

**FIP Set-Aside - Ghana: Public-Private Partnership for restoration of degraded forest reserve through VCS and FSC certified plantations**

#	Comment / Issue	Made by	Answer
1	<p>The paper does not make a strong case for the use of concessional financing for this project, which seems to be a fairly standard teak plantation without any particularly innovative features. What is the argument for use of concessional funds to support a private sector project of this nature? What is the approach being piloted? What barriers are being overcome, what are the benefits of overcoming these barriers?</p>	US	<p>The purpose of this investment is to place debt finance into a sector which is still highly dependent on public investment flows and in some cases by private investors that fund their projects with equity only. The approach being piloted is to place debt under previously un-matched terms into an asset which is currently funded by 100% equity investment and has a limited scale.</p> <p>While from a technical point of view, the proposed project poses limited challenges and benefits from a competent sponsor, it is important to understand that the Form Ghana project has its own specific set of financial and structural barriers which include the reluctance of local banks and institutional investors to engage in the sector due to the lack of suitable financing models, expertise and perceived risks.</p> <p>By overcoming these barriers, the project will be scaled-up to create a plantation of nationally relevant scale which will help develop a commercial plantation industry including service providers, contractors, sawmilling capacity and contribute to the development of the local market. The fact that the plantations are FSC certified will add a significant boost to the markets for sustainably sourced plantation timber in West Africa.</p> <p>More specifically, FIP concessional resources are being structured in the context of this project to address the following barriers:</p> <p>(i) <u>Lack of interest by local commercial banks in funding forestry projects:</u> Forestry is a sector in which Ghanaian Banks play a limited role due to the current risk perception and lack of track record in funding such projects in the past. This result on unavailability of appropriate financial instruments that allow investors to leverage their equity investments at competitive terms. For example, the majority of local financial institutions only allow for tenors between 6-8 years, demand interest rates above 15% and in many cases demand collateral above 100%. As a consequence, investors tend to retract from significant investments in the sector to avoid being overexposed to a specific project. This leads to capital structures that are unsustainable in the long run and</p>

inefficient because it fails to bring onboard traditional long-term investors (e.g. pension funds, institutional investors) and commercial banks as the perceived risk is considerable.

(ii) Lack of scale: Typical forest investments can usually be funded by long-term patient capital which is not readily available in Ghana or in the broader region. In addition, non-African financial institutions and/or pension funds will find it very risky to invest in Ghana given the perceived high country risk and will demand, as a consequence, high premiums that negatively impact a project's bankability. This is why most sustainable forest plantation investments are usually small-scale since investors are reluctant to scale-up if the only solution is to further invest their own equity. Achieving large-scale commercially viable sustainable forest plantations - as in the case of Form Ghana - is feasible but requires risk to be diversified among different financiers. This can be achieved by leveraging the existing equity with long-term debt to optimize the project's capital structure. The proposed project will be leveraging the equity invested in the project (42% of total costs) by bringing additional debt (52%) and reinvest positive net-income (6%). AfDB will impose in the legal documentation a limitation on the equity's potential return to ensure that subsidies are used effectively and for the benefit of the project only. The principle of minimum concessionality and the avoidance of market distortion were closely analyzed during appraisal and taken into account in setting the FIP terms.

(iii) Lack of revenue generating capacity: Given the nature of the business and the fact that trees need time to grow and generate value, one of the key issues identified during appraisal was the limited revenue generating capacity of the project during the first half of the project life as trees undergo their growing cycle. This means that the project would not be able to generate sufficient revenues to cover its annual operational costs whilst at the same time servicing its outstanding debt. If not properly addressed, this issue could quickly lead to a situation of default. In order to address this barrier, an effort was made to tailor the FIP terms in such a way that it also catalyzed AfDB's participation as a co-financier by improving its risk exposure to a level where AfDB's Credit Committee would approve the project. This was achieved by proposing terms that at all times ensure that the minimum debt service coverage ratios are in line with AfDB's internal requirements (x1.3). A close look to

