



United Nations Development Programme

Project Document for nationally implemented projects financed by the GEF Trust Funds

Project title: Phase-out of Endosulfan in China		
Country: People's Republic of China	Implementing Partner: Foreign Economic Cooperation Office, Ministry of Environmental Protection (FECO-MEP)	Management Arrangements: National Implementation Modality (NIM)
UNDAF/Country Programme Outcome: More people enjoy a cleaner, healthier, and safer environment as a result of improved environmental protection and sustainable green growth		
UNDP Strategic Plan Output: Regulatory and capacity barriers for the sustained and widespread adoption of environmentally sustainable strategy implementation identified and taken up/committed to remove by the Government		
UNDP Social and Environmental Screening Category: Low Risk	UNDP Gender Marker: GEN1	
Atlas Project ID/Award ID number: 00095048	Atlas Output ID/Project ID number: 00099101	
UNDP-GEF PIMS ID number: 6054	GEF ID number:	
Planned start date: 1 March 2017	Planned end date: 28 February 2021	
LPAC date: 3 April 2016		
Brief project description: The four-year project will help China to fulfill the requirements of the Stockholm Convention. The project aims to address endosulfan phase out by biological control and alternative technologies in cotton pest management in China. The project will achieve this project objective through demonstration of biological control and alternative technologies in pilot locations that will lead to subsequent complete phase-out of endosulfan in China through the implementation of a national replication programme prepared under this project. The project as outlined is structured with four components: Component 1 will strengthen institutional and management capacities to ensure efficient and effective project management; Component 2 will develop and demonstrate integrated technical models of biological control and alternative technologies; Component 3 covers the preparation of a national replication programme and work plan, when implemented, will achieve complete		

phase out of endosulfan in China; Component 4 supports the monitoring and evaluation of the project and dissemination of experience and lessons learned, something that is seen as useful for other developing countries dealing with the issue globally. In addition; project management capacity at national and the demonstration locations will be strengthened to achieve implementation effectiveness and efficiency.

FINANCING PLAN

GEF Trust Fund <i>or</i> LDCF <i>or</i> SCCF <i>or</i> other vertical fund	USD 1,980,000
UNDP TRAC resources	USD -
Cash co-financing to be administered by UNDP	USD -
...	
(1) Total Budget administered by UNDP	USD 1,980,000

PARALLEL CO-FINANCING *(all other co-financing that is not cash co-financing administered by UNDP)*

UNDP	USD 100,000
Government	USD 4,600,000
Cotton Growers in Xinjiang Uygur Autonomous Region	USD 3,220,000
(2) Total co-financing	USD 7,920,000
(3) Grand-Total Project Financing (1) +(2)	USD 9,900,000

SIGNATURES

Signature: (Print name) Ministry of Finance	Agreed by Government	Date/Month/Year:
Signature: (Print Name) Foreign Economic Cooperation Office, Ministry of Environmental Protection	Agreed by Implementing Partner	Date/Month/Year:
Signature: (Print name) UNDP China Country Office	Agreed by UNDP	Date/Month/Year:

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List of Acronyms and Abbreviations

APR	Annual Project Report
AWP	Annual Work Plan
CO	Country Office
CPAP	Country Programme Action Plan
CW	Chemicals and Waste Strategy
DDT	<i>dichloro-diphenyl-trichloroethane</i>
FAO	Food and Agricultural Organization
FECO	Foreign Economic Cooperation Office
FFS	Farmer Field School
GEF	Global Environment Facility
ICAMA	Institute for the Control of Agrochemicals, Ministry of Agriculture
IPC	Integrated Pest Control
IPM	Integrated Pest Management
IR	Inception Report
IW	Inception Workshop
LPMO	Local Project Management Office
M&E	Monitoring & Evaluation
MEP	Ministry of Environmental Protection
MIIT	Ministry of Industry and Information Technology
MOA	Ministry of Agriculture
MOF	Ministry of Finance
MOH	Ministry of Health
MT	Metric ton
NATESC	National Agro-Technical Extension and Service Center
NSG	National Steering Group
NIP	National Implementation Plan
NPT	National Project Team
PIM	Programme Implementation Manual
PIR	Project Implementation Review
PMO	Project Management Office
POP	Persistent Organic Pollutant
PRC	People's Republic of China
SAIC	State Administration for Industry and Commerce
SESP	UNDP Social and Environmental Screening Procedure
STA	State Tobacco Administration
TCG	Technical Coordination Group
TOT	Training of Trainers
TPR	Tripartite Review
TTR	Terminal Tripartite Review
UN	United Nations
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNDP-GEF	United Nations Development Programme, Global Environment Facility Unit
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization
USD	United States dollars

