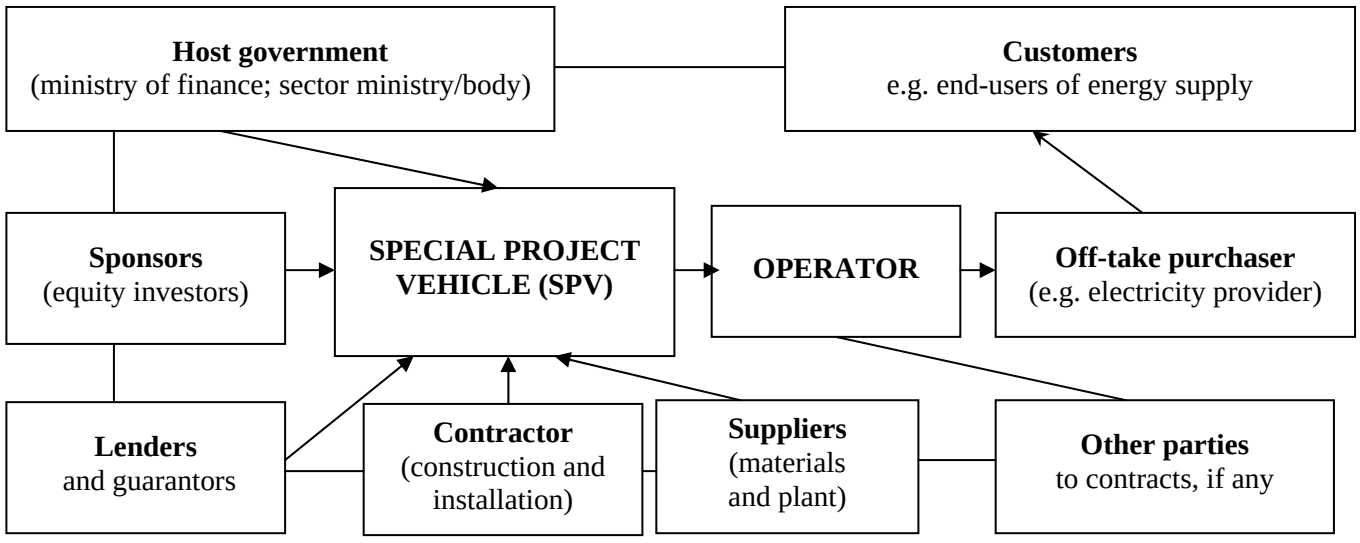
Source: Merna, T. and Njiru, C. (2002), 'Financing Infrastructure Projects' (emphasis added).

[7] WWF stated to the author of the present report that this sample was "not intended as entirely representative - multilaterals were probably overrepresented due to the greater attention to large projects where multilaterals are involved. Small projects are under-represented, as well as projects in developed countries (more likely to be privately financed)".

[8] The role of the (private) Equator banks is discussed in Section 2 and Annex 2.

**Key actors within a basic structure of project finance** for infrastructure are shown in **Figure 1.**:-

**Figure 1. The project and project finance: <u>the core commercial and financial transaction</u>**



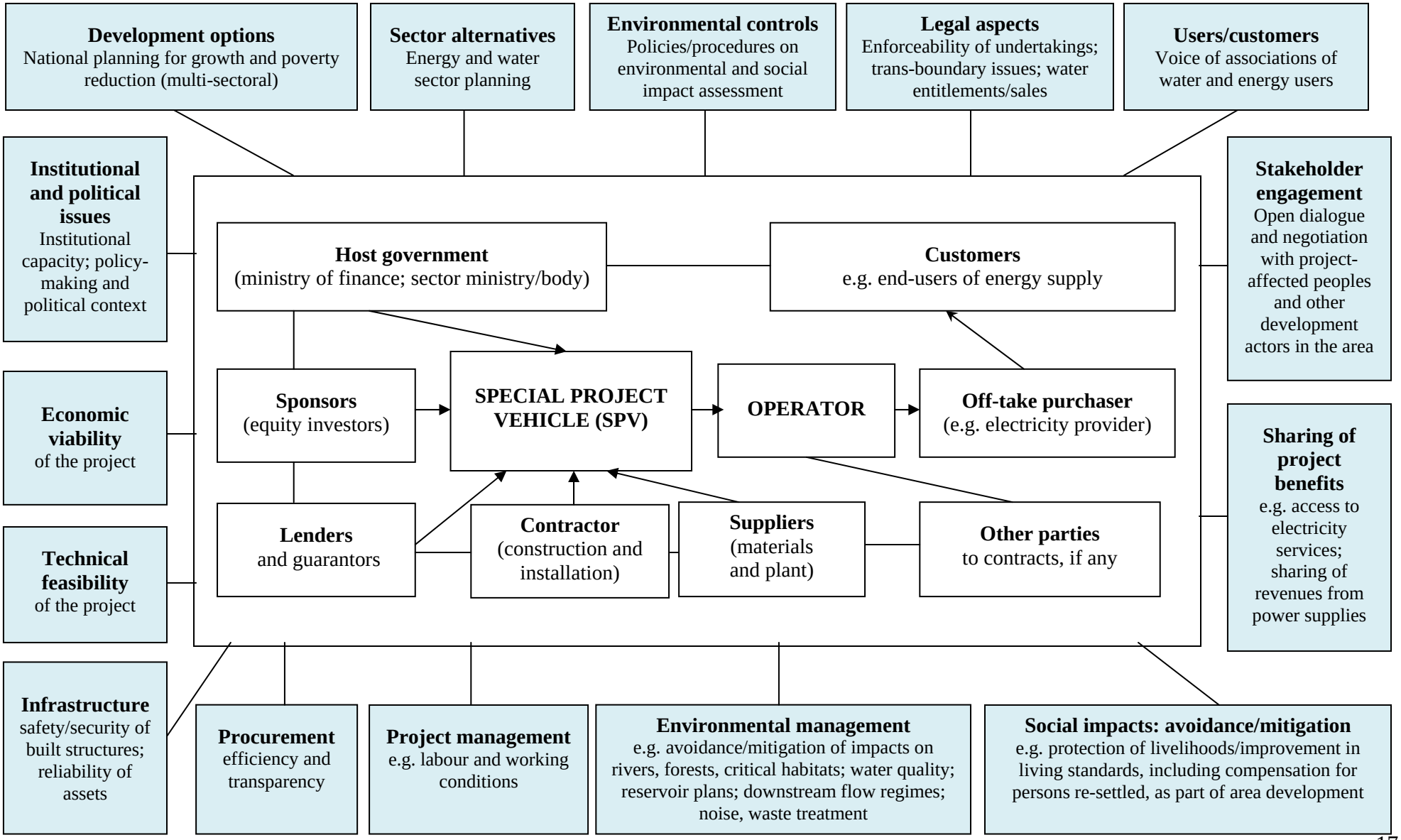

Adapted from Tan 2007.

In Figure 1, the example is a hydropower project. The actors shown are those which are parties to the constitution of the SPV, the financing arrangements, the construction process (including supply of materials), and the operation of the constructed/installed facility, plus the off-take/supply of power. This is the **core commercial/financial transaction** led by the project developers/sponsors and institutional/financial supporters (private and public, including relevant ministries of government), as documented in contracts. The concerns of these parties - at least, primarily - are the commercial/financial viability of the project, within the economic context of the sector and country, and the project's technical feasibility (construction and engineering), as well as the committed support of government and financiers. According to this view, aspects and impacts of the project ('risks') other than those which are technical and financial are treated as *external* to the core commercial and financial transaction, to be dealt with by the government or other parties- as-it-were 'off-project'[9]. **The impression, however, obtained from the key informant interviews, and review of the five internationally-published policies conducted by this study, is that to view projects as just having the components shown in Figure 1 is now largely an outdated approach.** This narrow view, of projects as commercial/financial and technical only, may still be favoured by some hydropower developers/operators and financial backers, but they are (stated key informants) a minority.

In **Figure 2** below**,** the core commercial/financial transaction is placed in its development context. Around the same parties as in Figure 1, the broader range of aspects involved in (hydropower) projects is shown, including environmental and social issues. In Figure 2, the project has evolved into an **extended project** with the environmental and social components included within the project's scope. The application by the World Bank of its Safeguard Policies, for example, means that, when employing a project finance approach, the World Bank applies operational policies and bank procedures which take projects into the extended scope in Figure 2, as illustrated by the Cameroon case study (Section 3 of this report).

[9] Governments may be tempted to play lip service to inclusion of environmental/social components, without commitment to those.

**Figure 2.: The extended project: the core commercial/financial transaction placed in its development context**



The extended project scope in Figure 2 entails involvement of additional parties, both people directly affected by the project and other development actors in the area and within the jurisdiction of the State in question.

For the extended project to function, the commercial/financial *and* the environmental/social parts require to be present, incorporated as project components. The project retains the commercial/financial transaction at its core, as an essential part of it. *Incorporation* of the environmental/social components entails *contractually attaching* those elements to the core transaction, with developers/operators ceasing to regard them as 'externalities'.

The additional actors concerned by the environmental, social and other development aspects shown in Figure 2 will wish to be party to undertakings from the core transacting parties as to measures for mitigation of impacts and compensation for re-settlement, as well as sharing of benefits generated by the project.

For that purpose, the additional actors will need to become additional transacting parties. Development actors/commentators immersed in public *policy* processes may not instinctively think in terms of *transactions*, at least not in the manner of business people (or economists). The evolution of hydropower projects from the narrow project in Figure 1 to the extended project in Figure 2 is the process of business/financial practice opening and adapting, as-it-were, 'outwards' to development. Conversely, actors/commentators starting from a policy perspective and looking 'inwards' may recognise that the viability of the project as an extended whole will depend on the viability of those core commercial/financial elements[10], to generate the intended outputs of the project, including the benefits available for sharing. The mandates of actors such as development banks straddle both public and private elements. Meanwhile, as noted above, their safeguard policies require their staff to look beyond the narrow commercial/financial transaction to take account of environmental and social issues.

In Section 2.5, perspectives from both worlds of commercial contracting and public policy-making are considered, including working culture and attitudes.

**The *Lom Pangar Hydropower Project* serves as a case study of this inter-action between (private) business and (public) policy.** In Section 3, the 'LPHP' as a transaction is considered in the broader development context in Cameroon, including national development goals and sectoral policy objectives, and this project is assessed according to how far the project design encompasses the elements in Figure 2.

The important issue of how the elements of the extended transaction are expressed in legally-binding agreements is discussed in sections 2.1.2 and Section 5.

[10] I.e. where any given project is given the 'go-ahead', the design of all the components in Figure 2, commercial/financial and technical as well as environmental and social, needs to be sound.

## 1.5 Structure of this report

The following sections of this report are organised in the following way.

**Section 2** compares the WCD recommendations with other leading international policies, as well as other practice, presenting an overview of the diversity of approaches, including the evolving perspectives of key actors.

**Section 3** describes the status of preparation for the *Lom Pangar Hydropower Project* in Cameroon and reviews the approach to decision-making, including engagement with stakeholders in the project area and dialogue with civil society in Cameroon.

**Section 4** discusses the *Charter for the Waters of the River Senegal* and considers how far it is being implemented as regards the decision-making of the river basin authority, and particularly participation of water users and CSOs in dialogue through innovations in institutions and basin-planning.

**Section 5** summarises key findings and conclusions, and makes observations and recommendations, drawn from this international 'scoping' and the case studies in the two example countries, as evidenced by this study.

## 2. International policy: diversity of approaches and evolution of perspectives

In this section, internationally-published policies applying to projects for large dams and hydraulic infrastructures are reviewed[11]: first, the WCD, and then four other policies which are prominent internationally. In the publications documenting these five leading policies, they are referred to, variously, as 'principles', 'priorities', 'standards' or 'protocols'. In this report, 'policies' is used as a generic term.

Section 2.1 compares the five policies - their scope of application, status (advisory or mandatory) and intended objectives - and how they address environmental and social issues, and provide for stakeholder engagement, using the WCD Strategic Priorities as the base of comparison, with, as noted in Section 1, a particular (but not exclusive) focus on three SPs: 2, 4 and 5.

In section 2.2., other practice is surveyed, so far as this is identifiable[12].

In section 2.3., the full range of possible standards and current practice is characterised, according to a simple framework of analysis.

In section 2.4, an analytical tool for assessing the nature of participation by water users and CSOs is presented.

In section 2.5, the perspectives of key categories of actor involved in dam projects are considered - contractors, developers/operators, banks/financial institutions, governments and NGOs, plus the viewpoint of emissions trading systems - as well as the drivers of evolution of standards and practices.

### 2.1 Comparison of internationally-published policies

In this section, the WCD and the four other policies proposed by international organisations are compared.

The five policies are:-
- the **Strategic Priorities of the World Commission on Dams**;
- the **Safeguard Policies of the World Bank**;
- the **Performance Standards of the International Finance Corporation**-IFC, the private financing arm of the World Bank;
- the **'Equator Principles' adopted by the EP Financing Institutions** (EPFIs); and
- the **Hydropower Sustainability Assessment Protocol produced by the Hydropower Sustainability Assessment Forum and published by the International Hydropower Association.**

Common features of the policies, and distinctions between them, are described, and the place occupied by the WCD discussed.

NB: This section is based on the **analysis of each policy in the tables in Annex 2 -** organised under the same headings as in this section.

[11] Several of the internationally-proposed policies reviewed in this Section 2, e.g. WCD, World Bank, IFC, apply to a range of infrastructures, in both the water/energy sectors and beyond, while the focus of this study is, as noted in Section 1, on large dams/*hydraulic* infrastructures.
[12] And possible within the scope of the present study.

2.1.1 What each policy is for, and how it is intended to apply

The WCD sought to represent "all sides of the debate" (Commissioners' Foreword) as described in section 2.1.3 of the present report. The other four policies are directed at their own particular areas of activity: the World Bank and IFC to projects funded by the World Bank group, the Equator Principles to commercial bank financings and the Protocol primarily to developers/operators, but also involving other actors.

**As to what each of the five policies is for, and how it is intended to apply, the following are common elements, as well as distinguishing features.**

- Scope of application: the WCD applies to large dams and "is relevant to other major infrastructure projects"; the World Bank's Safeguard Policies and the IFC Performance Standards (PSs) apply to all investments funded by the World Bank/IFC including a range of infrastructure types; the Equator Principles (EPs) apply to projects financed by the Equator banks (see Annex 2) across all industry sectors; the Hydropower Sustainability Assessment Protocol ('the Protocol') has been designed specifically for hydropower projects.

- Date: the WCD report was published in November 2000; the World Bank's Safeguard Policies pre-date the WCD, with the current version produced in 2007; the version of the IFC PSs in use is that dated 2006, currently under review; the EPs were launched in 2003, and revised in 2006 in line with the IFC PSs; a revised version of the Protocol has been produced, in final draft form, in September 2010, after more than two years of discussion and drafting in the Hydropower Sustainability Assessment Forum.

- Status: the status of the WCD is variously interpreted by different actors: either as a set of guiding (*advisory*) recommendations, or normative principles/priorities and procedures (*mandatory*). Each of the WCD Strategic Priorities has a key message and a set of policy principles in support. The World Bank's Safeguard Policies and the IFC PSs set out policies/procedures which must be mandatorily followed by World Bank/IFC staff and by borrowers who opt to accept World Bank/IFC funding. As for the Equator Principles, banks adopting the EPs do so on a voluntary basis, but, once that commitment is made, they undertake "not to provide *project* finance[13] to customers who are unable to meet the EPs social and environmental standards" and the banks commit to carry out corresponding due diligence. The Protocol does not specify a standard, but rather provides a tool for early screening of potential projects and then assessment of the various components of projects at preparation, implementation and operation stages against a scale of performance levels; each 'sustainability topic' is assessed individually to draw up a 'sustainability profile' of the components of the project, *without* scoring the project as a whole.

- Objectives: of the five policies, the stated objectives of two emphasise the link betweeen projects and development: the WCD provides a framework for decision-making on water and energy resources *development*; the World Bank's Safeguard Policies refer to the '*development* process', as well as supporting 'integration of environment and social aspects of *projects* into the decision-making process'. The IFC PSs are designed to manage social and environmental performance of IFC-financed investments (i.e. essentially a projects focus) as an 'integrated' part of the 'overall *business* management process'. The EPs aim to 'ensure that *projects* are developed in a socially responsible manner, reflecting sound environmental practices'. The Protocol provides a tool with which to assess the degree of sustainability of hydropower *projects* using processes to be embedded in *business* management systems.

[13]The ongoing strategic review of the Equator Principles is looking at expansion of application of the EPs from project finance only to trade finance and corporate loans where use of proceeds is known.

- Compliance: under the WCD, agreements negotiated between project leaders and other stakeholders are referred to as part of a 'mix' of regulatory and non-regulatory measures; under WCD Strategic Priority 6, the importance is stressed of undertakings with incentives and binding contracts (i.e. both inducements and obligations, carrots and sticks). The World Bank's Safeguard Policies require that the borrower reports on compliance during project implementation and, in deciding whether to support a project, World Bank staff take into account compliance of the borrower with actions required under the triggered 'operational policies' (OPs) and the the borrower's ability to implement mitigation measures. The IFC PSs proceed on a similar basis: the borrower (or 'client') will 'establish, maintain and strengthen as necessary an organisational structure that defines roles, responsibilities, and authority to implement the programme of management of social and environmental impacts'. Under the EPs, the adopting banks undertake to embed implementation of the EPs in their business and risk management processes and 'work to bring back the borrower back into line' where the borrower does not comply with environmental/social covenants. Under the Protocol, at the implementation and operation phases, components of projects assessed at the implementation or operation stages, which do not comply with their own intentions stated at the preparation phase, will score low.

- Relation to national laws/policy: in all five cases, these leading international policies are stated as being complementary to national laws, e.g. regulations on environmental permits. In practice, where the requirements under, for example, the Safeguard Policies of the World Bank are more demanding than under national law, the World Bank will expect the project to comply with the more demanding standard, e.g. on the nature/level of compensation to persons displaced by projects.

### 2.1.2 What each policy says on environmental/social assessment and stakeholder engagement

**As to the approach adopted by each of the five policies in relation to environmental and social assessment and stakeholder engagement, the following are common elements, as well as distinguishing features.**

- Options assessment: the WCD, in Strategic Priority 2, emphasises the need for a range of development options to be explored before a decision to proceed with a particular project, through an open process of debate, assessing options according to broader national development goals, with participation of a range of stakeholders.

Under the World Bank's Safeguard Policies, the requirement is to assess 'project alternatives' (including 'no project') and 'alternative project designs'. World Bank staff are also required to verify existence of a coherent sector policy and a least-cost sector plan supporting the economic rationale of the proposed project. Large infrastructure projects require a cumulative impact assessment, which can mean taking into account basin-wide phenomena. Beyond that, wider assessment of alternative development options may form part of processes other than the EA, e.g. in preparation of country assistance strategies. The World Bank approach is, therefore, wider than just the project alone, with consideration of sector issues and geographically broader aspects. That said, the kind of open process of debate envisaged by the WCD is not provided for in the Safeguard Policies.

Under the IFC PSs, in 'exceptional circumstances', in addition to the social and environmental impact assessment, 'other assessment on a regional, sectoral or strategic level' may be necessary to evaluate and compare the impact of 'alternative development options' - 'on the basis of existing data and studies already carried out by other institutions, such as the World Bank, other multilateral financial institutions and/or national agencies'.

Under the EPs, the issues potentially to be addressed by the Social and Environmental Assessment documentation may include *inter alia* 'consideration of feasible environmentally and socially preferable alternatives'.

The Protocol includes an 'Early Stage' at which projects may be screened to identify the extent of potential risks and impacts. The 'Early Stage 2' (ES-2), entitled 'Options Assessment', is focused on 'water and energy options', without reference to broader development debate. The focus of 'ES1', and Preparation Stage 3 (PS-3) is again on the energy and water sectors, with little reference to country processes and plans beyond those sectors - the 'examples of evidence' sections do not refer to, e.g., strategies for growth and/or poverty reduction. As to a river basin vision, the Protocol, in ES-2, refers to plans of 'river basin organisations' and the possibility of siting dams in 'tributary streams rather than mainstream rivers'. This echoes the WCD recommendation that the 'river basin context' is taken into account in options assessment (p.223).

The World Bank Safeguard Policies, the IFC PSs and the EPs refer to the project 'area of influence' which includes 'the watershed" (a narrower term) "within which the project is located", as well as "an affected estuary and coastal zone".

In summary, the scope of options assessment, and especially the process for that assessment, as recommended by the WCD is broader than under the four other policies. As one NGO representative lamented, there is a risk that the policies promote a narrower project vision, without public debate, from the outset.

- Environmental and social assessment: all five policies point to the need to manage environmental and social risks, with, where possible, *avoidance* of negative impacts. Under each policy, cumulative impacts are included. The WCD and the World Bank's Safeguard Policies take in 'far-reaching' and 'indirect' impacts, respectively. The IFC PSs (and the EPs following) also include impacts beyond a project's immediate area, but employ a test of **foreseeability** limiting the scope to impacts which are predictable - as regards this criterion of foreseeability, see section 2.5 below. All five policies require projects to take account of vulnerable groups and gender issues, as well as health.

- Stakeholder engagement: the process of engaging stakeholders which the WCD recommends is deeper than in the other four policies. WCD Strategic Priority 1 on 'Gaining Public Acceptance' is based on the WCD 'rights and risks' approach, in which 'involuntary risk bearers' and 'voluntary risk takers' negotiate agreements in 'an open and transparent process', including, for indigenous peoples, 'free, prior and informed *consent*'. The other policies provide for (more or less extensive) processes of *consultation* with project-affected populations, while, like the WCD, requiring a flow of information which is accessible and timely. Despite, therefore, the safeguard policies of, for example, the World Bank, which require consultation with project-affected populations on the Bank's operational policies triggered by a given project (e.g. on EIAs, resettlement, the environmental and social management plan, etc.), applying the rights and risks approach proposed by WCD, "you will come out with different outcomes", said one NGO representative, in that the WCD approach is designed to address 'imbalances in political power' (WCD, 2000, p. 217) - see section 2.3 of the present report.

- Re-settlement and compensation: a key test of the approach to project-affected stakeholders is (as illustrated in the country case studies discussed in Sections 3 and 4) the nature and scope of *compensation* paid to persons who are involuntarily displaced by projects. The WCD refers to 'compensation for lost assets through replacement and substitution', e.g. land-for-land. The World Bank's Safeguard Policies state that 'land-based' compensation is preferred and in all cases compensation for assets is at 'replacement cost'. The IFC SPs (and the EPs following) provide for compensation for lost assets at 'full replacement cost' (market value of assets,

plus transaction costs). The Protocol refers (at Level 3) to existence of a resettlement action plan and a framework for compensation whereby resettled persons and host communities 'experience a timely *improvement* in livelihoods and living standards' (Performance Stage, p.22). All five policies refer to *grievance* mechanisms to address the concerns of project-affected people.

- Benefit-sharing: beyond one-off compensation payments and resettlement support, each of the five policies refers to the possibility that project-affected populations may share in the benefits of projects, on the basis of, for example, agreements negotiated under the resettlement plan (World Bank's Safeguard Policies). As noted in the Protocol, examples of benefits could be 'equitable access to electricity services' or 'revenue-sharing' (a proportion of direct monetary benefits of hydropower). An example of benefit-sharing is that proposed in the documentation for the *Lom Pangar Hydropower Project* in Cameroon (Section 3 of this report).

Skinner et al (2009), writing about large dams in West Africa, stress the importance of embedding benefit-sharing arrangements in ***enforceable*** **agreements**, with agencies which will be present during the operation phase, indefinitely. Without such perennial bodies (e.g. trust funds), there will be no lasting recourse for local beneficiaries of undertakings under, for example, revenue-sharing agreements.

- Experts: as for the employment of experts on environmental and social impact assessment, the WCD states that impact assessments should be carried out independently of the interests of the project developer and financing mechanisms should reflect this *independence*. Environmental/social/health studies and technical studies should be integrated, with interaction between different study groups preparing these. The WCD also notes that 'an independent panel may support independent and comprehensive assessment of likely impacts'.
For projects classified as 'Category A'[14], the World Bank Safeguard Policies provide that the borrower is to retain independent environmental assessment experts not affiliated with the project to carry out the assessment.
For those Category A projects which are 'highly risky or contentious or involve serious and multidimensional environmental concerns', the borrower should 'normally also engage an independent environmental advisory panel'. The approach of the IFC PSs and the EPs is similar. Under the EPs, for example, for all Category A projects (same definition), the adopting banks should require appointment by the borrower of an independent environmental and/or social expert not directly associated with the borrower to review the Assessment and Action Plan, and the consultation process documentation, in order to assist the banks' due diligence and assess compliance with the EPs. According to the IFC PSs, in some high-risk cases, IFC may require a panel of external experts to advise the client and/or IFC. For the Protocol, assessors may be internal or external to the project, depending on the level of transparency and independence which is sought. 'One or two assessors would be considered appropriate for an assessment' (p.13).

**The above survey of the leading international policies is summarised in the Table.**

**As noted above, detailed analyses of each policy are set out in Annex 2.**

[14] According to the World Bank Safeguards Policies, a proposed project is classified as 'Category A' if likely to have significant adverse environmental impacts that are sensitive, diverse or unprecedented. A project is 'sensitive' if it may be irreversible, or it raises issues under the operational policies for e.g. Natural Habitats, Involuntary Settlement or Indigenous Peoples.

**Table: Summary of characteristics of the five leading international policies**

| **Policy** and date of current version | **Types of investment** | **Types of actors** | **Nature of policy** | | **Options assessment** | **Environmental and social assessment** | **Stakeholder engagement** | **Resettlement and compensation** | **Benefit-sharing** | **Experts** |
|---|---|---|---|---|---|---|---|---|---|---|
| **WCD Strategic Priorities** 2000 | Large dams; also 'relevant' to other large infrastructure projects | All actors involved in large dams/ infrastructure projects | Set of standards (as set out in the WCD SPs) | | Explore range of development options, through open, participatory process | All five policies: management of environmental & social risks, with where possible avoidance of negative impacts; cumulative impacts included.<br><br>The WCD and WB's Safeguard Policies take in 'far-reaching' and 'indirect' impacts, respectively. The IFC PSs and the EPs also include impacts beyond the immediate project area, subject to a foreseeability test (only predictable impacts).<br><br>All five policies require taking account of vulnerable groups, gender and health. | 'Rights & risks' approach, with open/transparent process; 'FPIC' for indigenous peoples | Improve livelihoods of PAPs, including compensation for lost assets through replacement and substitution | Each of the five policies refers to the possibility that PAPs may share in the benefits of projects, on the basis of, for example, agreements negotiated under the resettlement plan (World Bank's Safeguard Policies).<br><br>As noted in the Protocol, examples of benefits could be 'equitable access to electricity services' or 'revenue-sharing' (a proportion of direct monetary benefits of hydropower). | Independent and comprehensive assessment of likely impacts |
| **World Bank Safeguard Policies** 2007 | All infrastructure projects funded by the World Bank | World Bank staff and recipient governments | Set of standards | | Consideration of sector issues and geographically wider aspects; open process not specified | | Consultation with project-affected populations (PAPs) - to be 'meaningful' | Land-based compensation preferred; in all cases, compensation at replacement cost | | Under WB Safeguard Policies, independent environmental expert for Category A projects; independent panel for highly risky or contentious Category A projects.<br><br>Similar approach for IFC PSs and EPs. |
| **IFC Performance Standards** 2006 (under review) | All infrastructure projects funded by the IFC | IFC staff and recipient governments | Set of standards | | In exceptional cases, evaluation of alternative development options, on basis of existing data | | Consultation with project-affected populations | Compensation for lost assets at full replacement cost | | |
| **Equator Principles** 2006 | All infrastructure projects funded by the Equator banks | Staff of Equator banks and borrowers | Set of standards | | Consideration of feasible environ-mentally and socially preferable alternatives | | Consultation with project-affected populations | Compensation for lost assets at full replacement cost | | |
| **Hydropower Sustainability Assessment Protocol** 2010 | Hydropower projects | Hydropower industry; other actors who apply Protocol | Performance assessment tool | | Options assessment within water and energy sectors, and river basin context | | Consultation with project-affected populations | 'Timely improvement in livelihoods and living standards' | | External assessors for greater transparency |

**This survey shows that the five policies are, in principle, designed to incorporate the environmental and social aspects in large dam/hydraulic infrastructure projects as components of the project alongside economic/financial and technical components,** i.e. to take the project scope beyond the core commercial/financial transaction shown in Figure 1, towards the extended project portrayed in Figure 2.

**Exactly how broad that extension of scope proves to be in a given case will, however, depend on a number of factors, beginning with the degree of attention devoted to the undertakings relating to environmental/social matters and the mechanisms for their implementation, as well as the process of engagement with stakeholders (see also the factors referred to in the Conclusions in section 5.1).**

It has been observed above, for example, that the WCD is the only policy which fully addresses the box in Figure 2 relating to 'Development options'; also, that an example of a key test of measures to mitigate negative social impacts is the nature of compensation payments (in the box in Figure 2 labelled 'Social Impacts: avoidance/mitigation'). The issue of project scope is further discussed in Section 2.5.