			<p>Table 3 of the paper clearly shows that the project only becomes commercially viable under scenario IV with FIP interest rate set at 1%.</p> <p>(iv) <u>Lack of inappropriate financial terms</u>: If one considers the terms provided by local commercial banks as the base case, one immediately concludes that the project would never be bankable (see point (i) above). These financial terms are far from those required to achieve a bankable project. Even a financial institution with a considerable financial muscle such as AfDB has exceptionally agreed on a grace period (7). The reasons behind that decision include: (a) the project is highly additional and has significant development impacts, (b) it will be the first public-private partnership ever to be financed by AfDB in the forestry sector, and (c) it is in line with AfDB's Long-Term Strategy. Not only will FIP concessional resources help fill the existing gap in the financial markets, but it will directly help mitigating one important source of risk for AfDB (credit risk).</p> <p>Despite the adoption of economic liberalization policies across many African countries, including Ghana, the main investor in the forestry sector continues to be the public sector. Formal private sector investments can be further stimulated by the enactment of investor friendly policies such as the Ghana's Forest and Wildlife Policy (2012) which aims at <i>"developing sustainable and predictable financing instruments to support forestry sector activities such as the Public-Private Partnership framework being implemented in the context of the proposed project"</i>.</p>
2	<p>It seems like the main climate benefit is in sequestration from the plantation trees themselves, not reduced deforestation elsewhere, and it isn't clear to me how much sequestration there really is in this situation.</p>	US	<p>The climate benefit of this project is both sequestration and avoided / reduced deforestation. Sequestration is realized directly from the beginning of the project as trees are planted. Avoided / reduced deforestation will come into effect once the plantation starts to produce timber on a sustainable basis and there may also be immediate impacts as local residents earn income from working in the extended plantation and activities which continue to degrade the reserve.</p> <p>Although the timber is of relatively small diameter compared to natural forest logs, harvesting and extraction emissions are much less than in the natural forest because no other incidental trees and vegetation are damaged. The Teak wood then feeds into the creation of long term wood products such as structural timbers, doors and window frames and high quality garden furniture etc. where the carbon is expected to be stored for decades. The demand for</p>

			<p>timber at local, national and international level is expected to increase enormously, whereas the total forest area (globally, and also in Ghana) is decreasing annually. The establishment of this plantation will reduce pressure on remaining forests in the long term.</p> <p>It should be noted that these forest reserves have been severely degraded by overexploitation, bush fires and conversion to agricultural land and have been declared degraded by the Government of Ghana through its Forest Commission. Without this reforestation project, the degradation in the project area would continue due to illegal farming, bushfires and logging of the last remaining forested areas of the reserve.</p> <p>Please see the Expected Results section on the FIP Project Document for figures on sequestration potential.</p>
3	What is the potential demonstration impact?	US	<p>The project will greatly contribute to support the implementation of the Ghana Forest and Wildlife Policy (2012) by contributing to an improvement and development of the forest and wildlife resource base in Ghana. While the 1994 policy introduced equitable sharing of management, responsibilities, increased benefits to local stakeholders, increased participation, transparency and accountability in the sector activities, the policy was unable to halt the degradation in and around forest reserves. Most of the timber industry operates with obsolete equipment and has installed capacities that exceed the annual allowable cut.</p> <p>The FSC and VCS certifications that are held by the Project Company represent new measures that can greatly halt, and reverse the pace of deforestation and forest degradation in the project area, while ensuring that civil society organizations and local people are well informed. In the future, the examples set by Form Ghana can be mainstreamed into other projects, particularly including the FSC certification.</p> <p>The project will also test an innovative and more efficient capital structure in the forestry sector in Ghana by using equity to leverage debt resources. This will allow the project to double its planted area which would not otherwise occur if the only available financial instrument would be further owner's equity. This more risk-balanced proposal will support the establishment of track record in a sector that still has very limited visibility from traditional investors.</p>