II. DEVELOPMENT CHALLENGE

Problem to be addressed

Endosulfan (synonym: Thiodan, Thionex or Endocel) is a broad spectrum insecticide with high efficacy, long persistence and is widely used for controlling cotton, tobacco, fruit and tea tree insects and mites in agriculture.

The Stockholm Convention on Persistent Organic Pollutants was adopted by the Conference of the Plenipotentiaries on 22 May, 2001 in Stockholm, Sweden. The Convention entered into force on 17 May 2004. The objective of the Stockholm Convention is to protect human health and the environment from persistent organic pollutants.

Endosulfan was first proposed to be listed in Annexes A, B, or C by the European Union and its Member States in the third meeting of the Persistent Organic Pollutants Review Committee in November 2007, and was finally listed in Annex A with specific exemptions in the Fifth Meeting of the Conference of the Parties to the Stockholm Convention in April 2011. To date, 89 countries have banned or restricted the use of endosulfan.

As one member of the first panel of the contracting parties, Government of China signed the Stockholm Convention on 23 May 2001. The Convention became effective in China on 11 November 2004. Amendment on listing endosulfan in Annex A was ratified at the fourth session of the 12th NPC Standing Committee on 30 August 2013 and the ratification of amendment was submitted to the depositary by the Government of China on 26 December 2013. According to the Convention, amendment entered into force on 26 March 2014. An announcement was issued jointly by 12 ministries in China stating the specific requirements on endosulfan: starting from 26 March 2014, production, distribution, use, import and export of endosulfan are forbidden, except for specific exemption, i.e. production and use of endosulfan for controlling cotton bollworm and oriental tobacco budworm.

China obtained the first temporary registration of endosulfan for controlling cotton boll worm in 1992, and formally registered for controlling cotton, tobacco, fruit and tea tree insect pests in 1997. China's Ministry of Agriculture (MOA) issued a decree and banned the use of endosulfan on fruit and tea tree pests in 2002, and revoked its relevant registrations on fruit and tea tree pest management in the same year.

Currently, endosulfan is legal to be used to control cotton and tobacco pests in China. As a broad spectrum pesticide with a long persistence and low toxicity to pollination insects (for example: honey bees), it is still widely used in some cotton production areas in China. In 2011, there were still about 2,850 tons of endosulfan being used and released into the environments in the cotton producing areas. China has very large numbers of small farm households, and among them, 15 million in cotton. Due to its unique geographical size and the huge numbers of small farmers, a one-step action of eliminating endosulfan would not be possible. A phased project approach is therefore necessary.

Root Causes and Barriers

Cotton is mostly cultivated in 12 provinces and the Xinjiang Autonomous Region, mainly distributed in the three cotton zones, namely the Yellow River and the Yangtze River Valleys and Inner land Xinjiang Autonomous Region zones. Tobacco is cultivated in 16 provinces. Cotton acreage is about 4.21 million hectares with a total production of 6.16 million tons in 2014, and tobacco acreage is about 1.2 million hectares. In general, cotton and tobacco are subject to intensive pesticide sprayings per season. The intensive application of pesticides in cotton and tobacco leads to a series of negative economic, environmental and social consequences, for example: increasing farming costs, the risk of poisoning farmers and the pollution of soil and underground water.

