Innovative approaches to financing local development for communities affected by hydropower reservoirs in Guinea

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Abstract
Budgets are typically provided for in Environmental and Social Management Plans (ESMPs) and Resettlement Action Plans (RAPs) to mitigate the short term impacts of hydroelectric projects on the biophysical and human environments. However, the success of these ad hoc actions is often compromised by a lack of sustainable medium and long financing to reestablish local livelihoods. At the global level, sharing of the benefits from hydroelectric generation is becoming part of good practice, advocated for example by the International Hydropower Association (IHA) and the ECOWAS Directive on Large Water Infrastructure. The paper presents results from field surveys and interviews with stakeholders upstream and downstream of hydro projects in Guinea. Various financing scenarios are analyzed, showing the long-term amounts that can be mobilized and their impact on tariffs and future hydroelectric development. Institutional and legal management mechanisms to deliver this financing to local communities are discussed.
For the approach in Guinea to be politically viable it had to :

1. Provide regular and sufficient annual funding to support local development over a 20-30 year period to be determined for each dam according to need;
2. Be acceptable to the electricity consumer; and
3. Avoid compromising the national investment programme of hydropower development.

The paper focuses on how to internalize a viable finance stream within hydropower projects that can meet the long-term requirements of local communities, beyond what is done for them during the resettlement action plan, thereby ensuring that they become direct beneficiaries of the project that has affected them.

1 Introduction

Hydroelectric development has long-term impacts on project-affected people (PAP), whether they are physically and economically displaced or hosts. Budgets are typically provided for in Environmental and Social Management Plans (ESMPs) and Resettlement Action Plans (RAPs) to mitigate the impacts of hydroelectric projects on the biophysical and human environments. However, these *ad hoc* actions during the construction of projects often suffer from a lack of monitoring and availability of sustainable financing after the first two or three years of project implementation.

At the global level, actions to restore livelihoods and to mobilize local communities are increasingly being implemented at the time of resettlement, particularly projects with World Bank support. Sharing of the financial benefits from hydroelectric generation is also becoming part of good practice, as advocated by the International Hydropower Association (IHA) and the ECOWAS Directive on Large Water Infrastructure.

This paper is based on case study reports, a review of policies for the sharing of revenue from hydroelectric projects around the world and a specific study undertaken in Guinea. Results from field surveys and interviews with stakeholders upstream and downstream of hydro projects in Guinea are presented. Various financing scenarios were analyzed showing the long-term amounts that can be mobilized to finance local development and the impact on tariffs and future hydroelectric development. Institutional and legal management mechanisms identified at both the national and local levels are compared. The study and therefore this paper focuses on the long-term requirements of the Project Affected People[1] (PAP), beyond what is done for them during the resettlement action plan (RAP) that is typically limited to the periods of (pre-) construction and the first 2-3 years of project operation, and particularly delivers infrastructure provision (housing, roads, water supply etc) - livelihood restoration typically takes much longer to achieve.

[1] PAP here is used to refer to the number of people resettled. It does not include host communities, or downstream communities who may also be affected by the project.

For the study in Guinea, the steering group of the project determined that implementation of any financing mechanisms had to satisfy three main financial requirements:

1. Provide regular and sufficient annual funding to support local development over a period to be determined for each dam;

2. Be acceptable/affordable to the electricity consumer;

3. Not compromise the economic and financial viability of the national investment program in hydropower development.

In addition, it is important to put in place an effective management model for these funds to ensure that they the PAP benefit directly and are controlled/influenced by the.

The main purpose of these actions is to maintain and create sustainable livelihoods and/or employment opportunities in an environment for PAP often different from the one they had to leave because of the construction of the dam. Some of these funds can also be used to finance sediment control projects in reservoir watersheds and (re) forestry and vegetation projects that specifically prolong the life of the reservoir, allowing for better hydroelectric power generation of interest to the dam owners/managers.

The establishment of a financial mechanism to support the improvement of the living conditions of PAP takes account of existing similar mechanisms. The results of this review make it possible to make better proposals adapted to the realities of the areas impacted by hydroelectric developments in Guinea or in other countries. Since there is no "standard dam" and each site has its own characteristics (cost, energy production, number of PAP, natural resources, etc.), this study for Guinea is inspired by the realities of the existing Kaleta and Garafiri dams and by international experience on other projects around the world. The dam projects of Souapiti, under construction and Fomi, whose studies are relatively advanced, also contributed to the analysis.