### 2.1.3 The place of the WCD

As to the place occupied by the WCD, the following are comments and observations made by the persons consulted during the present study.

- It is clear[15] that, in the event, the WCD Report did not receive from "all sides of the debate" the acceptance which was intended (despite the WCD Chairman's statement to that effect in the Foreword to the WCD report[16]). The reality is that the WCD recommendations "were not embraced by all" (Smith, 2010, p.438). They did *not* attract the common agreement of governments[17], industry and banks/financing institutions alongside NGOs, civil society groups and individual experts and commentators. Many members of the hydropower industry felt that the weight of the group of WCD commissioners was tilted in favour of other actors and participants in the dams debate. In other words, after the broad "sounding board" of the 68 member stakeholder forum (WCD, 2000, Commissioners' Foreword, p.viii), which provided contributions to the WCD Knowledge Base, there did not occur a corresponding echo to the WCD Report, once published, from a broad-based stakeholder community.

- Other key actors, such as the World Bank, had doubts over the WCD process. The then World Bank Senior Water Adviser (now in an academic post) has since recorded (Briscoe, 2010, p.406) that the agreed-on process was for a draft of the WCD report to be circulated prior to finalisation in a manner inclusive of all stakeholders. This, he adds, was not done, "the Report was not shared with stakeholders before its release" (ibid), so that some voices in the debate were "sidelined", including governments.

- As to the merits of the WCD recommendations, opinions are divided. The opposing viewpoints are that, on the one hand, the WCD set out an agenda with which all large dam/infrastructure projects should comply, the view still held by many NGOs. On the other hand, the WCD commissioners tried to push the dams and development agenda too far (and too fast). So, WCD SP 1 which proposed the 'free, prior and

[15] Confirmed in the key informant interviews conducted by the author of this report - see the list in Annex 1 A. of institutions/organisations consulted during the international scoping part of this study.

[16] "… we all agree on the fundamental principles and values that underpin this report and on the guidelines we offer for the way forward" (subject to the additional views of one commissioner in a Comment) (Foreword, p.viii).

[17] International River 2010 points to five governments (Germany, Nepal, South Africa, Sweden and Vietnam) which organised processes of dialogue to discuss the WCD recommendations and national policies, and comments that the member countries of the OECD and EU issued statements recognising the value of the WCD Strategic Priorities.

informed *consent*' of indigenous peoples, was both (warmly) applauded by some as essential for the protection of the ways of life of tribal peoples, and (vigorously) rejected by others, e.g. as a *de facto* veto right on development.

- As per the words of Smith, 2010 (p.438), the WCD, nevertheless, constituted a "reference point for all actors to understand the controversies and what is at stake in decisions around dam policies and projects". This assessment coincides with the views of many persons consulted, namely that the WCD provided a *benchmark* in relation to which actors could define themselves and their views/positions.

- Despite the industry initially objecting to the WCD, one interlocutor commented that "certain elements of industry now treat principles of WCD as good practice". Another person consulted also acknowledged that some WCD recommendations have "trickled down into practice". So, it seems that, if the WCD report is no longer in the forefront of policy innovation (as per Sections 2.1.1 and 2.1.2, and Annex 2), **the WCD has played a role in influencing the evolution of the policy agenda**[18]**.**

- The broadly held perception is that the WCD Strategic Priorities are more common currency than the WCD Guidelines of which there was, from the outset, little mention in debate. Many commentators wondered at the time and cost involved in implementing 26 Guidelines, or even following some of them. Several key informants stated their belief that the WCD had never been intended as an entire *package*, but rather as a menu of responses, with studies and other aspects which could be picked up at each project stage. "WCD did not make that sufficiently clear" commented one person interviewed.

- As to whether the WCD SPs and Guidelines were meant to be advisory or mandatory, the debate continues. The WCD Chairman is his Preface stated that the role of the Commission was "strictly advisory" (p.ii). Meanwhile, Chapter 9 setting out the 'Criteria and Guidelines' is "heavily normative" and repeatedly uses the word 'compliance' (Briscoe, 2010, p.404).

- The key informants agree that it took time for the WCD to be digested, with, in the first years after the WCD publication, a generally *polarised* debate. The UN-funded **Dams and Development project** led the process of absorption of the WCD. One person consulted emphasised the increased mutual understanding and gradual evolution in mindsets which the Dams and Development project had facilitated, despite it having been "a rather difficult process". According to this view, dams and infrastructure projects are now being better prepared than 15 years' ago, in that there is much broader acceptance that a spectrum of issues - beyond just economic/financial and technical aspects - needs to be considered and appropriately reflected as facets/components of projects, including environmental and social matters (and any resettlement measures), i.e. the core commercial/financial transaction shown in Figure 1 is evolving into the extended project portrayed in Figure 2. Another interlocutor commented that the Dams and Development project: "did not achieve much in terms of specific impacts; rather it was a holding exercise, which led talking and stimulated thinking by the parties, allowing them to assimilate what WCD was all about, and how they were positioned in relation to it. Only in the last 1-2 years has that practice has been seen to evolve and the evolution of mindsets really visible". This explains why the persons interviewed did not volunteer examples of projects to which the WCD approach had been applied[19].

[18] And, for many NGOs, the WCD Strategic Priorities still set the standards which all projects should attain - see Section 2.3.

[19] In its survey of a sample of six large dams, five years post-WCD, WWF stated (WWF, 2005, p.12) that "the six chosen dams are indicative of a general lack of application of the WCD recommendations in key dam building countries" - see also International Rivers 2010.

- As to whether a search for *consensus* - agreement across all sides of the debate on the issues raised by the WCD Strategic Priorities - is an achievable goal, the interviews conducted during this study, internationally and in-country, suggest the answer is 'No'. Differences of perspective between the various actors mean that efforts can be more usefully focused on identifying *areas of common agreement*, to form a core of collaboration, while recognising outstanding tensions between opposing views on a number of issues (e.g. free, prior and informed consent). As noted above, the persons consulted spoke of some elements of the WCD which they felt had 'trickled' into common practice; when drawing up or revising a policy, attention is paid to the approach adopted by other policies, so that they do not exist in parallel to each other in the sense of each being conceived in isolation.

- Transparency International, with the Water Integrity Network (http://www.waterintegritynetwork.net/), has highlighted attention to the possible role of corruption in dam projects, as in other procurement projects. TI speaks of more readiness to talk about this formerly taboo issue.

## 2.2 Other practice

### 2.2.1 Support to large dam and hydraulic infrastructure projects from 'non-traditional' sources

According to a 2008 study (Foster at al, 2008), financial flows for infrastructure projects in Africa are evolving, with substantial increases in recent years in funds from China, alongside India and Arab countries[20] (Foster et al, 2008). China's total infrastructure commitments in sub-Saharan Africa alone have now exceeded in volume those of the World Bank[21] (McKinsey, 2010). Chinese finance is mostly supplied to large-scale projects, with a particular focus on hydropower (ibid) - see **Box 4.**

On the basis of the Foster et al (2008) and McKinsey studies, it is clear that Chinese and other 'non-traditional' finance is on a scale large enough to make a material contribution toward meeting Africa's vast infrastructure needs. As such, "it offers an important development opportunity for the region" (Foster et al).

As to how that development is realised, environmental and social issues were beyond the scope of both studies. Foster et al, however, comment that:-

> "The China Ex-ImBank has its own environmental standards, and its policy is to follow the environmental regulations of the host country" (from Executive Summary). "The findings raise deeper questions about the economic, social, and environmental impacts of the projects concerned... which undoubtedly are important and merit future attention"…

Where dams and other infrastructure projects are financed by Chinese and other 'non-traditional' sources, the role of national laws/regulations, e.g. the relative strength/weakness of national regimes for environmental impact assessment, and the capacities of national/sub-national institutions, will be especially important:-

> "With new actors and new modalities, there is a learning process ahead for borrowers and financiers. Salient issues are the development of national capacity to negotiate complex and innovative deals and to enforce appropriate environmental and social standards for project development" (Foster et al, 2008).

[20] Foster, V, Butterfield, W., Chen C and Pushak, N. (2008), 'Building Bridges: China's Growing Role as Infrastructure Financier for Sub-Saharan Africa', World Bank and Public Private Infrastructure Advisory Facility-PPIAF.

[21] McKinsey Global Institute (2010), 'Lions on the move: the progress and potential of African economies', McKinsey, June 2010.

**Box 4. Finance for infrastructure projects in Africa - evolution**

Financial flows to Africa from countries other than the OECD rose from around US$1 billion per year in the early 2000s to around US$ 8 billion in 2006 and US$ 5 billion in 2007 and are "now broadly comparable in magnitude to the traditional official development assistance (ODA) from OECD countries". As such they are making a significant contribution toward meeting Africa's infrastructure financing requirements and particularly Africa's power needs (the figure cited by the Foster et al (2008) study is US$ 22 billion per year).

The same study reported that finance from China was mostly going to large-scale infrastructure projects, with a particular focus on hydropower generation and railways. More than 35 African countries were, the authors, reported, engaging with China on infrastructure finance deals, with the biggest recipients at that time being Nigeria, Angola, Sudan, and Ethiopia. The finance is channelled primarily through the China Export-Import (*Ex-Im*) Bank on terms which are concessional, though less so than those associated with traditional ODA from OECD countries[22]. "Chinese loans compare favourably with private sector lending to Africa, but are not as attractive as ODA, which tends to provide a grant element of around 66 percent to Africa".

By the end of 2007, China was providing US$ 3.3 billion toward the construction of ten major hydropower projects amounting to some 6,000 MW of installed capacity, constituting the focus of China's activities in the power sector (the authors note that Chinese involvement in thermal generation and transmission has been on a much smaller scale). A large share has gone to countries which are not beneficiaries of recent debt relief initiatives. In some cases, infrastructure finance is packaged with natural resource development.

The authors also note the role of India in supplying infrastructure finance, via its Ex-Im Bank to power projects in Nigeria and Sudan, with Indian infrastructure deals in Africa averaging c.US$ 0.5 billion per year in 2003–07, with significant natural resource investments. Meanwhile, annually, on average, some US$ 0.5 billion of infrastructure finance has been provided by Arab countries to Africa in 2001-07, in relatively small investment contributions (in the order of US$20 million, particularly for roads).

Source: Foster et al, 2008[23]

The NGO, International Rivers, has been monitoring how Chinese companies are approaching environmental and social aspects of large dams. In an on-line briefing, Bossard, 2010, reports '*significant progress*' by some Chinese banks and developers. He sounds a note of *cautious* optimism for the future: "The most important institutions in China's hydropower sector have expressed an interest in following international environmental standards and showing themselves open to civil society concerns". For example "China *Exim* embarked on a process of reform, as well as *Sinohydro*"[24], whilst, in contrast, "other Chinese actors still disregard social and environmental concerns at will", e.g. Chinese companies "are building dams in Myanmar under horrific conditions" and, in building several dams in the Mekong Basin, have "so far ignored all enquiries from civil society".

[22] According to Foster et al, the China Ex-Im Bank's terms and conditions are agreed on a bilateral basis, with the degree of concessionality depending on the nature of the project. On average, the Chinese loans offer an interest rate of 3.6 percent, a grace period of 4 years, and a maturity of 12 years. Overall, this represents a grant element of around 36 according to official definitions. The variation around all of these parameters is considerable across countries; thus interest rates range from 1 to 6 percent, grace periods from 2 to 10 years, maturities from 5 to 25 years, and overall grant elements from 10 to 70 percent.

[23] This World Bank-PPIAF study (Foster et al, 2008) collated information from a wide range of Chinese language sources.

[24] *Sinohydro* is one of the Chinese companies invited to tender for construction of the *Lom Pangar Hydropower Project* in Cameroon - see Section 3.

Bossard does not cite policies as yet published by Chinese actors; he says that an environmental policy of *Sinohydro* is "in preparation".

**Based on this information, as far as the current approach of Chinese banks and operators is identifiable, their activities appear to manifest, potentially, a wide range of different standards of practice in relation to environmental and social aspects and stakeholder engagement, varying from acceptable to poor, good to bad.** This is reflected in the overview of diversity of approaches in section 2.3.

### 2.2.2 National laws/policies

National laws and regulations are key to how environmental and social assessment is conducted, including the manner of stakeholder engagement, e.g. governance of processes of assessment of project impacts; assessment of the value of projects (cost/benefit to whom? taxpayers and/or investors? what about project-affected populations?; in what circumstances, if any, is expropriation in the public interest allowed, with compensation? with or without voice? how do you compensate indigenous people for appropriation of property when they do not have recognised rights and may not even recognise the concept of property?)

There rarely exists, at national level, a set of guidelines equivalent to the WCD, but instead there are national rules and procedures on e.g. environmental impact assessment (EIA). A key question in each case is how strong those are, and how well they are implemented. That will depend in part on the strength of the authorities responsible for environment - government ministry and national environmental agency[25].

Where governments opt to accept funding from the World Bank, the International Finance Corporation or an 'Equator' bank, the policies of those financing institutions will apply as a complement to national law/regulations (in parallel, and, preferably, linking to it). The application on national practice of international policies which do *not* form part of codes of practice applied by financing institutions, e.g. the WCD, is not attached to availability of funding. As one key informant said, the latter type of international policies can indirectly have an important effect, in that drafters of other applicable principles may be influenced by what they perceive to be state of the art.

At national level, Cameroon and Senegal are countries in which laws/regulations on environmental impact assessment have been passed recently, during the past ten years, as discussed in Section 3 and 4. The key informant interviews in both countries suggest that the 'letter' of these rules and procedures is still in the process of being converted by ministries and government agencies into a 'spirit' of managing EIAs in a open and responsive manner.

In all jurisdictions, there may be a gap between undertakings on paper and implementation in practice. Stakeholders, including project-affected populations, may have doubts as to how far government will deliver on promises. Many undertakings on paper, when looked at in terms of compliance/enforcement, may lack clarity. When the relevant documents are analysed, it may be unclear: who the undertakings actually commit? which measures, intended for the benefit of project-affected populations, constitute legal obligations under laws of contract of the jurisdiction in question? what institutional mechanism exists for delivery? what legal means for enforcement of the contract is available in cases of non-performance/breach, to whom? In some cases, governments may approve long EIA reports, without subsequently devoting sufficient energy and resources to ensure that measures written into resettlement and development plans are implemented and enforceable.

[25] *Environmental* impact assessment is generally more mainstreamed as part of accepted practice than *social* impact assessment.

## 2.3 Diversity of approaches: overview

From the comparative analysis in section 2.1 of the five leading international policies, and scoping in section 2.2 of other practice, it can be seen that the 'edifice' of project preparation and implementation/operation of large dams and hydraulic infrastructure projects has, broadly, three 'floor levels' in the manner of assessing and addressing environmental and social risks and impacts, and providing for stakeholder engagement.

**Figure 3. is a schematic portrayal of the current wide range of approaches on these three 'floors'[26].**

- **The '<u>upper floor</u>' refers to the most demanding standards which may be applied.**

  Opinions are divided as to whether the WCD constitutes 'best' practice or whether, instead, in a number of respects, the WCD recommendations should be considered aspirational - that, in practice, some features of the WCD are currently over-ambitious. Whichever view is held, it is clear from the above comparison of the WCD with the four other leading policies that **the WCD Strategic Priorities represent the most *demanding* standards.** Indeed, "raising the bar higher" was the effect which the WCD intended - those words come from the WCD Chairman's Preface (p.iii). And, this is the consistent with the impression of the persons consulted during this study who have interpreted the WCD as indeed having that intention. As noted above, some parties felt that the WCD commissioners sought to push policy too fast and too far, i.e. according to this view, certain WCD recommendations were misguided[27].

- **The '<u>middle floor</u>' refers to 'good' practice.**

  This middle category in Figure 3 corresponds to the *substantial* body of policy, built up over recent decades (beginning before the WCD and continuing to evolve after it), which is promoted by international organisations, with common features together constituting good practice.

  Based on the analysis in section 2.1, this category includes the World Bank's Safeguard Policies, the IFC Performance Standards, the Equator Principles and Level 3 ('basic good practice') under the Hydropower Sustainability Assessment Protocol.

  That said, what is or is not considered as 'good practice', is, essentially, a value judgement. Some **divergence of views** was evident in the responses of persons consulted during the course of this study, both internationally and in-country. While, for example, some NGOs take the view that the Safeguard Policies would need strengthening in some respects to properly constitute 'good' practice, other NGO representatives interviewed support the application of the Safeguard Policies as a code of practice which requires inclusion of environmental and social standards in projects, while questioning how consistently these standards are applied/implemented. Meanwhile, civil servants and officials of borrowing agencies in the two countries visited (Cameroon and Senegal) clearly regard the Safeguard Policies as already setting a high and demanding standard, i.e. equivalent in their eyes to good (or even best) practice.

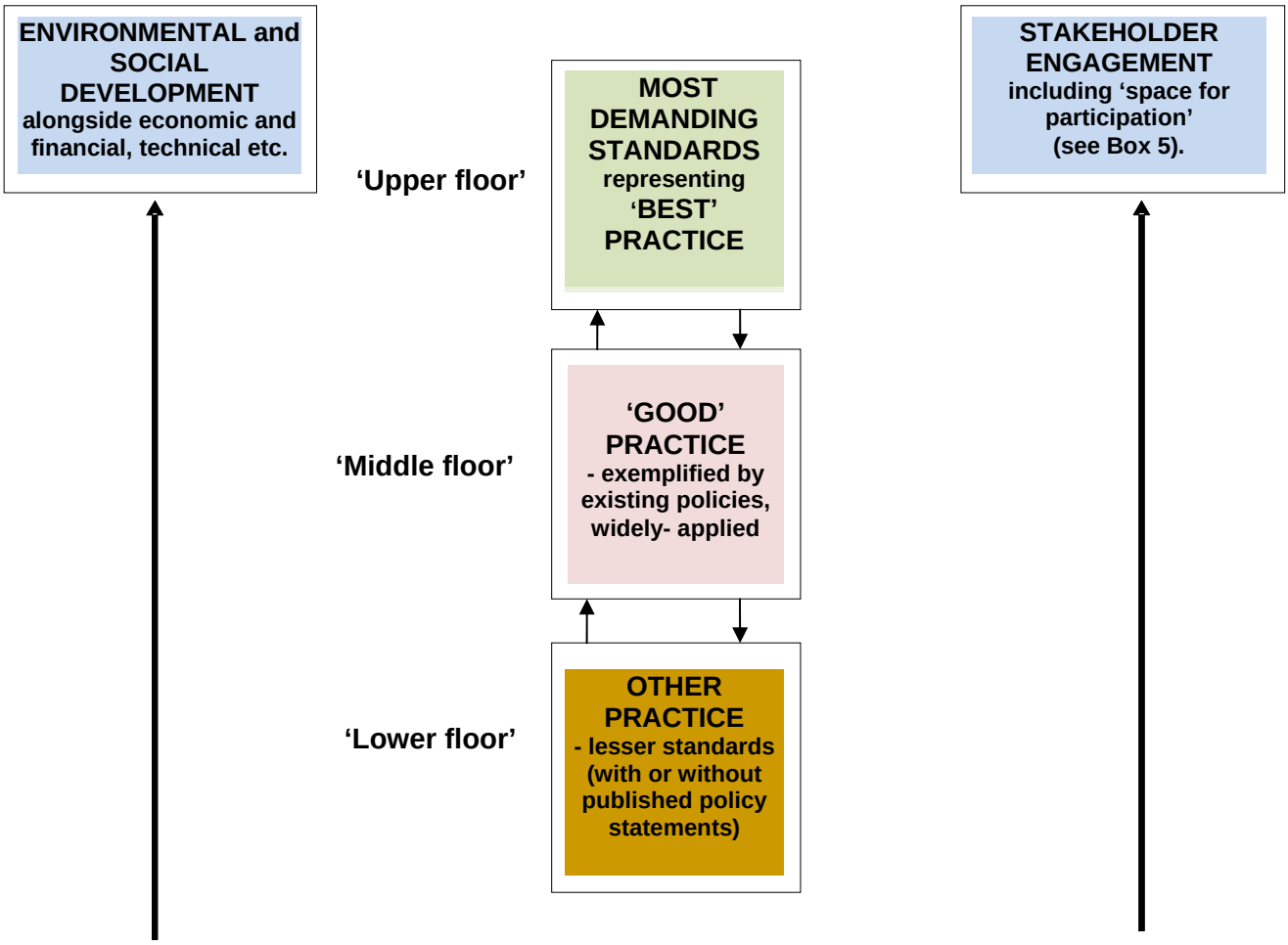
[26] Cf. the *five* levels in scoring of each 'sustainability topic' under the Hydropower Sustainability Assessment Protocol: the assessors begin by checking project performance by reference to Level 3, 'basic good practice', observing if there are one or more significant gaps which would take effect to drop the standard to Level 2 or Level 1 respectively. And they look to see where performance against a topic/topics reaches best proven practice (Level 5) or the intermediate Level 4.

[27] E.g. "Some of these [WCD] Guidelines were reasonable and reflected existing practice. Others represented extraordinary flights of fancy" … for example … 'free, prior and informed consent' for indigenous peoples…" (Briscoe, 2010, p.404).

- **The '<u>lower floor</u>' refers to *some* other practice, where lesser standards of diligence and performance are applied** in relation to environmental and social aspects and stakeholder engagement (whether or not those standards, or lack of them, are expressed in writing).

  As discussed in section 2.2, among the standards (unpublished) of 'non-traditional' sources of finance (e.g from China), some practice is reported as falling within this 'lower' category.

**Figure 3. <u>DIVERSITY IN POLICY and PRACTICE</u> - a schematic outline, in three 'floor' levels**




**The stakes are high.** In the manner of dealing with environmental and social risks/impacts, and carrying out stakeholder engagement, the spread of the three levels in Figure 3, from the lower to upper 'floors', encompasses very differentiated standards of conduct:-

- at the top end of the scale, best practice will afford project-affected populations viable alternatives to existing livelihoods, based on measures protecting ecosystems and species, and including improvements to local populations' development prospects;

- when levels of performance which prevail are at the lower end of the scale (especially in the worst cases, i.e. a sort of 'basement' category of practice[28]), this will often translate, for affected ecosystems and people, into (gravely) damaged environments and (deeply) disrupted lives/livelihoods, without adequate measures to avoid, mitigate or compensate for negative project impacts.

Accordingly, many key informants to this study highlighted as the urgent priority the influencing of practice at the 'lower floor' level, to raise it to the 'middle-floor' level.

## 2.4 Spaces for Participation

The concept of '*space for participation*' referred to in Figure 3 comes from work of the Institute of Development Studies-IDS in the UK (Gaventa, 2003 and Cornwall, 2002). The concept emphasises the importance, in relationships between governments and citizens, of an open and responsive State and an active and engaged civil society which can express the voice of citizens. In order to advance development of successful participation by stakeholders in policy-making, working on both sides of the equation is required. The two are mutually reinforcing, which makes for a reciprocal process where stakeholders not only passively participate in a space accorded by government, but they *actively shape* that space. The empirical studies carried out by IDS and partners have produced a description of three different types of 'spaces for participation'[29] as shown in **Box 5.**

**Box 5. Spaces for Participation**

- 'Closed' Spaces: decisions are made by a set of actors behind closed doors, without any pretence of broadening the boundaries for inclusion of other stakeholders.
- 'Invited' Spaces: as efforts are made to widen participation, to move from closed spaces to more open ones, new spaces are opened in which stakeholders are invited to participate by government institutions and public agencies; such invited spaces may be regularised, or more transient through one-off forms of consultation.
- 'Created/Claimed' Spaces: finally, there are spaces which emerge from common interests of government and civil society, or which may come as a result of popular mobilisation.

Adapted from Gaventa, 2003 and Cornwall, 2002.

In Sections 3 and 4 of this report, the experience to-date in relation to the *Lom Pangar Hydropower Project* in Cameroon and the dialogue around management of the *River Senegal* is considered in the light of this analytical tool, which underlines the *dynamic and reciprocal* nature of the relationships between governments and citizens.

[28] As noted in Section 2.2.1, according to Bossard 2010, this kind of basement category is occurring in Myanmar.
[29] "While we are still seeking the appropriate terminology for these categories, our work seems to suggest … spaces which include … [the three types above]" (Cornwall, 2002).

## 2.5 Perspectives and practices of key actors; drivers of evolution

In this section are considered the perspectives of key actors involved in dam projects, namely contractors, developers/operators, banks/financial institutions, governments and NGOs, as well as the drivers of evolution of policies and practices[30]. At different stages of the project cycle (and in pre-project assessment phases), the actors/drivers may have more or less leverage.

These observations are drawn from the key informant interviews internationally and in-country, as well as the desk study carried out during this study, as interpreted by the author of this report.

The role of emissions trading, providing means for projects to attract carbon credits, is also considered.

- Contractors

It is not generally contractors who drive the *policy* agenda at international/national level and act as the leaders in promotion of environmental and social components of projects. A construction/engineering company seeking a contract for construction of a dam and/or installation of a power plant will take the lead from its prospective client (the client or 'employer' under the construction contract, who is the developer/operator). Contractors' approaches to risk management are, essentially, to seek to limit costs and liabilities, identifying and externalising social and environmental risks - as described in **Box 6.**

**Box 6. Contractors and contracting**

The client or employer under the construction contract sets out, in the invitation to tender, the specification for the works to be undertaken under the project. The contractor who secures award of the contract will wish to see the scope of those works defined with *certainty*, including responsibilities to third parties. This means that, alongside commercial colleagues looking at profits and costs, the in-house contracts/legal department of the bidding company will analyse the extent of legal liabilities. Such are the concerns of the contractor *vis-à-vis* its immediate contracting party under the construction contract, which allocates risks between parties to that contract.

What, however, of the actors who are not parties to the contract? In relation to those *extra-contractual* parties, the tendency is to allocate roles and risks by reference to what the contractor can control. Events occurring which were unforeseeable or situations arising which disrupted the progress of the works in an *unforeseeable* way will trigger the contractor's claim to an extension of time and additional payment. For example, under the FIDIC standard conditions (Clause 8.5) (on FIDIC, see below), the contractor has to follow "procedures laid down by the relevant legally-constituted public authorities in the country", but where those authorities delay or disrupt the contractor's work in a manner that is *unforeseeable*, the contractor is entitled to extra time and compensation (Totterdill, 2006).

In the manner of handling risks *other than* technical risk relating to construction and engineering, there is a tendency (Merna and Njiru, 2002, p.202) "to attribute the ability to control that risk as within the ambit of

[30] NB: an omission from the scope of the discussion under this section 2.5 is the role of export credit agencies, which will need to be the subject of a further study.

government. 'Country' risk is "the exposure to a loss … caused by events that are, at least to some extent, under the control of the government of the borrower country".

Mitchell & Trebes (2005) talk of 'cultural reform' in the construction industry (more mutual trust and cooperation, less adversarial relationships) and Totterdill (2006) reports on changes to the "most commonly used conditions of contracts for international construction projects" published by the *Fédération Internationale des Ingénieurs Conseils*-FIDIC.

The objective of contracting remains "a clear division of function and responsibility" so as to "deliver certainty of outcome for all parties" (Mitchell & Trebes). As noted in Box 6, the FIDIC standard conditions provide for a **foreseeability test**: where the contractor's work is affected in an unforeseeable manner, it will be entitled to an extension of time and additional payment. As noted in section 2.1.2, several of the leading international policies (the IFC Performance Standards, the Equator Principles, following the EPs, and the Hydropower Sustainability Assessment Protocol) also adopt a foreseeability test. In that regard, the revised FIDIC regime for construction contracts has not changed and those policies reflect that.

- Developers/operators

Developers also want to see certainty in projects, avoiding open-ended commitments and open-ended deliberative processes, e.g. of stakeholder engagement which may be lengthy. One person consulted doubted how far developers will take the initiative on environmental and social issues, where government is slow to do so: "The industry does not want to be seen critical of government planning processes".

The question arises: under what circumstances are developers sensitive to reputational risk? One person consulted felt that there exists a big gulf between *responsible developers* on the one hand *and irresponsible developers* on the other hand - with the latter looking to apply minimum standards if/when they can do so without repercussions.

Many persons interviewed during the course of this study doubt whether, in the context of globalised communications, with local civil society groups in contact with international NGOs carrying out a 'watch-dog' role, "bad projects" have "places to hide". According to this analysis, the reputational factor is a strong driver in pushing developers/operators towards improved practice - from a variable base.

- Banks/financial institutions

Many of the persons consulted during this study commented on increasing levels of commitment shown by banks and lending institutions to address environmental and social risks, by adjusting their lending practices to reduce those risks.

The common view was that the primary driver of this is reputational. Under project finance, the application of loans is directly attributable to physical assets and effects on the ground, which means that projects which cause environmental problems and leave affected people prejudiced are quickly traceable to lenders[31]. Financial institutions, public or private, do not want to be associated with problem projects.