During the past two decades, Cotton Integrated Pest Management (IPM) strategies were developed and implemented along with the adoption of the transgenic Bt cotton. Non-chemical control methods were developed and introduced in pest management to reduce the application of chemical pesticides. Cotton IPM technologies consist of the conservation of natural enemies in early season, killing over-winter pupae by plough and irrigation immediately before the freeze of cotton fields, planting trap crop, using light traps and spraying high effective pesticides etc.. The implementation of IPM strategies is a crucial step to sustain successful cotton production in China. Recently, biological control such as the bio-pesticide Nuclear Polyhedrosis Virus formulations (NPV), bacov

wasps (aphid parasite), insect sex pheromone and olfactory traps were introduced and applied for controlling cotton pests.

Tobacco pest management followed strictly an unique top-down approach, specialists working in the crop technical extension stations of tobacco companies are responsible for pest monitoring and forecasting, supplying pesticides and making decisions for the pest control actions. So tobacco farmers just follow the recommendation of the tobacco companies for pest management. Recently, bacon wasps were mass reproduced and released for controlling aphids in tobacco.

Even with preliminary successes in the implementation of IPM in cotton and tobacco cultivation, the implementation and scale up of IPM, especially biological control in cotton and tobacco cultivation, faces great challenges. The main barriers are:

- (a) Achievements and information resulting from biological control research programmes does not reach the farmers efficiently because of the independence of the research, extension and education sectors and lack of large scale field training programs;
- (b) Biological control is not sufficiently understood and appreciated by policy makers and government decision makers;
- (c) Vast influences of chemical pesticide company on policy makers, researchers and extension systems, including aggressive strategy for marketing pesticides by chemical pesticide companies have vast negative impacts on farmers and prevent the adoption of biological control technologies.

To-date, ample evidence exists from many cases on many crops, including rice, cotton, vegetables of both national and international programs in China confirming that IPM including biological control can decrease pesticide use without lowering crop yields, can improve farmers' income and health, and protect the environment. It is clear that the need for using biological control to substitute endosulfan is crucial for sound and sustainable agricultural production in China.

The need is even more urgent now than ever before because of several current issues:

- (a) Continuous decline in the area under agricultural production caused by production constraints, especially severe pest problems. The resulting pressure to further intensify cultivation to make up for smaller production area would lead to more intensive use of inputs, in particular chemical fertilizers and chemical pesticides, hence increasing the likelihood of more farmers becoming trapped in the "chemical pesticide treadmill".
- (b) Decline in comparative prices of agricultural products makes it important to increase efficiency in agricultural production to maintain farm income by reducing the costs of production.
- (c) Chemical pesticide residues, especially POPs in foods, are posing an increasing threat to competitiveness in domestic markets and expansion of exports.
- (d) Relevant agencies need to implement market policies to promote farmers as decision-makers in agricultural production and build their capacities in practicing IPM, in particular biological control for sustainable agricultural production.
- (e) Overcome the adverse influence from pesticide industrial sectors on Government departments which deal with regulations, production and sales of pesticides.

The Baseline Scenario and Associated Baseline Projects

In China, there are only two enterprises that produce the active ingredient of endosulfan which have an annual production of about 3,000 tons in 2011, as per data from a report of the Institute for the Control of Agrochemicals (ICAMA) of the Ministry of Agriculture. About 95% of endosulfan was used in China for controlling cotton and tobacco pests, and 5% was exported to Pakistan, Indonesia and Syria etc.

In terms of the registration of endosulfan formulations, there are 33 enterprises producing 37 endosulfan formulations with valid registration certificates to be used to control cotton bollworm, 4 enterprises producing 4 endosulfan formulations with valid registration certificates to be used to control cotton aphids, and 5 enterprises producing 5 endosulfan formulations with valid registration certificates to be used to control cotton ear bud worm.