2 Examples of Support Mechanisms for Local Development of PAP

Several countries have put in place policies to support the local development of areas affected by hydroelectric dams in West Africa and elsewhere in the world (Table 1). Each system is adapted to the specific needs of the country in question but aims to redistribute the financial flows generated by hydropower generation to offset its direct and indirect impacts.

Table 1: Examples of revenue sharing from the sale of electricity

Characteristics	Description	Countries
Objectives	Intensify regional development around dam construction projects Provide infrastructure funding for reservoir areas, including areas where people affected by dam construction are resettled Provide additional long-term and retroactive compensation for PAP as a result of dam construction.	Niger, Ghana, Sierra Leone, India, China, Colombia, Norway, Canada, Brazil
Financing	Funding Levy corresponding to 2 or 3% of plant output.	Niger (proposed)
	Regional allocation of 12% allocation for electricity	India

	generation.	
	Standard levy of 0.08 cents per kWh on the electricity tariff levied on all hydroelectric projects in the country.	China
	Annual payment of a fixed amount (US$500,000) to finance development projects in the 52 resettlement communities.	Ghana
	Levy of water use tax : 45% paid to municipalities losing land due to flooding of reservoirs; 45% paid to the authorities of the state or province where the project is located; and 10% paid to the federal government to fund regulatory functions.	Brazil
	Taxes levied on profits by electricity companies and paid to regional and local authorities. Taxes on resources paid to regional and local authorities. Licensing fees paid to regional and local authorities. Dividends earned by shares held by communities in hydroelectric companies. Municipal property tax levied on the basis of 0.7% of the market value of electrical installations. Payment of a fixed amount to a commercial development fund.	Norway
	1.5% of project revenues for municipalities affected by the reservoir, and 1.5% for municipalities in the watershed upstream of the dam.	Colombia
	Establishment of a permanent fund.	India

In many countries, resettlement processes have been characterized by weaknesses due to inadequate payments for compensation, failure to take account of certain assets and property affected, lack of socio-anthropological awareness, and poor infrastructure construction that does not always meet the needs of those affected. Lack of resettlement planning may affect the resettlement process, especially when funding for the resettlement of PAP is achieved through a national budget, usually limited.

Despite the evolution of resettlement policies since 1990, the living conditions of displaced PAP and hosts often deteriorate a few years after resettlement, due to the lack of a long-term vision for livelihood restoration and of the financial resources available during the relocation. The significant issues raised by involuntary esettlement mainly concern issues of socio-economic development, culture, demography, land rights and the creation of new local wealth and jobs. Insufficient funds to cover all stages of resettlement over 10-15-20 years often lead to increased poverty and a reduction in displaced people's living conditions.

It is for all these reasons that many countries continue to provide, in one way or another, additional financial support over the long term in order to promote a sustainable and positive reintegration of displaced people.

3 Field Consultations in Guinea

Field visits to existing dams (Garafiri, Kaleta and Souapiti) made it possible to identify, in consultation with the PAP, the realities they face in order to restore their livelihoods. Additional meetings and exchanges with the technical development services and local elected representatives made it possible to better understand the challenges of sustainable local development in the affected area and to quantify the investment needs.

In all the reservoir areas that were visited, PAP have benefited from some form of modern infrastructure for housing, health facilities, schools, markets, mosques and water points. However, maintaining the livelihoods of PAP in the long term, including secure access to agricultural land and the restoration of production systems, remains problematic. This explains the significant financial needs in support of local development expressed during the field surveys and summarized below (Table 2). The needs assessment was based on the concerns expressed by the PAP. These needs are essentially complementary in terms of housing, health infrastructure, income-generating activities (agriculture, fishing, industry, tourism) and the preservation of the environment of the basin. PAP investment requirements for a five year initial period range from $ 184/PAP/year (village of Madina Kagneguiri) to $ 812/PAP/year (village of Sangoyah), with an average of $ 351/PAP/year. This is relatively high because the initial investments in resettlement have not been sufficient in relation to the actual needs of the PAP, especially for their sustainable socio-economic development. It is expected that, once local infrastructure needs have been addressed, the annual long term investment needs for livelihood support will be lower.

