

SM/11/2
Correction 3

June 16, 2011

To: Members of the Executive Board
From: The Secretary
Subject: **Guyana—Staff Report for the 2010 Article IV Consultation**

The attached corrections to SM/11/2 (1/6/11) have been provided by the staff:

Factual Errors Not Affecting the Presentation of Staff's Views

Page 32, para. 4, line 9: for “World Bank.” read “GRIF.”

Page 35, para. 3, line 6: for “US\$450 million” read “US\$500 million”

Questions may be referred to Ms. Turner-Jones (ext. 37918) and Mr. Nicholls (ext. 38514) in WHD.

This document will shortly be posted on the extranet, a secure website for Executive Directors and member country authorities.

Att: (2)

Other Distribution:
Department Heads

ATTACHMENT I. GUYANA: THE LOW CARBON DEVELOPMENT STRATEGY (LCDS)

The Guyanese economy is on the cusp of major changes, led in part by the government's LCDS. In exchange for performance-based annual payments for forest services, Guyana will lower carbon emissions and enhance forest preservation in four phases between 2009 and 2020. The LCDS is projected to help raise the GDP growth, government revenue, employment, and foreign exchange earnings of Guyana.

1. **After a period of successful stabilization, Guyana is now focused on achieving rapid economic transformation.** Traditionally, economic activity has been driven by agriculture and mining, with a heavy dependence on imported fuels to generate energy, thereby exposing the economy to oil price volatility. Further sustained economic transformation is being constrained by insufficient investments in infrastructure, limited human capital and inadequate social services, which are barriers to private sector investment. Under the current development model, Guyana can secure the requisite development resources by fully exploiting its vast forest reserves and associated mineral deposits, but at a high environmental cost.¹ This model is, however, no longer viewed as a sustainable or a preferred transformation option in the context of the global dialogue on climate change and Reduced Emissions from Deforestation and Degradation (REDD) mechanism.
2. **The LCDS provides a sustainable mechanism for Guyana to leverage its vast forest reserves to fund economic transformation.** Under the LCDS, Guyana will receive annual performance based payments for reducing carbon emissions by preserving its forest. The current proposal envisages implementing the LCDS over four phases from 2009 to 2020 (Table 1). Over that period of time, payments, mainly funded initially by the international public sector, would be made annually up to the phase when these payments would be market based and be matching or exceeding the Estimated Value to the Nation (EVN) (US\$580 million annually) of the forest reserve.
3. **Consistent with the LCDS, the Governments of Norway and Guyana have pioneered a model of trading in environmental services at the global level.** Under the terms of a memorandum of understanding (MOU between Guyana and Norway, 2009), Norway has pledged up to US\$250 million, over five years, as payments for forest services. To facilitate payments, a trust fund—Guyana REDD-Plus Investment Fund (GRIF)—administered by the World Bank has been established and will receive and disburse these and other funds to projects identified under the LCDS through the IDB. The annual expected disbursement from the GRIF, starting in 2010, is US\$50 million. Annual payments will be made after Guyana's forest preservation performance is independently assessed and verified against agreed benchmarks.

¹ The Economic Value to the Nation (EVN) of the forest estate is estimated to be the equivalent of an annual annuity payment of US\$580 million, (LCDS).

4. **A verification mechanism has been agreed between Norway and Guyana for the use of funds.** The mechanism has several aspects, but all guided by a Multi-Stake Holder Steering Committee (MSHSC) comprising representatives of Guyana and Norway, which will choose projects for funding and monitor disbursements. Under this mechanism the World Bank would act as trustee for the funds, and will disburse funds for approved projects once directed by the MSHSC. The disbursements and project implementation would be managed by the IDB and other identified partner entities. The approval and disbursement of funds would be in line with Guyana's national legal framework, and fiduciary and operational policies of the ~~World Bank~~ GRIF. The partner entities would also be responsible for ensuring certain safeguards—including fiduciary, social, economic and environment are in place, while the Ministry of Finance of Guyana will be responsible for the execution of the GRIF's operations. As such, these resources would be governed by the relatively strong PFM framework currently operational in Guyana. In addition to these, the Guyana/Norway agreement provides for the creation of a monitoring, reporting and evaluating system (MRVS),² which will assess Guyana's performance relative to the environmental benchmarks. These arrangements are governed by the applicable domestic laws and procedures in Guyana.

5. **The LCDS has five economic pillars:** (i) low carbon economic infrastructure—renewable energy—hydro power, solar, biogas—access to non-forested land and underutilized land, improved bandwidth; (ii) developing high potential low-carbon sector—fruits and vegetables, aquaculture, and ecotourism; (iii) reforming the existing forest dependent sectors to ensure forest sustainability; (iv) enhancing human capital; and (v) improving the environment for doing business. Of these, the low carbon infrastructure projects—hydropower, fiber optic cable/technology park, drainage, irrigation, and road construction—are pivotal to the overall success of the LCDS. Low carbon infrastructure projects are estimated to cost approximately US\$1 billion.

6. **In line with the pillars of the LCDS, the initial payments from Norway will be used to fund the following seven activities:** (i) government equity in the Amaila Falls Hydro Electricity Company; (ii) Amerindian Development Fund; (iii) accelerating Amerindian land titling, demarcation and extension processes; (iv) expansion of fiber optic digital infrastructure; (v) micro-finance for small and medium enterprises and vulnerable groups' low carbon development; (vi) initial work to establish an international centre for biodiversity research and low carbon development; (vii) development of a monitoring, reporting and verification system for the LCDS.