Currently, although it is legal to use endosulfan for controlling cotton and tobacco pests, an investigation of the 10 provinces most suitable for tobacco cultivation concluded that in 2014, endosulfan was rarely used for tobacco pest control. Pest management in tobacco sector is different from the other crops in China, all pesticides used on tobacco cultivation were purchased and supplied to the tobacco farmers by the tobacco companies instead of directly purchased by the individual farmers. In 2008, tobacco companies have removed endosulfan pesticides from their procurement list and no longer supplied endosulfan to tobacco farmers, therefore, it can be concluded that no more endosulfan was used in the tobacco sector since 2008. However, as there is no mandatory national level policy to forbid endosulfan use in the cotton and tobacco sector, it cannot be completely ruled out that individual farmers might not purchase and apply very limited quantity of endosulfan.

China is one of the largest producers of cotton in the world, with about 4-5 million hectares cultivated by 150 million small scale growers (with less than 1 hectare of cultivation) in 12 provinces and the Xinjiang Autonomous Region. Currently, about 2,850 tons of endosulfan are used annually for controlling cotton bollworm, 85% of the total is applied in Xinjiang Autonomous Region and the other 15% used in the other 12 cotton growing provinces.

There are 150 million small scale cotton growers in China. Therefore, the magnitude of the tasks for substituting endosulfan to comply with the Stockholm Convention is an enormous challenge. Due to its unique geographical size and the huge numbers of small farmers, a one step action of eliminating endosulfan would not be possible in China. A phased project approach is therefore necessary, which would first target selected priority areas, undertake field demonstrations of alternative technologies, and subsequently utilize knowledge and experiences gained in the demonstrations as a basis to further design a national replication programme and work plan in order to disseminate and replicate successful results and experiences from the field demonstrations. Consequently, the project will strengthen and enforce relevant pesticide management policies to support the elimination of endosulfan. The first phase project proposed herewith encompasses the implementation of biological control and alternative technologies based on IPM principles to replace endosulfan in cotton pest management, and develop successful models which will be verified in representative areas for the future nationwide replications.

In cooperation with UNDP, FECO/MEP completed in June 2013 the implementation of a GEF funded POPs project entitled "Improvement of DDT-based Production of Dicofol and Introduction of Alternative Technologies including IPM for Leaf Mites Control in China" which successfully closed down the non-closed system dicofol production using 2,800 MT/a of DDT as an intermediate, and phased out the usage of DDT-based dicofol for leaf mites control in cotton, apple and citrus fields through demonstration and subsequent application of alternative technologies, including IPM based technology. As such, FECO/MEP and MOA has accumulated significant experience and skills in implementing this kind of project, such experience will no doubt contribute to a smooth project implementation.

- **Baseline activities on endosulfan management**

Pesticide management policies in China recently reoriented towards reduction in pesticide use or giving priority to less toxic products. With the implementation of the new concept "Public Plant Protection, Green Plant Protection" (2009) and "Law of the People's Republic of China on Agricultural Product Quality Safety" (2006.11.1), pesticide management policies have been strengthened with respect to the safety of agricultural production and the environment.

The State Council issued the principal regulation of pesticide management "Regulation on Pesticide Administration" in 1997. Local provincial governments also established relevant regulations to implement this national regulation at local levels. The Ministry of Agriculture and the former Ministry of Chemical Industry established and issued the "Implementation Procedure Regulation on Pesticide Administration" respectively in 1999 and 1998. MOA and the State Administration for Industry and Commerce (SAIC) jointly issued "Pesticide Advertisement Inspection Measures" in 1995. MOA and the Ministry of Health (MOH) issued "Guideline on Pesticide Safe Use" (1982.6.5) to specify and implement the national "Regulation on Pesticide Administration" (2001.11.29).

The Ministry of Agriculture issued six new regulations to enhance pesticide management in 2008. In particular, these new regulations aimed at regulating pesticide names, label requirements and registration procedures. At various levels the government has taken concrete actions so that stakeholders like government officials, pesticide dealers, farmers, and manufacturers are aware of and abide by these new regulations. The prohibition of highly

toxic pesticides provides opportunities for intensified efforts to promote IPM and reduction of pesticide risks in China.