Table 2 : Summary of financial needs per village resettled by Garafiri and Kaleta dams (US dollars, five years)

	Garafiri Centre	**Sangoyah**	**Kassia**	**Kaleta**	**Yaba**	**Madina Kagneguiri**
Number of PAP	**1,900**	**67**	**370**	**250**	**350**	**450**
Livelihood improvement	2,547,763	256,000	778,275	918,030	664,300	349,000
Watershed management	60,050	3,050	12,700	8,400	24,400	45,400
Total	2,607,813	259,050	790,975	926,430	688,700	394,400

Contingencies (5%)	130,391	12,953	39,549	46,322	34,435	19,720
Total	2,738,203	272,003	830,524	972,752	723,135	414,120
Costs $/PAP/yr	**288**	**812**	**449**	**778**	**413**	**184**

Very often, official speeches present the PAP as people who have improved standards of living, with modern houses and access to electricity, water, etc. However, the observations and data collected during the field visits, which illustrate the situation observed on the ground, show a different situation and justify the proposed recommendations for the establishment of complementary financing mechanisms for long-term local development and particularly local livelihoods.

The study also analyzed the experience of the mining sector in Guinea where the legal framework for sharing benefits with local communities is already clear. The mining code stipulates that holders of a mining title must contract a development agreement with the local communities. The finance is fixed at 0.5% of the company's turnover on the mining title for that area for Category 1 minerals, and at 1.0% for other minerals. Additional taxes are also paid to local municipalities.

Any financial contribution of hydropower production to local development will require a legal and political framework. In Guinea, national legal texts require that the communities must benefit from the positive effects of the exploitation of the natural resources of their territory. Article 1 of the Water Code stipulates that the development of water resources in the country must consider the social, economic and cultural needs of the nation. In Article 21, the same code stipulates that any use of water resources must respect the existing and future uses specified in the watershed development plan. These provisions are in perfect harmony with the Guinean constitution and reflect concerns related to the development of local communities.

Section 29 of the Communities' Code provides that communities must be consulted and involved in all investment programs as well as social, economic and cultural development, regardless of the source of funding. Article 108 of the Code stipulates that the local councils must give prior opinion on all projects concerning public investments of a regional or national nature to be carried out within their administrative area.

Guinea is not the only country confronted with the challenges related to local development and the improvement of the living conditions of PAP. To meet these challenges, there are several experiences in supporting local development in areas affected by hydroelectric dams in West Africa and elsewhere in the world (Table 1). In most cases, these funds are channelled through public sector structures or funds that then invest them in the public interest. The intention is not to make individual annual cash payments to PAP.

4 Development of Financing Scenarios

Six funding scenarios were studied to finance the long-term needs of the PAP. Although there is no generic solution that applies to all projects without exception, these funding methods provide promising ideas for possibilities that can be adapted to different kinds of project. It is worth recalling that these funds will be in addition to the planned spending for the reintegration of PAP during pre-construction, construction and during the first years of operation of hydroelectric projects. These funds will also complement the annual budgets allocated very often by the countries for the

implementation of local development plans (PDL) of the affected municipalities of the country. Funding proposed for the study in Guinea was focused on the additional needs of PAP due to the impacts of the dams on their new living conditions. On the basis of the fieldwork undertaken, and consultation within the steering committee, an indicative amount between $ 125 and $ 175 per PAP per year was proposed. This would allow substantial annual support to livelihood restoration, while not creating tensions with other non host communities due to significant disparities in funding. For Guinea and other countries, it is necessary to find a balance between the additional needs and required expenditures for the PAP and the capacity to finance and absorb these additional investment or annual costs by investors and operators, or for consumers to pay extra to cover these additional costs. Each of the scenarios presented below was used to assess whether it could generate between $ 125 and $ 175 per PAP per year that could be placed in a collective fund to finance public interest investments.

In **Scenario A**, each hydropower project would contribute individually according to its annual average electricity production with a levy on the sale tariff of kWh. The expected contribution would vary between 0.5 and 1.0% of the total sale tariff and increase the cost to consumers by around 0.1 $c/kWh. (Table 3).

In **Scenario B**, funding would be collected from all electricity sales and the financing would come from the electricity company and not from each project individually. The impact on the cost of kWh would vary between 2.5 and 7.5% of the consumer tariff (Table 4). As government already subsidies electricity consumption, consumers do not pay the real cost of production. In reality the government would simply pay more to cover the annual deficits at *Electricité de Guinée* (EDG).

