

Part I: Project Information		Response
GEF ID		10152
Project Title		Sustainable Energy Scale-up in Belarus
Date of Screening		25-May-19
STAP member Screener		Saleem H. Ali
STAP secretariat screener		Sunday Leonard
STAP Overall Assessment		Minor issues to be considered during project design
		<p>The project has two key components for scaling: a) the replacement of fossil fuel energy supply with biomass; and b) energy efficiency improvements in existing building infrastructure. A third component provides technical support for (b). The innovation is linking building renovation to the Green Housing Financing program which is supported through a separate program.</p> <p>Component b) has clear global environmental benefits and is well-documented in terms of emissions reductions. However, component a) involving the introduction of wood biofuels is less well-configured. Two studies are suggested which question the replacement value of wood biofuels as a carbon mitigation strategy, in particular whether the kind of wood replacement and forest management envisaged would be undertaken to allow the comparative value of biofuels to be harnessed. Further detailed analysis should be provided, as well as analysis of competing high value non-combustible uses of timber from the same land acreage. Wind, solar and hydropower comparisons with biofuels would also be useful. This comparison should also consider the potential biodiversity, hydrological, and other ecosystem function impacts of using forest as a replacement for fossil fuel, and measures to mitigate these impacts.</p> <p>The theory of change for retrofitting buildings for energy efficiency savings is fairly clear and straightforward. The wood biofuel replacement for fossil fuels needs to be more convincing, as noted above. Furthermore, with any efficiency project, there is always the danger of a “rebound effect” whereby consumption of energy and materials increases as efficiency is improved. This is an important missing element in the project’s contingency planning. How would overall consumption be limited if greater efficiency leads to lower fuel costs which ramp up demand for energy? A discussion of this is needed to ensure global environmental benefits are delivered. We refer the project proponent to the following publications on rebound effect:</p> <ol style="list-style-type: none"> 1. Gottron, F. 2001. Energy Efficiency and the Rebound Effect: Does Increasing Efficiency Decrease Demand? CRS Report for Congress. https://pdfs.semanticscholar.org/305d/01373f9e930042eb80972ed02daf75ff9ea2.pdf 2. Herring H & Roy R, 2007. Technological innovation, energy efficient design and the rebound effect. <i>Technovation</i>, 27, 4, 194-203 3. Gillingham, K et al. 2016. The Rebound Effect and Energy Efficiency Policy. <i>Review of Environmental Economics and Policy</i>, 10, 1, 68–88, https://doi.org/10.1093/reep/rev017 <p>There is a detailed monitoring, learning and evaluation process for the thermal renovation which is highlighted in the project paper (page 19) and this adequately covers the technical aspects of project uptake. Key will be to also ensure that there is monitoring and evaluation of the overall energy and material consumption to ensure rebound effects do not mitigate global environmental benefits in terms of total emissions reductions.</p> <p>STAP recommends that the project proponents consider the following studies to evaluate the kind of wood biofuel usage that will in aggregate lead to the claimed carbon mitigation benefits:</p> <ol style="list-style-type: none"> 1. Staples, M. D., Malina, R. & Barrett, S. R. H. The limits of bioenergy for mitigating global life-cycle greenhouse gas emissions from fossil fuels. <i>Nature Energy</i> 2, 16202 (2017). 2. Walker, T., Cardellichio, P., Gunn, J. S., Saah, D. S. & Hagan, J. M. Carbon Accounting for Woody Biomass from Massachusetts (USA) Managed Forests: A Framework for Determining the Temporal Impacts of Wood

		<p>Biomass Energy on Atmospheric Greenhouse Gas Levels. Journal of Sustainable Forestry 32, 130–158 (2013).</p> <p>Climate risk: the project has been screened for climate and disaster risks – STAP welcomes this. The main risks identified include potential long-term impacts on forest productivity due to increase frequency and severity of insect invasion and the risks of flooding in urban areas which could damage renovated buildings. No mitigation measures are offered to deal with these risks. Risk mitigation and management measures should be provided. Higher risk of fire due to the use of polystyrene foam-based panels for thermal insulation was also identified as a risk and this will be mitigated through fire safety design, awareness raising, and using more fire-retardant insulation. It will be important to ensure that fire-retardants containing hazardous chemicals like persistent organic pollutants are not used – to avoid a legacy of chemicals to be managed in future.</p> <p>Additionally, according to the USAID Climate Risk Profile for Belarus (https://www.climate-links.org/sites/default/files/asset/document/Belarus_CRP_Final.pdf), rising temperatures are likely to change ecosystem function and forest composition in the country and some trees species are expected to be adversely affected. Given the reliance of this project on forests, it will be important to undertake a detailed analysis of how climate change is going to affect the expected deliveries of wood and the options for mitigation. And renovated buildings will need to be able to withstand future climate conditions.</p>
Part I: Project Information	What STAP looks for	Response
B. Indicative Project Description Summary		
Project Objective	Is the objective clearly defined, and consistently related to the problem diagnosis?	Yes – overall objectives for 3 components is adequately defined.
Project components	A brief description of the planned activities. Do these support the project’s objectives?	The wood biomass replacement’s goal of carbon mitigation needs further justification. The other two activities related to thermal renovation of buildings can meet objectives more directly though rebound effect concerns remain.
Outcomes	A description of the expected short-term and medium-term effects of an intervention.	These are defined in detail with the district level implementation of the project.
	Do the planned outcomes encompass important global environmental benefits/adaptation benefits?	
	Are the global environmental benefits/adaptation benefits likely to be generated?	
Outputs	A description of the products and services which are expected to result from the project. Is the sum of the outputs likely to contribute to the outcomes?	There is an example of prior success in building efficiency programs in Latvia in the project concept paper provided which can be instructive as well.
Part II: Project justification	A simple narrative explaining the project’s logic, i.e. a theory of change.	
1. Project description. Briefly describe:		
1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)	Is the problem statement well-defined?	Yes – very detailed review of Belarus’s environmental and economic challenges provided.
	Are the barriers and threats well described, and substantiated by data and references?	