4	Is the approach scalable and replicable?	US	See answer to question #9 below.
5	We note in particular that to the extent that lack of availability of debt financing is a barrier, it is not clear that this project is demonstrating an approach that can reduce barriers for future projects, since the project is not working through the Ghanaian banking system.	US	High initial capital (from USD 3,000 - 3,800/ha), large land surfaces required and the long gestation periods as well as delayed returns usually deter private investors in forestry. Consequently, large scale private plantations are not common in Ghana and in the region. This is aggravated by the lack of medium to long-term financing and high lending rates by commercial banks. Ghana has a credit rating of B with stable outlook (i.e. five levels below investment grade).  See answer to question #9 below.
6	We would also appreciate more information from the AfDB on the impacts of extended plantation areas on the natural forest remnants in the area. Have these impacts been analyzed? How will displacement of farmers currently working in the area be handled? How will this displacement affect natural forest remnants in the area (will it result in increased degradation)?	US	These impacts were analyzed in the context of the Project's Environmental and Social Impact Assessment and the Resettlement Action Plan, drafted in accordance with AfDB's Integrated Safeguards System, and which summaries have been publicly disclosed for consultations and can be found on AfDB's website <a href="#">here</a> .  Answer to question #10 provides more information on this issue.
7	Could AfDB confirm that this project will not support industrial scale logging in primary forest areas.	US	AfDB can confirm that the project will not support industrial scale logging in Primary Forest Areas. These being defined as " <i>forests of native tree species, where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed</i> ".  The project is being implemented in a forest reserve that is highly degraded and has almost no trees due to the negative impacts of encroachment, illegal logging and illegal farming over the last decades.
8	Overall, the proposal makes sense, the company is reputable, and the business model seems clear.	UK	This is well noted.
9	A question on the replicability of the model given the reliance on highly concessional finance from FIP. The proposal does a good job of setting out the reasons why the company has not been able to secure finance from usual financiers, and talks of the potentially transformational impact of this investment – demonstrating to potential investors that the fast rotation teak plantation model, with long term/patient capital under favorable terms, can be a good investment. Given how very	UK	FIP funds are being proposed in a very peculiar market context. Firstly, the proposed project is the first of its kind to be structured in a highly degraded forest reserve in Ghana by a private company. Bearing in mind the existent lack of track record, the risk/reward profile for the project sponsor is perceived to be unbalanced.  AfDB's view is that this project has the potential to create a " <i>center of excellence</i> " or a hub of successful teak plantations in Ghana. As time goes by, other investors will find it less risky to enter the market and to replicate projects with an improved risk/reward profile because of the precedents set

	<p>concessional the FIP finance is – I'm not that sure that the fundamental problem of the long term nature of the investment, the high up-front costs, and delayed returns, will be overcome by financial providers offering patient capital unless they can offer rates as attractive as the FIP. So, the question is – what is the likelihood of the financial “market” being able to replicate this model with highly concessional rates over the long term? What measures will be taken by AfDB to ensure that the lesson learning is adequately socialized amongst potential investors/financial institutions etc?</p>	<p>early on, and the lessons that will be learned from the current case. For example, a plantation of 11,000 ha will trigger the creation of contract services providing harvesting and haulage services; sawmills will make investment in processing lines that can handle smaller teak logs compared to the conventional natural forest logs. These downstream investments will make it easier for investors to make a strong business case for more forest plantation investments.</p> <p>Teak plantations offer portfolio diversity opportunities, long-term secure investments with steady rates of return, breaking away from links to conventional commodity markets and oil based economies.</p> <p>As track record is gained it is expected that new private investors and financiers will increasingly be willing to fund these types of projects with less and less subsidies.</p> <p>From a financial analysis point of view, the sensitivity undertaken by AfDB on the financial model - more specifically in terms of commercial viability as measured by the Debt Service Coverage and Equity IRR indicators – shows that the model is more sensitive to changes in tenors than interest rates, and hence the mention in the project document to patient capital providers.</p> <p>AfDB is of the view that in order to continue supporting this sector, availability of funding with above-average tenors and grace periods will continue to be vital as track record is created and investors feel more confident. This will be the first ever private-sector led forestry project to be financed by AfDB and represents an important sector for industrializing Africa with strong links to livelihoods, employment, and power generation (biomass).</p> <p>Lessons learned of the project shall be shared within the CIF partnership as is currently done with other CIF projects. In addition, AfDB has secured CIF budget to undertake a knowledge product associated with the project. Ultimately, it is the Bank's expectation that this project can be used in the future as an example for our future engagement in sustainable forestry development.</p>
10	<p>There is no analysis of the potential effect of the extension in scale of the plantation area on natural forest remnants, displacement of encroachers to alternate areas for farming</p>	<p>Forest remnants are conserved and, where relevant, ecological values are enhanced through enrichment planting. Security guards ensure enforcement of forest reserve laws (e.g. no illegal hunting, logging, etc.). The teak and indigenous plantings border the forest remnants and form a buffer protecting</p>