In **Scenario C**, a special PAP fund would be established at the time of project financing in agreement with donors, aid agencies, and public and private investors involved in the projects. This capital fund would be invested during the years of construction and the first two or three years of operation before being distributed over a fixed period. The analysis shows an example for the Souapiti project in Guinea, with an additional 1.0 to 3.0% financing of the total construction cost of the project, and on the basis of a disbursement period of 20 years and an expected average interest rate of 3.5% (Table 5).

In **Scenario D**, an Equity Investment Fund would be created for the PAP who would participate directly in the company that is created for a Project Concession. In this case, a portion (5 to 15%) of the total equity value of the project would be provided in an Equity Investment Fund on behalf of the PAP. The annual dividends received by the Investment Fund would then be used by the PAP as investments in socio-economic development activities (Table 6).

In **Scenario E**, financing would be through an additional amount in the annual operating and maintenance budgets of each hydroelectric project. It would require that an additional amount be added to the annual maintenance and maintenance budgets to help restore the living conditions of PAP. The analysis shows an example for the combined Kaléta and Souapiti projects, on the basis of an additional funding of 10.0 to 15.0% of the annual operating budget of the projects (Table 7).

In **Scenario F**, mixed levies from the above five scenarios or two or three scenarios creates would make the required financial contributions. The analysis shows an example for the Souapiti project, on the basis of an additional 1.0 to 2.0% financing for the construction of the project (Scenario C) and on the basis of additional funding of 5.0 to 10.0% of the project's annual operating budget (Scenario E) (Table 8).

Table 3. Scenario A – a levy on sales of hydropower from each dam

		Kaléta		Souapiti		Kaléta & Souapiti	
Population affected (PAP)		500	500	15,000	15,000	15,500	15,500
Average production cost per kWh	cents/kWh	10.0	10.0	10.0	10.0	10.0	10.0
Annual sales	US $million	120	120	190	190	310	310
Impact on price per kWh	**%**	**0.5%**	**1.0%**	**0.5%**	**1.0%**	**0.5%**	**1.0%**
Impact on price per kWh	cents/kWh	0.050	0.100	0.050	0.100	0.050	0.100
Funds available for PAPs	US $	602,250	1,204,500	949,500	1,899,000	1,551,750	3,103,500
Annual amount per PAP	**$/PAP/year**	**1,205**	**2,409**	**63**	**127**	**100**	**200**

Table 4. A levy on all electricity sales by *Electricité de Guinée*

Total sales of EDG	GWh	800	800	800	800
Annual sale price	cents/kWh	10.0	10.0	10.0	10.0
Annual income	US $ million	80.0	80.0	80.0	80.0
Funds available for PAPs	%	**2.50%**	**5.0%**	**7.5%**	**5.6%**
Funds available for PAPs	US $	2,000,000	4,000,000	6,000,000	4,500,000
Total number of PAPs		30,000	30,000	30,000	30,000
Annual funds per PAP	**$/PAP/yr**	**66.7**	**133.3**	**200.0**	**150.0**
Impact on the price per kWh	**%**	**2.5%**	**5.0%**	**7.5%**	**5.6%**

Table 5 Scenario C. Capital fund established at project financing.

		Souapiti		
		Alternative A	Alternative C	B/C
Capacity	MW	450	450	450
Annual production	GWh	1,899.0	1,899.0	1,899.0
Affected popualtion (PAP)		15,000	15,000	15,000.0
Construction cost	$/kW	3,000	3,000	3,000
Construction cost	$ million	1,350.0	1,350.0	1,350.0
Finance for PAPs	**%**	**1.0%**	**3.0%**	**1.8%**
Finance for PAPs	**$ million**	**13.5**	**40.5**	24,284,392.4
Construction period	years	5	5	5
initial operation without finance	years	3	3	3
Annual dividends	%	3.5%	3.5%	3.5%
Future value before payouts	$ million	17.8	53.3	31,977,907
Period of payouts	years	20	20	20
Annual payouts	US $	1,250,803	3,752,410	2,250,000
Annual finance per PAP	**$/PAP/year**	**83**	**250**	150
Period of payments	years	15	15	
Annual finance per PAP	**$/PAP/year**	**103**	**309**	
Period of payments	years	30	30	
Annual finance per PAP	**$/PAP/year**	**64**	**193**	