² Apart from the MRVS and the GRIF, Guyana is developing three additional (new or enhanced) institutions to manage various aspects of the LCDS. First, an office of climate change, which will coordinate engagement with multilateral processes and negotiations, including the UNFCCC. Second, a low carbon strategy project management office to steer key projects as part of the LCDS. And third, a strengthened environmental protection agency to ensure that local social and environmental safeguards meet international standards.

ATTACHMENT II. GUYANA: THE AMAILA FALLS HYDRO POWER PLANT (AFHP)

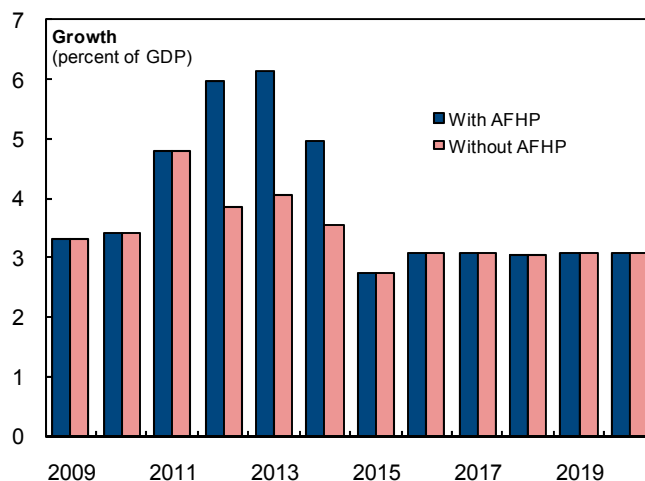
The authorities are pressing ahead with the construction of the AFHP which would lower energy costs and improve energy reliability as it replaces outdated fuel-based technology with modern hydro-based technology as the main source of electricity generation.

1. **Electricity generation in Guyana has been based on outdated technology, using imported high cost fuels.** As a result, electricity supply has been unreliable and at a high cost (32 U.S. cents per Kilowatt hour), causing several private sector entities to install their own generation capacity. The dependence of electricity generation on imported fuels, of approximately US\$90 million a year, has also exposed the economy to the vagaries of international price movements. Guyana Power and Light (GPL) also suffers from an aging distribution network, and weak revenue administration.
2. **The AFHP is a key component of the government's Low Carbon Development Strategy (LCDS).** Energy generation would switch from being based on fossil-fuels to nearly 100 percent clean, renewable sources. Development gains would include eliminating a key barrier to FDI and lower electricity costs. A reduction of 20–40 percent per Kilowatt hour is expected for the tariffs of residential, commercial, and industrial consumers as GPL switches out of oil based to hydro-power based electricity generation. The Government of Guyana would earmark US\$40–60 million of the LCDS-related payments to increase its equity in the project. The AFHP is estimated to cost approximately US\$650 million, equivalent to 30 percent of GDP. Construction is scheduled to commence in the third quarter of 2011 and be completed in 40 months. Upon completion in 2014, the AFHP would cover all the electricity needs of Guyana—approximately 154 megawatts.
3. **The AFHP would be constructed as a Private Sector-Public Sector Partnership (PPP).** A local company—the Amaila Falls Hydro Inc. (AFHI) company—has been established, with shareholdings by Sithe Global (the Sponsor) and GPL. This company would build, and then operate the AFHP for 20 years, after which it would revert to the government. Based on information currently available (the financial arrangement is still under negotiation), the AFHI would contract debt of approximately US\$~~450~~ 500 million (70 percent of total project cost) from the Chinese Development Bank and US\$50 million from the IDB. The remainder would come from equity injections by the sponsor and the government, who would contribute by way of the access road to the project site. The project sponsor has been guaranteed a 20 percent rate of return which, according to the IDB, is comparable to similar projects in other low income countries. Under the PPP, the government will absorb the hydrology and political risk, while the sponsor will absorb the risks associated with the construction and operation of the plant.
4. **The central component of the PPP is a Power Purchasing Agreement (PPA) between GPL and the sponsor.** The project is structured as a 20-year “take or pay” PPA through which GPL will purchase 100 percent of the generation capacity for an annual

payment of approximately US\$100 million that will help achieve the guaranteed 20 percent return on the sponsor's equity. This arrangement will be collateralized by GPL's receivables. Further, the design of the PPP would allow the government to increase its equity share and, by extension, reduce its obligation to the sponsor.

5. **The AFHP is expected to have a transformational impact on the Guyanese economy, but also poses large fiscal risks, should it fail to deliver the promised benefits.** Among the likely benefits and potential costs would be the following:

- **Growth:** During construction (2012–14), the project is likely to add cumulatively 6 percentage points of **real GDP growth. Further economic gains, once the project is completed, would depend on the adopted tariff structure**, and the impact of this on total factor productivity and capital accumulation and its quality. Based on current information, it is expected that the AFHP would eventually result in a 20–40 percent reduction in the cost of generation as the switch from oil to hydro takes hold; the precise extent of the pass-through of these savings to the end-user would depend on the PPA and its impact on GPL's operational balance (see below).



- **Balance of Payments:** Imports are expected to increase between 2012 and 2014 as the FDI flows are used to purchase materials and equipment, widening the external current account deficit to some 16–18 percent of GDP. Once completed, the project is likely to result in a 20 to 25 reduction in fuel imports, as the GPL switches to sourcing its power needs from the AFHP. This would shield the GPL from volatile international oil prices. A key issue, however, is the extent of the displacement that AFHP can provide, as GPL would need to maintain backup generation capacity, which increases with the size of its market, as private self generators purchase cheaper electricity from GPL and stop self generating.