- **IPM policies and activities**

China accepted the concept of integrated pest control in 1953 and established the national policy for the integrated pest control (IPC) by the former Ministry of Agriculture and Forestry in 1976. At that time, the principle of Chinese plant protection was mandated as “integrated management with emphasis on mainly prevention”. In the late 1970s, crop IPM programmes were launched in China. Until mid-1980s, the IPM programs placed priorities on fundamental research to understand crop ecosystem, major pests and their natural enemies. Laboratory and field studies were carried out on the basic biology and ecology of major pests and natural enemies. IPC methods in targeting single pest were developed and demonstrated in schemed zones of different ecological features. Economic threshold levels (ETLs) for major pests were used for decision-making in pest control. The conservation and utilization of natural enemies were promoted.

From the mid-1990s to the present, the agricultural policy changed again which has had great bearing on national IPM programs. Highly toxic pesticides including POPs pesticides were either banned or strongly restricted in national IPM programs. Increased investment in research and industrialization of biological control agents promoted widespread applications of bio-pesticides and natural enemies for pest control. During the past 30 years, China actively promoted the IPM technology and achieved remarkable results. In order to meet the new challenge of pest control caused by climate change, cultivar improvement and excessive use of agricultural chemicals, China regularly updates its concept of plant protection. In China, the concept of plant protection includes, but not limited to, IPM. As time evolves, the principle will change according to the profound understanding. In 2009, “Public Plant Protection, Green Plant Protection” (2009) took over the old principle of “integrated management with emphasis on mainly prevention”, so the new principle will guide the practice of Plant Protection (including IPM).

- **Consistency with National Priorities**

The project is fully consistent with the GEF-6 Chemicals and Waste Focal Area Strategy, in support of Strategy Objective 1 (CW 1), Develop the enabling conditions, tools and environment to manage harmful chemicals and wastes, the project supports Program 1 “Develop and demonstrate new tools and regulatory along with economic approaches for managing harmful chemicals and waste in a sound manner”, as well as supporting Strategy Objective 2 (CW 2), Reduce the prevalence of harmful chemicals and waste and support the implementation of clean alternative technologies/substances, Program 3 “Reduction and elimination of POPs”.

The project is an integral part of China’s overall efforts and actions to address the GEF-6 Chemicals and Waste Focal Area Strategy, and is developed jointly with the GEF and key implementing agencies. It represents the only one project directed to the phase out of endosulfan thus in this context the project will be coordinated through FECO/MEP so that a consistent overall programme result against the key indicator of POPs release reduction will be reported through the POPs Tracking Tool.

This project is highly consistency with national priorities, in particular towards reduction in pesticide use or giving priority to non-chemical measures including biological control. During the past 20 years, the Ministry of Agriculture issued 5 decrees, 38 highly toxic pesticides including several kinds of POPs have been banned on use and stopped their registrations, and 19 pesticides were prohibited to be used on fruits, vegetables, tea and Chinese medicine crops. In particular, Methamidophos, Parathion, Parathion-methyl, Monocrotophos and Phosphamidon had been banned on use by 1st January 2007, and followed by a production ban, effective from 2008. All pesticide subsidizes has been eradicated since 1990 in China. Under the impact of the success evidences by both national and international IPM programmes, the recent policy environment has shifted towards more supporting green pest control initiatives with significantly increasing investments both on technical and extension innovations of non-chemical pest control approaches. The Ministry of Agriculture issued a decree recently for taking actions on capping the use of chemical pesticides and fertilizers until 2020 and support the development and extension of non-chemical pest control approaches.

III. STRATEGY

The proposed alternative scenario, with a brief description of expected outcomes and components of the project

The proposed four-year project will help China to fulfil the requirement of the Stockholm Convention and eliminate the usages of endosulfan in cotton cultivation in China.