Table 6 Scenario D- establishment of an equity investment for PAP

		Kaléta/Souapiti			
		Alternative A	Alternative B	Alternative C	
Capacity	MW	700	700	700	70000.0%
Use Factor	%	50.6%	50.6%	50.6%	50.6%
Annual production	GWh	3,103.5	3,103.5	3,103.5	310350.0%
Affected Population (PAP)		15,500	15,500	15,500	15,500
Construction cost	$/kW	2,500	2,500	2,500	2,500
Construction cost	$ million	1,750.0	1,750.0	1,750.0	1,750.0
Total project equity	%	20.0%	20.0%	20.0%	20.0%
Total project equity	$ million	350.0	350.0	350.0	350.0
Equity for PAPs	**%**	**5.0%**	**7.5%**	**10.0%**	**6.6%**
Equity for PAPs	**$ million**	**17.5**	**26.3**	**35.0**	**23.3**
Annual dividends for PAPs	%	10.0%	10.0%	10.0%	10.0%
Annual dividends for PAPs	$ million	1.750	2.625	3.500	2,325,000
Annual finance per PAP	**$/PAP/année**	**113**	**169**	**226**	**150**

Table 7 Scenario E – Increment on the annual operation and maintenance budget

		Kaléta/Souapiti			
		Alternative A	Alternative B	Alternative C	
Capacity	MW	700	700	700	700
Use Factor	%	50.6%	50.6%	50.6%	50.6%
Annual production	GWh	3,103.5	3,103.5	3,103.5	3,103.5
Affected population PAP		15,500	15,500	15,500	15,500.0
Average production cost	cents/kWh	5.0	5.0	5.0	5.0
Annual income	US $	155,175,000	155,175,000	155,175,000	155,175,000
Construction costs	$/kW	2,500	2,500	2,500	2,500
Construction costs	$ million	1,750.0	1,750.0	1,750.0	1,750.0
Annual operation cost	%	1.0%	1.0%	1.0%	1.0%
Annual opertaion cost	$ million	17.5	17.5	17.5	17.5
Annual finance for PAPs	**%**	**10.0%**	**12.5%**	**15.0%**	0.0%
Annual finance for PAPs	$ million	1.8	2.2	2.6	**2**
Annual finance per PAP	**$/PAP/année**	**113**	**141**	**169**	**150**
Impact on the cost per kWh	**%**	**1.1%**	**1.4%**	**1.7%**	**1.5%**

Table 8. Scenario F – combination of Scenario C and Scenario E.

		Souapiti		
		Alternative A	Alternative B	Alternative C
Installed Capacity	MW	450	450	450
Use factor	%	48.2%	48.2%	48.2%
Annual energy produced	GWh	1,899.0	1,899.0	1,899.0
Population affected (PAP)		15,000	15,000	15,000
Construction costs	$/kW	3,000	3,000	3,000
Construction costs	$ million	1,350.0	1,350.0	1,350.0
Financing for PAP	%	1.0%	1.5%	2.0%
Financing for PAP	**$ million**	**13.5**	**20.3**	**27.0**
Duration of construction	years	5	5	5
Initial period without financing	years	3	3	3
Annual dividend yield	%	3.5%	3.5%	3.5%
Fund value before disbursement	$ million	17.8	26.7	35.6
Disbursement period	years	20	20	20
Annual funds available	US $	888,846	1,333,269	1,777,692
Annual payment per PAP	**$/PAP**	**59**	**89**	**119**
O&M costs	%	1.0%	1.0%	1.0%
O&M costs	$ million	13.5	13.5	13.5
Financing for PAP	%	5.0%	7.5%	10.0%
Financing for PAP	**$ million**	**0.7**	**1.0**	**1.4**
Annual payment per PAP	**$/PAP/yr**	**45**	**68**	**90**
Total payment per PAP	**$/PAP/année**	**104**	**156**	**209**
Aveagae cost of production	cents/kWh	5.0	5.0	5.0
Annual revenues	US $	94,950,000	94,950,000	94,950,000
Impact on the cost/kWh	**%**	**0.7%**	**1.1%**	**1.4%**

Figure 1 shows the results of the six scenarios analyzed as well as the average annual spending band of $ 125 to $ 175 per PAP per year. All scenarios can provide an average of $ 150 per PAP per year using appropriate funding criteria.

