

Guyana – Amaila Falls hydropower dam and access road. Notes for Advisory Expert Panel of InterAmerican Development Bank, February 2011

Notes by John Palmer and Janette Bulkan, 28 February 2011

Context

In Guyana, South America, the second version of the REDD Readiness Preparation Proposal (R-PP, April 2010) and the third draft of the President's Low Carbon Development Strategy (LCDS, May 2010) support global moves to reduce carbon emissions from deforestation and forest degradation. But neither document records any explicit commitment by the Government of Guyana to reduce or even stabilise emissions in-country. Norway has agreed in principle to pay Guyana up to USD 43 million annually for five years to 2015 if the verified deforestation rate does not exceed an arbitrary and interim 0.45 per cent, compared with an actual rate which has been estimated at between 0.06 and 0.29 per cent. There are conditionalities ('enablers') attached to this grant, but Guyana can spend the Norwegian money on any aspect of the President's LCDS. Most of the projects listed briefly in the LCDS will benefit the 90 per cent of the population living in the coastal plain, which was never forested and is far from the hinterland forests and most of the indigenous people who comprise ~9.2 per cent of the population of 770,000.

One LCDS project is located in the hinterland and will affect the indigenous Amerindians: the Amaila Falls hydropower dam with a first phase of 154 MW. The President is presently intending to spend up to USD 60 million of Norwegian REDD-plus money on purchase of equity in the dam. The bulk of the finance is anticipated from loans from the China Development Bank and the China Railway First Group, a total of USD 500 million. The InterAmerican Development Bank (IDB) may provide some of the balance of USD 100-150 million. As part of its due diligence requirements, the IDB has required a revision of the EIA which covered in 2002 a 100 MW dam. IDB scrutiny will also cover the already-started access road to the dam site, that road being funded by the government-owned National Industrial and Commercial Investment Ltd., a corporate vehicle notorious for breaking the law by having no annual audited accounts.

The normal practice of the IDB is to have an advisory expert panel (AEP) in place to help selection of the ESIA (environment and social impact assessment) team, among other due diligence activities following best practice. In this case of the Amaila Falls dam, the ESIA team to revise and extend the 2002 report has already been in the field, before the AEP has been convened. However, the AEP could check for gaps and inconsistencies in the various documents related to Amaila Falls.

The President of Guyana intends a significant proportion of the Norwegian REDD-plus payments to be spent on Amaila Falls. The following notes may be helpful in drawing attention to some of the gaps and inconsistencies visible in the public domain documents.

Request to the IDB Advisory Expert Panel

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The Advisory Expert Panel of the IDB is requested to investigate the following five issues concerning the proposed Amaila Falls hydropower dam and access road in Guyana, South America:

1. Lack of response by Government to questions in the local Press as to the value of this dam compared with reducing losses in existing power generation.
2. Lack of commitment to a low-carbon economy in the national energy policy.
3. Lack of free, prior and informed consent in the May 2010 consultation with some of the potentially affected communities of indigenous peoples (Amerindians), contrary to the explicit commitment in the President's Low Carbon Development Strategy (LCDS 2010:16 and 73).
4. Lack of significant progress in dealing with the outstanding conceptual issues in the settlement of Amerindian land claims.
5. Failure of the EIAs to consider impact of impeded/changed river flows on the use by Amerindians of riverine resources and on biodiversity, such as turtles.

Electricity in Guyana

Compared with the rest of South America, Guyana has the lowest or nearly the lowest electric power per capita, and the least reliable and most expensive power tariffs. Almost 100 per cent of power is presently generated from diesel or bunker fuel thermoelectric sources, mostly antiquated and poorly maintained. Total generating capacity is ~226 MW, of which 99 MW is believed to be operational; see http://en.wikipedia.org/wiki/Electricity_sector_in_Guyana. About half the present capacity is provided by privately-owned off-grid back-up generators which were installed because of the acute unreliability of the national grid supply. The President of Guyana claimed that the Amaila Falls hydro power will lower the cost to consumers from USD 0.22-0.25/kWh by 40 per cent (Guyana Chronicle, 25 May 2010) to the Latin American regional average of USD 0.15/kWh.