	<p>resulting in increased degradation, etc. Similar questions to the ones raised for the IFC Mozambique investment. What are the knock on effects outside the plantation areas, how will these be tracked and/or mitigated?</p>		<p>the forest microclimate and mitigating the edge effect. Approximately 30 households were identified as encroachers in the project area in the Akumadan site. Those that farm for a living will be resettled to the other project site near Berekum, where they will be able to intercrop on company's land for a guaranteed 5 years. Their future community is located in a patchwork of fallow and agricultural land, where they will be able to farm after the 5 year intercropping period. Given the limited number of households and the agriculture-dominated environment, knock on effects of replacement are expected to be minimal</p>
11	<p>What are the carbon sequestration implications for the plantations of leakage elsewhere?</p>	UK	<p>These forest reserves where the project will be located are severely degraded, and hardly any trees are left standing. Ongoing deforestation was almost zero in these Forest Reserves as a consequence of the severe degradation. The current project therefore does not cause leakage effects in terms of deforestation moving elsewhere.</p> <p>Existing farming in the area is being and will be accommodated through the intercropping agreements whereby inter-croppers will rotate together with the planting years. However, part of the farming will be expected to be moved outside the forest reserves, intensifying the land-use of these areas. This has been assessed using the VCS certification process, which estimates a loss of 0.1% in terms of carbon sequestration due to these leakage effects, which is negligible.</p>
12	<p>West Africa has been littered with examples of failed Taungya/intercropping approaches (sabotage of plantation trees to extend the cropping cycle). What measures is the company putting in place to ensure that farming stops at the appropriate time? There is mention of regular meetings with farmers engaged in the intercropping – it would be good to know a bit more about how this is already working and what measures are in place. On a 2 year intercropping cycle – how long can the encroacher farmers keep rotating around the plantation area? What arrangements have been made/will be made to ensure that farmers have adequate access to farmland (particularly those that have encroached into reserve areas). There is mention</p>	UK	<p>[Form]: Each intercropping farmer has signed a contract for 1 year (new farmers) of 2 years (project affected farmers), that may be renewed after expiration. This is managed by the company. Annual meetings are arranged with the intercropping farmers to share information and potential concerns or expectations. Upon renewal of the intercropping agreements, a monitoring form is filled out, that enables the company to track ongoing developments. Regular contact is maintained by a specially appointed field officer, and additional meetings can be called for on an as needs basis. The encroacher farmers will have a 5 year intercropping guarantee upon their replacement to the host community. The Traditional Council of the host community is legally responsible for the allocation of land. The Council is committed to host the replaced households as full members of that community, and indicated that farmland will be available to them. The company and the host community cooperate on many levels (e.g. employees, infrastructure, food supply), and a strong relationship is established with the Chief. The basis for cooperation is further strengthened by the revenue sharing system, creating</p>

	of the traditional councils helping to mediate – how feasible will it be for them to resolve the settlement needs of the encroachers?		a common interest in the company's success.
13	So, there are a number of risks - I always like the underlying assumptions and risks to be set out clearly. They are in the text, but even just pulling these together into one table would be helpful, with the steps being taken to minimize or mitigate alongside.	UK	A Table outlining key risks faced by the project and corresponding mitigation measures was added as an Annex to this document.
14	The 10% native species planting – a bit more detail on this would be helpful, including the rationale for the 10% (an environmental fig leaf?). Some of the comments leveled at the Cote d'Ivoire IP may be useful to reflect on.	UK	<p>It is the policy of the company to diversify the species, and their provenances, in its plantations to improve biodiversity and mitigate risks of pests, diseases and other disturbances. The 10% native species planting is one of the implementation measures of this policy.</p> <p>Next to the areas planted with native species, the company conserves and enhances natural forest remnants. The native species are mostly planted adjacent to / around these forest remnants, to create a buffer zone, expand the corridor function and increase the protection and rehabilitation of existing biodiversity. It shall be noted that within the project, these trees will not be harvested and will be grown in mixed stands to resemble a natural forest. The FSC stamp demands a minimum of 10% at all times of native species to be planted, reflecting that this is an internationally accepted performance level</p>
15	Great to see a strong commitment from FORM Ghana to encourage recruitment of women. I think the example of the Mexico field trip – where the sawmill and furniture making business promoted women through the ranks, earning the respect of male workers, is a good one. Given that the company has explicitly put a figure/target for the number of female jobs – Could we ask AfDB to include this in the results indicator?	UK	<p>The section “<i>Expected Results</i>” was drafted in accordance with the document entitled “<i>Revised FIP Results Framework</i>”.</p> <p>The internal Appraisal Report circulated to AfDB's Board of Directors breaks down the indicator entitled “<i>Number of Employees</i>” by gender. As a consequence, any results associated with this indicator will be closely monitored during project supervision and reported back to the CIF.</p>