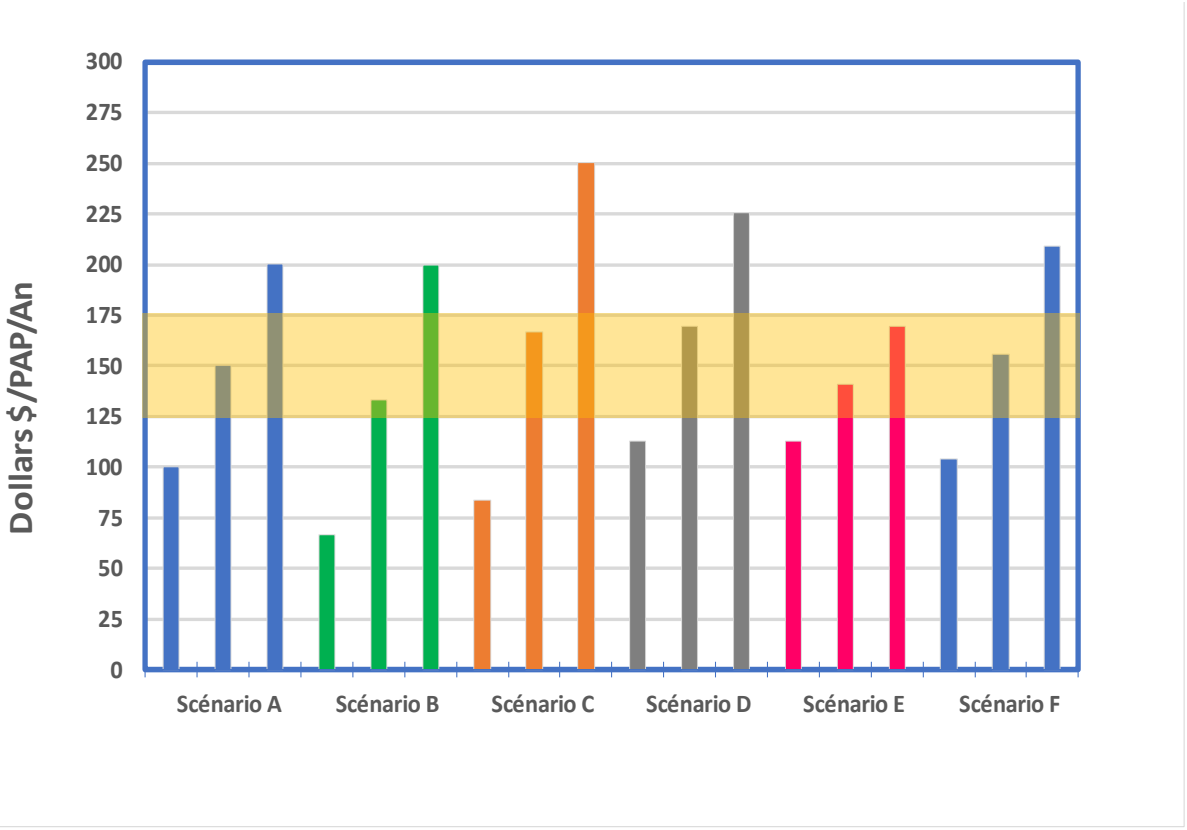

Figure 1. Funding per PAP per year (US dollars) provided by each funding scenario

Table 9 presents the evaluation of the various scenarios based on six criteria. Indicators from 1 (very significant or negative impact) to 5 (very low or positive impact) were used to evaluate the different scenarios. This grid was discussed during workshops and meetings held in Conakry with the representatives of various ministries and the *Electricité de Guinée* (EDG).. The criteria and results are of course related to the conditions in Guinea. For other countries, a similar matrix will need to be discussed and criteria agreed and evaluated.