	For multiple focal area projects: does the problem statement and analysis identify the drivers of environmental degradation which need to be addressed through multiple focal areas; and is the objective well-defined, and can it only be supported by integrating two, or more focal areas objectives or programs?	
2) the baseline scenario or any associated baseline projects	Is the baseline identified clearly?	Data on baseline energy consumption and biofuel availability provided. However, the data suggests that wood biofuel availability can only meet a small portion of full
	Does it provide a feasible basis for quantifying the project's benefits?	
	Is the baseline sufficiently robust to support the incremental (additional cost) reasoning for the project?	
	For multiple focal area projects:	
	are the multiple baseline analyses presented (supported by data and references), and the multiple benefits specified, including the proposed indicators;	
	are the lessons learned from similar or related past GEF and non-GEF interventions described; and	
	how did these lessons inform the design of this project?	
3) the proposed alternative scenario with a brief description of expected outcomes and components of the project	What is the theory of change?	For phase a) scaling analysis is somewhat unclear as admitted on page 6 of the project paper. However, if we are to go by the numbers provided, the scaling potential for biofuels in any way competing with existing fossil fuel dependence is minimal. "The estimated renewable energy potential of wood biomass in Belarus is about 192.6 TJ/year. Total wood biomass fuel consumption in 2017 was about 60.2 TJ, mainly in the form of commercial fuelwood." As for the retrofitting suggested in phase b) this is far more scalable and could in essence be instituted across the country with the green housing finance program.
	What is the sequence of events (required or expected) that will lead to the desired outcomes?	
	· What is the set of linked activities, outputs, and outcomes to address the project's objectives?	
	· Are the mechanisms of change plausible, and is there a well-informed identification of the underlying assumptions?	
	· Is there a recognition of what adaptations may be required during project implementation to respond to changing conditions in pursuit of the targeted outcomes?	
5) incremental/additional cost reasoning and expected contributions from the baseline, the GEF trust fund, LDCF, SCCF, and co-financing	GEF trust fund: will the proposed incremental activities lead to the delivery of global environmental benefits?	Yes – there is considerable detail on cost reasoning provided.
	LDCF/SCCF: will the proposed incremental activities lead to adaptation which reduces vulnerability, builds adaptive capacity, and increases resilience to climate change?	
6) global environmental benefits (GEF trust fund) and/or adaptation benefits (LDCF/SCCF)	Are the benefits truly global environmental benefits, and are they measurable?	The global nature of the environmental benefits will depend to a large degree on the kind of wood biomass being used and the forest management being practiced. The thermal efficiency of buildings can result in global benefits so long as the total carbon accounting based on the project uptake comes out favorably.

	Is the scale of projected benefits both plausible and compelling in relation to the proposed investment?	
	Are the global environmental benefits explicitly defined?	
	Are indicators, or methodologies, provided to demonstrate how the global environmental benefits will be measured and monitored during project implementation?	
	What activities will be implemented to increase the project's resilience to climate change?	
7) innovative, sustainability and potential for scaling-up	Is the project innovative, for example, in its design, method of financing, technology, business model, policy, monitoring and evaluation, or learning?	The key innovation in this effort is perhaps the linkage of the building renovations to the Green Housing Financing program which is supported through a separate program.
	Is there a clearly-articulated vision of how the innovation will be scaled-up, for example, over time, across geographies, among institutional actors?	
	Will incremental adaptation be required, or more fundamental transformational change to achieve long term sustainability?	
1b. Project Map and Coordinates. Please provide geo-referenced information and map where the project interventions will take place.		
2. Stakeholders. Select the stakeholders that have participated in consultations during the project identification phase: Indigenous people and local communities; Civil society organizations; Private sector entities. If none of the above, please explain why. In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement.	Have all the key relevant stakeholders been identified to cover the complexity of the problem, and project implementation barriers?	There is considerable noting of stakeholder engagement. However, the extent of civil society organizations within the country remains limited.
	What are the stakeholders' roles, and how will their combined roles contribute to robust project design, to achieving global environmental outcomes, and to lessons learned and knowledge?	