The Government of Guyana does not appear to have provided any comparative study of the economic benefits of building the Amaila Falls dam compared with reducing the distributional (technical) losses of the generated power and/or of commercial losses in the coastland electrical grid. The following three items are intentions of the government-owned Guyana Power & Light, and at least some funding is committed in the national budget 2011 (sections 4.56 and 4.57, pages 33 and 34, www.gina.gov.gy/Budget%202011.pdf).

► better maintenance of the diesel generators of the State-owned Guyana Power & Light (GPL), which have low reliability for the installed 99 MW capacity, leading to a further off-grid, privately-owned power generation of 127 MW at relatively great expense and with often small and technically inefficient generators. The high cost and low reliability of the public electricity

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supply is a perennial source of discontent among coastlanders, and Ministerial statements about the electricity supply vary greatly when quoting numbers.

► fixing the 44 per cent technical losses of generated electricity; this may be reduced by a 2010 contract with the Chinese to rehabilitate and extend the grid in eastern Guyana (Berbice); see Guyana Chronicle news item, Tuesday 27 July 2010 “Construction of modern grid with fibre optic cable to start soon” - http://www.guyanachronicleonline.com/site/index.php?option=com_content&view=article&id=16572:construction-of-modern-grid-with-fibre-optic-cable-to-start-soon&catid=2:news&Itemid=3.

► stopping the 29 per cent commercial losses of generated electricity (11 per cent through theft by illegal connections, 11 per cent through defective meters and 7 per cent through corruption and inefficiency in the billing system).

Energy policy

The hydropower potential of Guyana, with its giant waterfalls, has been noted for decades. The distance between the falls and the 95 per cent coastland economy has been one of the deterrents to making use of falling water. 67 potential dam sites were identified in the 1970s. The Government began in the mid-1970s an access road towards the Upper Mazaruni site with possibly the greatest power potential. The Government failed to secure international finance for this project because of political opposition from Venezuela which revives from time to time a long-standing claim to 1/3 of the area of Guyana, the land west of the Essequibo River which includes most of the hydro potential.

The then National Energy Policy Committee developed the policy which was endorsed by Cabinet in July 1994; this document is no longer available. The Guyana Natural Resources Agency (GNRA) listed 6 sites in August 1995 and preferred Amaila Falls for the first construction, reckoning on 195 MW power production. The GNRA list was quoted in section I.C.2 of chapter 39 in the National Development Strategy. The Guyana Energy Agency (GEA) was created in 1997 by Act of the National Assembly (but does not seem to have been active). A 2008 powerpoint presentation by the GEA summarises the power sector at that time (Sharma 2008). The Government and GPL appear to have no commitment to updating the 1996 national energy strategy or chapter 39 (The Energy Sector, 03 April 1996) of the National Development Strategy (www.guyana.org/NDS/chap39.htm) and chapter 7 of the revised NDS 2000 (www.sdn.org.gy/nds/chapter7.html) (Government of Guyana 1996/2000).

The GPL’s system development plan (2000) and the development and expansion programme (2007-2011) may provide justification for the Amaila Falls dam but neither document is in the public domain electronically.

Except for the Amaila Falls hydropower dam, there is no explicit relation between the President’s Low Carbon Development Strategy (LCDS; see <http://www.lcds.gov.gy/images/stories/Documents/Low%20Carbon%20Development>

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[%20Strategy%20-%20May%202010.pdf](#)) and a low-carbon economy, as generally understood to imply savings in energy generation/ consumption. The Government of Guyana appears to have taken no steps towards other reductions in carbon emissions, such as –

- ▶ controls on the imports of heavy-emitting luxury vehicles.
- ▶ replacement of poorly-maintained minibuses with low-emission standard buses.
- ▶ provision of bio-fuels for vehicles, not even the E-10 ethanol used in the USA.
- ▶ fiscal incentives to reduce consumption of petroleum products.
- ▶ less use of cement and concrete in the construction boom fuelled by money laundering of drug profits.
- ▶ less use of electric and diesel pumps for land drainage on the coastal plain when canals are cleaned of weed and de-silted, and when gravity drainage is then more possible.
- ▶ incentives beyond the single bagasse biomass generator (10 MW) linked to the Skeldon Sugar Modernization Project. Skeldon was built by China National Technology Import and Export Corporation and is operated by the government-owned GUYUSCO. The bagasse co-generator, costing about USD 59 million, is the only CDM project in Guyana.