The project will: (1) Strengthening the current institutional capacity, establishing an effective coordination and management mechanism and reinforcing the policy framework to facilitate the elimination of endosulfan and promotion of biological control and alternatives; (2) Promoting the use of the biological control and its usages by farmers, in particular, evaluating and demonstrating environmental friendly measures, especially biological control in pilot areas where cotton is being cultivated; (3) Developing cotton pest and endosulfan monitoring systems in the pilot areas, disseminating information on biological and alternative technologies to the project communities including policy makers, extension agencies and farmers to support the phase out of endosulfan. (5) Development of a national replication programme and work plan to disseminate project achievements and for achieving phase out of the production and use of endosulfan. (6) Development of a systematic M&E plans to monitor progress towards achieving the project objectives and outputs, and to track the prospective global environmental benefits.

During the project phase, this project will establish an Inter-ministerial Steering Committee which comprises of the Ministry of Environmental Protection (MEP), the Ministry of Agriculture (MOA), the Ministry of Finance (MOF), the Ministry of Industry and Information Technology (MIIT) and the State Tobacco Administration (STMA) to provide overall guidance and coordination for the implementation of relevant activities and to ensure the committed inputs and contribution are available so that (1) 300 extension agents, 60 policy makers and 12,000 representative farmers covering 12 cotton producing provinces and the Xinjiang Autonomous Region will be trained; (2) relevant policy for substituting endosulfan both at the local and national levels will be developed and enforced; and (3) successful models of biological control and alternative technologies will be established for efficient project implementation.

It is noted that as endofulfan use in controlling tobacco pests has ceased since 2008, policy development in banning endosulfan production and use will however cover both the cotton and tobacco sectors, as it is still legal to use endosulfan for controlling cotton and tobacco pests. No other project activity would target the tobacco sector.

Increment/additional cost reasoning and expected contributions from the baseline, the GEFTF, and co-financing

Currently endosulfan is legal to be used to control cotton and tobacco pests in China. Even though with preliminary success on implementing IPM on cotton and tobacco, the implementation and scale up of IPM, especially biological control on cotton and tobacco, face great challenges. With 150 million small scale growers in 12 cotton producing provinces and the Xinjiang Autonomous Region, the magnitude of the tasks for substituting endosulfan to comply with the Stockholm Convention is an enormous challenge. Without GEF support, it is unlikely that priority actions will be undertaken in terms of policy and legislative measures in pest management, establishment of monitoring and reporting systems, demonstration and subsequent application of alternative technologies. Furthermore, the national replication and complete phase out of endosulfan usage in China will not take place for a long time, without the GEF's support in demonstrating the biological control and alternative technologies.

The total project cost is estimated to be USD 9,900,000, of which USD 1,980,000 is GEF grant. To facilitate the implementation of the project and to ensure the smooth phase out of the consumption of endosulfan, the Foreign Economic Cooperation Office (FECO) of the Ministry of Environmental Protection (MEP), will take great efforts to secure co-financing support from related stakeholders. Commitments were made by the Ministry of Agriculture and the State Tobacco Administration, the Xinjiang Autonomous Region government and the demonstration counties in Xinjiang and the other relevant cotton producing provinces, and the enterprises which produce biological control agents and alternatives to provide cash or in-kind co-financing to support the implementation of this project.

The external financial support is crucial for adequate planning, proper assessment and careful evaluation in the selection of the proper demonstration sites.

Biological control and the alternative technologies selected for substituting endosulfan need to be tested in field first and evaluated to be viable in term of economic, environmental and social appropriateness before extension, and capacity building of farmers by training and empowering them to sustainable use of biological control and the alternative technologies is the only feasible approach for substituting endosulfan completely in communities, all of those field activities will need external financial support.

To overcome the adverse influences from pesticide industrial sectors on Government policies which deal with regulations, production and sales of endosulfan, the external financial support is needed to enhance policy development, and to reorient current pesticide policies so as to comply with the sustainable use of biological control and alternative technologies.