[31] Corporate loans will carry reputational risks to the extent use of funds is known/visible, so a possible option whereby banks use corporate loans to side-step the Equator Principles, attached to project finance, may not operate to obviate reputational risk.

For development banks, some difficult past experiences have heightened consciousness of reputational risks. As recent experience confirms (e.g. the recent withdrawal of the European Investment Bank from the *Gibe* project in Ethiopia), development banks do walk away from potential transactions which have environmental and social risks assessed as heavy, which could translate, subsequently, into reputational risk. One interlocutor pointed out that, in relation to the activities of a large bank, a project financing of, for example, US$ 500 million represents a small transaction on which to carry that reputational risk.

The reputational driver accounts, in part, for the approach to environmental and social risks adopted by both public and private banks/financial institutions. The recent revisions of the Safeguard Policies of the World Bank and of the Equator Principles, and the current review of the IFC Performance Standards, are signs of evolution in policy.

A further step is for lenders to look at these issues under the heading of risk and return - the business case. Understanding the scope of risks in emerging markets includes asking how far the client (borrower) is managing environmental and social risks. Where the client, whether a government body or other entity, is adequately addressing those risks, the question remains whether their consultants are taking account of risks 'outside the factory gates'. The historic tendency has been not to look at such risks, but banks and financial institutions are very aware that indirect risks beyond the immediate activities of construction and operations of the project-built plant can affect the return. Like contractors, lenders (and borrowers/clients) are looking to draw up a transaction which has a *clearly defined* scope, since it is that which defines the price. As outlined in section 1.4, the multi-faceted nature of hydropower projects, as portrayed in Figure 2[32], argues for definition of project scope which is wide, incorporating, as integral parts of the project, components on environmental management and social issues, including resettlement plans and local development plans, plus stakeholder engagement and benefit-sharing measures. **Rigorous contracting practice would require those components, *once* incorporated within an extended project scope, to be clearly defined, so as not to be vague and open-ended.**

The word 'once' is highlighted above, because the debate returns to what exactly is included within the 'project' scope. As stated by one person consulted, there still exists, in preparation of some projects, a "grey area" of issues "in relation to which neither the private sponsors/financiers of the project, nor the public authorities regulating and participating in the project, wish to be seen as taking on responsibility and legal obligations". "This grey area", s/he continued, "includes issues which are material to the project and in complex projects may represent major challenges, yet they may not be captured on a transactional basis", i.e. components shown in Figure 2 in section 1.4, but not always incorporated in projects (as discussed in the section). The challenge of addressing this issue is "recognised by banks and financial institutions lending to big projects". From the perspective of ecosystems affected by projects and populations displaced, it is important that this grey area is resolved.

The further risk is (Skinner yet al, 2009) that the safeguards in the policies of financial institutions risk being stronger on paper during the preparation stage than 'on the ground' during implementation and operation.

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[32] E.g. also the scope of the 'sustainability topics' under the Preparation, Implementation and Operation stages under the Hydropower Sustainability Assessment Protocol.

The leverage which banks exert on developers/operators and governments arguably reduces once the boards of banks have approved loans. Suspension and termination of loan agreements are not generally steps which banks like to undertake. On entering into the project financing, the project becomes, to a great extent, a joint project from which, after that point, financiers will be loath to walk away, including for reputational reasons. The wording of the Equator Principles (referred to in section 2.1.1 above) is carefully chosen: "The adopting banks undertake to embed implementation of the EPs in their business and risk management processes and *work to bring back the borrower back into line* where the borrower does not comply with environmental/social covenants".

The interest of the Equator Principles for the adopting (private) banks (states the website of the EPs) is in harmonising practices, moving to *convergence* on measures for mitigation of environmental and social impacts. Thereby, the banks will convey a more consistent message to the industry - as one interlocutor expressed it: "A commonality of purpose on what banks will, and will not, lend against, and an expectation of which projects clients will/will not enter into - this all goes to clarifying the market" which is beneficial for business.

On the website of the Equator Principles, the authors of the written Question and Answer text (on the web page called 'About the Equator Principles') state that the banks which have signed up to the EPs have not experienced harm to their businesses, and they go further:

> Question 27 of 'About the EPs' asks the question; "Have the EPs hurt banks' business"?
>
> "No. The EPFIs have not seen any decline in business because of adoption, application or implementation of the EPs. In fact, the EPs have been championed by the project finance business heads of participating EPFIs. They continue to believe that having a framework for the industry will lead to greater learning among project finance institutions on environmental and social issues, and that having greater expertise in these areas will better enable them to advise clients and control risks. In other words, *they continue to believe it is good for business*". (emphasis added).

The term used above is 'believe' - it would be useful to go beyond that to worked, quantified examples of benefit.

- Governments

As to governments' attitude to risk, the starting point of governments is generally a concern with short-term reputational risk. Ministers will not be in post after a few years. The responsibility for a low-performing project ten years down the line does not stop with Ministers, or even Ministries - there may be weak lasting institutional accountability. In weak jurisdictions, governments' perspective may often mean that management of risk is not a key preoccupation, in contrast with private companies. In those contexts, concluded one interlocutor, the policies of banks/financial institutions are likely to be the prime driver, until the procedures and practice of stakeholder engagement evolve. The Cameroon and Senegal case studies in Section 3 and 4 provide illustrations.

Another commentator has observed (Hirsch, 2010) that, in many cases, the pace of planning and action by the private sector (developers and their financiers) in the last few years has been rapid and has moved ahead of public planning processes. To some extent, the internationally-published policies may serve to fill a gap in national policy debates, at least around the mode of planning of projects, although, as observed in Section

2.1.2, the provisions for options assessments under four policies (reviewed by this study) is weaker than under the WCD.

In trans-boundary contexts, where States enter into international agreements on river/water management, there may be differing perspectives of different riparian States, each with their geographic/hydro-geographic location in the river basin, and each with its government setting development strategies based on national interest and each with its own approach to dialogue with civil society.

Several persons consulted during the course of the present study have observed first signs that the reputational sensitivity of the Chinese government, as well as Chinese companies, is growing. From Beijing, apparently, instructions are being transmitted to Chinese developers operating abroad that they should abide by environmental and social standards in host countries, just as they are expected to comply with Chinese policy in relation to projects in China.

A concern common to many persons consulted during this study is the degree to which terms and conditions written in environmental and social reports and plans during the project preparation phase are put into practice during implementation. In Brazil, for example, the national environmental agency, IBAMA-*Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis*, has placed special conditions on dam projects in the Amazon, but Brazilian NGOs doubt IBAMA's capacity to monitor compliance. Instead of licensing of many products with good environmental protection, on paper, the NGOs are proposing to the Brazilian government (including the ministry of energy) that a number of Amazon tributaries are designated as 'no-go' areas for dam projects in order to maintain some free-flowing rivers in the region.

- NGOs

As alluded above, the role of international NGOs, and their local partners, as 'watchdogs' is important as a means of highlighting irresponsible actors and projects, thereby ensuring that the reputational driver, as described above, is operative. The experience by developers/operators, and contractors, of scrutiny from NGOs and negative publicity from the media around involvement in 'bad' projects (where environmental and social diligence and performance is indeed weak), has motivated developers/contractors to seek to enhance their corporate image, and seek the advice of other NGOs as to how to improve their practice.

A common preoccupation of NGO representatives consulted was the variable capacities of CSOs in developing countries to maintain participation in public debate on water and energy issues, including large dam projects. As discussed in the Cameroon and Senegal case studies in Sections 3 and 4, the capacity to participate depends on the history of CSOs in each country and the stage reached in development of civil society organisations in the context of national and local democratic politics.

Within the philosophy of integrated water resources management (IWRM), participation of water users is intended to play a key role, but for water users (e.g. small farmers) to participate in decision-making represents a substantial challenge. As an example, among the countries of the Mekong basin, e.g. in Laos, NGOs have only recently been legally permitted. In Vietnam, the process is also new, so that meaningful stakeholder engagement in debates on these big issues is at a very early stage. In Cambodia, NGOs are operating openly, but that, commented one interlocutor, has not as yet been able to influence decision-making. Only in Thailand is there a longer history of CSOs challenging the government to be accountable for its decisions. Key informants to this study at international level and in the country case studies stressed the key role of international NGOs and larger national NGOs in capacity-building "to promote the role of civil

society including water users in the planning, development and operation of large dam projects". Several interlocutors commented that support of donors to this process has to-date been patchy (see Section 3 and 4).

- Emissions trading

The emissions trading system (ETS) of the European Union (EU), allows for use in the EU ETS of carbon credits from hydropower projects exceeding 20 MW of capacity, subject to conditions. Currently, under the 2003 EU Directive which established the ETS, the standard of compliance required for development of such projects is "*relevant international criteria and guidelines, including those contained in the World Commission on Dams November 2000 report*" (Article 11b 6). As to the number of certified emissions reductions-CER units issued under the Clean Development Mechanism under the Kyoto Protocol, and the projects to which they relate, the NGO International Rivers keeps a record on a webpage which it says is regularly updated[33]. The reference to the WCD, with its demanding standards, raises the issues whether application of such demanding criteria will mean that countries wanting to attract credits may lose out, given the demand from countries wanting credits (and accepting them at a lesser standard in terms of sustainable development criteria).

The wording of Article 11b 6 is interesting because it allows the possible application of other "international criteria and guidelines" - e.g. the four policies which are alternatives to the WCD which are reviewed in this Section 2 - to the extent the case can be made that they are "relevant". In that case, the prospect of projects being eligible for carbon credits could represent an incentive for hydropower developers/operators to follow those policies.

[33] http://www.internationalrivers.org/en/climate-change/carbon-trading-cdm/spreadsheet-hydro-projects-cdm-project-pipeline

## 3. Cameroon case study

This section describes the status of preparation of the ***Lom Pangar Hydropower Project*** (LPHP) in Cameroon and reviews the approach to decision-making applying to the project. The focus of this and other parts of this research are the environmental and social aspects, and engagement of stakeholders, both populations likely to be affected by the project and civil society more widely, as well (in this Section) as the part played by environmental and social experts.

### 3.1 Background/context

3.1.1 The dam and its location

The LPHP is a project for construction of a 46 metre high dam (7 metres wide at the crest) and reservoir in the Eastern region of Cameroun. The location of the dam is to be on the River *Lom* c.4 kms above its confluence with the River *Pangar* and 13 kms before its confluence with the River *Sanaga* - see **Map 1**.

**Map 1. Location of the Lom Pangar dam project in Cameroon**


Source: Electricity Development Corporate-EDC

The reservoir will flood an area of 537 square kms and the dam, with its storage capacity of 6 billion cubic metres is designed to regulate water in the Sanaga River so as to increase the guaranteed flow, especially during the dry season, sufficient to maintain reliable power supply at the existing *Song-Loulou* and *Edéa* hydropower plants (in French, *centrales*) located in the west of the country in the area of Douala (see Map 1), thereby aiming to increase their guaranteed power generation capacity by at least 120 megawatts (MW).

A small 30 MW hydroelectric plant is to be built at the foot of the Lom Pangar dam itself, as well as a 120 km transmission line between the power plant and the Eastern Electricity Network at *Bertoua* (marked on Map 1). The power plant is designed to provide electrification of towns and villages neighbouring Lom Pangar and along the transmission route (see further in section 3.3).

**Map 2** shows the configuration of the dam and the reservoir when filled, forming a horse shoe shape up the Pangar River to the north/north-west and the River Lom to the north-east.

Construction of the dam will require adaptation of the existing Chad-Cameroon Pipeline by replacing two 12.5 km stretches which will be submerged where it crosses the Pangar River, once the reservoir is filled. The route of the pipeline (*oléoduc)* is shown on Map 2 (the pipeline traces a line from the Sanaga River near '*Lom 1*'/'*Lom 2*' in a north-easterly direction, exiting the top of the map in the middle, by the red-coloured *Mabelé* road, heading due north).

To the south-west of the dam site, between the Sanaga River and the access road to be built (25 kms) from the village of *Deng Deng* to the site, is located the **Deng Deng protected area** (the village of Deng Deng is marked on Map 2, though not the protected area itself). The Deng Deng area was, in March 2010, formally established as a national park by Prime Ministerial decree (GoC, 2010a). The park comprises c.60,000 hectares of lowland forests, on undulating ground, in which a substantial population of gorillas live, as verified by the Wildlife Conservation Society (WCS) in successive field studies[34].

The agency which is developing the LPHP is the national **Electricity Development Corporation-EDC**, created by Presidential Decree in November 2006 with responsibilities for management of publicly-owned assets, including constructing and exploiting reservoirs for regulating river flows (World Bank, 2009a, 4th page). The EDC comes under the supervision of the Ministry of Energy and Water - *Ministère de l'Energie et de l'Eau* (MINEE).

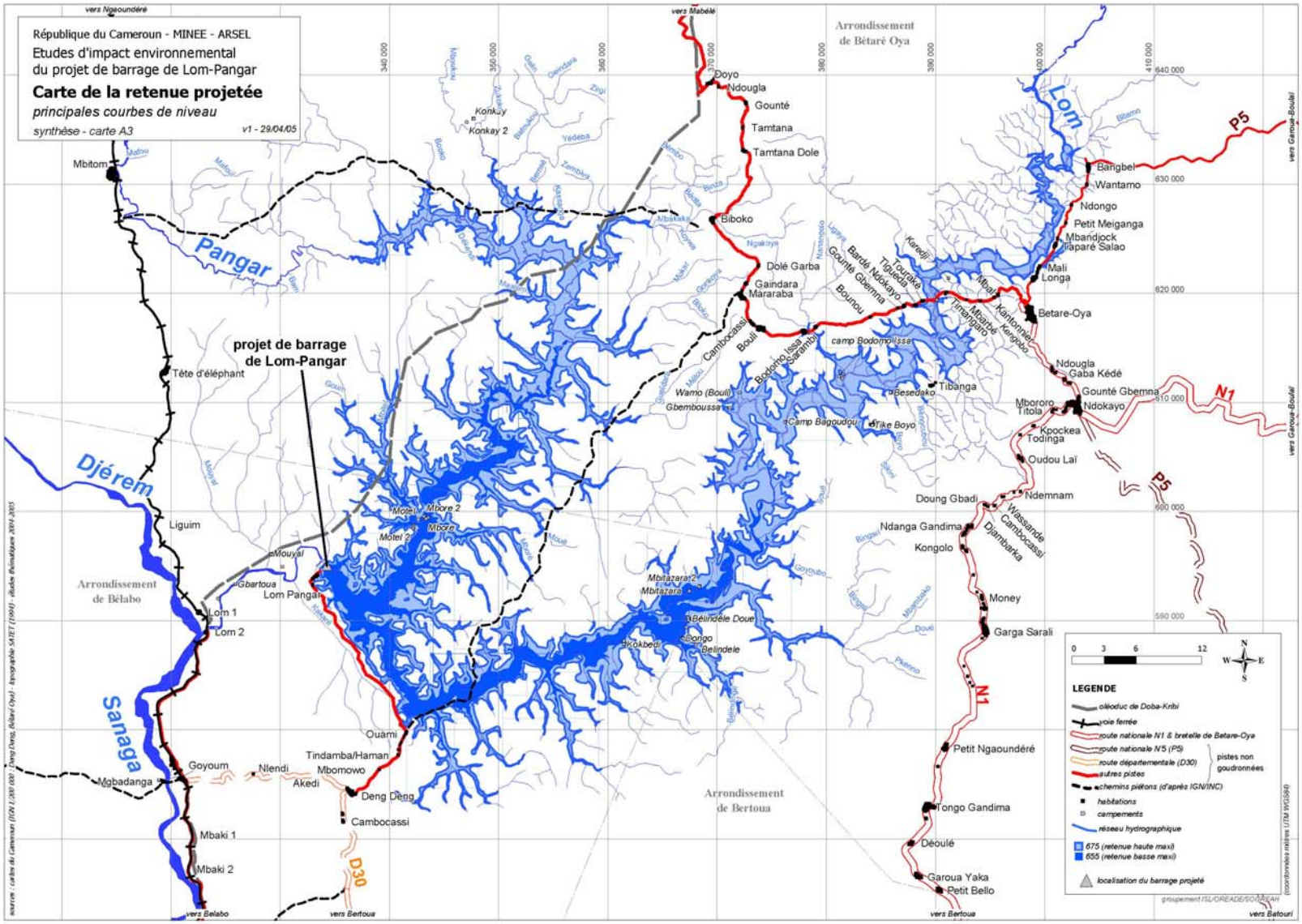
### 3.1.2 Rationale

**The LPHP has been clearly identified by the GoC as a priority**. In the 'Matrix of Priority Actions' in the national Strategy Document for Growth and Employment - *Document de Stratégie pour la Croissance et l'Emploi (DSCE)* 2008-2035 (GoC, 2008) - see **Box 7.**, the LPHP is the first item listed (p.134). The main text of the DSCE highlights as its number one strategy for stimulating growth and employment (pages 54-90), 'Infrastructural Development', with 'Energy' the first type of infrastructure referred to (alongside roads, railways, telecommunications, housing and water and sanitation). Section 3.1.2.1 of the DSCE refers to the "insufficiencies in electricity supply which have disrupted the lives of households and constituted a brake on the economic growth of the country since 2001" (ibid, p.55). As one of the key informants of this study expressed it, Cameroon's economy is "electricity-constrained".

As well as increasing the generating capacity at the two existing plants at Song-Loulou and Edéa, the LPHP is intended to be the first in a series of new hydropower projects on the Sanaga river with a potential of over 2,000 MW[35], based on the extra water storage provided by the LPHP (World Bank, 2008) and the total hydrological potential of the Sanaga estimated at over 6,000 MW.

[34] Source: the key informant interview with the WCS.
[35] *Nachtigall* (330 MW), *Songmbengue* (900 MW), *Song Ndong* (280 MW), *Kikot* (500 MW).

**Map 2.: Configuration of the Lom Pangar dam and reservoir (when filled) in the project area (source: EDC)**



**Box 7. Strategy Document for Growth and Employment-*DSCE***

The DSCE is the country's second generation of poverty reduction strategy paper (PRSP) setting out a programme for the first ten years of an ambitious vision for national development over 25 years ('*Vision 2035'*) with the emphasis on growth and employment as central instruments of poverty reduction. The DSCE states, in the Preface (GoC 2008, p.8), that it is the key reference point under the Paris Declaration for the GoC and its collaboration with development partners.

Poverty in Cameroon remains widespread with, according to 2006 estimates, 40% of the country's population living under the poverty threshold of c.US$ 1 per day. Poverty is particularly a rural phenomenon. The great majority (94%) of *Camerounais* falling with the poorest quintile of the country live in rural areas, as compared with 2% only in the capital, 2% in Douala and 6% in other towns (ibid, p.35). While levels of poverty have reduced in Doula and Yaoundé, poverty in rural districts has worsened since 2000 (p.12). The Eastern region, where the LPHP will be located, and the northern regions, are the poorest parts of the country (DSCE, citing household surveys, under the ECAM, *Enquête Camerounaise auprès des Ménages*, carried out by the *Institut National de la Statistique*-INS).

The DSCE refers (p.11) to the national review of progress towards the MDGs in 2008, which showed that it is unlikely that the country will attain its Millennium Development Goals-MDG targets by 2015.

In the DSCE, there is little consideration of environmental matters. The document mentions (p.11 and 33) in relation to MDG 7, the increase in protected areas in the country, from 13% in 2000 to 18.8% of national territory in 2008. The discussion of natural resource management (other than mining of minerals and exploitation of hydropower) appears late in the document (p.66) and refers to the second phase of the forest's sector programme of the *Agence Nationale de Développement des Forêts*-ANAFOR (plantations, sylviculture).

Source: GoC (2008)

As to the extent of public participation in definition of the priorities set out in the DSCE, see section 3.3.

### 3.1.3 The electricity sub-sector

Energy generation capacity in Cameroon is largely based on hydropower. Of the *installed* capacity of AES Sonel, the private electricity concessionaire[36], over three-quarters (77% according to World Bank, 2008), is hydro capacity (721 MW of 933 MW). In terms of *available* capacity, that is significantly lower, because the largest hydro-electric plants in the country, at Song Loulou and Edéa, are undergoing rehabilitation and, as noted above, low flows of the Sanaga river in the dry season have reduced the electricity output of these two plants.

The DSCE comments (p.13): "The weak production capacities and the aged condition of existing power plants act as a brake on the development of businesses and national industries, as well as constituting a disincentive to external investment...".

According to the DSCE, the medium-term aim of the power sector, by 2020, is to increase the power generation capacity of Cameroon to 3,000 MW, including through the construction, in the short-term of the LPHP (p.15), and the thermal and gas-powered power plants of *Yassa* and *Kribi*, and in the medium-term, 2020, with other power facilities (*Nachtigal, Song Mbengue*, *Warak*, *Colomines* and *Ndockayo*)[37].

[36] AES Sonel was granted in 2001 a 20 year concession to transmit and distribute power.

[37] The DSCE states (p.47) that the hydroelectric potential of the country in the long-term may be as much as 12,000 MW per year, i.e. ten times the current capacity, and says that Cameroon can aspire to becoming an exporter of electricity to other countries in the region (in the *Communauté Economique des Etats de l'Afrique Centrale*-CEMAC).

As for electricity supply for household use, the DSCE supplies figures from ECAM 3 (*Enquête Camerounaise auprès des Ménages*), on the percentage of households with access to electricity for lighting (*électricité d'éclairage*). In the rural East where the LPHP is to be built, the figure is 23.2%, close to the average for the country overall (23.1%), as compared with 11.7% in the Extreme North region and 98.2% in Yaoundé. In other words, rural electrification has been lagging far behind.

As part of national strategies to modernise industrial production in Cameroon, the DSCE refers to the mining sector (p.67) including bauxite for producing aluminium, alongside cobalt, nickel and manganese, iron and diamonds. The existing aluminium smelting facility, called 'Alucam' "has been in operation since 1957, generating important amounts of foreign cash for the country's economy" (EDC, 2009). It is owned by the Canadian company, Alcan, and by the Rio Tinto Group[38].

The Alucam plant accounts for more than 40% of current power consumption in Cameroon (World Bank, 2008). This dominance of one industrial customer has caused difficulties, requiring re-negotiation of terms of electricity supply:-

- first, Alucam has been buying electricity under a historic 30 year contract which set a price which has been "very low" (ibid) compared to current rates paid by other customers. Negotiations have been taking place on electricity prices for Alucam under a new contract. According to a Reuters Business and Financial News item, posted on the internet, the price payable is set to double under the new 30 year agreement[39];
- secondly, in the context of Cameroon's power supply deficit, at the GoC's request, Alucam has been reducing output at its plant, substantially lowering its electricity consumption, in order that "Cameroon can avoid power cuts and satisfy electricity demand" (World Bank, 2008).

According to the figures cited by the World Bank (ibid)[40], electricity demand in Cameroon is increasing at eight percent per annum.

Alucam plans to increase its investments in Cameroon, as per World Bank 2008 (fourth page):-

> "Alucam's medium-term strategy to meet its additional power needs for the existing plant is built around the construction … of the *Nachtigal* hydro power project, a large run-of-river generation project (330 MW), subject to the construction of the LPHP on which it would depend [for water flow]. Alucam is also conducting a feasibility study for a potential 900-1,000 MW hydro power plant at *Songmbengue* in connection with its plans for a greenfield alumina plant based on the exploitation of Cameroon's bauxite reserves".

The World Bank notes that "accelerated development of oil, gas and mineral resources and of associated industries and infrastructure is a key element of the strategy of [the GoC] for growth and poverty reduction. The sustainable development of the country's natural resources can be beneficial to the citizens of Cameroon if *transparently* managed, because it can generate revenues that can be used to deliver social services and education, find transport infrastructure, and generate employment opportunities" (World Bank 2008a, emphasis added).

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[38] With, according to World Bank 2008 (fourth page), share holdings of the GoC and AFD.

[39] www.reuters.com, Business and Financial news, November 21, 2009: according to a GoC statement cited by this news report, the new price will be 12.94 CFA francs per kilowatt of electricity (US $ 0.029 at an exchange rate of US $ 1 = CFA franc 441.5), up from about 6 CFA francs.

[40] Cf. World Bank 2008a which refers to expected growth in electricity demand, for medium and low voltage, at an average rate of six percent per year during the period 2006-2020.

While "the investments under consideration in the energy and mining sectors could bring huge economic and social benefits", they "also bring considerable environmental and social risks that need proper mitigation measures and transparent planning and oversight processes" (World Bank 2008a, p.1).

### 3.1.4 The financing of the LPHP

The estimate of the total cost of the LPHP (according to the project information document-PID of the World Bank of November 2009 - World Bank, 2009a) is US$ 430 million, for all its component parts: (i) the dam, power house and transmission line, adaptation of the Chad-Cameroon pipeline and the access road to the construction site, plus technical assistance on construction/engineering aspects; (ii) the environmental and social management plan, and "selected communal development initiatives", as part of a "regional development plan to be developed in a consultative process with the local population", plus "technical assistance relating to the environmental and social management plan" (ibid, third page).

The finance proposed for the project - without, as yet, contractual commitments by the financiers or acceptance of the GoC - is expected to comprise loans from the World Bank, through the International Development Association-IDA[41], the *Agence Française de Développement*-AFD, the European Investment Bank-EIB, the African Development Bank-AfDB, and the Development Bank of the Central African States-BDEAC, as well as 'other bilaterals' (e.g. expressions of interest have been made by the Saudi Fund for Development and the Islamic Development Bank). The amounts of the financing contributions as provisionally noted in the November 2009 PID (World Bank, 2009a) are as set out in **Box 8.**

**Box 8. 'Tentative' financing contributions to the LPHP**

- GoC as Borrower/recipient: US $ 65 million;
- World Bank/IDA: US$ 75-100 million;
- AfDB: US 95 million;
- AFD: US $ 75-90 million;
- EIB: US $ 45-75 million;
- BDEAC: US $ 20 million;
- 'Other bilaterals': US $ 22 million.

Source: World Bank (2009a)

The figures in Box 8 are currently being reviewed (source: AfDB) , and, in addition to the above sources of multilateral and bilateral banks, the possible participation of (private) commercial banks as "local financial institutions[42] has been mentioned by EDC, but is, one key informant commented, unlikely beyond a potential bridge financing, given the sufficient availability of concessional donor funding and increased financing cost of commercial funding.

Until binding commitments to this financing package have been made on either side, the possibility of the LPHP being financed by alternative sources, including sources other than the 'traditional' donors, e.g. from China, cannot be excluded - although the representatives of the traditional donors consulted during this study assess the likelihood of this as low at this point (the possible implications of this are discussed in Section 3.4).

[41] The IDA is the mode of World Bank finance which provides funds to low-income countries, through loans on concessional terms with usually a maturity period of 40 years and grace period of 10 years.
[42] "Local financial institutions: e.g. Standard Chartered Bank, the Douala Stock Exchange".

As to the channelling of the tentatively proposed funds (as per Box 8), these are intended to be disbursed as sovereign loans via the GoC on-lent to EDC - in the cases, for example, of the World Bank/IDA, EIB and AfDB[43].

The proposed World Bank/IDA and AFD contributions will co-finance the construction of the dam and the environmental and social management plan, as well as a technical assistance component. The AfDB, meanwhile, is intending to finance the power house at the foot of the dam and the transmission line - in accordance with the AfDB's 2008-2012 strategy which has a major focus on infrastructure (in the energy, transport, water supply and telecommunications sectors). The World Bank and AfDB emphasise that the power house and transmission line are to form an *integral* part of the project, and that it will be an essential condition of their making available finance for construction of the dam that the power house/transmission line is also funded, so as to provide electricity supply for the Eastern region, thereby offering the prospect of sharing of project benefits (as discussed in section 3.3).

With approval of the World Bank Board for the LPHP as yet pending, the financial commitments made by the World Bank to the GoC have, to-date, been in the form of projects for capacity building in both the environment and the energy sectors, as discussed in section 3.2 - as part of preparation for the LPHP.

### 3.1.5 The construction/installation of the LPHP

In December 2009, the EDC made a call (unrestricted) for expressions of interest of construction companies to apply to be included on the shortlist of contractors to be invited to tender for the construction of the LPHP (EDC, 2009).

Since the above call, eight companies have been shortlisted: five Chinese companies, with also one French, one Brazilian and one Italian contractor, as shown in **Box 9.**

**Box 9. Shortlist of companies invited to tender for construction/installation of the LPHP**

- *China International Water and Electric Corporation* (CEW);
- *Sinohydro Corporation Limited*;
- *China Gezhouba Group Company Limited*;
- *China Communications Construction Company*;
- *Xian Jiang Beixin Construction and Engineering Company*;
- *Razel-Sogea-Satom* (French);
- *Constructora Andrade Gutierrez SA* (Brazilian); and
- *Salini Construttori SA* (Italian).

Source: news item available on internet, under www.emplois-services.com

According to this web article, CEW (listed in Box 9) already has involvement in projects in Cameroon, including the *Lagdo* dam in the north of the country.