Table 9. Evaluation of the different financing scenarios

Evaluation criteria	**Scenarios**					
	A	**B**	**C**	**D**	**E**	**F**
	Hydropower sales	**All energy sales**	**Project financing**	**Equity**	**O&M**	**Mixed**
Impact on the cost per kWh	3	1	4	4	3	4
Impacts on hydropowe investment	3	3	3	2	2	3
Capacity to finance the project	4	4	3	2	4	3
Participation of PAP	2	2	3	5	2	3
Feasability of mobilising the necessary resources	3	2	4	5	3	4
Institutional viability in the Guinea context	3	3	4	1	3	3
Total	**18**	**15**	**21**	**19**	**17**	**20**
1 indicates high or negative impact; 5 for low or positive impact						

Scenario C has the best score, followed closely by Scenario F, then Scenarios D, A, E and finally B. Scenario C corresponds to the creation of a PAP Special Fund in the initial funding of private sector hydroelectric projects. Scenario F is a mixed scenario that would include financial input from two or

more scenarios. Some flexibility will be required to optimize the best financing scenarios with the partners responsible for the investment, construction and operation of these projects. Scenarios C and F also meet the three requirements mentioned in the introduction.

5 Management Scenarios for the Proposed Funds

The choice of management methods for a local development fund is essentially between two main models, which must in all cases consider the involvement of community structures and PAP. The first model is centralized and involves a National Fund where all of the financial contributions are then redistributed to each project. The second model is decentralized at the level of each project or group of projects on any particular river (for example Kaléta and Souapiti in Guinea). These two models were presented and discussed during discussions and meetings held in Conakry with the representatives of various ministries and EDG.

To create a fund at the national level, it would be necessary to set up a new national agency to create and manage the National Fund or to use an existing body such as the *Programme d'Appui aux Collectivités Villageoises (PACV).* One of the disadvantages of the centralized model is to establish or modify an institutional, legal and administrative structure at the national level. This is likely to be complex and subject to the typical inefficiency of such institutions. It is likely that very little of the funding received at the national level will be effectively used by PAP at local level. It will also be difficult to decide at the national level what the actual needs of PAP at each dam will be and what finances will be made available for each project. There will be little local control.

International experience shows that in many countries local models have been established to continue to assist in the reintegration and sustainable socio-economic development of populations affected by one or a series of projects in the same basin. In Guinea, rural municipalities already have a structure in place to manage their Local Development Plans. These structures could be used to manage complementary investments for PAP while ensuring that they are complementary to the overall development plan for the community. The local presence of the on-site dam operator can also be used to provide administrative support to the process, using their financial management skills and supported by their vested interest in avoiding local corruption and misuse of funds. Contracts may be established with local organizations (eg local NGOs, municipalities, water and forestry administrations, farmers unions etc.) that will work directly with PAP to improve their livelihoods. It is proposed to separate the definition of what investments should be made, which would be undertaken by a local PAP/municipality committee, from the administration of funds which would be undertaken by the dam operator. Oversight would be provided jointly by the Ministry of Energy and Water and the Ministry for Decentralization and Local Authorities.

6 Conclusions

The review of international experiences and the results for the Guinea study show that there are several possible financing scenarios to meet local long-term development needs in municipalities affected by reservoirs. It is advisable to keep a certain flexibility because each project or group of projects has its own characteristics. For Guinea, the creation of a special PAP fund during initial project financing (Scenario C) shows many advantages (minimal impact on kWh costs, good mobilization of necessary funds, good institutional viability, etc.) and is especially appropriate for private sector investments. For other countries, Scenario D, which proposes that PAP participate directly in the Concession Company, also offers good benefits. In this case, a portion (5-15%) of the total equity value of the project is provided in an Investment Fund on behalf of the PAP. The annual dividends received by the Investment Fund are then used by the PAP as investments in development activities.

A local and decentralized model for managing these funds seems best suited to the situation in Guinea and probably also for other countries. There are ultimately only three potential sources of additional finance to support local investment : government funds; private sector funds; or income from sale of electricity to consumers. In a context where the costs of resettlement (particularly focused on new infrastructure) are already high, a political debate is needed to agree who should shoulder the burden of any additional financing. The establishment of a local fund for the long-term financing of the livelihoods of PAP along with investments to conserve the immediate river basins of hydroelectric projects has been adopted in principle by all actors in Guinea. Such an approach will make it possible to reconstruct the livelihoods of PAP more effectively and to avoid feelings of frustration which may lead in the long run to local communities rejecting hydroelectric projects that are important for the overall development of the country. Local development funds would offer more inclusive development perspectives for all.