## ANNEX I – PROJECT KEY RISKS AND MITIGATION MEASURES

PROJECT KEY RISKS	MITIGATION MEASURES
<p><b>Sovereign and Political Risk</b></p>	<p>In spite of a sovereign credit rating below investment grade, Ghana is known for its political stability and pro-business policy environment, and it continues to attract significant foreign direct investments. Disruptions in the local economy could have potential negative impacts on the revenues associated. The FSC and VCS standards for the company's products will guarantee their marketability in external (regional and international).</p> <p>In addition, the Government of Ghana is largely committed to stimulate private sector involvement in the forest sector in reforestation and forest plantation development in degraded priority forests and savannah areas.</p>
<p><b>Technical Risks (e.g. fire, encroachment, appropriation of assets)</b></p>	<p>The fact that Form Ghana obtained the FSC certification and sees it as crucial to the success of its business provides comfort on a number of technical risks. The FSC certification specifically requires that diversification is built into plantation design and that significant areas of natural verification (which can act to impede the spread of fires and provide habitats for pest controlling species) are protected within the plantations. FSC forces the company to work with surrounding communities which in turn reduces the risks of encroachment and intentional fire and grazing damage. In addition, FSC also requires that legal title is established and that forest management activities are approved by the authorities, strengthening the legal basis and reducing susceptibility to expropriation of assets.</p> <p>The company has put in place a robust system for fire prevention and firefighting. There are fire observation towers and a fully trained team of forestry guards present in the plantations on permanent basis. To enhance the yield, and based on recommendations of the Lenders Technical Advisor, the project sponsor has agreed to a more intense silvicultural regimes to be implemented from 2016 onwards.</p>
<p><b>Financial Strength of the Sponsor</b></p>	<p>The sponsor was initially considered financially weak at following a preliminary assessment of the financial statements of the holding company through which the sponsors invested in the project. This holding company is strictly an investment vehicle with no ongoing business operations and therefore neither holds significant assets nor a strong balance sheet. This risk is mitigated by the fact that equity is being invested by the sponsor upfront and as of March 2016 it reached an amount of USD 19.4 million (validated by independent technical adviser). In addition, the sponsor has agreed to provide a Corporate Guarantee which AfDB has assessed and valued at about USD 18 million (converted from Ghanaian Cedis and adjusted for liabilities &amp; exchange rate), to cover maturing debt obligations in the event that cash flows generated by the project are insufficient during the first ten (10) years of operations. The corporate guarantee is provided by African Tiger Holding Ltd, a subsidiary of Wienio</p>

	Group, with a stable financial strength and a balance sheet of ≈ USD 42 million as of end 2014.
<b>Market Risk</b>	This risk will be mitigated as follows: (i) market and price trends for teak in the last three decades have remained positive with demand staying consistently above supply, (ii) revenue projections for the project are conservatively set at USD 72 – 300/m <sup>3</sup> or a weighted average price of USD 197/m <sup>3</sup> as opposed to the existing reference price of USD 250 – 380/m <sup>3</sup> , (iii) a progressive depletion of natural tropical wood forests and growing global demand will likely guarantee a growing market for teak plantation, (iv) about 80% of the project's revenue is expected to come from exports hence minimizing competition from regional market players, (v) international marketability and competitiveness are guaranteed by the FSC and VCS certifications, and Ghana's recent commercial agreement with the EU provides wider EU market access, and (vi) the company will benefit from the international and national market networks and partnerships of the sponsor.
<b>Silvicultural Risk</b>	These are risks related to the tending, harvesting and regeneration of the forest plantation such as disease, pests, poor seedlings, and fire. The selected species ( <i>Tectona grandis</i> ), is naturally resistant to termites, chemicals, fungus, and adverse weather conditions, including droughts and fire (after 4-5 years). The company successfully piloted a 64ha area before launching the project and has successfully tested and proven its silvicultural risk mitigation measures over the last 8 years of its existence. These included: (i) stringent seed selection procedures, (ii) site and soil quality surveys, and (iii) disease/pest control and outbreak response mechanisms.
<b>Social Risk</b>	The sponsor's activities are FSC certified - FSC certification is a global standard for best practice in this sector based around compliance with 10 principles and criteria covering legal land and ownership or usage rights; legal compliance; social, labor and gender issues; and environmental performance as well as basic forest management and sustainability principles. FSC has a very strong stakeholder consultation process involving both local and international stakeholders. Findings by the AfDB's Additionality and Development team during the due diligence process confirm that there is no opposition to the project. FG has established good relationships with local communities through continuous dialogue. The BSAs, transparent land lease contracts and compliance with customary rules mitigate this risk. A majority of the local community either has direct or indirect employment with the project or enjoys legal access to free farm land under the project's intercropping arrangements. A resettlement action plan was established in consultation and collaboration with Government of Ghana and communities with the objective of addressing any physical, economic and cultural losses.
<b>Foreign Exchange Risk</b>	The FIP loan will be denominated in USD. Foreign exchange risk will be mitigated by the fact that nearly 80% of expected export earnings will be priced in foreign hard currency (USD or EUR).