Amaila Falls hydropower dam

There is a short description of a 100 MW dam for Amaila Falls on the website of Synergy Holdings Inc. which secured a development licence in the 1990s but apparently sold on that licence to Sithe Global Power LLC in 2006. The most accessible comprehensive document is the April 2002 EIA report of 199 pages prepared by Ground Structures Engineering Consultants Inc. for Synergy and Harza International Development Company LLC (which at that time seemed most likely to be the actual dam builder).

Indigenous Peoples' land claims

Synergy had been in discussion with Amerindian communities during 1999-2001. The following (downstream) communities are mentioned: Campbelltown, El Paso, Madhia, Maicobie (usually known as Micobie), Princeville, Tumatumari and Tumatumari Landing (pages 43+). Page 80 acknowledges that ‘The Kuribrong/Amaila areas are regarded as traditional Amerindian lands. Residents in all the communities surveyed indicated that about 17 per cent of them fish, hunt or mine in the Amaila or Kuribrong River areas . . .’. Discussions with two Amerindian representative organizations (APA and GOIP) are mentioned on pages 128-132. This 2002 document is accessible on the EPA website; see http://www.epaguyana.org/index.php?option=com_docman&task=cat_view&gid=23&dir=DESC&order=name&Itemid=29&limit=15&limitstart=0.

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An ESIA addendum of June 2008 by the same consultants was posted for the transmission line alignment on 01 April 2010. This second document mentions only the Kaburi community which would be close to the access road and transmission line (page 88).

A community stakeholder engagement plan, draft 1b and dated December 2010, was prepared by Amaila Falls Hydro, Inc., apparently a subsidiary of Sithe Global Power LLC and/or Synergy Holdings Inc. This document claimed (page 3) that in May 2010 –

‘the Company conducted free, prior and informed consultations on the Project with potentially affected indigenous peoples Kaburi, Rockstone, Muritaro, Malali, Micobie, Campbelltown, Princeville, Kopinang, Chenapou [usually spelt as Chenapau] and St.Cuthbert’s Mission’,

and that –

‘the results of these consultations were incorporated into the Project ESS Report. No significant adverse impacts of the project on physical or food security, lands, territories, resources, society, rights, the traditional economy, way of life and identity or cultural integrity of indigenous peoples have been identified’.

Given the nature of Amerindian society, it does not seem possible to arrive validly at such a conclusion from a survey only in one month in 2010. That May 2010 process should be contrasted with the more culturally appropriate repeated contacts with Amerindians apparently sustained by Synergy during 1999-2001. It would not be unreasonable to say that this community stakeholder engagement (2010) plan has been developed without reference to the cultural norms of the Guyana hinterland. The Project ESS Report is not in the public domain.

Of the communities mentioned above, only Kopinang, Chenapou and St.Cuthbert’s Mission are mentioned in the 1969 report of the Amerindian Lands Commission (ALC). Kopinang (ALC page 121) and Kanapang (ALC page 113) were two communities which submitted joint land claims with other communities to the ALC. The ALC reduced the area of the claim. It is not clear how the actual titling differs from what was claimed and what was recommended by the ALC. Appendix V of the May 2010 LCDS records Kopinang as both titled and demarcated but Kanapang as titled and ‘demarcation applied for’. This suggests that the joint land claim of 1967-9 is still in contention, because what appears to have been granted as titled Amerindian Village Lands does not conform to the intention of Annex C, Section L, of the 1965 independence agreement, quoted in Letwiniuk 1996:51.