[43] At the request of the GoC, AFD has recently changed its mode of lending from a project financing to a sovereign loan. On that basis, the Special Purpose Vehicle structure (whereby a subsidiary of EDC, called *Lom Pangar S.A*, was to be incorporated as SPV under Cameroon law*)* is, it seems, in this case not going to be the destination of the finance of the traditional donor group.

The substantial Chinese participation in the shortlist of contractors reinforces the question whether the EDC will look to a source or sources of funding in China for the LPHP. The increase in flows of finance from China for infrastructure in Africa, including hydropower projects, was noted in section 2.2.1.

According to the key informant interviews (in September 2010), the construction of the access road to the dam site has already started and the EDC reported that there will be a ceremony for laying the foundation stone of the Lom Pangar dam before the end of 2010. This is a signal from the GoC, as the long period of preparation of the project nears its end, that it intends the LPHP to go ahead, subject to conclusion of the financing terms. The representatives of all the organisations interviewed recognised this, and, instead of discussing *whether* the project should go ahead[44], their comments were directed to *how* - on what terms and conditions - the LPHP will go ahead.

## 3.2 Project preparation: approach and policy

### 3.2.1 Safeguard Policies

From 2003-2005, the AFD funded a first phase of studies on the LPHP which culminated in 2005 in production of over 20 thematic reports, including on environmental, social and health aspects, led by a panel of three experts (one *Camerounais* and two international). This pre-dated the decision of the World Bank to participate in the project[45] - senior management at the World Bank gave the go-ahead for its involvement in preparation of the LPHP after commissioning a study which presented a favourable report on the economic viability of the project.

Since the World Bank's entry in the discussions, the AFD has approved application to the LPHP of the **World Bank's Safeguard Policies**[46], as has also the AfDB and other donors.

As to the place of the recommendations of the World Commission on Dams, the EDC stated that "it takes the WCD into account" ("*tient compte des recommandations de la CMB*"), but it did not say which recommendations. The WCD report was the original inspiration behind the appointment in 2004 of the independent panel of experts for the studies relating to the LPHP (source: IUCN) - see section 3.3. Subsequently, upon entry of the World Bank into project discussions, it was its Safeguard Policies which provided the guiding policy to project preparation. In the draft final report of the Environmental and Social Plan of July 2010 (GoC, 2010), it is the Safeguard Policies of the World Bank which are cited at length (pages 21-31), alongside the Cameroon legal and regulatory framework (see section 3.2.4), without reference to the WCD. Overall, during the key informant interviews in Yaoundé, in 2010, the WCD was little mentioned. The WCD was cited by one national NGO as the best international standard which should have been applied in relation to the LPHP, but all the NGOs were, in practice, concentrating on the process as actually conducted by the GoC.

The Safeguard Policies of the World Bank (as discussed in section 2.1 and Annex 2 of the present report) are the responsibility of the borrower country to implement, with World Bank support and oversight. The GoC has recognised the Safeguard Policies as applying to LPHP (GoC, 2010) - at least such is the commitment expressed to-date in line with the stated intention of the GoC to opt for finance from the 'traditional' donor group above (Box 8).

Under the Safeguard Policies, the LPHP is classified as a 'Category A[47] a project, i.e. likely to have significant adverse environmental impacts, for which the requirement is for a *broad-based* Environmental

[44] Given, said one key informant, "the positive economic rationale of the project for the development of the national economy as well as the development of the Eastern Region".
[45] As noted in section 3.1, the World Bank has not as yet contractually committed to fund the LPHP.
[46] Source key informant interview with AFD and GoC 2010, p.31.

and Social Management Plan (ESMP) - *Plan de Gestion Environnemental et Social*-PGES[48] for all associated project infrastructure.

In a 2006 document, the World Bank detailed how the draft Environmental Assessment for the project under the Safeguard Policies required to be supplemented by further studies and analysis (World Bank, 2006). In relation to the environmental, social and health studies, IUCN carried out a facilitation role, as discussed in section 3.3.

The environmental and social risks noted by the World Bank as arising in the case of the LPHP are the following (under the headings of the Safeguard Policies): 'Environmental Assessment', 'Natural Habitat' (including the 'critical natural habitat' of the *Deng Deng* area), 'Cultural Property', 'Involuntary Resettlement', 'Forests', 'Safety of Dams'[49].

The impression obtained by the author of this study, from the key informant interviews and documentation available during this study, is of the diligence of the World Bank in overseeing the application of the Safeguard Policies in relation to preparation of the LPHP (as to the implementation phase, this is discussed in section 3.4).

The 2006 document of the World Bank which noted the additional studies required to comply with the Safeguard Policies was a careful analysis of how the Environmental Assessment for the LPHP needed to be supplemented (World Bank, 2006, presented in matrix form). This 'retro-fit' of the World Bank's Safeguard Policies in preparation for the LPHP, according to the content and operational procedures set out in the Safeguard Policies, has prolonged the process of preparation for the LPHP, while strengthening it, in terms of the scope and content of the studies. The further studies have included more analysis of environmental, social and health aspects, supervised by a panel of three experts, again (the same *Camerounais* specialist on health, an international social anthropologist and a further international specialist on environment), plus technical studies on hydrology, geology of dams and infrastructure aspects, supervised by three other international specialists.

The World Bank noted in 2008, in relation to the role of the GoC relating to environmental and social aspects: "preparation of the [LPHP] since 2004 has shown that there is *insufficient* capacity to satisfactorily address environmental and social issues related to a large infrastructure project" (emphasis added) [50].

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[47] See Section 2.1 and Annex 2 of the present report. As noted in Annex 2, 'Category A' projects are those likely to have significant adverse environmental impacts that are 'sensitive, diverse or unprecedented' (Op 4.01, Environment Assessment', paragraph 8 (a)). In the case of the LPHP, 'sensitive' applies to the involuntary settlement of project-affected people. The impacts of Category A projects 'may affect an area broader than the sites or facilities subject to physical works'.

[48] For a Category A project, the borrower is responsible for preparing a report which includes an environmental impact assessment (EIA) and environmental management plan, and, when the project is likely to have regional or sectoral impacts, a regional or sectoral environmental assessment. The environmental assessment for a Category A project 'examines the project's potential negative and positive environmental impacts, compares them with those of feasible alternatives (including the 'without project' alternative) and recommends any measures needed to prevent, minimise, mitigate, or compensate for adverse impacts and improve environmental performance' (OP 4.01, paragraph 8).

[49] Source: key informant interviews, according to which the policy on 'Indigenous Peoples' is not relevant in the case of LPHP on the basis that no indigenous peoples are present among the project-affected communities (in the time available, not further investigated by the present study). As to the vulnerability of project-affected populations, the World Bank informed the author of this report that it has commissioned a study to identify vulnerable people in the project area and specific measures for their support.

[50] According to a key informant, the Ministry of Environment-MINEP itself expressed reservations vis-à-vis the first draft EIA carried out by, at that time, ARSEL, the electricity regulator, who was initially in charge of project preparations. In 2005, MINEP provided comments on the draft and requested additional work on the EIA and ESMP.

3.2.2 Strengthening of GoC capacity to prepare for environmental and social aspects of projects

Accordingly, the Board of the World Bank approved, in June 2008, US$ 20 million of IDA funding for a project (P109588) for 'Environmental and Social Capacity Building for the Energy Sector' referred to by its acronym, PReCesse, from the French language version of its title: '*Projet de renforcement des capacités environnementales et sociales dans le secteur de 1'énergie'*.

The **PReCesse project**, 2008-2014 - see **Box 10.** - is designed to strengthen capacity of Cameroon institutions to handle environmental assessments. That capacity-building objective goes beyond just the LPHP, and is also aimed at other major projects under consideration in the energy and mining sectors which, in terms of risks, are "at least an order of magnitude greater than the risks associated with [the LPHP], or even the Chad-Cameroon Pipeline" (World Bank, 2008a).

**Box 10. 'PReCesse': environmental and social capacity-building for the energy sector**

In Cameroon, the environmental assessment (EA) process is managed by the Office of Environmental Assessments within the Ministry of Environment and Nature Protection-MINEP. MINEP was created in 2004 by splitting it off from the Ministry of Forestry-MINFOF. Given the importance of the forest industry in Cameroon's economy, MINFOF retained most of the qualified staff. The budget allocated to MINEP was "not commensurate with its responsibilities"(World Bank, 2008a, p.15).

The Office of Environmental Assessments comprises 3 units dealing with: EAs, environmental audits, environ--mental management plans-EMPs. The Office also serves as a secretariat to the Inter-ministerial Committee on the Environment, which formally reviews EAs and environmental audits, as well as EMPs.

The World Bank noted in 2008 that the Office of Environmental Assessments within MINEP "does not currently have the number of staff, with necessary technical skills, or the resources to independently monitor and control the implementation of agreed environmental management plans. Furthermore, the Office is already struggling to keep pace with the increasing number of environmental assessments and audits". Under the 2005 decree, all existing facilities are required to carry out environmental audits[51]. "Without increased capacity, the Office "will not be capable of responding to the surge in large infrastructure investments in the energy and mining sectors" (ibid).

Source: World Bank (2008a), 'Report no. 43880-CM, the Project Appraisal Document for the PReCesse project, May 2008.

The PReCesse project aims to help the MINEP restore its position as the national regulator for the environment by giving it a central coordination role in environmental assessments and audits, resulting in "greater recognition and credibility vis-a-vis other government departments, civil society, the private sector, and development partners" (World Bank, 2008a).

The World Bank is also supporting the energy sector in Cameroon. The LPHP is designed to be part of the GoC's long-term strategy for energy. The World Bank is supporting the planning and management of energy sector resources through the project for 'Energy Sector Development in Cameroon' - see **Box 11.**

[51] According to the decree, within 3 years after its adoption.

**Box 11. Support to Energy Sector Development**

This project was approved by the Board of the World Bank in June 2008. It provides IDA funding of US$ 65 million, matched with GoC funds of US$ 5 million.

The implementing agencies are MINEE, the EDC, the Electricity Regulatory Commission (ARSEL), established as sector regulator, and the Rural Electrification Agency (AER), established under the Electricity Law of 1998 and Electricity Decree of 2000.

"Experience shows that the skills required for the preparation of large energy sector generation investments are not readily available in governments in developing countries. This can be the reason for poor project preparation and significant delays with potentially high costs to the economy. For preparatory activities of the planned [LPHP], the [Energy Sector Development] project therefore proposes a pragmatic solution of assisting the project unit which the EDC will put into place with a team of independent technical, environmental and social consultants, which are fully dedicated to project preparation and bring international best practice experience...".

Source: Project Appraisal Document for World Bank project P104456 on Energy Sector Development (World Bank, 2008).

As well as improving the capacity of energy sector institutions to plan, the project's aims include the following: "to increase access to modern energy in targeted rural areas" - this aspect is discussed in section 3.3.3.

As to environmental and social aspects, the Energy Sector Development project is, in particular, to build the capacity of EDC to "manage the [LPHP's] technical and safeguard risks in accordance with international standards" (World Bank, 2008), including "partial flooding of the Chad-Cameroon pipeline at two intercepts" and "a number of environmental and social safeguard risks", amongst others related to the Deng Deng forest (ibid). These are considered in section 3.3.

### 3.2.3 Determining the scope of the LPHP

In the key informant interview with the World Bank, the World Bank representative emphasised that the environmental and social aspects of the LPHP are to be an *integral* part of the project and this is how the LPHP is presented in the 'Preliminary Project Description' in the (short) Project Information Document (PID) (World Bank, 2009a) where there are five project components, including Component III, 'Environmental and Social Management Plan' and Component IV, 'Communal Development' (including development projects as part of the regional development plan).

The (longer) Project Appraisal Document-PAD is currently in process of being prepared, in collaboration with the GoC as recipient country government. The intention is to submit the PAD to the Board of the World Bank for its approval in the coming months[52]. For projects funded by the World Bank, the PADs are key statements of project design. The PAD for the LPHP will provide an opportunity to verify inclusion of the environmental/social and development components. To reflect the design as set out in the PID, the PAD should set out in detail how the scope of the project goes beyond the core commercial/financial transaction as shown in Figure 1 of section 1.4 of the present report, to place that transaction in the development context in the manner required to fully characterise the LPHP as an extended project as portrayed in Figure 2.

Alongside the specifications for the construction/installation works, the project includes, at the suggestion of the World Bank, a set of environmental and social requirements which all the short-listed contractors

[52] Source: key informant interviews.

must incorporate in their bid, to be eligible. These are set out in a *Cahier de Charges Environnementales et Sociales*. The requirements in this Cahier are apparently[53] those set out in the draft final report of the construction ESMP of July 2010, in Chapter 9 (GoC, 2010), as described in **Box 12.**

**Box 12. Responsibilities of contractor under ESMP, during the construction phase of LPHP**

The contractor (*l'entrepreneur*) will be responsible for drawing up an ESMP (the *Plan de Gestion Environnemental et Social de l'Entrepreneur*-PGESE), relating to the phase during construction, which will ensure that the construction works are carried out according to « good construction practices respectful of the environment commonly observed in the world and applied by responsible contractors » (GoC, 2010), including measures for management of waste, management of quarries and construction traffic, noise pollution control, water pollution control and monitoring of water quality, management of the workers' camps, health and health care of construction personnel[54]. The contractor is required also (ibid, p.82 and 85) to draw up its proposals on how to carry out the cutting of the forest (*défrichement*) where the dam and the reservoir are to be located, and organisation of the process of first filling of the reservoir (*la première mise en eau du réservoir*).

The non-compliance procedure (*Gestion des Non Conformités*) (p.69) provides that EDC or its consulting engineer (*l'Ingénieur*) may notify the contractor of failures to comply with the PGESE with various possible periods for remedying the failure according to its degree of severity. In cases of 'flagrant' or previously notified, but un-remedied, breaches of the PGESE, the engineer may recommend to the employer, EDC, application of a penalty of 5% of the amount of the contractor's monthly payment request.

Source: GoC 2010, Chapter 9.

As to whether the information and methods of working referred to in Box 12 need to be articulated in the contractor's bid, on page 66, under 'Calendar for Preparation of the PGESE', the draft PGESE is to be submitted to EDC as employer of the contractor (*maitre d'ouvrage*) after award of the contract, within 30 days before the beginning of the works. Yet, for the activities of the PGESE, the contractor is to mobilise a team of recognised specialists in environmental management, supplying CVs and an outline structure of the proposed environmental team. This (one key informant said) will have to be included in each short-listed contractor's bid, together with a bid price for the PGESE as a whole. Where a company bidding for the contractor's role does not have, within its own staff, the requisite specialist environmental and social skills, it will need to include those skills within its bid by identifying and engaging appropriate sub-contractors[55].

### 3.2.4 National laws/policies

As noted in section 2.1.1 and Annex 2, policies of international organisations, such as the Safeguard Policies of the World Bank, are complementary to national laws and regulations. What this means is illustrated in this Cameroon case - see below in this sub-section.

In the draft final report of the Environmental and Social Plan of July 2010 (GoC, 2010), the GoC refers to the national laws, regulations and policies which are cited as applying to the LPHP (*cadre juridique, réglementaire et de politique sectorielle*) (pages 16-25) before the Safeguard Policies of the World Bank.

[53] According to information provided during the key informant interviews.
[54] The contractor's obligations include compliance with the policies of the World Bank on Health and Security (p.66) as well as the Bank's Safeguard Policies.
[55] The question arises as to how far companies whose practice focuses on laying concrete and steel, and installing turbines, are equipped to judge competency in the range of environmental and social issues raised by the LPHP - see the scope of those in section 3.3.

The 1996 Environmental Management Law is cited, followed by a list of other laws on environmental matters (forests, fauna, fisheries, water) and, for example, on expropriation of property in the public interest (*pour cause d'utilité publique*) and measures for payment of compensation (*modalités d'indemnisation*).

The role of environmental regulator in Cameroon was, as noted above, assigned to the Ministry of Environment and Nature Protection-MINEP, since it was established in 2004, with a mandate to design, coordinate and monitor Cameroon's environment policy.

A decree defining the modalities for conducting environmental assessments was adopted in February 2005. In the context of large infrastructure investments, MINEP must provide investors and promoters with regulatory services, including: (i) the review and clearance of ToRs for the preparation of environmental assessments and audits, (ii) the review of these assessments and audits, and (iii) the monitoring and control of environmental management plans-EMPs arising from these assessments and audits[56].

The World Bank notes in the PAD to the PReCesse project "the absence of sectoral guidelines for the electricity, mining and transport[57] sectors" (World Bank, 2008a, p.5). This corresponds with the observation made earlier in the present report (section 2.2.2) that there rarely exists at national level a set of guidelines equivalent to the WCD, or the other four internationally-published policies which are reviewed in Section 2 of this report. As a consequence, the World Bank comments, "the substance of the [national] EA process and of environmental enforcement is greatly reduced".

The MINEP has produced a short information document, dated April 2010, which sets out, in 15 pages, the "Procedure for the Conduct and Approval of Environmental Impact Assessments and Environmental Audits" (*Procedure de Réalisation et d'Approbation des Etudes d'Impact et Audits Environnementaux*").

A key step in the EIA procedure is the public hearings (*audiences publiques*) organised by the MINEP (at the expense of the project promoter) for presentation to the public of environmental impact assessment reports (part II.1.5 of the brochure). Several persons consulted during the present study referred to the short times available for reading and commenting on EIA reports at this public hearings stage. While the stated intent is to collect the "opinions, observations and other memos of the public" (*recueillir les avis, observations et autres memoires du public*), the impression among CSOs is that the letter of the EIA process is more honoured than the spirit: they doubt the interest, generally, of representatives of the GoC in hearing the views of the public, especially where those views do not accord with the position of government, or where voices are raised in challenge of points in the EIAs[58]. For many CSOs, the EIA process has, to-date, proved to be disappointing: although the opening via the public hearings of an 'invited space' (to use the terminology presented in Box 5 in section 2.4 above) for discussion of infrastructure projects is a positive step, **that invited space for participation is, the CSOs perceive, substantially confined.**

In the PAD to the PReCesse project, it is noted that: "A fundamental issue ... is the need to give much greater priority to the management of the *social* impacts of large infrastructure projects" (emphasis added). For example, the 2005 EA Decree does not detail requirements regarding inter alia land acquisition leading to involuntary resettlement of populations, impacts on the health of on-site populations, and impacts on physical cultural resources. "… when it comes to projects financed by the World Bank, the social safeguard policies of the lender are applied because national regulations do not

[56] The monitoring and control of industrial plants is the responsibility of a corps of inspectors within the Ministry of Industry.
[57] The petroleum sector has draft guidelines waiting for approval.
[58] Another key informant cited, as a contrary indication of the GoC's diligence, the "extensive consultations that took place on the first EIA for the LPHP in 2005 and MinEP's 2005 request for further work on the EIA" noted in Footnote 53 above.

exist or are incomplete (World Bank, 2008a, para 80, p.19). The existing regulatory framework will need to be strengthened.

In summary, since the 1996 Environmental Management Law introduced the legal framework, the practice of environmental impact assessment in Cameroon has begun to evolve, with EIA becoming part of institutional practice. The prevailing impression, however, obtained from the key informant interviews is that, in relation to the LPHP, the driver for preparation of the project has been the Safeguard Policies of the World Bank, more than the national regulations for EIA. According to this view, while the national rules on EIA exist, as yet they offer a weaker jurisdiction.

As to the extent of dialogue between government and civil society around EIAs relating to large infrastructure projects, there was a difference of view expressed by the key informants. One person consulted pointed to the workshops organised with local people who will be affected by the LPHP, as well as meetings with CSOs around the launch/submission of project studies. Representatives of CSOs consulted during this study considered that the extent of dialogue between government and civil society around EIAs relating to large infrastructure projects has to-date been limited. This issue is discussed further in section 3.4 in relation to the role of CSOs.

The PID for the LPHP noted (World Bank, 2009a, 2nd page) that Cameroon ranked low (146 out of 180 countries) in Transparency International's 2009 corruption perception index. The World Bank is supporting the GoC in public finance management reforms, including procurement procedures (ibid).

### 3.3 Environmental and social aspects; stakeholder engagement

**As to the approach adopted by the GoC in relation to preparation of the LPHP, under the supervision and with the support of the World Bank, the following points emerge from the key informant interviews and the documentation consulted during the present study[59].**

- Options assessment:

Under the World Bank's Safeguard Policies, as noted in section 2.1.2, the requirement is to assess 'project alternatives' (including the 'no project' alternative) and 'alternative project designs'. The primary function of the LPHP is large scale water storage for regulation of flows in the Sanaga River, so as to provide an improved guaranteed water flow of the Sanaga river, especially during the dry season for existing *Song-Loulou* and *Edéa* power plants and future hydropower plants that can only be built after the LPHP has been constructed. The aim of the LPHP is to access 6,000 MW of hydropower generation on the Sanaga river, as part of an overall hydropower potential of Cameroon (estimated by GoC at 12,000 MW). The PID notes (based on studies funded by the World Bank[60]) that "comprehensive economic analysis shows that water from the next project alternative, a combination of several smaller retaining dams, would cost nearly twice as much per cubic metre of water stored as that from the LPHP" (World Bank, 2009a, 6th page). As to the no-project alternative, the need for the LPHP has been clearly placed in national strategy by the GoC because of the current "insufficiencies in electricity supply which have disrupted the lives of households and constituted a brake on the economic growth of the country since 2001" (DSCE, p.55).

[59] Using the same headings as in Section 2 and Annex 2.

[60] E.g. the 2006 study by IDC/EDF/SOGREAH/BDS for the MinEE. « *L'ouvrage de Lom Pangar a un coût relatif faible en terme de volume stocké. … De par sa taille, le barrage de Lom Pangar semble incontournable pour une amélioration significative de la capacité de régularisation de la Sanaga* » (p.47).

According to the national Strategy for Growth and Employment, the DSCE was drawn up by the GoC with 'participatory consultations' with the public ("*populations à la base*") (p.10 and 12) which collected views on the progress made under the first PRSP and their priorities needs/aspirations for development. The isolation and marginalisation *(enclavement*) of many communities, in terms of roads, electricity infrastructure causing frequent unannounced power cuts *(coupures intempestatives et régulières de courant électrique*), and information/communication facilities, was highlighted among other problems (such as lack of access to water supply, agricultural inputs, teachers/educations, medicines etc.).

The PID notes that the LPHP is a priority project in the GoC's development strategy (the DSCE) which is supported by the World Bank's Country Assistance Strategy 2010-2013 for Cameroon (ibid, 5th page).

- Environmental and social assessment.

The scope of environmental and social issues relating to the LPHP, and the measures proposed for managing the impacts (*mesures d'atténuation recommandées*), as set out in the July 2010 draft of the final report of Environmental and Social Management Plan, are summarised in **Box 13**.:-

- each of the risks noted by the World Bank as arising in the case of the LPHP (section 3.2.1) are referred to in this draft ESMP. The draft presents, however, more of an itemised list (of bullets) than an elaborated description of the mitigation measures required. For this to become a realisable action plan, most of the items will require to be expressed at greater length, in a series of practical steps, (some measures are noted as being under/subject to study);

- the impacts which the plan proposes to address go beyond the immediate area of project influence, to include, e.g. downstream water quantity and quality issues;

- the 'critical natural habitat' of Deng Deng is to be protected within the recently-created national park. As the Wildlife Conservation Society-WCS explained[61], the boundaries of the national park have been drawn so as to ensure that there are no villages located within the new park, in accordance with this classification of protected area, with small buffer zones around each of the 4/5 villages adjoining the park studies (ibid)[62];

- the persons affected by the project are to be identified, although the existence of socio-economic surveys of land, assets, livelihoods and standards of living is not mentioned; so, for example, health centres are to be provided for, but there is no statement of existing health conditions. There is no specific reference in this draft ESMP to vulnerable groups or gender issues.

[61] Source: key informant interview.
[62] 3,940 hectares were thus 'lost' to the protected area, but, pragmatically, observes WCS, there was no point in including these areas inhabited by human settlements.

**Box 13. Measures for management of environmental and social impacts of the LPHP**

Environmental
- Creation of *Deng Deng* national park to ensure survival of large primates, based on a biodiversity conservation programme carried out in collaboration with neighbouring villages, including eco-guards.
- Filling of reservoir so as to limit methane emissions from decomposition of forest vegetation, including possible exploitation of timber (subject of detailed study).
- Limitations on hunting for bush meat.
- Forest management plan, e.g. to compensate for loss of non-timber forest products in future reservoir area.
- Monitoring of water quality, upstream and downstream of the dam, including re-oxygenation.
- Inventory and monitoring of aquatic biodiversity; monitoring of invasive species.
- Environmental flows: proposals for maintaining satisfactory hydrological conditions in the River Sanaga downstream of the dam.
- Environmental management of construction works/site (waste management, pollution control, landscaping).

Social
- Inventory (*fichier nominatif*) of persons to be displaced by the project.
- Resettlement action plan (RAP) to be drawn up, including compensation for displacement and replacement of agricultural and pastoral areas with technical support, as well as loss of hunting grounds.
- Support to development initiatives (e.g. agriculture) for displaced persons.
- Construction of a bridge for crossing the widened River Lom at *Touraké* including for pastoralists (see Map 2).
- Development of a programme for sustainable fisheries in the reservoir of the dam.
- Compensation for loss/displacement of cultural sites (graves and other sacred places).
- Labour, health and safety conditions for construction workers and local people; opportunities for local workers; improvement of local water and sanitation access; measures to reduce vectors of malaria and other illnesses.
- Dam safety measures (e.g. emergency response).

Source: GoC 2010: measures listed in draft final report of Environmental and Social Management Plan, July 2010, p. 41-46.

- Stakeholder engagement

The project developer, EDC (*maitre d'ouvrage*), is required to draw up a communication plan for consultation (*communication sociale*) with project-affected populations, including local elected leaders and local officials as well as customary authorities. In this stakeholder engagement, EDC should listen to the comments and suggestion of the different interlocutors (*écouter les remarques et les suggestions*), with the objective of reaching the greatest degree of agreement (*les meilleurs consensus*) on solutions which are sustainable (the draft final report of the ESMP, p.50). By way of response, the EDC has developed a communication strategy for the LPHP (with the assistance of World Bank funding for a communication consultant), and has - one key informant has told - organised consultations with project-affected communities[63]. Earlier in 2010, thematic sessions with civil society in Yaoundé were carried out on four occasions and, according to EDC, these exchanges are programmed to continue, with increased frequency. The extent to which EDC is currently perceived to be in a listening mode is considered in section 3.4.

As noted above, according to the key informant interviews conducted by the present study, in the case of the LPHP no 'indigenous peoples' are present among the project-affected communities.

[63] These sessions have taken place in late 2010, after the study visit to Yaoundé, so it has not been possible to pose questions to key informants on these.

- Re-settlement and compensation

The social measures referred to in the draft final ESMP (in Box 13), include reference to the Resettlement Action Plan or 'RAP' (in French, 'PIR': *Plan d'Indemnisation et de Réinsertion*). At the time of carrying out this study, the Resettlement Action Plan was in the process of being drafted. According to the PID, the estimated number of persons in need of resettlement as a result of the LPHP will be 905, from 255 households (World Bank, 2009a, 9th page).

The RAP will include compensation for loss of agricultural land and substitution (*relocalisation*) of agricultural and pastoral areas, with technical support, as well as loss of hunting grounds (ibid, p.45). **This issue of compensation is important.** The experience of the compensation process relating to land-owners/occupiers displaced by the Chad-Cameroon Pipeline revealed that the compensation rates initially offered by the GoC, on the basis of the tariff (*barème*) based on a 2003 regulation, were so low as to be far from providing realistic levels of compensation for losses of cultivated surfaces on the ground. The Foundation in Yaoundé called FOCARFE (*Fondation Camerounaise d'Actions Rationalisées et de Formation sur l'Environnement*) has presented in its monthly review of August 2010 a comparison of the compensation rates payable according to the *barème* and the greater amounts it advises are required to compensate for the real consequences of loss of agricultural land, e.g. for cultivations of mango and pineapple, greater by a factor of 2, and for palm, orange and lemon trees, by a factor of 7 to 10 times (FOCARFE, 2010).