<p>3. Gender Equality and Women's Empowerment. Please briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis). Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment? Yes/no/ tbd. If possible, indicate in which results area(s) the project is expected to contribute to gender equality: access to and control over resources; participation and decision-making; and/or economic benefits or services. Will the project's results framework or logical framework include gender-sensitive indicators? yes/no /tbd</p>	<p>Have gender differentiated risks and opportunities been identified, and were preliminary response measures described that would address these differences?</p>	<p>There is detailed evidence of multi-stakeholder engagement in this project in terms of the workshops undertake specially with women. The gender linkage of this project with 70% of the households in Belarus being led by women, this engagement was particularly important to maximize global environmental benefits.</p>
	<p>Do gender considerations hinder full participation of an important stakeholder group (or groups)? If so, how will these obstacles be addressed?</p>	
<p>5. Risks. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design</p>	<p>Are the identified risks valid and comprehensive? Are the risks specifically for things outside the project's control?</p>	<p>Section 5 of the project document provides a detailed and fairly candid review of high and substantive risks following the World Bank's template for risk assessment.</p>
	<p>Are there social and environmental risks which could affect the project?</p>	
	<p>For climate risk, and climate resilience measures:</p>	
	<ul style="list-style-type: none"> · How will the project's objectives or outputs be affected by climate risks over the period 2020 to 2050, and have the impact of these risks been addressed adequately? 	<p>See overall STAP comments on climate risk</p>
	<ul style="list-style-type: none"> · Has the sensitivity to climate change, and its impacts, been assessed? 	
	<ul style="list-style-type: none"> · Have resilience practices and measures to address projected climate risks and impacts been considered? How will these be dealt with? 	
	<ul style="list-style-type: none"> · What technical and institutional capacity, and information, will be needed to address climate risks and resilience enhancement measures? 	
<p>6. Coordination. Outline the coordination with other relevant GEF-financed and other related initiatives</p>	<p>Are the project proponents tapping into relevant knowledge and learning generated by other projects, including GEF projects?</p>	<p>Yes – there is some level of coordination with other GEF projects in Eastern Europe as referenced by the example in Latvia.</p>
	<p>Is there adequate recognition of previous projects and the learning derived from them?</p>	
	<p>Have specific lessons learned from previous projects been cited?</p>	
	<p>How have these lessons informed the project's formulation?</p>	

	Is there an adequate mechanism to feed the lessons learned from earlier projects into this project, and to share lessons learned from it into future projects?	
8. Knowledge management. Outline the “Knowledge Management Approach” for the project, and how it will contribute to the project’s overall impact, including plans to learn from relevant projects, initiatives and evaluations.	What overall approach will be taken, and what knowledge management indicators and metrics will be used?	The project will generate considerable data on consumer uptake of the changes in energy pricing that come from the two key interventions. The key barrier to this would be consumer-uptake. Building codes for new construction should be instituted alongside the retrofitting to ensure that longer-term construction transitions to more sustainable design. Further knowledge management and feedback to the proponents during project implementation is recommended.
	What plans are proposed for sharing, disseminating and scaling-up results, lessons and experience?	
STAP advisory response	Brief explanation of advisory response and action proposed	
1. Concur	STAP acknowledges that on scientific or technical grounds the concept has merit. The proponent is invited to approach STAP for advice at any time during the development of the project brief prior to submission for CEO endorsement.	
	<i>* In cases where the STAP acknowledges the project has merit on scientific and technical grounds, the STAP will recognize this in the screen by stating that “STAP is satisfied with the scientific and technical quality of the proposal and encourages the proponent to develop it with same rigor. At any time during the development of the project, the proponent is invited to approach STAP to consult on the design.”</i>	
2. Minor issues to be considered during project design	STAP has identified specific scientific /technical suggestions or opportunities that should be discussed with the project proponent as early as possible during development of the project brief. The proponent may wish to:	
	(i) Open a dialogue with STAP regarding the technical and/or scientific issues raised;	
	(ii) Set a review point at an early stage during project development, and possibly agreeing to terms of reference for an independent expert to be appointed to conduct this review.	
	The proponent should provide a report of the action agreed and taken, at the time of submission of the full project brief for CEO endorsement.	
3. Major issues to be considered during project design	STAP proposes significant improvements or has concerns on the grounds of specified major scientific/technical methodological issues, barriers, or omissions in the project concept. If STAP provides this advisory response, a full explanation would also be provided. The proponent is strongly encouraged to:	

	<p>(i) Open a dialogue with STAP regarding the technical and/or scientific issues raised; (ii) Set a review point at an early stage during project development including an independent expert as required. The proponent should provide a report of the action agreed and taken, at the time of submission of the full project brief for CEO endorsement.</p>	
--	--	--