Part I: Project Information		Response
GEF ID		10163
Project Title		Improvement of the environmental performance of the foam sector: Phase out and management of hexabromocyclododecane (HBCD) in China
Date of Screening		23-May-19
STAP member Screener		Jamidu Katima
STAP secretariat screener		Sunday Leonard
STAP Overall Assessment		Concur
		The project intends to improve the environmental performance of the foam sector in China. This will be achieved through the phaseout of hexabromocyclododecane (HBCD), introduction of HBCD alternatives and environmentally-sound management of HBCD-containing expanded polystyrene (EPS)/ extruded polystyrene (XPS) foams. Other interventions include improved policy and regulatory framework, promotion of technology transfer and investment on the production of HBCD alternatives and application of alternatives to the XPS/EPS foam sector. China in the biggest producer and consumer globally; hence, the phase-out of HBCD will have significant chemicals and waste global environmental benefits (GEBs) as well as co-benefits from reducing emissions of Ozone Depleting Substances (ODS) and greenhouse gases (GHG). The project intends to put in place a robust coordination mechanism to ensure that project implementation is well monitored and evaluated. The project will create a knowledge hub which will compile and assess information on the current use of HBCD-based flame retardants in the XPS and EPS sectors, and on the existing alternatives. A knowledge map which shows who has what knowledge, where knowledge resides, and how it is transferred or disseminated will be developed. This will be a good tool to share and disseminate knowledge that will be generated and will ease the replication and scaling up process. STAP concurs with the proposed project and recommends the following: • Component 3 on the implementation of environmentally-sound management of EPS/XPS. According to Para 42, BAT/BEP measures will be identified, implemented and demonstrated including assessing the possibility of a circular economy approach for bromine recovery and EPS/XPS recovery. STAP welcomes this idea and recommends that circular economy solutions should be prioritized. Research is showing the possibility of chemical recycling of EPS/XPS (for example: Schlummer et al. 2017: DOI:10.4172/2475-7675.1000131; Siyal et al., 2013: http://dx.doi.org/10.1155/2013/842435; Garcia et al. 2009: doi:10.1016/j.wasman.2009.01.001; Hearon et al., 2014: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4000729/; Garcia et al. 2009: DOI 10.1007/s10163-008-0210-8). STAP suggests that this research should be explored to identify possible BAT/BET for the project. • STAP requests that the GEBs expected from the project should be clarified at the PPG stage. There are discrepancies between the numbers reported in the section on core indicators and Section 6 on global environmental benefits and/or adaptation benefits, i.e., para 53 -58. For example, while the quantity of POPs/mercury-containing materials and products directly avoided is stated as 10,800.00 metric tons in the core indicator section, para 45 in Section 6 indicates that 1.22 million metric tons are estimated to be avoided/reduced annually. There are similar issues in the estimated tons of HDCD, HCFC-22 and CO2eq to be avoided/reduced. • STAP recommends that the estimated climate benefits be recalculated using the correct global warming potential (GWP) of HCFC-22. The current estimate uses a GWP of 1810 based

		on IPCC AR4 value. However, this value has been revised by the IPCC in AR5 to 1760. • The PIF indicates that there are no envisaged climate risk/s from the project. However, according to the para 12 of the PIF, EPS bead production enterprises in China are mainly located in the eastern coastal area. This area could be affected by sea-level rise and increased natural disasters due to increased sea surface temperatures. STAP, therefore, recommends that the potential impact of climate change of the outputs and outcome of the project should be assessed and incorporated into project implementation during the PPG stage.
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
Project components	A brief description of the planned activities. Do these support the project's objectives?	Yes
Outcomes	A description of the expected short-term and medium-term effects of an intervention.	yes, with core indicators including quantitative targets
	Do the planned outcomes encompass important global environmental benefits/adaptation benefits?	yes
	Are the global environmental benefits/adaptation benefits likely to be generated?	likely to occur looking at level of investment is alternative technologies
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?	Yes
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
	Are the barriers and threats well described, and substantiated by data and references?	The barriers and threats are not apparent. Also there is no data provided
	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?	n/a
2) the baseline scenario or any associated baseline projects	Is the baseline identified clearly?	yes, well described
	Does it provide a feasible basis for quantifying the project's benefits?	yes
	Is the baseline sufficiently robust to support the incremental (additional cost) reasoning for the project?	adequate
	For multiple focal area projects:	n/a