Chenapou did not make a land claim to the ALC but an area was recommended for that community by the ALC (ALC page 125). The claim by St.Cuthbert’s Mission was amended by the ALC because of the inclusion of wood cutting grants (leases, ALC page 192).

The other Amerindians communities mentioned above were not recorded by the ALC during 1967-9. They may not have existed at that time, having become established in response to the increased mining in the Madhia-Potaro area, or they may have been geographically inaccessible to the ALC. They do not therefore have recorded traditional usufruct in the sense of the independence agreement of 1965 (Letwiniuk 1996:51).

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EIA documents

The following documents about the Amaila Falls hydropower dam are on the Environmental Management Division's downloads page of the EPA website in Guyana –

http://www.epaguyana.org/index.php?option=com_docman&task=cat_view&gid=23&dir=DESC&order=name&Itemid=29&limit=15&limitstart=0

► Amaila Falls FEIA final report by Ground Structures Engineering Consultants Inc., Kitty, Georgetown, Guyana, 199 pages, dated April 2002, posted 01 April 2010;

► Amaila Falls EIA Addendum, parts 1 and 2, posted 01 April 2010, files damaged, cannot be downloaded;

[these files were posted *after* a furious Government response to questions about the absence of a relevant EIA from the public domain; see Guyana Chronicle top story, Tuesday 30 March 2010 – “Amaila Falls access road: setting the record straight” -

http://www.guyanachronicleonline.com/site/index.php?option=com_content&view=article&id=11448:amaila-falls-access-road-setting-the-record-straight&catid=4:top-story&Itemid=2#Scene_1 in reply to Guyana – Kaieteur News Letter to the Editor, Monday 29 March 2010 – “Amaila Falls access road” -
<http://www.kaieteurnews.com/2010/03/29/amaila-falls-access-road/>]

► Amaila Falls access road and transmission line clearance ESMP, by Synergy Holdings Inc., version 1.1, 61 pages, dated 20 August 2010, posted 09 December 2010;

► Amaila Falls EIA Addendum Final, posted 09 December 2010, file not accessible;

[these two files were posted apparently in response to an IDB staffer noting that the April 2002 EIA referred to a 100 MW dam, not the currently proposed 154 MW. There has been no clarification by the Government of Guyana]

► Amaila community stakeholder engagement plan, by Amaila Falls Hydro, Inc., version 1b, 13 pages, dated December 2010, posted 11 January 2011;

► Amaila Falls project road compensation/offsets framework, by Office of the President, 4 pages, dated 08 October 2010, posted 09 December 2010. Some of this document is quoted below -

QUOTE

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Stage 1 – ACCESS ROAD DIRECT OFFSET

AREA TO BE PROTECTED

The government of Guyana will establish a reserve area along the transmission line right-of-way and road corridor called the Reserve Right of Way (RROW). The RROW will restrict all activities, including mining, forestry, agriculture, commercial, and residential land-use, within a 200m area to either side of the corridor center line. This reserve will run from 81-mile on Bartica Potaro road to the powerhouse downstream from Amaila Falls.

HOW TO PROTECT THE AREA

The legal basis for the creation of a natural reserve is documented within existing legislation of the Mining Act (Mining Act 65:01 Section 82)¹ which is the basis for action of the Guyana Geology and Mines Commission (GGMC). This legislation restricts mining operation activities within 200m of public works.

[1] A licensee shall not carry on any drilling or other mining operations at any point within two hundred metres of a railway, dam, reservoir, canal or other public work except with the written consent of the Minister or of any person

The Guyana Forestry Commission [GFC] will, within one year, establish within the Code of Practice a similar 200m restriction on forestry activities; the Code of Practice will become a legal requirement for forestry activities when the new Forests Act is assented to in 2011.

The RROW will require the excising of all existing mineral and timber concessions within the RROW. In addition, the reserve will restrict the government of Guyana from granting new forestry and mining concessions in the RROW.