- Benefit-sharing

The construction of the 30 MW hydroelectric plant at the foot of the Lom Pangar dam will offer, in principle, the opportunity to provide benefits from the LPHP in terms of electrification of towns and villages neighbouring Lom Pangar and along the 120 km transmission route to the Eastern Electricity Network at Bertoua. Questions arise, however, in the following respects:-

- electrification of the region: the PID states that the power plant "will allow to connect households which currently do not have access to electricity…" (World Bank, 2009a, 5th page), as part of "the GoC's effort to increase sustainable access to low-cost electricity in Cameroon's Eastern Region". At present, however, the intention as to *who* exactly will benefit is currently undefined and studies for that purpose are to be carried out[64]. **The precise number will need to be identified and the number of first household connections with low-cost supply clearly defined[65].**

- multi-use: as discussed in Acreman et al (2009), a key aspect of large dams is their '**hydrological flexibility'**, for energy supply and water management. As the 2006 IDC/EDF/SOGREAH/BDS study notes (p.103), the goal is to achieve optimal utilisation of the water stored in reservoirs. The principal challenge, in the face of future uncertainty (e.g. in the context of climate change), is to determine if there is greater utility in using available water for generation of electrical power in the short term, or to store the water for use at a later date for a possible greater return. The following extract from that 2006 study questions how the power plant at the foot of the Lom Pangar dam will be operated:-

> "The size of the power plant at the foot of the Lom Pangar dam needs to be considered within the long term development perspective of not disturbing the management of the river. The building of a power plant of 25 (or 50) MW [since fixed at 30 MW] to provide electricity supply to the Eastern region only *could be constraining* for the existing and future installations on the river Sanaga. A study needs to be carried out justifying its development in the short and medium terms

[64] During the key informant interviews conducted during the present study, the number of beneficiary villages was variously stated to be 50 or 100.

[65] It is the AfDB who is working on the scope of the direct connections from the *Lom Pangar Power House*. For co-financing of the AfDB project, the Rural Energy Fund, supported by the World Bank, is apparently available which will allow increase in the scope of that project (source: World Bank). Hence, explained the donors, the exact number of villages to be connected has yet to be determined by studies, but will be.

within two fundamental scenarios, either an inter-connection with the North-South link or isolated supply of the eastern network" (emphasis added).[66]

- Experts

Under the Safeguard Policies of the World Bank, for Category A projects the Borrower is to retain independent environmental assessment experts or firms ("not affiliated with the project") to carry out the EA. For the LPHP, a panel of three independent experts (one *Camerounais* and two international) existed prior to the involvement of the World Bank, and led a first phase of studies on environmental, social and health aspects of the LPHP, funded by AFD from 2003 to 2005. As noted in section 3.2.1, the second phase of studies (2006-2008) included further analysis of environmental, social and health aspects, carried out by a panel of three experts, again (the same *Camerounais* specialist on health, an international social anthropologist and a further international specialist on environment), plus technical studies on hydrology, geology of dams and infrastructure aspects, conducted by three other international specialists.

As to the role of facilitator of the panel of experts carried out by IUCN during the first two phases of studies on the LPHP, from 2004 until March 2008, the view of the actors consulted during the present research (those who were involved during that period) is that the facilitation role was useful, but not essential (*utile, mais pas indispensable*). For a future facilitator to be retained, the case would have to be made for the value-added of such an arrangement in terms of: (i) enhanced independence of experts, (ii) rapid flow and ready availability of information (on-line), and (iii) organisation of thematic studies into a digestible whole. By the final stage of complementary studies after March 2008, the experts' position was sufficiently well established for each of them to have independence individually, in relation to the project developer, EDC. EDC, it states itself, "does not censure the experts" and EDC considered, when reviewing IUCN's proposal, that it was not necessary to incur the cost of re-engaging IUCN as an intermediary (noted by one key informant as being "substantial").

The approach to preparation of the LPHP is broad. The combination of capacity-building activities supported by the World Bank (through PReCesse and the Energy Sector Development project) and the scope - on paper - of the July 2010 draft final report of the Environmental and Social Management Plan is such as to address a wide range of the issues of 'extended' hydropower projects, as portrayed in Figure 2 in section 1.4 of the present report[67].

**So, subject to the terms of the final ESMP and the Resettlement Action Plan, the scope of *preparation* for the environmental and social aspects of the LPHP, on paper, is good.** Exactly how far the capacity-building and studies/reports are translated into tangible measures during the implementation/operation phases of the project is a further issue, as discussed in Section 3.5.

[66] *« Le dimensionnement de l'usine de pied de Lom Pangar doit être pensé dans un développement de long terme pour ne pas perturber la gestion de la Sanaga. La réalisation d'une centrale de 25 (ou 50) MW dédiée uniquement à la seule région de l'Est pourrait être contraignante pour les ouvrages existants et futurs de la Sanaga. Une étude devra être menée justifiant son développement à moyen et long terme dans les deux hypothèses fondamentales, soit d'une interconnexion avec la liaison Nord-Sud, soit d'une alimentation isolée du réseau Est ».*

[67] Out of, for example, the 23 'sustainability topics' listed for a 'Preparation' stage assessment under the Hydropower Sustainability Assessment Protocol, the scope - on paper - of the July 2010 draft final report of the Environmental and Social Management Plan for the LPHP is such as to address at least the following 16 Protocol sustainability topics: 'communications and consultation', 'governance', 'demonstrated fit & strategic need', 'environmental and social impact assessment and management', 'hydrological resource', 'infrastructure safety', project benefits, 'economic viability', 'project affected communities and livelihoods', 'resettlement', 'labour and working conditions', 'cultural heritage', 'public health', 'biodiversity and invasive species', 'water quality' and 'reservoir planning', plus the 'financial viability' which will be established as part of the preparation of the core commercial/financial transaction.

### 3.4 Nature and extent of space for participation: role of CSOs

The PAD for the PreCesse project emphasised (p.6) "the need to closely involve civil society organisations (CSOs) in the management of environmental and social issues associated with large infrastructure projects. Transparent information sharing is critical to ensure good governance in the design, construction and operation of large infrastructure projects".

The prevailing impression obtained from the key informant interviews with civil society in Cameroon is that, although the advent of environmental assessment laws has been a positive step, with some evolution occurring in institutional practice, the extent of public debate in Cameroon on large projects is still limited in terms of movement (as per Box 5 of the present report) from closed spaces to more open ones where stakeholders are invited to participate in dialogue by government institutions and public agencies. Such 'invited spaces' are currently perceived to be short-term 'windows' of consultation. As noted above, at the 'public hearings' on EIA reports, for example, opportunity to comment is limited.

As for the developer of the LPHP, the EDC affirms its willingness, in principle, to dialogue with stakeholders, but, in terms of the manner in which it is approaching engagement with populations likely to be affected by the LPHP, the key informant interviews raised doubts. The impression is that EDC is inclined to talk *at*, rather than with, stakeholders and that its predominant mindset is that of conducting a *marketing* exercise promoting the project and its benefits, more than listening to expression of local needs. A group of Yaoundé-based NGOs has recently complained that EDC is slow to respond to their requests for dialogue. EDC, for its part, is concerned that some NGOs are looking less to contribute constructively in debate than cause trouble, for example, according to EDC, actively provoking fears in the minds of stakeholders in the project area. In addition, EDC is discouraged by the fact that the last meeting they held with NGOs in their offices in July 2010 focused solely on the financial mechanism of NGO participation in the project. On either side, there seems to be little confidence that dialogue is in the common interest of both government and civil society. So, in the language of participation in Box 5, there are currently few 'created' spaces for participation. As requested by the World Bank, EDC is asked to increase the creation of such spaces with the help of its communication consultant (as noted above, funded by the World Bank)[68].

Further evolution of environmental impact assessment will depend on the GoC's willingness to open up to the possibility of meaningful debate on the environmental and social impacts of large dams and infrastructure projects. This will depend in turn on the political context in Cameroon and the extent to which deliberative processes on policy-making issues beyond the closed spaces of government are actively encouraged[69].

As to CSOs mobilising to 'claim' space for participation (Box 5), there are a number of roles being carried out by NGOs.

Several NGOs have assumed a 'watchdog' role in terms of monitoring compliance by EDC and the GoC against international and national policies on large dams and infrastructure projects. The PAD for the PReCesse project noted that the CSOs "have a critical role to play regarding the compliance of the project with national and international environmental and social standards" (p.20).

[68] The World Bank comments that the PReCesse project is also designed to help create space for participation.

[69] The PID for the Energy Sector Development project refers to the benefit that would come from "a regular consultation platform between government, civil society, NGOs, local communities and project affected people, and donors" (World Bank, 2008, 10th page).

The field role of the Wildlife Conservation Society-WCS in relation to the Deng Deng protected area has been noted above. This has enabled the putting into place of a key component of the LPHP, without which the preparation phase would have been incomplete.

Another example is the recent project for awareness-raising of populations on issues arising as a result of a major project. The awareness-raising was led by CARFAD - the *Centre Africain de Recherches* Forestières Appliquées et du Développement, funded by the AfDB and the Ministère des Travaux *Publics*. Local 'animators' (*animateurs locaux*) were selected (during an initial identification mission) and they and existing women's associations were trained, in three sessions in June and July 2010, to communicate messages on health, safety and environment issues to communities living alongside the route of the *Numba-Bachuo-Akagbe* road project in the South-West Region (CARFAD, 2010). The project provided bicycles to the trained animators for them to visit local communities and communicate to village members, using posters and leaflets designed by the project (and also distributing condoms as protection against HIV/AIDS).

In 2004, CARFAD also worked with members of villages located near the gorilla sanctuary of *Mengamé*, in the South of Cameroon, in support to development of alternative activities (*appui au développement des alternatives*): poultry and pig farming as an alternative to hunting for bush-meat.

The role of IUCN in relation to the experts' studies (section 3.3) was criticised by some NGOs as *juge et partie* (judge and plaintiff), without acceptance of the utility of the neutral facilitating role.

Among NGOs, there seems to be a lack of interest in coordinating these roles, recognising how they are different, and accepting the usefulness of their being carried out contemporaneously. Not all roles are instantly interchangeable which means they may often be best carried out by different organisations in parallel. Where, for example, an NGO conducts a sustained campaign of advocacy which is critical of government, that positioning may not be compatible, at any one time, with other more collaborative roles, e.g. provision by an NGO of services in lieu of government, or carrying out of activities in coordination with public agencies.

As to the involvement of the World Bank, some NGO representatives seem to disregard the status of the Safeguard Policies of the World Bank as a code of practice for preparing the LPHP at 'middle floor' level in Figure 3. In so doing, they fail to take account of the diversity in policy and practice on decision-making around large dams which has been reviewed in Section 2 of the present report, including existence of the 'lower floor' of 'Other Practice' described in section 2.3 and portrayed in Figure 3. As noted in section 3.1.5., for the LPHP, the possible involvement of other sources of finance, from e.g. China, would open up the issue of which kind of environmental and social practice would apply to the LPHP. That practice could, potentially, be (much) inferior to the standard achievable by following the Safeguard Policies and monitoring them into the implementation phase of the LPHP.

## 3.5 Conclusions and recommendations - from the Cameroon case study

### 3.5.1 Conclusions

**The following are findings and conclusions on the approach to preparation of the *Lom Pangar Hydropower Project* (LPHP), arising from the present study:-**

- The financing proposed to-date for the LPHP comes from a 'traditional' group of multi-lateral development banks and bilateral donors. The approach to decision-making applied to the project is following the Safeguard Policies of the World Bank, as the leader of the donor group (see section 2.1 and Annex 2 of the present report). In relation to the LPHP, the Safeguard Policies, which World Bank staff are applying diligently to preparation of the project, constitute the *primary driver* of evolution of practice.

- A *secondary, weaker driver* of evolution of the approach in Cameroon to large infrastructure projects such as the LPHP is the regulatory framework applying to environmental impact assessments (EIAs), introduced into national law in recent years. EIAs are now part of formal institutional practice, at least according to the 'letter' of the law, with the 'spirit' of the law on EIAs, it seems, less absorbed, as yet, into government culture and official mindsets.

- The World Bank is providing funds to support capacity-building of the Ministry of the Environment and Nature Protection-MINEP in order to reinforce the central coordination role of MINEP in EIAs, for greater recognition and credibility vis-à-vis other government departments, as well as civil society, the private sector and development partners.

- The anticipated environmental and social impacts of the LPHP have been listed in the draft final report of the Environmental and Social Management Plan (ESMP) of July 2010. The creation in March 2010 of the *Deng Deng* national park located near the project site is designed, for example, to avoid conversion of critical natural habitat of large primates. The resettlement action plan (RAP) and rural development plan, which are to be drawn up to manage the displacement and 'relocalisation' of project-affected people, will need to take account of the livelihoods and living standards of both farmers and pastoralists (see section 3.5.2). Other environmental and social aspects are, meanwhile, still being reviewed, e.g. the mode of regulation of downstream hydrological flows, and the best means of reducing methane emissions from decomposition of forest vegetation upon filling of the dam reservoir (see how in section 3.5.2).

- The procedure for EIAs includes opportunity for involvement of civil society organisations (CSOs), but the 'invited' space for participation has to-date been limited, with doubts expressed as to the readiness of public institutions and agencies to listen to the views of civil society, especially where voices are raised challenging Government of Cameroon (GoC) proposals. There seems to be little confidence, on either side, that actively creating space for dialogue between government and civil society is in the common interest.

- In the key informant interviews conducted during this study, the recommendations of the World Commission on Dams-WCD were little mentioned and, despite national rules evolving towards supporting strengthened EIA procedures, the aspiration of meeting the demands of the WCD would represent, currently, a leap forward as compared with practice to-date in Cameroon, which reflects the current political context characterized generally by a lack of deliberative processes on policy-making beyond the closed spaces of government. That leap is likely to be achievable only by progressive

steps, over time, as the political context in the country evolves - in WCD language, addressing 'imbalances of political power'.

- Several key informants expressed the view that a key driver of the acceptance, to-date, by the GoC of environmental and social (and other) safeguards is reputational. According to this analysis, the GoC is keen to show that it is committed and capable of carrying out large infrastructure projects in a sustainable manner, and this has included following the Safeguard Policies of the World Bank in the preparation phase of the LPHP (see below in section 3.5.2).

- The traditional donor group is in discussion with the GoC with a view to concluding the terms of financing of the LPHP, with confidence expressed by those donors that the finance package will be confirmed (*que le dossier sera bouclé*), as per section 3.1.4. Until, however, the formal approvals of banks and donors are obtained and the acceptance of the GoC is confirmed, the possibility of financing of the LPHP from an alternative source, e.g. China, remains. In that eventuality, the issue of the approach to decision-making applying to the project, including environmental and social aspects and stakeholder engagement, would be re-opened. While some Chinese banks and developers are thought to be preparing environmental policies (section 2.2.1), other Chinese actors are reported as still disregarding environmental and social aspects of infrastructure projects. There would be a risk that the evolving, but still relatively weak national jurisdiction for EIA currently available in Cameroon, would combine with low standards of Chinese or other alternative financiers - i.e. under 'Other Practice' as per Figure 3 in section 2.3 - to put in doubt the environmental and social safeguards which are in the process of preparation for the LPHP.

- As noted above, the environmental and social safeguards currently being constructed for the LPHP by the GoC, under the support/supervision of the World Bank, are subject to elaboration in the final version of the ESMP, as well as drawing up of the resettlement action plan and rural development component of the project. The draft final report of the ESMP dated July 2010 suggests that the scope of the LPHP will go beyond the core commercial/financial transaction as shown in Figure 1 of section 1.4 of the present report, to create an extended project including environmental and social components portrayed in Figure 2 in that section. The Project Appraisal Document for the LPHP, currently being prepared by the World Bank in discussion with the GoC, will need to define *all* the project components *clearly*, to remove vagueness and open-endedness - 'grey areas' (section 2.5).

- Indeed, the range of components of hydropower and other large infrastructure projects needs to be clearly defined, in order for projects to be costed/priced. The cost of the ESMP and the 'communal development' components of the project as estimated by the World Bank (in November 2009) is US$ 15-20 million and US$ 15 million respectively. The size of the finalised funding package will reveal the degree of willingness on the part of the GoC to incur the cost of these components, and the extent of real integration of the environmental and social aspects of the project, alongside the technical.

- The practice of the International Development Association-IDA of the World Bank allows for inclusion in IDA financing of non-reimbursable *grant* elements alongside loans at concessionary rates. The offer of an IDA grant explicitly targeted to financing the ESMP and the communal development component of the LPHP would potentially increase the attractiveness to the GoC of the World Bank funding.

- An additional element of the LPHP, one key informant explained, is the proposed introduction of payment for water rights by the users of the water of the Sanaga river - currently only AES Sonel, but, over time, it is anticipated, other hydropower producers. The proposal is that sale of water rights will increase the project benefits available for sharing, as well as "improving the sustainability of financing of the environmental and social management plan-ESMP (e.g. the operations of the *Deng Deng* National Park), reducing dependence on external development assistance and GoC support".

3.5.2 Recommendations

**The following are observations and recommendations for the continued preparation of the LPHP, and continuance of the project into its implementation phase:-**

- In order to translate the impact mitigation measures proposed in the ESMP and the rural development plan into tangible mechanisms and actions in the implementation phase, the sustained commitment of the World Bank and other donors, as well as the GoC, will be required. One person consulted during this study commented that 'implementation is the weak spot of many complex infrastructure projects' (*le ventre mou des grands projets*).

- **A particular test of project implementation will be the *compensation* made available to the c.900 persons who will be displaced by the LPHP.** CSOs will be monitoring the nature and levels of compensation offered by the GoC, after the experience of the project for the Chad-Cameroon pipeline which illustrated how the rates provided for under Cameroon regulations are too low to provide realistic levels of compensation for loss of land and cultivations. The gap between national and international compensation standards has been recognised by the World Bank[70].

- As an example of measures to avoid/mitigate environmental impacts, the practicalities of protection of the Deng Deng reserve include guarding of its boundaries which are located close to the future construction site, and management of migration of gorillas to forest zones beyond the new national park[71].

- The construction of the 30 MW hydroelectric plant at the foot of the Lom Pangar dam offers the opportunity to provide benefits from the LPHP in terms of electrification of towns and villages neighbouring Lom Pangar and along the 120 km transmission route to the Eastern Electricity Network at Bertoua. **To-date, the determination of *who* exactly will benefit has not been made.** The number of beneficiary villages will need to be clearly defined, as well as the first-time household connections with low-cost supply specified.

- National NGOs carry out different roles, e.g. of 'watchdog', or of manager of field projects, or of providers of awareness-raising or support to development. It is recommended that they discuss how to improve coordination between themselves, as a means of strengthening their contribution to debate and action around large dam and infrastructure projects in Cameroon. Currently, the NGOs combine, for example, in advocacy - including expressing vocal criticism of the GoC - but some NGOs do not appear to recognise how the range of roles which NGOs are playing are complementary, i.e. **civil society may also evolve and develop its practice.**

- Some NGOs are quick to point to what they perceive to be 'lip service' paid by traditional donors to environmental and social safeguards. In the context of the LPHP, NGOs can usefully support the continued application to the project of the Safeguard Policies of the World Bank, or their equivalent, and as a standard of practice at 'middle floor' level in Figure 3 in section 2.3 of the present report - given that the Safeguard Policies have been the leading driver of evolution. As noted above in section 3.5.1, involvement of other sources of finance for the LPHP could potentially result - as explained in section 2.3, where the approaches of some financiers and other actors are not set out in published sets of policies - in environmental and social practices (much) inferior to the standard achievable by

[70] Amidst the constraints operating on the MINEP, the PAD to the PReCesse project notes the following: in national law and regulations "there is a huge gap between national compensation standards and international compensation standards" (World Bank 2008a, p.5). World Bank policies require "land for land" compensation, as well as individual and communal compensation. A differentiated analysis will be required, including setting clear benchmarks in terms of the standards of living of the project-affected populations.

[71] The Wildlife Conservation Society questions the appropriateness, for example, of the proposal to fence the boundary of the Deng Deng park (with a *clôture*).

following the Safeguard Policies and by monitoring those published policies into the implementation phase of the LPHP.

- Amid the diversity of practice applying to large dam projects, the LPHP is currently - subject to final plans and to carrying out of those plans in the implementation phase - heading towards a place on the 'middle floor' of good practice, as portrayed in Figure 3. As commented one key informant, the previous *Song Loulou* dam, the most recent in Cameroon, built in the 1980s, had been constructed with "no application of international standards".

- Confirming the middle level of good practice as the standard applying to the LPHP, including strengthening national practice in Cameroon, would be a first important step towards achieving the environmental and social sustainability - as well as financial/economic and technical viability - of the many infrastructure projects planned in Cameroon, according to the stated priorities in the national growth strategy (the DSCE, *Document de Stratégie pour la Croissance et l'Emploi*).

## 4. Senegal case study

This section considers the Charter of the Waters of the River Senegal (*la Charte des Eaux du Fleuve Sénégal*) whose purpose is to promote dialogue with water users and civil society organisations (CSOs) and participation in decision-making on the management of the river and its waters. The focus of the present study is international, at basin level, as well as national/sub-national - in Senegal, one of the States which is party to the Charter.

### 4.1 Background/context

4.1.1 The Senegal River basin

The *Senegal* River is the second longest river in West Africa, approximately 1,800 kilometres. Its hydro-graphic basin - see **Map 3** - covers about 300,000 square kilometres shared by the four countries: Guinea 11%, Mail 53%, Mauretania 26% and Senegal 10%. The river's source is in Mali and its three principal tributaries, the *Bafing*, *Bakoye* and *Faleme*, originate in the *Fouta Djallon* mountains of Guinea, together producing over 80% of its flow. The Bafing alone contributes about half of the river's flow at *Bakel*, near the intersection of the borders of Mali, Mauretania and Senegal. After running through western Mali, the river forms the border between Mauretania and Senegal, before reaching the Atlantic Ocean near St. Louis in northern Senegal. The region has distinct dry and rainy seasons, with flood sometimes occurring from June/July to October/November (Padt and Sanchez forthcoming, citing Finger and Teodoru, 2003). The Fouta Djallon mountains receive c. 2,000 millimetres of rainfall annually, as compared with rarely more than 500 mm in the valley and delta, with less in drought years.

**Map 3. Hydro-graphic basin of the Senegal River** (source: OMVS)

The population of the Senegal river basin is estimated at 3.5 million people (Finger and Teodoru, 2003), comprising different ethnic groups: *Peuls*, *Toucouleurs*, *Malinkes*, *Soninkes*, *Bambaras*, *Wolofs* and *Moors*. Their principal rural livelihoods, based on farming, livestock and fishing, depend on the river, although there is considerable migration to cities (ibid). In the river valley, traditional flood recession agriculture exists alongside recent developments in irrigation. Important wetlands in the delta have international status as Ramsar sites, e.g. the *Diawling* national park in Mauretania (156 sq kms) and *Djoudj* national park (160 sq kms) in Senegal.

As regards the effects of climate change, a recent report of March 2010 (OMVS, 2010) notes that the periods of drought in the 1970s and 1990s had significant, lasting effects on the basin's ecosystems and the report then adds with regard to future possible effects of **climate change**:-

> "While the situation seems to have stabilised in the last decade, there is *uncertainty over evolution* of climatic conditions in the basin which is a cause of concern given the fragile state of food security in the sub-region and the fact that the majority of economic activities rely on natural resources (agriculture, cattle-rearing, fishing, and indirectly agro-industries) which are already degraded with doubts as to ecosystems' resilience in the face of future climate changes (p.19, emphasis added).

### 4.1.2 The river basin organisation: OMVS

The *Organisation pour la Mise en Valeur du Fleuve Sénégal* (OMVS) is the agency responsible for leading management of the Senegal River basin. The OMVS is an inter-governmental institution. Each of the four Senegal river Convention States - Senegal, Mali, Mauretania and Guinea[72] - designates its representatives to participate in the High Commission (*Haut Commissariat*) which is the international executive body of the OMVS, as well as the Permanent Water Commission (*Commission Permanente des Eaux*-CPE). The CPE defines the principles of, and procedures for, allotment of river water between member states and use sectors (UNESCO, 2003). The High Commission advises the Council of Ministers. Overall political authority is exercised by the Conference of Heads of State and Government (*Conférence des Chefs d'Etat et du Gouvernement*) (ibid).

Padt and Sanchez (forthcoming) highlight the "unusual power" regarding river management bestowed upon the OMVS by its founding Convention of 1972 and the subsequent 1978 Convention relating to the Legal Status of Jointly-Owned Structures[73], by which the member states relinquished to the OMVS their sovereign control over dams and hydraulic infrastructures.

The headquarters of the OMVS are located in Dakar, Senegal (and have been since its creation), with a presence also in each of the four countries.

The constitution of OMVS as an inter-governmental entity requires it to advance its policy agenda in four contracting States in which there is a different administrative and political culture. The consequence of this in terms of OMVS' decision-making is considered in section 4.4.1.

### 4.1.3 Dams and hydraulic infrastructure projects

The ***Manantali*** Dam on the River Bafing, 90 kms south-east of *Bafoulabé* in Mali located (as marked on Map 3) approximately 1,200 kms from the River Senegal's mouth, was constructed between 1982 and 1988, with a water storage capacity of over 10 billion m3. The purpose of the dam was to reduce the effects of extreme floods, generate electric power and store water in the wet season to augment dry season

[72] Guinea joined the OMVS as an observer in 1992 and has recently become a full partner.
[73] *Convention relative au statut juridique des ouvrages communs,* of 12th December, 1978.

flows for the benefit of irrigation and navigation (UNESCO, 2003). The power plant in Manantali has operated since September 2001 (ibid) and functions as the largest hydropower source in the sub-region[74].

The ***Diama*** dam, located 23 kms from St. Louis near the mouth of the Senegal River, on the Mauretania and Senegal border, was built between 1981 and 1986, and designed to block intrusion of seawater into the delta (particularly during drought years), as well as raise the water level upstream (within dykes along both banks) to allow areas of irrigation and facilitate navigation.

Under OMVS's supervision, the two dams are operated and maintained by, respectively, SOGEM-*Société de gestion du barrage de Manantali* and SOGED-*Société de gestion du barrage de Diama*.

The dams have primarily benefitted irrigation (UNDP/GEF, 2001), with "additional benefits" (ibid, p12) including creation of a fisheries resource in the Manantali reservoir. The dams and associated dykes on the flood plain have, however, brought about "major ecological changes in the floodplain" (ibid): reduction of the volume and duration of the annual floods, thereby affecting traditional flood-recession agriculture, and, in the case of the Diama dam, proliferation of aquatic plants which have impeded fishing and navigation and provided a habitat for vectors of waterborne diseases (malaria and bilharzia).

**After 2000, these negative environmental and social impacts were recognised and measures undertaken to address them agreed, retrospectively, in the programme called '*PASIE*'**- *Plan d'Attenuation et de Suivi des Impacts sur l'Environnement* (Environmental Impact Mitigation and Monitoring Programme), funded by a group of multilateral and bilateral donors, including the World Bank, the African Development Bank-AfDB and the French Global Environment Facility, with over US$ 17 million in total (ibid, p.10). The PASIE is further discussed in sections 4.3.2 and 4.4.1.

As for new hydraulic infrastructures, two projects on the River Senegal, north of Bafoulabé in Mali, are in different stages of preparation, with OMVS the developer (*maitre d'ouvrage*) in both cases:-

- the **Félou** project, a run-of-the-river scheme[75], is being constructed on the *Félou Falls*;
- the **Gouina** project: the hydropower potential of the river at the *Gouina Falls*, located c.80 kms south-east of *Kayes* (see Map 3), is being investigated.

Both these power plants are downstream of the Manantali dam and designed to apply the flow regulated by it. The stated total power potential of these two projects is thought to be in the region of 100 MW.

Both projects are funded by a group of traditional donors, for Félou led by the World Bank and the European Investment Bank-EIB , and for Gouina, the World Bank and the *Agence Francaise de Développement*-AFD. According to the website of the Infrastructure Trust Fund (ITF) of the European Union, after a first phase of studies on the technical feasibility, and the environmental and social impacts of the Gouina project, the EU, with a grant from the ITF, is funding further studies on the cumulative impacts of the Gouina and Félou projects and the existing Manantali dam, as well as social aspects of resettlement, and protection of the *Bagouko* forest[76]. In the key informant interviews for the present study, the High Commission of the OMVS stated that it is following the donors' requirements in terms of environmental and social studies and this was corroborated by other persons consulted. How far OMVS is motivated to implement an environmental and social policy without the influence of donors is considered in section 4.3.2.

[74] Despite producing power at a rate less than originally predicted, due to river flows lower than those based on hydrological data from 1950 to 1974 (UNESCO, 2003).

[75] Such schemes (*les "fils de l'eau*") have virtually no water storage capacity which means that the river flow passes almost immediately through the turbines.

[76] Source: http://www.eu-africa-infrastructure.

## 4.2 Participation of water users: policies and institutions

4.2.1 The Water Charter for the Senegal River

The Water Charter for the Senegal River (*la Charte des Eaux du Fleuve Sénégal*), signed in 2002 and since ratified by the contracting States (including subsequently Guinea[77]), has the same force in international law as a treaty or convention. The Charter is an example of a trans-boundary agreement for sharing of river waters, and promoting basin-wide cooperation as referred to in Strategic Priority 7 of the World Commission on Dams-WCD. Extracts from the Charter are set out in **Box 14.**

**Box 14. Extracts from the Water Charter for the Senegal River**

**Preamble**

... "Desirous of ... guaranteeing to each State and each user of the river reasonable and equitable benefit of utilisation of the waters of the river (*un avantage raisonnable et equitable de l'utilisation des eaux*)...;
Conscious of the vulnerability and scarcity of freshwater resources, as well as the importance of the functions those resources fulfil in economic, social and environmental terms;
Convinced that the River Senegal, an essential ecosystem for the pursuit of sustainable development in the riparian countries, is to be viewed taking into account the water cycle as a whole, as well as sectoral and inter-sectoral needs;
Considering that the sharing of water resources between users, the management and use should be carried out taking into account the objective of sustainable development, in associating the different actors in accomplishment of that objective: users, managers, decision-makers, developers and experts, in a holistic and integrated approach...".

