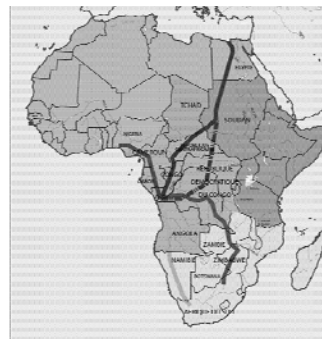


## DR Congo's Grand Inga

### *Hydro blessing or hydro curse?*

**Grand Inga** is the heart of a proposed, mega-infrastructure scheme for electricity development in Africa. The project would exploit the hydropower potential of the Inga Rapids, the world's single, most powerful hydropower site, located on the Congo River in the Democratic Republic of Congo (DRC). But the track record of more than 35 years of hydropower dams at Inga is sobering. Electricity from the Inga 1 and Inga 2 dams has helped fuel war, corruption and an elite class rather than widespread economic growth. While the DRC and the African continent face enormous energy needs, the Grand Inga scheme deserves closer scrutiny. This fact sheet provides basic information and key concerns about the Inga 1, Inga 2, Inga 3 and Grand Inga hydropower projects.



**Inga 1 Dam** (351 MW) was commissioned in 1972 and the much larger, **Inga 2 Dam** (1,424 MW) was commissioned in 1982. Both dams were built under the country's former dictator Mobutu Sese Seko, regardless that feasibility studies at the time found both projects uneconomical and far in excess of the existing electricity needs.

A 1,800 km high-voltage transmission line was built to deliver Inga 2's power to the country's copper mines in the southeast, yet bypassing virtually everyone along the way. Investments in Inga 1, Inga 2, and the transmission line were responsible for a significant portion of DRC's crushing debt burden. The dams never received proper maintenance and today produce less than half the electricity they are supposed to generate. The World Bank is currently leading a costly rehabilitation program for the dams and the transmission line.

The proposed **Inga 3** (3,500 MW) scheme would be a tunnel diversion that would draw water from the existing Inga reservoir. Inga 3 could

cost \$8 billion or more, including a transmission line to South Africa. DRC has signed two agreements to develop Inga 3, first with Westcor, a consortium of southern African utilities, then with BHP Billiton, the world's largest mining company. BHP Billiton intends to build a 2,000 MW aluminum smelter near Inga.

The proposed **Grand Inga** scheme would generate 44,000 MW of electricity, more than doubling the electricity production of sub-Saharan Africa (excluding South Africa). The \$80 billion scheme would dam the Congo River at the Inga Rapids and divert most of the river's flow through an adjacent valley. A series of four high-voltage transmission lines totaling more than 10,000 km would tap Grand Inga's power and transport the electricity to industrial and urban centers far away, possibly even to Europe and beyond. These transmission lines would pass over thousands of villages, connecting only to existing grids rather than extending into new areas. Project planners hope construction could begin by 2015.

## Grand Inga: Risky Business

Only one in four Africans have access to electricity and most still live too far from the grid to be connected. Grand Inga's \$80 billion investment would cement Africa's energy future as more of its past: a heavily centralized power grid with limited distribution. This energy path could keep most Africans in the dark, enrich foreign companies and widen the gap between Africa's haves and have-nots. Grand Inga could also fuel more corruption and violence rather than unity and broad development.

### Keeping Africans in the Dark

Grand Inga's octopus-like design won't support widespread access to electricity, as suggested by project planners. Instead, it will support connections only at certain, strategic locations – heavy industries and big cities.

Even for those close to the grid, Grand Inga won't include costs for new connections. Low voltage distribution is the most costly and least profitable part of a power grid; excluding it from Grand Inga's budget makes the project appear more profitable, leaving the most costly investment up to national governments.

Grand Inga would reinforce supplies for a handful of African cities, but consumers are more likely to be high- and middle- income residents.

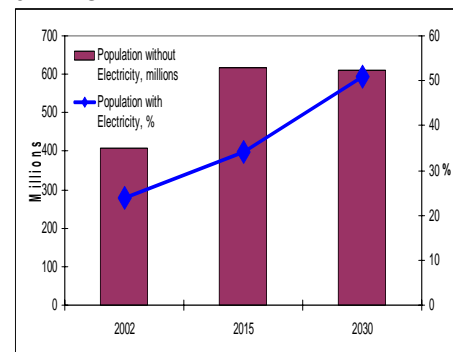
### Enriching Foreign Companies

Grand Inga's power will be disproportionately consumed by foreign-owned industries such as mines and smelters. These companies stand to make tremendous profits from their African-based enterprises.

Energy-intensive industries often receive contracts for low-cost power in exchange for promises of economic growth. However, few decent jobs are created for locals. African governments may agree to closed door, "sweetheart" deals for foreign companies which raise small revenues for the government through taxes, royalties, and power purchase agreements.