HOW TO ENFORCE PROTECTION

GFC and GGMC will share primary responsibility for ensuring enforcement of requirements related to any existing concessions as well as the protection and enforcement of the RROW. GFC and GGMC will separately develop and implement a monitoring and enforcement program to enforce the RROW. They will be monitoring land use change, monitoring change of forest/vegetation cover, and monitoring for the presence of residential or commercial settlements.

The GFC will undertake weekly road patrols from existing bases within the IFI and Caribbean Resources Limited (CRL) concessions; these ground patrols will cover the access road to detect any illegal activities. During road and AFHP construction, the Environmental Protection Agency (EPA), Guyana Geology and Mines Commission, AFHI and the Contractor will also undertake regular inspection patrols, frequency to be determined, along the access road.

In addition to standard monitoring measures GFC will be able to utilize the MRV satellite system related to the LCDS. The GFC is in the process of establishing a satellite based monitoring mechanism to determine rates of forest loss. A baseline has been established during 2009 which will allow the detection of additional roads or forest clearance in pixels of 30m by 30m. The GFC will use this system to detect changes along the AFHP access road and in the broader area.

UNQUOTE

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The Office of the President was apparently drafting this offset arrangement at the same time as the Guyana Forestry Commission was advertising a tender notice (still on the GFC website) for the removal of forest from sections 6 and 7 of the access road, 67 km long x ~506 m wide, 3368 ha; see Guyana - Stabroek News Letter to the Editor, Tuesday 08 February 2011 - http://www.stabroeknews.com/2011/opinion/letters/02/08/unlikely-road-alignment-and-large-forest-clearing-width-for-amaila-falls-road/#disqus_thread – “Unlikely road alignment and large forest clearing width for Amaila Falls road”.

So there would be a biodiversity conservation reserve over an area just stripped clean of forest. Even for Guyana this is a remarkable lack of intra-government coordination.

The Caribbean Resources Ltd. logging concession has recently been transferred to Dark Forest Company (S) Pte. Ltd., a hitherto unknown company said to be based in India. This transfer is contrary to national policy on logging concessions and may also be illegal.

The contents of all these EIA documents appear to refer only to the first phase of the Amaila Falls dam (100-154 MW), not to phase 2 of 410 MW or phase 3 of 1060 MW. The reservoir areas of phases 2 and 3 would be much larger than for phase 1 and would have significantly greater human impact, including loss of most of the farmland of the indigenous Akawaio nation in phase 3.

Effect on turtle and fish populations

The 2002 EIA report referenced above mentions that the normal seasonal changes in downstream river water levels would be affected by the Amaila Falls dam. Less water would be in the rivers during the wet season and more water would be released in the dry season. Wildlife populations whose life cycles are geared to the seasonal rise and fall of water may be affected, but this is not considered in the EIA. Notably, turtles which lay their eggs in sandbanks revealed at periods of low water may no longer find such nesting beaches, and fish which spawn below the reduced flows of rapids in the dry season may no longer find a reduced flow.

Process for contracting the construction of the dam access road

There is a large volume of material in the independent Press in Guyana on the process used by the Government to contract an apparently unqualified and inexperienced enterprise (Synergy Holdings Inc.) to build the access road. The Government of Guyana refuses to disclose how Synergy was found to be eligible to bid for this contract, or what due diligence checks were made by the National Industrial and Commercial Investment Ltd., the government-owned corporate vehicle which actually issued the contract. IDB is involved in the access road only because it agreed to review the EIAs and the financial viability of the project for the Government.

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References:

Amerindian Lands Commission (1969.) “Report of the Amerindian Lands Commission”. Georgetown, Guyana; Amerindian Lands Commission. Pp.236 plus appendix XI.

Letwiniuk, Tara (1996.) “The Amerindian Act of Guyana: discussion and suggested revisions”. Toronto, Canada; Canadian Lawyers Association for International Human Rights. Especially pages 48-52.

Sharma, Mahender (2008) “Guyana’s energy situation”. Powerpoint presentation, 21 slides.
http://www.olade.org/documentos2/infor_guyana_energy_agency.pdf.

ENDS