**Articles of the Charter**

Article 2: The purpose of the Charter is to ... define the modalities for water sharing …, define the modalities for examination and approval of new projects for use of the waters of the river, or affecting the quality of the water (*nouveaux projets utilisateurs d'eau*) ... and to define the framework and modalities for participation by water users in decision-making on management (*définir le cadre et les modalités de participation des utilisateurs de l'eau dans la prise de décision de gestion*) of the water resources of the River Senegal.

Article 13: The riparian States will ensure that information relating to the state of the water of the river, the measures taken or planned to secure regular river flow, and the quality of the water is accessible to the public. The States and the High Commissariat shall in parallel ensure the education of riparian populations by promoting awareness-raising programmes (*programmes de sensibilisation*) for the ecologically rational utilisation of the waters of the river.

Source: http:/lafrique.free.fr/traits/omvs_200205.pdf (emphasis added).

The introductory Preamble refers to the sharing of use and benefits of the river's waters on an equitable basis (WCD, SP 5) and the importance of sustaining the river ecosystem (SP 4).

After the Preamble - the extracts first cited in Box 14 - the text of the Charter, in the articles which form the operative part of the document, is disappointing in the sense that the Charter provides, in Article 2 (cited in Box 14.), at a *future* date, for definition of the "modalities for participation by water users" in decision-making.

In other words, in this respect the Charter is a framework treaty[78] - like framework directives of the European Union, such as the Water Framework Directive - which requires each contracting State to pass national legislation in order for the obligations in the Charter to have legal effect in that country.

[77] Source: OMVS.
[78] Source: as confirmed by a key informant, Senegalese expert on legal aspects of water management.

So, for Article 2 of the Charter to become operative, modalities for participation must be defined by the national administrations in each ratifying State and set out in measures incorporated, in the Senegal case, in a law, decree or *arrêté*[79].

Under Article 7, water sharing is to be carried out in accordance with the principles declared in 'annexes' to the Charter. Key informant interviews, including the OMVS, confirmed that the annexes to the Charter are "not ready".

4.2.2 National laws/policies

In Senegal, no legislation, including no implementing decrees (*décrets d'application*) to bring the provisions of the Charter into effect, have to-date been passed, over 8 years after its signing.

The current law relating to water resources (*Code de l'Eau*) in Senegal dates back to 1981. Two recent laws have updated the national legal framework on water supply and sanitation, but the 1981 *Code* applying to management of water resources remains on the statute book, unchanged for over 25 years.

The effect is that the provisions of the 1981 law are outdated. For example, the *Code de l'Eau* does not set out the legal basis for integrated water resources management (IWRM). The references to water management refer to 'good management' (*bonne gestion*)[80], without any reference to 'integrated' management. Similarly, the terms 'participation' and 'awareness-raising' (*sensibilisation*) do not appear in the text of the law (nor 'education').

The ministry responsible for water resources in Senegal (the *Ministère de l'Habitat, de la Construction et de l'Hydraulique*) has recently begun, with financial support from the African Development Bank-AfDB, the process of review and revision of the 1981 law. The report of the Senegalese consultants working on this review notes that:

> "The *Code de l'Eau* of 1981 predates the international conferences which set out the principles of IWRM which means that important steps are required to take account effectively of IWRM in water law in Senegal" (IDEV-ci & COWI, 2010, p.18).

They add that the review project is to include "improvement of the regulatory instruments" (*l'amélioration du dispositif règlementaire*) (ibid, p.18) and drawing up of a new framework law on water (*une nouvelle loi-cadre sur l'eau*), including preparation of secondary legislation (*textes d'application*) (ibid, p.19).

Currently, the guiding document on IWRM is the plan produced by the Government of Senegal (GoS) in 2007, the *Plan d'Actions pour la Gestion Intégrée des Resources en Eau* - called the *PAGIRE* (GoS, 2007), which is discussed in section 4.4.2 of the present report. The PAGIRE document proposes future institutional reforms to enable increased public participation. The PAGIRE does not, however, identify a set of modalities for participation, as envisaged by Article 2 of the Charter, but instead provides for events at which the need for participation will be discussed, and refers to a project for promotion of participation, without elaborating what that project will be or do. Instead, the 'Programme of Priority Actions' of the PAGIRE (PAP-GIRE 2008-2015) proposes drawing up of a further 'IWRM Charter' (p.35ff) which would be the product of a collaborative process to record the commitment of public

[79] The article on public participation in the EU Water Framework Directive was similarly short, and in need of elaboration at national level by each EU member state.

[80] Under Article 75 and 76 of the 1981 law, after the first priority use - water for human consumption - comes agriculture, cattle rearing, aquaculture and forestry, with production of hydro-electricity and the needs of mining industries at, according to the perspective at the time, a third level of priority, alongside navigation and tourism.

institutions in Senegal and other water stakeholders to application of the principles of IWRM as set out in the PAGIRE, i.e. in effect, a charter within a charter.

4.2.3 Strengthening of capacity for participation at basin level

The first time CSOs and riparian populations were given a voice in the management of the Senegal River, note Padt and Sanchez, was from 1997 onwards, as a result of the PASIE programme, through the component on 'Monitoring, Coordination and Communication' (Padt and Sanchez, forthcoming)[81].

This public participation was to be effected through Local Coordination Committees (*Comités Locaux de Coordination*-CLCs), as well as a National Coordination Committee (CNC) in each member State. The CLCs are designed to provide fora for communities, user associations, producers' organisations and cooperatives, grass-roots NGOs and representatives of local administrations. The CNCs consist of ministries, professional organisations and national NGOs, as well as representatives of CLCs. The intention is that the CLCs and CNCs meet prior to the higher level meeting of the CPE. How far the system of CLCs and CNCs is operational in Senegal is discussed in section 4.4.1.

In October 2009, the four riparian States added to the structures of the OMVS a new institution for Senegal, that of the **River Basin Committee, *Comité de Bassin,*** based on the French model of river basin management. Alongside the river basin management agency[82], the *Comité de Bassin* is an assembly of public authorities, water users, associations and individual experts. The Council of Ministers of the OMVS formally resolved, in Articles 1 and 2 of Resolution SO/2009, that the *Comité de Bassin* would be composed of four 'colleges', as shown in **Box 15.**

**Box 15. Composition of the *Comité de Bassin* of the Senegal River**

1. College of Public Authorities (*pouvoirs publics*): the Governments, nationally-elected leaders, local authorities: 6 representatives per country, i.e. 6 X 4 = 24 delegates.

2. College of Users (*usagers*): water and electricity companies, agriculturalists and pastoralists' organisations/entities, river transport operators: 6 representatives per country, i.e. 4 X 4 = 16 delegates.

3. College of CSOs (*la société civile organisée*): NGOs, water user associations (*associations d'usagers-Adus*): 3 representatives per country, i.e. 3 X 4 = 12 delegates.

4. College of the Scientific Community (*la communauté scientifique*): 2 representatives per country, i.e. 2 X 4 = 8 delegates.

Source: OMVS, 2009

The membership of the four colleges makes for 60 representatives in total. This water assembly is, according to Article 6, to meet in *ordinary* session once a year, upon being convened by the President of the *Comité*, who is one of the representatives of a member State from the first college (with a year's mandate, alternating between the four States). Upon special demand of the Council of Ministers, the High Commissariat or two-thirds of its members, the *Comité* can be called to meet in *extraordinary* session.

The preamble to the 2009 Resolution notes as a motivation for the creation of the *Comité de Bassin* "the need to involve actors of the basin in implementation of the development policy of the River Senegal basin". Although key informants to the present study applauded the creation of this new entity, the

[81] Padt and Sanchez say that "it can be assumed the donors convinced OMVS to do so" (ibid, p.7) - sections 4.3 and 4.4. refer.
[82] In France now called '*agence de l'eau' as compared with 'agence de bassin'*.

question raised by them was how far the *Comité* will exercise an influential role amid the hierarchy of structures of the OMVS. This is discussed in section 4.4.1.

The AFD has funded exchanges between OMVS personnel and one of the French river basin agencies, the *Agence de Bassin Adour Garonne*, in the south-west of France.

## 4.3 Approach to decision-making, including environmental and social aspects

### 4.3.1 Options assessment, at basin level

A second recent innovation adopted by the OMVS is called the 'SDAGE' by its acronym in French, *Schéma directeur d'aménagement et de gestion des eaux'*: Strategic Plan for Water Development and Management - see **Box 16.**

**Box 16. 'SDAGE': the French model**

*Schéma directeur d'aménagement et de gestion des eaux* (as per the 1992 French Water Law and decrees)
The 'SDAGE' is the planning instrument applying to every hydrographic basin in France. The SDAGE is accompanied by documentation describing how the waters of the basin are being managed, the system of water tariffs, existing initiatives affecting surface and ground waters, information on hydroelectric potential, and on other development options compatible with balanced management of water resources in the general interest. The French *Code de l'Environnement* requires that each SDAGE defines the principal directions for 'balanced management' (*gestion équilibrée*) of water resources, including water quality and quantity objectives.

*Schéma d'aménagement et de gestion des eaux*
The 'SAGE' is the corresponding instrument at *sub-basin* level. The SAGE planning document comprises: analysis of the existing conditions of the rivers and watercourses in a sub-basin area and an inventory of existing uses of every kind; analysis of the principal development possibilities in the area and of the effect on water resources of the State's policy objectives, as set out in the SDAGE; assessment of how best to protect and develop water resources with the above development possibilities in mind and finding of a balance between economic development, environmental protection and optimal use of existing or already planned water infrastructure; principal phases of implementation of the SAGE with assessment of the cost; justification of compatibility of the SAGE provisions with the SDAGE.

Source: www.eau-adour-garonne.fr (emphasis added) and Newborne (1993).

Once the SDAGE for a river basin has been approved by the public authorities (the *préfet de bassin*), upon the advice of the *Comité de bassin* and public consultation, the strategic plan set out in SDAGE is intended to become the mandatory legal framework governing the activities of the actors in the basin (all those whose activities impact on water resources).

In line with the French model, the SDAGE for the River Senegal provides an instrument for a broad review of development alternatives - at *basin* level, but also considering issues in different parts of the basin - including the technical and environmental/social aspects of those alternatives. The SDAGE process provides a means, therefore, of avoiding the trap signalled in Strategic Priority 2 of the World Commission of Dams, of pursing only a narrow *project* approach.

The SDAGE for the Senegal river basin, however, departs from the WCD SP 2, in terms of process: the review is led by consultants and it is not clear how it provides for "participation of a range of stakeholders in an open process of debate".

The introduction (p.9) of the 'second phase' SDAGE for the River Senegal (OMVS, 2010 - draft version of March 2010) explains the purpose of that document, namely not to propose economic development objectives to the four member States, but to identify the "minimum conditions for accomplishing water management in the river basin which is respectful of human uses and the environment, in quantitative and qualitative terms". The document considers seven themes or 'sectors' (protection of the environment; flood risk management; development of the river for power generation agriculture and navigation; forestry, agriculture and cattle rearing; industry and mining; drinking water and sanitation; and public health), under three headings: issues/challenges (*enjeux*), principles for management, and actions.

The third phase SDAGE[83], the document says, will bring together the sectoral analyses, note the 'bridges' (*passarelles*) between them, and propose an optimal development trajectory.

At an inter-governmental level, the final draft of the SDAGE will be submitted to the four contracting States for approval.

Under the 'energy' heading, the SDAGE considers different multi-use scenarios, particularly the margin of manoeuvre available to decision-makers in terms of the number of dams and other hydraulic structures which may be constructed within a mode of management of the river which is respectful of the environment and '***improving* the environmental conditions in the basin as a whole**" - *pour améliorer les conditions environnementales de l'ensemble du bassin* (p.11). Based on the first diagnostic phase of the SDAGE, the report notes, in a critical passage, that, if the human pressure exerted to-date on natural resources continues without adoption of approach which is sustainable beyond the short term (*le scenario tendanciel critique*), there will be (p.20) an "irreversible loss of biodiversity and ecosystem services" (as described on pages 20-22). The authors of the report urge the necessity to view future river development as an opportunity for the environment (p.26).

The time horizon for the reflections of options for management of the river is 2025, and the SDAGE report notes the importance, and difficulties, of taking into account climate change when the forecasts of rainfall (especially the behaviour of the monsoon) for West Africa are uncertain (ibid).

### 4.3.2 Policies and practices applying to new projects

Under Article 10 of the Charter, construction projects (*la construction des installations ou ouvrages*) require prior authorisation of the four riparian States, with the request transmitted up the decision-making hierarchy of the OMVS (from the High Commission, to the Permanent Commission-CPE, to the Council of Ministers). Among the issues taken into account in this approval process, the sharing of costs and benefits between the four countries should form a key consideration during the approval process.

The preparation for the Manantali and Diama dam projects, beginning in the 1970s, focused on *technical* studies only, aimed at optimising the utilisation of the water of the River Senegal, with little attention paid to environmental and social aspects. As alluded in section 4.1.3, construction of the dams subsequently gave rise to unforeseen problems (alongside certain benefits) and the PASIE programme retrospectively applied an environmental and social management plan-ESMP[84].

Since the construction of the Manantali and Diama projects of the 1980s, the approach of the OMVS has evolved, as shown by the Félou project where preparation has included environmental and social studies (now concluded). As noted above, the requirement of the donors for the conduct of these studies was not

[83] The Phase 3 SDAGE was not available to this study - still in preparation.

[84] In a recent report, the OMVS comments that the Manantali dam "provides the means to mitigate raised water flows, but only in part, so that, where rainfall is heavy in the uplands in Mali, the risk of floods is not eliminated (OMVS, 2010, p.66).

contested by OMVS[85]. Construction of the Félou project, by the Chinese company, *Sinohydro Corporation Limited*[86], has begun.

As noted above, the Gouina project is currently in the preparation phase, with environmental and social, as well as technical studies, being conducted with funding support from the World Bank and AFD. Opinions of the persons consulted were divided as to whether, during its implementation phase, the project will continue to follow the standards and practices of the donors, with an ESMP providing for measures mitigating and compensating the environmental and social impacts. Some observers expect that the OMVS will apply to this project the traditional donors' safeguard policies.

Other commentators are more cautious, and question whether OMVS, if offered, for example, funding from alternative sources (the presence of the Chinese was referred to, including their existing involvement in the Félou project), would depart from those policies. Involvement of other sources of finance may, potentially, result - as explained in sections 2.2 and 2.3 where the approaches of some financiers and other actors are not set out in published sets of policies - in environmental and social practices (much) inferior to the standard achievable by following the policies of traditional donors.

As to evolution of laws, policies and practice in Senegal, among the key informants in Dakar, there was common agreement that environmental and social standards (*normes*) applying to large dams and other hydraulic projects have evolved over recent decades. The 2001 *Code de l'Environnement* and Articles 38 and 39 of its implementing decrees have provided for environmental impact assessment (EIA) to be carried out for all significant projects. Once the report of the forecast impacts has been submitted to the Ministry (*Ministère de l'Habitat, de la Construction et de l'Hydraulique*), the *Direction de l'Environnement* has to organise a public meeting (*audience publique*) in/near the site of the proposed works, to hear the views of local people and "take them into account". In the key informant interviews, a number of persons expressed doubts as to how far this process provides for participation, rather than a process of information and consultation which is summarily conducted.

As regards compensation to persons displaced by infrastructure projects, the construction of a major truck road in Senegal was cited by one interlocutor as an example where the GoS intended to apply the *compensation* provisions under Senegalese law, until the World Bank and other donors pointed out that the rates of compensation were outdated and substantially lower than the real levels needed to compensate owners of land appropriated for the route of the road.

As to benefit sharing, like the agreement over the energy production from Manantali, the electricity generated by the Félou facility (and Gouina) will be subject to sharing arrangements between the four States, but a question remains over benefits to local populations: the key informant interviews did not clarify how, if at all, the project provides for rural electrification within Mali or other national territories.

[85] Source: key informant interviews.
[86] As noted in section 2.2.1, Sinohydro is reported by Bossard 2010 to be in the process of preparing an environmental policy.

## 4.4 Role of institutions and civil society: space for participation

### 4.4.1 At basin level

The prevailing impression obtained from the key informant interviews during this study is that the approach of OMVS to opening of public debate on river and water management has evolved in recent years, contrasting with the situation which prevailed in the 1970s and 1980s.

The recent establishment of the *Comité de Bassin* (river basin committee), commented key informants, is a positive innovation. The specified themes on which the *Comité* are to advise are "the main pillars of basin development policy", water resources management, protection of the environment, the 'SDAGE', water pricing policy, and "the environmental and social impacts of major development projects incorporated in the SDAGE" (ibid). As noted in Box 15 above, the size of the Colleges in the *Comité de basin,* each with its specified number of delegates, is defined and delimited, and the *Comité* acts in an advisory role[87], but the *Comité* process nevertheless offers an opportunity for stakeholders to express their voices.

The precise nature of the 'invited' space - as per the concept in Box 5 in section 2.4 of the present report - which the *Comité* accords to civil society will depend on the nature and tenor of the debates held in *Comité* meetings, the space which the persons chosen to represent the 2nd-4th colleges of water users, CSOs and scientists, are able to 'claim' in the debates and ultimately how far the Council of Ministers and the executive, the *Agence de l'eau* - in this case, OMVS - opts to adopt the advice of the *Comité*.

As to the *Comités Locaux de Coordination*-CLCs, there is broad agreement that the currently twenty-eight[88] CLCs in the basin will require support to be operational. The CLCs currently lack financial resources (e.g. for transport, hiring of premises for meetings, information materials), and human resources, e.g. coordinators and facilitators native to, or familiar with, the local context, trained as *animateurs*. As one interlocutor commented, the CLCs are currently dependent on OMVS. If the CLCs - and the associations of water users (*associations d'usagers* - Adu)[89] - are to have a voice, s/he added, they need to have *independent* means with which to understand the nature of water problems, determine their interests and formulate and present their arguments, instead of passively attending meetings convened by the CLC on behalf of OMVS.

For capacity-building of CLCs and Adus, there has been, to-date patchy financial support from donors. The report of IUCN, at the conclusion of the project funded by the Global Environment Facility - see **Box 17** - acknowledged the support for the public participation and awareness/communication component, whilst emphasising that more could have been achieved with a more substantial budget. Out of the US$ 8.13 million of total project funds made available to the project by the Global Environment Fund, only USD 231,438 was allocated to IUCN for that component, which meant that, on average, US $ 50,000 only was available per country for all the four years of the project. This was insufficient for the dimensions of the challenge, based on the logistics and costs entailed in holding country meetings for the convening of local stakeholders (IUCN, 2007).

[87] As per Article 7 of the Resolution which created the *Comité de bassin* its role is to act as a "consultative" and "reflective" body, providing "advice" to the Council of Ministers ("*le Comité de Bassin propose à l'adresse du Conseil des Ministres des avis consultatifs"*) (OMVS, 2009).

[88] At the time of the key informant interviews in Dakar. In principle, a CLC is established in each administrative district (*département* or *prefecture*). Reorganisation of district boundaries may, according to OMVS, require more CLCs and adjusted mandates of existing CLCs.

[89] OMVS acknowledges that, currently, few Adus are functioning.

**Box 17. The GEF Water and Environmental Management project, for the Senegal River Basin**

The project funded by the Global Environment Facility (US $8.13 million of GEF funds over 4 years) was designed "to complement and to serve as an increment to the PASIE". The PASIE programme had been designed to "address, monitor and mitigate the environmental issues raised by/related to" the Manantali project, while the purpose of the GEF project was to "address the broader aspects of trans-boundary environmental management and capacity building of the share water resource", including the regime downstream of Manantali. The PASIE was to have been completed before the GEF project, but, due to some delays, it overlapped with the latter project, whose role was that of "complementing and reinforcing the remaining actions" of the PASIE. One of the purposes of the PASIE was to develop the Water Charter, signed in 2002 (Section 4.2.1 of the present report).

The GEF project was in response to the expressed wish of the OMVS "to establish an overall framework for environmental management of the river basin" - OMVS was the lead operating agency. In preparation of the GEF project, IUCN led, in 2001, a participatory planning process in the four countries of the basin, including consultation of *Comités locaux de coordination* (CLCs). The GEF project brief confirmed as a "fundamental issue the need for greater participation by the public in the basin in decisions which significantly affect their livelihoods" (GEF, 2001, p.20). Accordingly, a public participation and awareness component was included in the project, entrusted to IUCN, designed to "support the effective involvement of local community leaders, the broader public, especially women, as well as the scientific community in the planning and management of environment and water resources in the basin (p.26).

Source: GEF, 2001 (emphasis added)

AFD are currently funding a dissemination and education component of the SDAGE to translate the SDAGE's technical language into layman's language, for the benefit of local people, thereby making it available to the public (the intention of Article 13 of the Charter). This task of '*vulgarisation*' has been assigned to the NGO, *Eau Vive*, to, as it says, '*rendre digeste*' (literally to make digestible), those technical products to community members. Where there is a low level of literacy, the community facilitators (*animateurs*) of Eau Vive are using visual means (cartoon images on water issues).

Looking at the content of the Phase 2 SDAGE, it is not easy to see how a participative process would take a wide audience through the detailed analyses of seven sectors set out in the 250 pages of the document. The role of policy-makers, and leaders of political process in each country, will have to be to present the key development alternatives and policy choices for public debate.

Several key informants commented that the processes of decision-making of OMVS are made slow by its concern to balance its activities in one State by replicating them in the other States. The OMVS has, effectively, four masters and this makes for a cumbersome bureaucracy.

### 4.4.2 At national level

As to the extent to which spaces are created for meaningful dialogue on water issues beyond the closed spaces of government in the four contracting States, this depends on the governance context in each country, and the extent of deliberative processes relating to water management which exist in the prevailing political climate and culture.

In terms of opening debate on water management, NGO representatives in Senegal applaud the evolution which they consider has occurred in recent years, whilst emphasising the need to work to claim (*reclamer*) space. One interlocutor commented, sanguinely : *"le pouvoir ne se donne pas ; il s'arrache"* ('power is not freely given, it has to be grabbed').

In Senegal, as alluded in section 4.2.2., the current guiding document on IWRM is the 2007 plan called the '*PAGIRE' - Plan d'Actions pour la Gestion Intégrée des Resources en Eau*[90] (GoS, 2007). Extracts of the PAGIRE are set out in **Box 18.**

**Box 18. Extracts from the 'PAGIRE' - the guiding document on IWRM in Senegal**

IWRM "aims to introduce an element of democracy in water management, particularly the participation of stakeholders and decisions taken at appropriately low levels… In Senegal, there has been little involvement to-date of water users and other stakeholders in drawing up in water strategies and policies. Among the powers transferred by central government to local authorities, the water sector does not as yet feature. The current concentration of decision-making powers in relation to water management in the central administration (departments of ministries/agencies established at national level) translates into a monopoly over a vital and key resource, which is a sign of the lack of mastery on the part of local authorities of the fundamental principles of IWRM, as well as of information, education/communication practices on IWRM" (p.11).

The three main elements of the PAGIRE as the Action Plan for IWRM include Pillar 2 : "Create an environment which is conducive to the application of IWRM through legal, organisational and policy reforms" including the following measures:-
- 2.1: Review and modification of laws and regulations to support operation of IWRM;
- 2.2 : Development and application of effective coordination mechanisms to increase the efficiency of water resources management and to achieve effective participation of actors in decision-making and management processes, e.g. reform of the *Conseil Supérieur de l'Eau* (CSE) upper water council, to provide for equitable representation of stakeholders including civil society; support widespread water user associations (*associations d'usagers de l'eau*); also the plan proposes the establishment of a water committee in each region, municipality and locality (*Comité Régional de l'Eau* (CRE), *Commission Municipale de l'Eau* (CME), *Commission Locale de l'Eau* (CLE);
- 2.3: Application of IWRM in sectoral policies and development.

Pillar 3 of the PAGIRE is to: "Improve communication, information, education and awareness of water issues", including by targeting young people".

Source: '*Plan d'Actions de Gestion Intégrés des Ressources en Eau du Sénégal'*, GoS (2007) (emphasis added).

The report (IDEV-ci & COWI, 2010) points to nine areas where the water planning and management needs to be improved, including in relation to knowledge/data, planning models and GIS, the legal/regulatory framework, tariffs, permissions for abstractions, institutional capacity-building, monitoring and evaluation (M&E), awareness-raising of actors and decision-makers, and examples of investment projects (p.20). The awareness-raising activities comprise a series of workshops designed to promote understanding among users, operators and decision-makers on the utility of their participation in the implementation of the PAGIRE (*sur l'utilité de leur participation au processus*) and the concept of IWRM.

As an example of these events, to the workshop at which the PAGIRE was launched, of the 69 participants listed as invited[91] (GoS, 2010, p.68-69), 41 are representatives of state institutions and public agencies[92], 4 are of private operators, 3 are Senegalese academics, 1 is an external research organisation,

[90] Produced with support from the *Agence Canadienne pour le Développement International* and the Global Water Partnership as a follow up to the World Summit on Sustainable Development in 2002 and the undertaking made by the GoS in line with the IWRM target relating to MDG 7.

[91] Not counting the ten representatives of the consulting firm to whom organisation of the event was delegated.

[92] Including the 6 members of the Coordination Unit (*cellule de coordination*) - presumably staff of ministries/public agencies.

6 are from international NGOs and 7 are from Senegalese CSOs[93]. One of the proposed investment projects listed is promotion of participation by the private sector and civil society in M&E (p.22).

One key informant commented that, alongside the out-dated 1981 law, on the fundamental principles of IWRM, there is "lack of familiarity and comprehension on the part of local populations and local authorities". There is also a lack of 'information, education and communication-IEC' in this area, as well as a low level of participation of women among decision-makers on water matters, as well as the difficult issue of decentralisation (transfer of powers in relation to water decisions) (GoS, 2010, p.19).

The procedure for environmental impact assessments (EIAs) in Senegal includes opportunity for involvement of CSOs, but in EIAs the 'invited' space for participation has to-date been limited, with doubts expressed as to the readiness of public institutions and agencies to listen to the views of civil society, especially where voices are raised challenging GoS proposals.

In Senegal, persons interviewed (representatives of both state and civil society) consider that, despite some evolution, civil society in Senegal does not generally have the breadth and depth of presence to act as an effective counterweight to State institutions ('*contre-pouvoir'*). The *ASCOSEN*-Association of Consumers of Senegal is, it says, managing to articulate the consumer voice, for example, on water supply issues (tariffs and prices) and is permitted to do so, despite challenging utilities and public authorities on some points, but it does not currently have the means to present the kind of case it would like, supported by sufficient evidence (e.g. resources for checking water quality).

Among NGOs, meanwhile, there is, commented one key informant, a lack of coordination and solidarity which reduces their power to influence policies and actions of government.

[93] E.g. '*Associations de consommateurs* (ADETEL et ASCOSEN)', '*Partenariat National de l'Eau du Sénéga*l' (PNES), '*Fédération d'ASUFOR'*, '*Fédération des Producteurs Maraichers des Niayes'* (FPMN), '*Association des Union des Maraichers des Niayes* (AUMN)'.

## 4.5 Conclusions and recommendations - from the Senegal case study

### 4.5.1 Conclusions

**The following are findings and conclusions on the approach to participation of water users and civil society organisations (CSOs) in dialogue on the management of the river and utilisation of its waters, arising from the present study of the Charter of the Waters of the River Senegal (*la Charte* des Eaux du Fleuve Sénégal).**

- In the operative part of the Charter (the part which counts), public participation is only weakly incorporated. The Charter is a framework treaty which requires each signatory State to pass national legislation in order for the obligations on water sharing and participation (in Article 2) to have legal effect.

- In Senegal[94] no such legislation has to-date been passed. For the moment, the progressive provisions in the Charter remain just statements of political intent, without direct legal effect at national level. Eight years after its signing, the Charter itself does not seem to have been a driver of increased stakeholder participation. Like the WCD, the principles on participation in the Charter constitute a *progressive* agenda which, as noted above, seems to go significantly further than any of the signatory States currently consider appropriate.

- Further, the annexes to the Charter, for defining the principles for water sharing, "are not ready".

- At basin level, however, the Strategic Plan for Water Development and Management-SDAGE process and the new institution of the *Comité de bassin* are good examples of the type of "architecture for water governance" (Smith, 2010, p.440) which are potentially empowering. As noted by several key informants, the next step, however, is to apply these institutional frameworks to serve greater participation in practice.

- The SDAGE refers, significantly, to the desirability of '*improving* the environmental conditions in the basin as a whole" (p.11, emphasis added).