	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?	Improve the environmental performance of the foam sector in China through the phase-out, introduction of HBCD alternatives and environmentally-sound management of HBCD-containing EPS/XPS foams.
	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?	Improved policy and regulatory framework; Promotion of technology transfer and investment on the production of HBCD alternatives and application of alternatives to the XPS/EPS foam sector; Implementation of environmentally-sound management (ESM) of EPS/XPS foam wastes containing HBCD; Information dissemination, capacity building and knowledge management
	· Are the mechanisms of change plausible, and is there a well-informed identification of the underlying assumptions?	Yes, however the underlying assumption are not explicit
	· Is there a recognition of what adaptations may be required during project implementation to respond to changing conditions in pursuit of the targeted outcomes?	No
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 – considering the fact that China is the biggest producer and consumer of HBCD. GEF additionality clearly identified, including data monitoring, institutional strengthening, private sector engagement and lesson sharing.
	LDCF/SCCF: will the proposed incremental activities lead to adaptation which reduces vulnerability, builds adaptive capacity, and increases resilience to climate change?	n/a
6) global environmental benefits (GEF trust fund) and/or adaptation benefits (LDCF/SCCF)	Are the benefits truly global environmental benefits, and are they measurable?	Yes, but should be refined. Please see STAP overarching comments
	Is the scale of projected benefits both plausible and compelling in relation to the proposed investment?	
	Are the global environmental benefits explicitly defined?	Yes, see further comment are above
	Are indicators, or methodologies, provided to demonstrate how the global environmental benefits will be measured and monitored during project implementation?	Methodology for monitoring and evaluation not yet developed
	What activities will be implemented to increase the project's resilience to climate change?	See STAP overall comments above
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?	
	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.		Map was provided
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?	Yes
	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?	Roles are defined
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	Have gender differentiated risks and opportunities been identified, and were preliminary response measures described that would address these differences?	Yes. However, the response measures to address the differences are explicit.
	Do gender considerations hinder full participation of an important stakeholder group (or groups)? If so, how will these obstacles be addressed?	No
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	Are the identified risks valid and comprehensive? Are the risks specifically for things outside the project's control?	Yes
	Are there social and environmental risks which could affect the project?	
	For climate risk, and climate resilience measures:	

	· 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?	climate risk should be further accessed during the project development stage
	· Has the sensitivity to climate change, and its impacts, been assessed?	climate risk should be further accessed during the project development stage
	· Have resilience practices and measures to address projected climate risks and impacts been considered? How will these be dealt with?	
	· What technical and institutional capacity, and information, will be needed to address climate risks and resilience enhancement measures?	
6. Coordination. Outline the coordination with other relevant GEF-financed and other related initiatives	Are the project proponents tapping into relevant knowledge and learning generated by other projects, including GEF projects?	Yes
	Is there adequate recognition of previous projects and the learning derived from them?	Yes
	Have specific lessons learned from previous projects been cited?	Yes
	How have these lessons informed the project's formulation?	Yes
	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?	Yes
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?	Establishment of a knowledge hub, whose major task will be to compile and assess information on the current use of HBCD-based flame retardants in the XPS and EPS sectors and on the existing alternatives.
	What plans are proposed for sharing, disseminating and scaling-up results, lessons and experience?	Through a knowledge map which shows who has what knowledge, where knowledge resides, and how it is transferred or disseminated.
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.	
	* 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."***	

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:	
	(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.	