### Widening Africa's Power Gap

Electricity connections are not keeping pace with population growth. By 2030, the number of Africans without access to electricity is expected to grow, not diminish.



More money is allocated to the energy grid than to non-grid energy services which could better serve Africa's majority. It also cements the need for future investments into maintaining and expanding a centralized and inter-connected grid system.

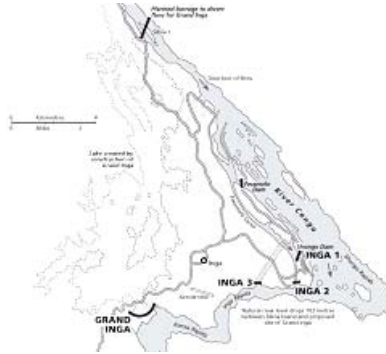
### Fueling Violence and Corruption

By design, Grand Inga would centralize a vast store of the region's electric and financial power, a development model that can foster tensions and civil wars. By supporting extractive resource industries, Grand Inga could also further fuel Africa's "resource curse". The project's enormous budget and bountiful contracts could devolve Inga into a corruption-riddled white elephant. More decentralized energy projects would spread wealth and electricity more evenly within the DRC, helping the country move away from its conflictive past.

## Grand Inga's Partners

While there is no project financing in place yet, many international institutions are working to advance the development of Grand Inga, including:

- Government of DRC
- African Union
- African Development Bank
- World Energy Council



The World Bank is also among those participating in project discussions, despite that this project may not be aligned with their poverty alleviation goals.

2006: The government of DRC hosts a national round table on Grand Inga, followed a few months later by an international round table held in South Africa sponsored by the African Development Bank.

2007: The World Energy Council sponsors a 2<sup>nd</sup> international round table on Grand Inga, held in Botswana.

2008: The World Energy Council hosts an international financing workshop on Grand Inga, held in London.

## Private Pockets, Private Gains

The Congolese Government cannot raise enough capital to undertake this project itself. Instead, the project would be developed mainly by foreign investors which are able to raise enough project capital. The government of DRC may hold a small investment in the consortium and receive royalties or taxes. However, this would generate a smaller revenue stream than what the foreign investors would receive.

Having a private developer also means that the government of DRC will play a limited role in project development, likely arranging a long-term management agreement in exchange for project royalties and/or taxes. Such arrangements will further ensure that the project planning is done to the benefit of profit-seeking companies and with little consideration of other consumers.

## Leaky Coffers

Project revenues which are received by the government are meant to reach the national budget, which would then

be used by the government to support any number of development programs. However, the Congolese government is notorious for its lack of transparency and corrupt practices, which results in a “resource curse.” For decades, the government has sold mineral and timber resources in order to make revenues, but these revenues have supported two civil wars and the private bank accounts of public officials rather than broad-based development for the people of the country. Without a sound framework to ensure the proper management of revenues, Grand Inga will not be transformed into public benefits.

## A Costly Least-Cost Scheme

Grand Inga's price tag increased from \$50 billion in 2005 to \$80 billion in 2007. Cost overruns for mega projects are very common – in fact, they are the norm. It's not clear how much it will cost next year, or the year after. Cost increases for transmission lines are already affecting the project's power prices at long-distance destinations, which could pay much higher tariffs than nearby consumers.

### **Insecurity**

Grand Inga could be a security nightmare. Such a centralized power supply would be a marked target for rebel groups. Long transmission lines through remote regions could be easily vandalized.

- In 1998, the Inga 2 Dam was taken by rebel forces in order to cut off Kinshasa's power during the Second Congo War.
- Grand Inga's proposed transmission line to Egypt passes through the Darfur region of Sudan.

### **Closed Door Planning**

Grand Inga's planners are leaving affected communities and African civil society out of the decision-making process. Affected communities and African civil society bear project risks, are potential energy consumers, and are often monitoring government accountability. What's more, they are identified by the World Energy Council and other planners as main project beneficiaries.

### **Inga's Fifty Year Legacy**

The desire to harness Inga's hydropower potential dates back to colonial times when six tribal clans were forced by Belgian authorities to leave their homes along the banks of the Inga Rapids. Although an agreement was reached in 1958 to compensate the clans for the loss of their customary land rights, they have received nothing. Today, they continue to fight for redress and royalties of project revenues.

### **A Better Path for Energy Development**

Another energy future for DRC and for Africa is possible, one that supports a pro-poor energy agenda and allocates financial resources equitably across the energy needs of Africa's people.

In DRC, attention must be given to addressing domestic energy needs. Addressing the outstanding problems of the existing dams must also be a priority.

African and international activists are calling for energy development in Africa that:

- directly alleviates the energy poverty of Africa's poor that now hinders their lives and livelihoods
- better reaches the continent's dispersed population
- won't increase Africa's vulnerability to climate change
- support local jobs and local economic development
- is transparently planned with public participation