- At local level, civil society needs to increase its level of organisation so as to strengthen its capacity to "exercise the role of citizen" (as one key informant expressed it) in the Local Coordination Committees. Currently, the CLCs do not work. As long as "local democratic politics" remains undeveloped - commented one key informant - the institutional model of the CLCs will function in a limited manner and the voices of small farmers and other water users will not be effectively communicated.

- Financial support for strengthening the capacity of civil society to participate is often not forthcoming from donors, with some exceptions, e.g. the current funding by the *Agence Française de Développement*-AFD for dissemination under the SDAGE (information is an important preliminary step - see section 4.5.2).

- The procedure for environmental impact assessments (EIAs) in Senegal includes opportunity for involvement of CSOs, but CSO representatives express doubts as to the readiness of public

[94] Nor, it is believed by the author of this report (without verifying the legal status in Mali, Guinea and Mauretania), in those three other States.

institutions and agencies to listen to the views of civil society in EIAs, especially where voices are raised challenging Government of Senegal (GoS) proposals.

- As to legal innovation in Senegal, after a long delay, the 1981 Water Law (*Code de l'Eau*) is currently being reviewed, and that process offers the possibility of incorporating the concept of integrated water resources management-IWRM into Senegalese law.

- In the key informant interviews conducted during this study, the recommendations of the World Commission on Dams-WCD were little mentioned. At basin level, it is the approach of the *Organisation pour la Mise en Valeur du Fleuve Sénégal* (OMVS) and the traditional donors funding infrastructure projects which governs practice. In Senegal, the aspiration of meeting the demands of the WCD would represent, despite national rules evolving towards supporting strengthened EIA procedures, a substantial step forward as compared with practice to-date.

- As an example of the influence of donor-funded projects, the PASIE project - *Plan d'Attenuation et de Suivi des Impacts sur l'Environnement* (Environmental Impact Mitigation and Monitoring Programme) - has been a leading driver of evolution of environmental and social practices in the River Senegal basin.

- Several key informants expressed the view that a key driver of the acceptance, to-date, by the OMVS of environmental and social (and other) safeguards is reputational. According to this analysis, the OMVS is keen to show that it is committed to, and capable of, carrying out large infrastructure projects in a sustainable manner, and has accepted/accepts the requirements of the traditional donors for environmental and social studies for the *Félou*/*Gouina* projects.

- Other commentators are more cautious, and question whether OMVS, if offered, for example, funding from alternative sources (the presence of the Chinese was referred to, including existing involvement in the Félou project), would depart from those policies and open up the question as to what standards would apply. As in Cameroon, involvement of other sources of finance could potentially result in environmental and social practices (much) inferior to the standard achievable by following the policies of the traditional donors.

- The rates of compensation which the GoS offers to persons displaced by major infrastructure projects (e.g. roads) was highlighted by several key informants as being low.

### 4.5.2 Recommendations

**The following are observations and recommendations for strengthening the participation of water users and civil society organisations in dialogue on the management of the Senegal river.**

- Article 2 in the 2002 Charter needs to become a driver of increased participation through passing of national laws and regulations, e.g. in the future revised water law in Senegal.

- The importing and adapting in Senegal of the French model of river management, of the *Comité de bassin* offers an opportunity for the voice of water users to be projected in a basin-level forum.

- The Strategic Plan for Water Development and Management-SDAGE is a river basin planning tool which provides a basin-wide vision, including (technical) assessment of options for development (*aménagement*).

- CSOs in Senegal can usefully learn from the experience of civil society in France as to the means of working in the *Comités de basin*. Just as staff of the OMVS have visited the *Adour-Garonne* basin agency (*agence de l'eau*), representatives of Senegalese NGOs could usefully visit NGOs participants in the Adour-Garonne (or other) *Comités* in France.

- International agencies/NGOs, such as IUCN, may support such efforts to make best use of the opportunities of the Senegal River's *Comité de bassin*. Meanwhile, national NGOs, supported by international NGOs, can play a part in the strengthening of the capacities of local CSOs.

- Dissemination and education under the SDAGE is a preliminary step towards mobilisation of an active citizenship which is capable of expressing its voice - a process which will take time, as well as increased resourcing from governments and donors.

- The uncertainties in forecasts of future rainfall levels in the sub-region call for an examination of how existing and future dams on the River Senegal are capable of serving energy and water storage uses, as well as maintaining a flow regime which sustains ecosystems and livelihoods (and itself functions as a natural storage facility).

**In summary, in relation to the 2002 Charter of the Waters of the River Senegal:-**

- there has been a significant delay by the member States of the OMVS in preparing the annexes to the Charter and passing decrees and other legal instruments of application of the Charter;

- further signs of political commitment are required to reassure actors that the Charter will promote further collaboration between the contracting States on water sharing, as well as support stakeholder participation in dialogue and decision-making on development and management of the River;

- the Charter is a progressive policy, but as yet a norm which is not in operation - tangible steps are needed to translate the stated objectives of the Charter into practice.

## 5. Conclusions and recommendations - from this study

### 5.1 Conclusions

This research project has brought together facts and opinions on decisions/dialogues relating to large dams and hydraulic infrastructures, at international, river basin, national and sub-national levels, including stakeholder engagement around projects, and described the diversity of approaches.

**Based on the evidence gathered from this international 'scoping' and these case studies in two example countries, the following are the key findings and the conclusions of this study**.

Prominent internationally-published policies, including the WCD

- The report of the World Commission on Dams (WCD), published to a global audience in 2000, did not receive from all sides of the dams debate the acceptance intended by its authors. In the key informant interviews conducted during the present study, it was noted that the WCD Strategic Priorities were embraced by civil society organisations (CSOs) and individual experts and commentators more than governments in developing countries, banks/financing institutions and industry. Hydropower developers and operators, for example, did not feel adequately represented in the deliberations among the group of twelve WCD commissioners. Banks and financing institutions, public and private, applied/apply, first and foremost, principles set out in their own policies and procedures.

- The WCD report was intended to "raise the bar higher"[95], in the words of the WCD Chairman. The key informants confirm the view that the WCD Strategic Priorities set out a *progressive* agenda which, in certain respects, proved to be ahead of its time. In the eyes of some, that meant the WCD recommendations were all the more valuable as a leader of policy, in the right direction. In the views of others, the WCD recommendations sought to push policy and practice both too fast *and* too far. For example, the recommendation of free, prior and informed consent of indigenous peoples under WCD Strategic Priority 1 was welcomed by some actors and rejected by others (section 2.1.3).

- The consequence, in the first years after publication of the WCD report, was a *polarised* debate. The WCD report constituted a benchmark in relation to which actors defined themselves and their different positions, including in opposition.

- The UN Dams and Development project provided a dialogue process for assimilation of the WCD and discussion of its implications, which - key informants stated - helped establish, over time, greater understanding between the different actors.

- As to whether enhanced mutual comprehension can translate into *consensus* across all sides of the debate, the interviews conducted during this study, internationally and in-country, suggest the answer to that question is 'No'. Differences of perspective remain, with outstanding tensions between differing views.

- Viewed by commentators from the vantage point of a decade passed since 2000, the effect of the dialogue has been that recommendations of the WCD have (as noted in Section 2) trickled into other policies, to different degrees, for example, more in relation to the need to assess environmental and social impacts (as per WCD SP 4) than the WCD approach to options assessment (SP 2), or to recognising rights. The 'rights and risks' approach of the WCD is based on principles set out in

[95] WCD Chairman's Preface (p.iii).

international human rights declarations. The aim underlying WCD SP 5 is to address "imbalances in political power" (WCD, 2000, p.217). CSOs and other commentators support that goal as well as recognising the challenges that re-balancing entails in terms of political process (section 4.4.2).

- The four other sets of internationally-published policies, alongside the WCD, which are reviewed in the present report (in Section 2 and Annex 2) are: the Safeguard Policies of the World Bank, the Performance Standards of the International Finance Corporation-IFC, the 'Equator Principles' (EPs) adopted by the EP Financing Institutions, and the Hydropower Sustainability Assessment Protocol.

- Each of the above four policies has been produced or revised since the publication of the WCD in 2000, and they constitute *prominent* developments, internationally, in terms of policy-making[96]. Although the WCD is no longer at the forefront of policy innovation, it still constitutes a reference point, not least in that it sets out the most *demanding* standards as compared with the other four policies, which places the WCD on the 'upper floor' in Figure 3 in section 2.3 of this report.

- The World Bank's Safeguard Policies, the IFC's Performance Standards and the EPs, as well as Level 3 ('basic good practice') under the Protocol[97], represent a substantial body of 'good practice' built up at international level, beginning before the WCD and continuing to evolve after it - the 'middle floor' of policy/practice in Figure 3.

- As to whether the WCD constitutes 'best' practice or whether, instead, the recommendations of the WCD are aspirational - setting out goals for the longer term - or, in certain respects, misguided - opinions are divided. As noted above, the view still held by many NGOs, supported by some individual commentators, is that the WCD recommendations set the leading policy standards. The commentators on the other hand who consider that certain proposals of the WCD are misguided will see them as advocating innovation in a wrong direction.

- The Hydropower Sustainability Assessment Protocol (the 'Protocol') is the product of dialogue between a range of parties[98], conducted in the forum called the 'Hydropower Sustainability Assessment Forum' (HSAF), a process at international/global level, lasting more than 2 years, which has recently concluded in production of the final draft of the Protocol (the September 2010 version, reviewed in this report).

- As noted in Annex 2, Goodland, 2010 laments (p.384) that the Protocol is a "complicated system of scoring and ranking without defining any clear minimum standards which developers must follow". By comparison, the World Bank Safeguard Policies prescribe one standard with which developers and other project participants are required to comply. "A sliding scale of scores is less straightforward".

- A key function, however, of the Protocol is to clarify industry attitudes to facets of projects (environmental and social) which go beyond technical and economic/financial aspects (from Figure 1 to Figure 2 of the present report). The advantage of the Protocol, commented several key informants, is as a "*platform for engagement*", and, for this, the sliding scale is an advantage because it allows for flexibility. One NGO reported that the Protocol was already serving as a 'neutral' agenda around which to meet and discuss with major electricity/power utilities. "It is not always useful to push for the gold standard" commented another person consulted.

[96] Prominent at the time of writing this report.

[97] As noted in section 2.1, under the Protocol, components of projects (called 'sustainability topics') are assessed individually to draw up a 'sustainability *profile*' of the project, without *scoring* the project as a whole.

[98] Developing countries, developed countries, the hydropower sector, the finance sector and NGOs (both environmental and social aspects), chaired by a representative of a sustainable finance company and coordinated by the International Hydropower Association-IHA.

- Key informants at international level referred to interaction *between* the sets of internationally-published policies, through drafters/reviewers of individual policies making comparisons with the works of their counterparts.

- The Equator Principles is an example of a policy which is succeeding in promoting evolution of mindsets *within* its particular constituency - the number of adopting banks has grown very substantially since creation of the EPs in 2003.

The Lom Pangar Hydropower Project in Cameroon

- In the key informant interviews carried out in Cameroon, the WCD was little mentioned. Since the entry of the World Bank into project negotiations for the *Lom Pangar Hydropower Project*, the *primary* driver of the approach to decision-making and dialogue around preparation for the 'LPHP' has been the World Bank's Safeguard Policies. For the Government of Cameroon (GoC) to have the option of accessing funds from the World Bank, and the other donors in the sane group, the GoC has to follow the Safeguard Policies of the World Bank.

- Rules and procedures relating to environmental impact assessments (EIAs) have been recently introduced into national laws in Cameroon. EIAs have become part of formal institutional practice - a *secondary* driver - but the short 'windows' of consultation available under EIAs (the 'public audiences') constitute an 'invited' space for participation (to use the language of participation highlighted in Box 5 in section 2.4) which is transient and limited. This suggests that openness to public debate around large infrastructure projects has not yet been absorbed into government culture and official mindsets (section 3.2.4 refers).

- World Bank staff are in the process of applying the Safeguard Policies to preparation of the LPHP and, subject to final environmental and social management plans (ESMPs) and to carrying out of those plans in the implementation phase, the LPHP appears to be heading towards the 'middle floor' of good practice, as portrayed in Figure 3.

- Key informants in Cameroon representing civil society commented on a lack, generally, of open processes for dialogue between government and civil society on policy-making. The impression is that public agencies are inclined to talk *at* rather than with stakeholders - for example, the question arises from the key informant interviews whether the Electricity Development Corporation (EDC), which is responsible for managing the LPHP on behalf of the GoC, is promoting the benefits of the project to local populations as a marketing exercise, more than conducting a meaningful two-way dialogue. EDC, meanwhile, is concerned that some NGOs are looking to cause trouble instead of contributing constructively to debate. On either side, there seems to be little confidence that dialogue is in the common interest of both government and civil society - for constructing better projects.

The Senegal River basin

- The Senegal River basin is an example of a trans-boundary regime where policy on river and water management is framed by the four contracting States, in international agreements, and developed and applied in the rules and procedures of the river basin agency, the *Organisation pour la Mise en Valeur du Fleuve Sénégal* (OMVS). It is the approach of OMVS, as well as traditional donors such as the World Bank as financiers of large infrastructure projects, which are leading policy and practice.

- The focus of the case study in the Senegal River basin is the Charter of the Waters of the River Senegal (*la Charte des Eaux du Fleuve Sénégal*) signed in 2002. The Charter sets out, on paper, a policy in relation to participation by water users in decision-making, but eight years since the signing

of the Charter, the 'modalities' for participation have yet to be defined in national laws. At the time of writing the present report, the contracting States have *not* brought into operation this framework treaty with its progressive terms (perhaps, similar to the WCD, for governments, the Charter is viewed as being ahead of its time).

- Several key informants commented that the processes of decision-making of OMVS are made slow by its responsibilities to its four masters, the contracting States, and its concern to balance its activities in one State by replicating them in the other States. This may account for the failure to implement the Charter.

- At basin level, the new institution recently created by the OMVS is the River Basin Committee, *Comité de bassin*, with four 'colleges' covering a range of actors including CSOs. This *Comité* provides a forum for dialogue, once a year - and, on an exceptional basis, more frequently. This is an example of "architecture for water governance"[99] which is potentially empowering, subject to its application in practice: what will, in practice, be the relative degrees of political power of the four Colleges and how might that evolve over time?

- At local level, the institutional model of the Local Coordination Committees (*Comités Locaux de Coordination*) is not functioning and will continue not to operate as long as "local democratic politics" remain relatively undeveloped, as one key informant expressed it. Civil society needs to increase its level of organisation so as to strengthen its capacity to "exercise the role of citizen", including projecting the voices of small farmers and other water users for greater leverage in decision-making.

Finance for infrastructure - evolution

- Changes in the financing of large dams are, however, altering the political economy of dams. The increase of financial flows to Africa for infrastructure projects from countries such as China, particularly in the power sector, is offering alternative funding sources to traditional overseas development assistance from OECD countries. Chinese construction/engineering companies are working on major infrastructure projects in Cameroon (and Senegal), and it is possible that the Chinese presence will results in an offer(s) of finance for the LPHP sourced from China. The traditional donor group led by the World Bank is (as noted in 3.1.4.) in discussion with the GoC with a view to concluding the financing package for the LPHP, with confidence expressed by those donors that their financing terms will be taken up. Until, however, the formal approvals of banks/donors are obtained and the acceptance of the GoC is confirmed, the possibility of financing of the LPHP from a Chinese (or other) alternative source remains.

- In the eventuality of an alternative source being chosen by the GoC, the issue of the approach to decision-making applying to the LPHP, including management of environmental and social impacts and stakeholder engagement, would be re-opened. While some Chinese banks and developers are reported to be reviewing their approach to infrastructure projects, and e.g. *Sinohydro* is said to be preparing an environmental policy (section 2.2.1 refers), other Chinese actors are (according to commentators) still disregarding environmental and social aspects of infrastructure projects. As Foster et al (2008) have commented, there is a learning process ahead for borrowers and financiers, with salient issues being the development of national capacity to negotiate complex and innovative deals and to enforce appropriate environmental and social standards for project development.

[99] Smith, 2010, p.440.

Construction of projects incorporating environmental and social components, and benefit-sharing

- It is the role of sovereign States to determine which policies are appropriate and practices acceptable within their jurisdictions, as decided by successive governments. In Cameroon, there is a risk that the evolving, but still relatively weak jurisdiction for EIA currently applying, would combine with potentially low standards of Chinese or other alternative financiers to place the LPHP on the 'lower floor' of policy-practice in Figure 3. Without a strong national regime applying to project preparation and implementation (including EIAs, resettlement, and benefits-sharing), the source of finance and the extent of the environmental and social safeguards accompanying that finance is the critical factor.

- Developers/operators and their contractors look to draw up projects with a clearly defined scope, avoiding vague commitments and open-ended processes. The measures required to avoid or mitigate environmental and social impacts will tend to be less familiar to them, so there is a tendency to push them outside the boundaries of their responsibility to treat them as 'externalities'. Public authorities may, at the same time, seek to avoid responsibility for those issues which creates, as that commentator noted, a "grey area".

- In Cameroon, the traditional donors led by the World Bank are promoting the environmental and social components (including resettlement and development plans), as *integral* parts of the LPHP, alongside the construction/engineering activities. If those environmental and social components are to be confirmed as part of an extended project, as portrayed in Figure 2 in section 1.4 of this report, those components need to be clearly planned/defined, so as to be priced, alongside the other activities. Once the cost of each component has been quantified, with grey areas eliminated, the donors can indicate their willingness to fund, and the EDC can respond by saying how far it is ready to pick up the cost. In Cameroon, the estimated cost of the environmental and social management plan and communal development component of the LPHP, as noted by the World Bank in November 2009, is US$ 30-35 million out of a total estimated cost of the project (all components) of US$ 430 million.

- As noted in section 3.2.2., the finance (on concessionary terms) offered by the World Bank for the LPHP (once approved by the Board) would add to the funding already being provided by the World Bank for strengthening of capacities in the environment and energy sectors in Cameroon - the 'PReCesse' and Energy Sector Development projects. The World Bank in Cameroon has, thus, shown itself to be sensitive to the need to support strengthening of government planning and administrative capacity.

- Many of the persons consulted during this study commented on increasing levels of commitment shown by banks and lending institutions to adjusting their lending practices in order to reduce environmental and social risks. The common view was that the primary driver of this is *reputational.* This reputational driver accounts, in part, for the approach to environmental and social risks adopted by banks/financial institutions, public and private. The recent revisions of the Safeguard Policies of the World Bank and of the Equator Principles, and the current review of the IFC Performance Standards, are signs of evolution in policy.

- After reputational factors, a further step is look at the *business* case for improving policy and practice. As noted in Annex 2[100], the project finance business heads of participating Equator Principles Financing Institutions are stated as believing it is good for business, in that "having a framework for the industry will lead to greater learning among project finance institutions on environmental and social issues, and that having greater expertise in these areas will better enable them to advise clients and control risks".

[100] In the Questions and Answers about the Equator Principles (EPs), Q&A 27 discusses whether the EPFIs have "seen any decline in business because of adoption, application or implementation of the [EPs]".

- In the policies of financial institutions, safeguards risk, however, being stronger on paper during the preparation stage than 'on the ground' during implementation and operation. The leverage which banks exert on developers/operators and governments arguably reduces once the boards of banks have approved loans, given that suspension and termination of loan agreements are not generally steps which banks like to undertake. The wording of the Equator Principles is carefully chosen (as referred to in section 2.1.1): where a borrower does not comply with environmental/social covenants, the banks adopting the EPs "work to bring back the borrower back into line".

Project implementation - key issues

- One key informant to this study commented that 'implementation is the weak spot of many complex infrastructure projects' (*le ventre mou des grands projets*). A particular test of implementation, and the nature of engagement with project-affected stakeholders, is the extent of *compensation* paid to persons who are involuntarily displaced by projects. The five policies reviewed in this report provide for compensation, as described in section 2.1.2. All five policies also refer to grievance mechanisms to address the concerns of project-affected people.

- In Cameroon, key informants commented on how the experience of the Chad-Cameroon pipeline project showed that the rates provided for under national regulations were too low to provide realistic levels of compensation for loss of land and crops. In both Cameroon and Senegal, the gap between national and international compensation standards has been highlighted by the World Bank.

- Beyond one-off compensation payments and resettlement support, the five policies also refer to sharing by project-affected populations in the benefits of projects, e.g. equitable access to electricity services, or a proportion of revenues from sales of power. An example of *benefit-sharing* is that proposed in the documentation for the LPHP.

Role of civil society: participation and coordination

- As to the role of civil society, both international and national CSOs carry out important functions as 'watchdogs' for monitoring compliance with policies and procedures on large dams and hydraulic infrastructures. Many key informants to this study doubt whether, in the context of globalised communications, "bad projects" have "places to hide". According to this analysis, the *reputational* factor is a strong driver in pushing developers/operators towards improved practice, although this is in some cases from a low base: a gulf exists between responsible developers who work to develop transparent practices and those others who, on the contrary, look to apply minimum standards.

- The Dublin Principles include the principle that water development/management should incorporate a participatory approach, with stakeholders accorded a voice in water planning. Based on the Principles, the concept of integrated water resources management includes the participatory approach, as per the common IWRM definition (GWP, 2000), alongside the goals of (economic) efficiency, (social) equity and environmental sustainability. In both Cameroon and Senegal, key informants agreed on the need for CSOs to 'claim' spaces for participation, as well as participate in invited spaces.

- Key informants in both countries commented on, generally, with some exceptions, a lack of donor financial support for strengthening civil society capacity to participate in dialogue and decision-making. So why do donors, who embrace IWRM as a concept[101], not fund CSO capacity-building?

[101] USAID (2007), 'What is integrated water resources management?', cited in Molle 2008 who raises interesting questions in relation to the IWRM concept. Where governments also embrace IWRM in national policy/plans, development assistance may be brought to bear to promote participation under IWRM in line with the principles of the Paris Declration.

- In both countries, there emerged clearly from the key informant interviews a lack of coordination between CSOs. In Cameroon, for example, the NGOs interviewed are carrying out conservation field projects, awareness-raising, support to alternative development activities, as well as advocacy (including the watchdog role), but there appears to be a lack of recognition of the usefulness of others' roles and the complementarity between them. In Senegal, there was commented one civil society representative, a lack of solidarity between NGOs.

- Some NGOs, for example, did not accept the neutrality of IUCN's role as facilitator of the LPHP experts' panel from 2004 to March 2008 (section 3.3). The view of key informants to this study (those involved during that period) is that the facilitation role was useful, but not essential (*utile, mais pas indispensable*). The case for a facilitator in relation to future projects would need to be strengthened, on the basis of the *value-added* in terms of enhanced independence of experts, rapid flow and ready availability of information (on-line), and organisation of thematic studies into a digestible whole.

## 5.2 Recommendations

**The following are observations and recommendations for strengthening decision-making and dialogue relating to large dams and hydraulic infrastructures including enhancing the participation of water users and CSOs in river and water management.**

- Tensions between differing views are surely a natural function of large and complex projects, involving multiple parties. Instead of seeking to resolve all differences of view between actors in dams projects, efforts are more usefully focused on identifying areas of common agreement, forming a core for collaboration.

- The internationally-published policies reviewed in this report should be seen as complementary and (in general) mutually reinforcing (rather than competing). Three of the policies - the World Bank's Safeguard Policies, the IFC Performance Standards and the Equator Principles - are designed for a particular area of activity (financing) with a particular constituency in mind[102].

- The WCD recommendations are intended for wider application. The WCD continues to be a reference point, particularly for promoting options assessment and in relation to recognition of human rights.

- The Hydropower Sustainability Assessment Protocol is an assessment tool designed for the hydropower sector, for promotion of improved performance and, over time, embedding of that in the working practices of developers/operators and other actors who choose to apply the Protocol[103].

- As to the statement in answer to Question 27 about the Equator Principles, that participating in the EPs is "good for business", the EPFIs could usefully conduct detailed monitoring and evaluation of this, with the aim of validating that statement.

- The key issue of project 'scope' is raised in section 1.4 and discussed in section 2.5 of the present report. For environmental and social components to be incorporated as part of extended projects (shown in Figure 2), they need to be identified in project appraisals, included in project plans as

[102] The constituencies of the World Bank's Safeguards Policies and the IFC Performance Standards and the Equator Principles are respectively the multilateral funding agencies within the World Bank group and commercial banks/funding institutions.
[103] "A wide application of the Protocol is desired" (Background Document, p.2), with the central role in any Protocol assessment being the "organisation with the primary responsibility for a project at its particular life-cycle stage" (ibid).

(confirmed) core components, costed/priced in budgets, funded by lenders - and paid for by borrower/recipient country. As an example, the estimated cost of the environmental and social development component of the Lom Pangar Hydropower project in Cameroon is c.8% of the total estimated cost of the project (all components).

- Some governments may be tempted to see assessment of environmental and social impacts (through EIA) as an administrative hurdle to be cleared, or a requirement to secure funding, without a genuine commitment to implement the measures required to avoid or mitigate impacts, set out in environmental and social management plans.

- The example, however, of the *Manantali* and *Diama* dams in the Senegal river basin, constructed in the 1980s, is a cautionary tale of consequences which can arise when environmental and social avoidance/mitigation measures are not carried out, based on studies during the preparation phase of the project: in that case, the approach to project design was narrow (as per Figure 1 in section 1.4) and the dams resulted in damaging negative impacts for river ecosystems and riparian populations, requiring a major programme of mitigation - the 'PASIE' programme, described in section 4.1.3 which entailed US$ 17 million of *'retro-fitting'* of environmental and social measures.

- Far-sighted companies were referred to during the key informant interviews for their practice of commissioning early environmental and social scoping studies in order to anticipate difficult or sensitive ('red flag') issues before a particular project site is fixed.

- Benefit-sharing arrangements need to be incorporated in enforceable agreements with perennial bodies, which will be present, indefinitely, during the operation phase[104].

- In the Senegal River basin, Article 2 in the trans-boundary Charter of the Waters of the River Senegal needs to be passed into national law, so as to become a driver of increased participation by water users.

- In relation to the Senegal River basin, the uncertainties in forecasts of future rainfall levels in the sub-region call for an examination of how existing and future dams on the River Senegal are capable of serving energy and water storage uses, as well as maintaining a flow regime which sustains ecosystems and livelihoods (and itself functions as a natural storage facility[105]).

- Key informants referred to the status of national laws/regulations and procedures in developing countries as a critical factor in the preparation and implementation of large dam and hydraulic infrastructure projects. A key objective in developing countries must be to strengthen national regimes, to arrive at greater consistency in national standards of practice, for example up from the 'lower floor' to the 'middle floor' level in Figure 3. Without this, there is no environmental and social 'safety net' in cases of projects funded by financiers who do not bring adequate environmental/social policies or projects implemented by irresponsible developers/operators.

- Improved coordination between CSOs in-country would increase their ability to influence policies and actions of government in that direction. Civil society may also evolve and develop its practice.

[104] Skinner et al , 2009.
[105] Acreman et al, 2009.

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## Annex 1 List of institutions and organisations consulted

### A. Scoping interviews - international

**(i) International agencies**

- Mekong River Commission
- IUCN, Central/West Africa
- IUCN, Asia

**(ii) Industry bodies**

- International Hydropower Association-IHA

**(iii) NGOs**

- WWF International, Dams Initiative
- International Rivers
- WWF Brazil/Amazon network
- Transparency International (TI)
- WWF-UK
- Oxfam
- WWF-US, International Finance unit
- *Eau Vive*, West Africa

**(iv) Research/independent experts and consultants**

- International Institute for Environment and Development-IIED
- Overseas Development Institute-ODI (on Nile basin discourse)
- Environmental Resources Management-ERM

**(v) Other**

- Climate Change Capital, London (carbon trading)

As noted in Section 2.5, an omission from the scope of the discussion in this report is the role of export credit agencies, which will need to be the subject of a further study.

## B. Cameroon

**(i) Government ministries**

- Ministry of Energy and Water Resources (*Ministère d l'Energie et de l'Eau*-MINEE)
- Ministry of Environment and Protection of Nature (*Ministère de l'Environnement et de la Protection de la Nature*-MINEP)
- Ministry of Forests and Faune (*Ministère des Forêts et de la Faune*-MINFOF*)*

**(ii) Public Agencies**

- Electricity Development Corporation-EDC

**(iii) Donors and international agencies**

- World Bank
- African Development Bank (*Banque Africaine de Développement*-BAD)
- French Development Agency (*Agence Française de Développement*-AFD)

**(iv) NGOs and civil society**

- Wildlife Conservation Society-WCS
- Global Village Cameroon
- *Organisation pour l'Environnement et le Développement*-OPED
- *Fondation Camerounaise pour des Actions Rationalisées et de Formation sur l'Environnement*-FOCARFE

**(v) Institutes, universities, experts**

- Faculty of Science, University of Yaoundé
- *Centre Africain de Recherches Forestières Appliquèes et de Développment*-CARFAD
- Dr. David Yondo, expert in public health

## C. Senegal

**(i) Government ministries**

- Ministry of Housing, Construction and Water Resources *(Ministère de l'Habitat, de la Construction et de l'Hydraulique*:-
  - *Direction de l'Hydraulique Rurale,*
  - *Direction de l'Hydraulique Urbaine*
  - *Direction de la Gestion et Planification des Ressources en Eau*- DGPRE, Dept of Water Res. Management & Planning
  - *Direction de l'Environnement et des Etablissements Classés*
- Ministry of Agriculture and Aquaculture (*Ministère de l'Agriculture et Pisciculture)*

**(ii) Public Agencies**

- OMVS-*Organisation pour la Mise en Valeur du Fleuve Sénégal, Observatoire sur l'Environnement*
- OMVS, *Haut Commisariat*
- OMVS, *Unité de Communication*
- PEPAM: *Programme d'Eau Potable et d'Assainissement du Millénaire*

**(iii) Donors and international agencies**

- UNDP
- French Development Agency (*Agence Française de Développement*-AFD)

**(iv) NGOs and civil society**

- National Assembly, *Commission du Développement et de l'Aménagement du Territoire*
- MPs' network for Protection of the Environment-*Réseau des Parlementaires pour la Protection de l'Environnement*-REPES
- ASCOSEN-*Association des Consommateurs du Sénégal*-Consumers' Association of Senegal
- IUCN, Senegal

**(v) Institutes et universities**

- Faculty of Law, University of Dakar (*Université Cheikh Anta Diop*)
- *Ecole Doctorale, 'Eau, Qualité et Usages de l'Eau', Université Cheikh Anta Diop*, Dakar

## Annex 2 The WCD and four other leading policies: summaries of key elements

In the tables set out in this Annex, the WCD and the four other leading internationally-published policies are reviewed in turn:-

- the WCD Strategic Priorities (SPs);
- the Safeguard Policies of the World Bank;
- the Performance Standards (PSs) of the International Finance Corporation (IFC), the private financing arm of the World Bank;
- the 'Equator Principles' (EPs) of the EP Financing Institutions;
- the Hydropower Sustainability Assessment Protocol produced by the Hydropower Sustainability Assessment Forum and published by the International Hydropower Assoication ('the Protocol').

The analysis of each policy, in turn, under the same headings in each case, brings out the features which are key for the purposes of the present study (as per the ToRs).

The upper section of each table describes the scope of application, status (advisory or mandatory), date, objectives of each policy, its relation to national laws, and compliance aspects.

The lower section of each table notes how each policy addresses environmental and social issues, and provides for stakeholder engagement, as well as the degree of options assessment promoted by each policy.

In each table, extracts from the text of the policies are cited.

Based on the information in this Annex, Section 2.1 of the main text of this report compares the five policies, noting common features, as well as distinctions between them.

**The Strategic Priorities set out in the report of the World Commission on Dams-WCD**

## World Commission on Dams - the WCD Strategic Priorities

| | |
|---|---|
| **Scope of application; status and date** | All large dams, and large infrastructure projects (Foreword, p.x). The WCD Report was designed 'To communicate to governments, the private sector, civil society and affected peoples - to the entire spectrum of participants in the dams debate' (Exec Summary, p.xxviii). A combined set of five core Values, seven Strategic Priorities and 26 Guidelines which institutions, organisations or other groups/individuals are recommended to adopt/apply to dam projects. The WCD Report was published and publicly launched in November 2000. |
| **Objective** | A framework "to guide future decisions on water and energy resources development" with "criteria, guidelines and standards for the planning, design, appraisal, construction, operation, monitoring and decommissioning of dams"(Executive Summary, p.xxx). |
| **Compliance; Relation to national laws/policy** | Compliance with applicable regulations, criteria and guidelines, and project-specific negotiated agreements needs to be secured, during planning and implementation, via a mix of regulatory and non-regulatory measures including incentives and sanctions. The WCD is *complementary* to "policies, legal requirements and procedures" in-country. Dam projects on trans-boundary rivers will follow existing basin agreements, including principles of prior notification, equitable and reasonable utilisation and no significant harm, with benefit-sharing between riparian States. |
| **Options assessment** | Instead of a narrow project approach, a *range of options* is explored before any decision, through an open process of debate, assessing options according to broader national development goals with participation of a range of stakeholders. In this manner, public support and legitimacy for the chosen option is constructed. Social/environmental issues are taken into account in this process, equally with policy, institutional and technical ones. |
| **Environmental and social assessment** | Options assessment and decision-making around river development should prioritise the avoidance of impacts (including far-reaching and cumulative), followed by their minimisation and mitigation. Opportunities exist to improve benefits from existing dams and strengthen environmental/social measures The decision-making process should use existing knowledge and collect other information on functioning of the river basin (surface/ground waters), the extent/condition of water resources for different uses, including available information on water scarcity issues and allocation/sharing; also, consideration of impacts on ecosystems and species, environmental flows and livelihoods of communities, including *health* issues. In the event of uncertainties (e.g. climate change), the precautionary principle will apply. |
| **Stakeholder engagement** | The decision-making process should take account of involuntary risk-bearers, as well as being driven by the desires of voluntary risk-takers - avoiding arbitrary displacement of affected people, including women and vulnerable groups, using e.g. social impact assessment. There should be a negotiated process beginning with identification of affected populations, their use rights and the risks they face if the project goes ahead, as well as time for them to examine project proposals and to consult among themselves, based on access to information. Then, agreements may be reached, through an open and transparent process, on mitigation, re-settlement and development options/alternatives, giving the affected people a *share in the project benefits* (p.242). Where projects affect indigenous peoples, such processes are guided by their free, prior and informed *consent*. A grievance procedure should be set up providing a mechanism for addressing grievances during the resettlement plan and following construction.<br><br>Successful mitigation, resettlement and development are fundamental commitments and responsibilities of the State and the project developer. They bear the onus to satisfy affected people that moving from their current context and resources will improve their livelihoods, including *compensation for lost assets through replacement & substitution*, e.g. land for land. |
| **Experts** | Impact assessments should be carried out independently of the interests of the project developer with financing mechanisms reflecting this independence. Environmental and social studies and technical studies should be integrated, with interaction between the different study groups preparing these. An independent panel may support independent and comprehensive assessment of likely impacts. |

## The Safeguard Policies of the World Bank

The World Bank's Safeguard Policies comprise 'Environmental Policies' ('environmental assessment', 'forests', 'critical natural habitats', 'pest management', 'safety of dams'), 'Social Policies' ('involuntary resettlement', 'indigenous peoples', 'physical cultural resources'), 'Legal Policies' ('international waterways', 'disputed areas').

For environmental assessment (EA) purposes, the World Bank categorises projects and the need to carry out EAs as follows:-

- a proposed project is classified as 'Category A' if it is likely to have significant adverse environmental impacts that are sensitive[106], diverse or unprecedented;

- a proposed project is classified as 'Category B' if its potential adverse environmental impacts on human populations or environmentally important areas, including wetlands, forests, grasslands and other natural habitats, are less adverse than those of Category A projects; these impacts are 'site-specific'; few if any are irreversible; and in most cases mitigation measures can be designed more readily than for Category A projects. The scope of EA for a Category B project may vary from project to project, but it is narrower than for Category A projects;

- a proposed project is classified 'Category C' if it is likely to have minimal or no adverse environmental impacts. Beyond screening (the initial process by which the need for an EA and its extent/type is determined), no further EA action is required for a Category C project.

The Safeguard Policies stress that the environmental management plan is to be established within the project, 'integrated within its overall planning, design, budget and implementation'. From the particular perspective of populations affected by projects, the Bank's Safeguard Policies provide some reassurance that, for example, the resettlement plan will form part of the project (the notion of an 'integral' part, of equal priority as other project components, is more demanding).

Notes:
Where domestic law does not meet the standard of compensation at replacement cost, compensation under domestic law is supplemented by additional measures necessary to meet the replacement cost standard (Operational Policy (OP) 4.12, Annex A, in the footnote defining 'replacement cost').

Bank Procedures (BP) 4.12 on involuntary resettlement notes that the World Bank and the Borrower should review past borrower and likely implementing agency's experience with similar operations (paragraph 2 (d)).

In BP 7.50 on Projects on International Waterways, there is a key requirement of notification by a prospective borrower of a project to other riparian States, with time to respond.

[106]If the impacts 'may be irreversible', or raise issues under the Operational Policies for e.g. Natural Habitats, Involuntary Settlement or Indigenous Peoples.

**World Bank - the Safeguard Policies** Source: http://web.worldbank.org

| | |
|---|---|
| **Scope of application; status; date** | All investment projects funded by the IDA or IBRD (to governments/public bodies) including a range of infrastructure types. Guidelines mandatorily applicable by World Bank staff, and Borrowers who choose to accept World Bank funding. The policies pre-date WCD and were revised in 2007. |
| **Objective; compliance** | 'To prevent and mitigate undue harm to people and their environment in the development process' and 'to support integration of environmental and social aspects of projects into the decision-making process'. Borrower to report on compliance during project implementation. In deciding whether to support a project, the Bank takes into account the Borrower's ability to implement mitigation measures. |
| **Relation to national laws/policy** | Environmental assessment (EA) '*takes into account* 'national legislation and institutional capabilities relating to the environment and social aspects. |
| **Options assessment** | The principal focus here is on *projects*: assessment of 'project alternatives' (including 'no project') and 'alternative project designs'. World Bank staff are, however, required to verify existence of a coherent sector policy and least-cost sector plan which supports the economic rationale of the proposed project. Large infrastructure projects require a cumulative impact assessment, which can mean taking into account basin-wide phenomena. Beyond that, wider assessment of alternative development options forms part of processes other than the EA (e.g. in preparation of country assistance strategies). |
| **Environmental assessment** | Avoidance/preventive measures to be preferred over mitigation, where feasible. Impacts (direct, indirect and cumulative) in the area of project influence, including the 'watershed'. Bank support should avoid funding projects which involve significant conversion or degradation of critical natural habitats (protected areas). Conduct forest inventories. An Environmental Management Plan (EMP) is essential for 'Category A' projects. The EMP is to be established within the project, 'integrated within its overall planning, design, budget and implementation'. Environmental/social studies to be integrated with analyses on economic/financial, institutional and technical aspects. |
| **Social assessment** | Census to determine project-affected persons (PAPs). Socio-economic surveys of to-be-taken land, loss of assets, income sources or means of livelihood, standards of living, including *health* issues (Op 4.12 on resettlement) including data on vulnerable groups and analysis of gender issues. Consultation with PAPs is to be '*meaningful'* (OP 4.36). Consult with them on resettlement alternatives. Compensate for adverse project impacts, and enhance positive impacts, with transitional support and development alternatives; 'land-based' compensation preferred; valuation at 'replacement cost'. *Benefit-sharing* to be set out in Resettlement Plan. Grievance mechanism to be defined. |
| **Stakeholder engagement** | Consultation (on Category A and B projects) with PAPs and local NGOs which 'takes their views into account', before writing the ToRs of the EA and upon draft EA report. Provision of relevant information material in a timely manner, in accessible form and language. For indigenous peoples, 'free, prior and informed *consultation* 'to fully identify their views and ascertain their broad community support for the project, 'without which the project is not to proceed, a consultation that 'occurs freely and voluntarily without external manipulation, interference or coercion', for which the parties consulted have 'prior access to information on the intent/scope of the proposed project in a culturally appropriate manner, form, and language'. |
| **Experts** | For Category A projects, the Borrower is to retain independent EA experts not affiliated with the project to carry out the EA. For those Category A projects which are 'highly risky or contentious or involve serious and multidimensional environmental concerns', the borrower should 'normally also engage an independent environmental advisory panel'. For dam and reservoir projects, 'independent, recognized experts or firms'; discretion as to use of an independent environmental advisory panel. |

## The Performance Standards of the International Finance Corporation (IFC)

The approach of the Performance Standards of the International Finance Corporation (IFC) is in many respects similar to that under the Safeguard Policies of the World Bank.

IFC Performance Standard 1. requires the borrower (‘client’) to establish a ‘Social and Environmental Assessment and Management System’ to identify the social and environmental impacts, risks, and opportunities of projects and manage social and environmental performance throughout the life of the project.

The borrower/client also needs to conduct ‘effective community engagement through disclosure of project-related information and consultation with local communities on matters that directly affect them.

Performance Standards 2 to 8 - relating, successively, to ‘Labour and Working Conditions’, ‘Pollution Prevention and Abatement’, ‘Community Health, Safety and Security’, ‘Land Acquisition and Involuntary Resettlement’, ‘Biodiversity Conservation and Sustainable Natural Resource Management’, ‘Indigenous Peoples’ and ‘Cultural Heritage’ - describe potential social and environmental impacts which arise, particularly in emerging markets and require to be avoided, reduced, mitigated or compensated for, including improving conditions ‘where appropriate’.

The IFC notes, in the first paragraph of Performance Standard 1, that the social and environmental sustainability of a project forms an important part of the contribution the project will make to positive development results.

## International Finance Corporation - the IFC Performance Standards

| | |
|---|---|
| **Scope of application, status and date** | Apply to all investments by the IFC (to the private sector) - or by other financial institutions opting to adopt this set of Performance Standards (PSs) which have to be met throughout the life of the investment by the IFC. The standards applying are set out in the 2006 document, which is currently being reviewed by the IFC. |
| **Objective** | To identify the social/environmental impacts of projects, both (negative) risks and (positive) opportunities, within the project's zone of influence. Throughout projects' lives, to manage social and environmental performance, as an 'integrated' part of the 'overall business management process'. To avoid, or where not possible, reduce, mitigate or *compensate* for effects on workers, affected communities and the environment. To conduct effective community engagement through disclosure of project-related information and consultation with local communities on matters directly affecting them. |
| **Compliance Relation to national laws** | The borrower ('client') will establish, maintain, and strengthen as necessary an organisational structure that defines roles, responsibilities, and authority to implement the programme of management of social/environmental impacts. The IFC standards are complementary to national laws with which the client must comply. |
| **Environmental and social assessment** | The client is to establish a 'Social and Environmental Assessment and Management System' to identify risks (avoid if possible) and manage impacts (including cumulative, and beyond area of project influence if due to planned activity or unplanned but predictable), during all key stages of the project cycle, including *health* aspects and issues affecting *disadvantaged and vulnerable groups*. Projects with potential significant adverse impacts (diverse, irreversible or unprecedented) will have comprehensive (cf. narrower) Assessments.<br><br>Clients involved in: - natural forest harvesting or plantation development will not cause any conversion or degradation of critical habitat; - production/harvesting of fish or other aquatic species must demonstrate their activities are undertaken in a sustainable manner, through application of an internationally accepted system of independent certification, if available, or through appropriate studies carried out in conjunction with the Assessment process. |
| **Options assessment** | In *exceptional* circumstances, in addition to the social and environmental impact assessment, other assessment on a regional, sectoral, or strategic level may be necessary to evaluate and compare the impact of *alternative development options*. In such cases, the IFC will work with the client to identify existing data and studies already carried out by other institutions, such as the World Bank, other multilateral financial institutions and/or national agencies. |
| **Stakeholder engagement** | The client will conduct *consultation* with affected communities (for projects with significant adverse impacts, with free, prior and informed consultation) in an ongoing process to build and maintain over time a constructive relationship, free of coercion/intimidation, external manipulation and interference. Consultation entails supply of timely, relevant & accessible (culturally appropriate) information. Grievance mechanisms will be scaled to risks and adverse impacts. The management system will include monitoring, and reporting (internal and external). Vulnerable persons will require particular measures so as not to be disproportionately affected and miss out on *sharing* of development *benefits* and opportunities. Where involuntary resettlement is unavoidable, the client will (PS-5) carry out a census with appropriate socio-economic baseline data to identify the persons who will be displaced by the project, to determine who will be eligible for *compensation* and assistance, based on a resettlement action plan (RAP). Compensation for lost assets should be calculated at full replacement cost (market value of assets, plus transaction costs). |
| **Experts** | The Assessment will be 'an adequate, accurate, and objective evaluation and presentation of the issues, prepared by qualified and experienced persons. In projects with significant adverse impacts or involving technically complex issues, clients should consider retaining *external* experts to assist in the conduct of all or part of the Assessment. In some high-risk cases, IFC may require a panel of external experts to advise the client and/or IFC. |

## The 'Equator Principles' adopted by the 'EP' Financial Institutions

As noted in the press release of 1st July, 2010 announcing new governance rules for the Equator Principles Association, the Equator Principles (EPs) have been developed as a 'banking industry framework' for addressing environmental and social risks in project financing, i.e. in relation to that particular type of investment activity (as described in section 1.4 of the present report).

The Equator Principles Financial Institutions (EPFIs) wanted the adoption of the EPs to be a global initiative, "not just a Northern Hemisphere one - the equator seemed to represent that balance perfectly - hence the name 'Equator Principles'.

As at the beginning of July 2010, there were over 65 banks which had adopted the 'EP's, mostly banks from OECD countries, but also several Brazilian banks (*Banco do Brazil*, *Itao Unibanco SA*, *Banco Bradesco*), and a few other banks from Latin America (Chile, Colombia, Argentina) and one Chinese bank (*Industrial Bank Co. Ltd*). On the EPs website, it states[107]: 'the Outreach Working Group of the EPFIs is actively engaged with institutions in China, Russia, India and Africa, Middle East and South America to encourage EPs adoption'.

As to the benefits for financial institutions, "EPFIs should be able to better assess, mitigate, document and monitor the credit and reputation risk associated with financing development projects", i.e. it is argued that adopting and applying the set of EP standards may bring a combination of business and reputational benefits. Between financial institutions, the EPs "have promoted convergence around common environmental and social standards".

As discussed in Section 1.3 of this report, one of the features of evolution of financial flows to hydropower projects since the time of publication of the WCD in 2000 has been the increasing market share of commercial banks, which, alongside the growing list of banks adopting the Equator Principles, points to an increasing role for the EPs.

The EPs state that, by adopting the EPs, the EPFIs should be able "to better assess, mitigate, document and monitor the credit and reputational risk associated with financing development projects" (Question 26, 'About the EPs').

Question 27 of 'About the EPs' asks the question; "Have the EPs hurt banks' business"? As noted in section 2.5, the response given by the authors of this written Question and Answer text is:-

> "No. The EPFIs have not seen any decline in business because of adoption, application or implementation of the EPs. In fact, the EPs have been championed by the project finance business heads of participating EPFIs. They continue to believe that having a framework for the industry will lead to greater learning among project finance institutions on environmental and social issues, and that having greater expertise in these areas will better enable them to advise clients and control risks. In other words, they continue to believe it is good for business".

[107] In the online guide, 'About the Equator Principles': http://www.equator-principles.com/documents/AbouttheEquatorPrinciples.pdf

## The Equator Principles (EPs) - adopted by the 'EP' Financial Institutions

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| **Scope of application; status; date** | Apply to project finance provided by banks which adopt the EPs to projects 'across all industry sectors'. The EPs are a set of guidelines for "determining, assessing and managing social and environmental risk in project financing", based on the International Finance Corporation (IFC) performance standards on social and environmental sustainability. Adopting banks commit "not to provide project finance to customers who are unable to meet the EPs social/environmental standards". Banks may choose to join the group of Equator Principles Financial Institutions (EPFIs). Launched in 2003 and initially adopted by 10 banks, the EPs were revised in July 2006. There are now some 67 banks who have adopted the EPs. |
| **Objective** | 'To ensure that the projects which the EPFIs finance (where capital costs exceed US$ 10 million) are developed in a socially responsible manner, reflecting sound environmental practices. By doing so, negative impacts on project-affected ecosystems and communities should be avoided, where possible, and if these impacts are unavoidable, they should be reduced, mitigated and/or *compensated* for appropriately'. |
| **Compliance** | Each EPFI commits to take all appropriate steps to embed the implementation of the EPs into its business and risk management processes, and report publicly, at least annually, about its EP implementation processes and experience. Where the borrower does not comply with environmental/social covenants, the EPFIs will work to bring the borrower back into line and thereafter, in a case of continuing breach, exercise remedies. |
| **Relation to national laws/policy** | The EPs are *complementary* to host country social/environmental laws, regulations and permits with which the borrower undertakes, in finance agreements, to comply. |
| **Options assessment** | The EPs focus on projects: under Principle 2, the issues potentially to be addressed by the Social and Environmental Assessment documentation may include, "where applicable", among other topics listed in the illustrative list in Exhibit II, "b) consideration of feasible environmentally and socially preferable alternatives". |
| **Environmental and social assessment** | Under the EPs, borrowers must conduct a social/environmental assessment of a proposed project including *community health, safety and security*. EPFIs categorise projects into high, medium and low social/environmental risk (the IFC's categories). For all projects designated 'Category A' or 'B' (as defined as under the World Bank Safeguard Policies) in low-income or non-OECD middle-income countries, borrowers must conduct a Social and Environmental Assessment process (including labour, health and safety) of a proposed project in its area of influence. From the Assessment, the borrower will then draw up an Action Plan describing and prioritising mitigation and monitoring measures in line with the IFC Performance Standards, through a Social and Environmental Management System. |
| **Stakeholder engagement** | In relation to Category A projects which have *significant* adverse impacts (including cumulative) on affected communities, engagement must be conducted according to a free, prior and informed *consultation* process, in order to establish to the satisfaction of the EPFI, whether the project has adequately affected communities' concerns. The Assessment and Action Plan will be made available to the public by the borrower. To ensure that this consultation, disclosure and community engagement continues throughout construction and operation of the project, the borrower must establish a grievance mechanism to address and resolve community concerns and complaints.<br><br>On *benefit-sharing* and *compensation*, see the IFC Performance Standards. |
| **Experts** | For all Category A projects, EPFIs require appointment of an independent environmental and/or social expert not directly associated with the borrower to review the Assessment and Action Plan, and consultation process documentation in order to assist the EPFI's due diligence and assess Equator Principles compliance. |

### The Hydropower Sustainability Assessment Protocol, published by the IHA

The Protocol offers an assessment tool which can be adopted and applied actors involved in hydropower projects. As noted in section 2.1 of the present report, the Protocol does not seek to specify a standard: components of projects (called 'sustainability topics') are assessed individually to draw up a 'sustainability profile' of the project, without *scoring* the project as a whole. The idea (p.8 of the Background Document) is that performance under each project component works towards the 'basic good practice' ('Level 3' on a scale of Level 1 to Level 5) as described at each of the 'Preparation', Implementation' and 'Operation' stages, and thereafter up to the higher levels.

The Protocol is the product of a collaborative process of over 2 years, namely the *Hydropower Sustainability Assessment Forum* (HSAF) in which representatives of "developing countries, developed countries, the hydropower sector, the finance sector and NGOs (both environmental and social aspects)" participated (listed on the Acknowledgements page of the September 2010 version of the Protocol). A feature of this dialogue was the participation of a Chinese research institute and engineering consulting group.

The value of the approach is in the inclusion on the 'radar' of project promoters and developers of environmental and social aspects, alongside the economic/financial and technical ones. Some commentators regard this as no advance on the WCD and some NGOs are concerned that the Protocol will take effect to "dilute" the standards in the WCD. But, as discussed in section 2.1, the publication by the WCD of its guidelines did *not* result in adoption by the industry of the environmental and social safeguards which the WCD was promoting (whatever the rights and wrongs of that lack of 'buy-in'). One NGO representative acknowledged that the Protocol is not intended to replace WCD. "The score-card against each of the 'sustainability topics' allows a project to see where it is placed in terms of performance and project leaders can monitor/move performance to a higher score".

Goodland, 2010 laments (p.384) that the Protocol is a "complicated system of scoring and ranking without defining any clear minimum standards which developers must follow". By comparison, the World Bank Safeguard Policies prescribe one standard with which developers and other project participants are required to comply. "A sliding scale of scores is less straightforward".

A key function, however, of the Protocol is to clarify industry attitudes to facets of projects (environmental and social) which go beyond technical and economic/financial aspects (from Figure 1 to Figure 2 of the present report). The advantage of the Protocol, commented several key informants, is as a "*platform for engagement*", and, for this, the sliding scale is an advantage because it allows for flexibility. One NGO reported that the Protocol was already serving as a 'neutral' agenda around which to meet and discuss with major electricity/power utilities. "It is not always useful to push for the gold standard" commented another person consulted.

The Background Document notes that the Protocol offers a tool which is "complementary" to the procedures conducted under national laws/regulations (p.12). Adoption of the Protocol may also be complementary to application of guidelines set by financing institutions, e.g. the Safeguard Principles and the Equator Principles. The finance sector has been represented on the HSAF and the IHA has kept the World Bank and Equator institutions informed of evolution of the Protocol including detailed wording on what constitutes basic good practice (where financiers' guidelines touch the same topic areas), i.e. there is inter-action between the different policies.

One question raised during the scoping interviews of the present study is whether, confronted with the scale, under the terms of the Protocol, of different possible levels of standards in relation to environmental and social goals, developers will have the resolve to maintain a level of achievement. Under the Safeguard Policies of the World Bank, as well as the IFC Performance Standards and the Equator Principles, a standard is specified by the third party bank/financier, whose position is: "*Accept our offer of finance, and you must fulfil this standard which we have set thus*". Then, during implementation/operation, in principle the bank/lender watches over any fluctuations in the developer's resolve. Under the Protocol, the issue arises of whether there a risk that, in practice, environmental and social performance will slide back down, as-it-were, a slippery slope from Level 3 to Level 2, to Level 1. The counter-argument, as noted above, is that the Protocol has an advantage in terms of flexibility. As discussed in section 2.5 of this report, the leverage which banks exert on developers/operators and governments arguably reduces *after* the preparation stage of projects, once the boards of banks have approved loans.

## The Hydropower Sustainability Assessment Protocol

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| **Scope of application; status** | Designed for hydropower projects. For use, principally, by the project leader (at each stage), i.e. the project promoter/developer at the first 'Early' stage and second 'Preparation' stage, as well as the electricity utility/operator at the third and fourth 'Implementation' and 'Operation' phases. Assessment tool, which points to performance levels, rather than specifiying one standard for performance (p.4). IHA members and other actors may choose (or not) to use the Protocol.<br><br>At 'Preparation', 'Implementation' and 'Operation' stages *scoring* is done of performance on topics relating to environmental and social as well as technical, economic and financial aspects. Scoring of topics is done on a spectrum of 1. to 5., where Level 3 is 'basic good practice' and Level 5 is 'proven best practice'. Under Level 1, there are 'significant gaps relative to basic good practice'. Level 2 signifies that 'most relevant elements of basic good practice have been undertaken, but there is a significant gap'. Under Level 4, 'all elements of good practice have been undertaken and in one or more cases exceeded, but there are one or more significant gaps in the requirements for proven best practice' (p.8/9). |
| **Date** | The revised Protocol, of September 2010, proposed for endorsement by the participants of the IHA-led Sustainability Forum, and for adoption by IHA members. |
| **Objective** | To develop (and progressively refine) a tool with which to assess the degree of sustainability of hydropower projects. The aim is to provide more consistency in measuring performance in the hydropower sector. Graded performance provides the opportunity to promote '*structured, continuous improvement*' (p.2). |
| **Compliance; relation to national laws/policy** | 'First and foremost, a project is expected to comply with the laws and concession or permits of the government of the country in which the project is to be situated. The Protocol offers a *complementary* tool, on a voluntary basis…'. (p12). |
| **Options assessment** | The 'Early' Stage assessment of projects includes 'Options Assessment' (ES2), although the scope is not as far reaching as under Strategic Priority 2 of the WCD. |
| **Environmental and social assessment** | Environmental/social risks and impact assessment and management, including '*Public Health*', are to be considered at all 4 stages of projects (avoid, if possible). 'Impacts' include those outside the jurisdictional boundaries of the project, within realistic boundaries and by reference to reasonably foreseeable future actions, as well as cumulative impacts (p.9). Basic good practice includes development and disclosure of 'environmental and social issues management plans /processes' (p.9). No specific linking with technical issues is referred to; the extent of 'synergies or trade-offs amongst economic, social and environmental values' (p.3) will be up to project leaders/actors. *Gender analysis* is one source of evidence, including in cases of resettlement, with vulnerable groups identified. |
| **Stakeholder engagement** | Basic good practice involves engagement with project affected communities which has been appropriately timed and 'often two-way' (or 'two-way' on resettlement, P-14), and 'ongoing processes are in place for project affected communities to raise issues and receive feedback'. Best practice would be for *consent* for the project sought and gained by directly affected indigenous groups (P15 in the latest version of the Protocol where the IHA reserves judgement as to whether this is *proven* best practice). Resettlement will 'improve livelihoods and living standards (Level 3, P-14). P-10 (Level 3) addresses 'the additional benefits that can arise from a hydropower project and the *sharing of benefits* beyond one-time compensation payments or resettlement support for project-affected communities'. Examples of benefits could be: 'equitable access to electricity services', or 'revenue-sharing' (part of direct monetary benefits of hydropower). Resettlement action plans (RAPs) are to include grievance mechanisms. |
| **Experts** | 'Assessors may be internal or external to the project', depending on the level of transparency and independence which is sought. 'One or two assessors would be considered appropriate for an assessment' (p.13). |