The farmers involved in the demonstration will cover 50% of the baseline costs of purchasing biological control agents or the alternatives and other materials to replace endosulfan. In addition, they will also contribute an equivalent amount of the increased labor costs on implementation of the biological control and the alternatives such as spraying bio-pesticides, setting up insect sex pheromone or olfactory luring traps, making their total in-kind co-financing contribution.

Furthermore, it is expected that the enterprises (civil society) participating in the project will be able to provide some of the in-kind contribution for capacity building, mobilization program and monitoring activities.

The project will address endosulfan phase out by biological control and alternative technologies in cotton pest management in China. Being the largest cotton production area in China, Xinjiang Autonomous Region is best suited as a pilot area of targeted price reform. The following describes activities envisioned under each component of the project, with expected Outcomes and Outputs to be achieved by each component:

Component 1: Institutional strengthening and capacity building

Outcome 1.1: Capacity of policy makers, national and local project teams and key stakeholders strengthened to facilitate endosulfan phase out

Output 1.1.1: National level project monitoring and supervision capacity strengthened.

Activity: Establish project National Steering Committee with participation of the Ministry of Environmental Protection, the Ministry of Agriculture, the State Tobacco Administration and the Ministry of Industry and Information Technology etc.. Conduct policy development workshops and training courses annually to engage the relevant policy makers from the above mentioned Ministries to facilitate collaterally actions towards the elimination of endosulfan. A collateral decree by the Ministries is expected to be issued to the relevant departments to facilitate elimination of endosulfan, and promote biological control and the alternatives. Carry out gap analysis, conduct relevant training and establish appropriate setup for project implementation.

Output 1.1.2: Reporting system on import and export management of endosulfan established and training on imports and exports management conducted.

Activity: Establish reporting system and conduct training on imports and exports management.

Outcome 1.2: Policy development to promote and facilitate phase out of endosulfan

Output 1.2.1: Pesticide management policy on phasing out endosulfan in the agriculture sector developed.

Activity: Review current pesticide management policy on producing, marketing and applying of endosulfan and lessons learned from home and abroad will be used to develop a framework of pesticide management policy on eliminating endosulfan. Conduct policy development workshops and training courses to engage the relevant policy makers from the Ministry of Environmental Protection, the Ministry of Agriculture (especially the Institute for the Control of Agrochemicals, the Ministry of Agriculture - ICAMA), the State Tobacco Administration and the Ministry of Industry and Information Technology to reach consensus on the development of pesticide management policy on eliminating endosulfan and promoting biological control and the alternatives.

Output 1.2.2: Agro-technical extension policy on phasing out endosulfan developed.

Activity: Review current agro-technical extension policy on endosulfan and lessons learned from home and abroad

will be used to develop a framework of agro-technical extension policy on eliminating endosulfan and promoting biological control and the alternatives. Conduct policy development workshops and training courses to engage the relevant policy makers from the Ministry of Environmental Protection, the Ministry of Agriculture, the State Tobacco Administration to reach consensus on the development of agro-technical extension policy on eliminating endosulfan and promoting biological control and the alternatives.

Component 2: Development of integrated technical models of biological control and alternative technologies development

Outcome 2.1: Production and consumption of 2,850 tons of endosulfan reduced through introduction and field demonstration of biological control and alternative technologies

Output 2.1.1: Key biological control and alternative technologies to substitute endosulfan identified and selected.

Activity: Review, analyze and assess existing information on key biological control and alternative technologies to identify and select the potential appropriate key technologies to substitute endosulfan. The applying researches and field trials will be conducted in one pilot site in the Xinjiang Autonomous Region to assess the economic and environmental appropriateness of the selected key biological control and alternative technologies. Once the economic and environmental appropriateness of the selected key biological control and alternative technologies are confirmed after the field applying researches and trials, the technologies will be demonstrated in appropriate scales for verification to substitute endosulfan. The potential key biological control and alternative technologies that will be evaluated and assessed in the field will include: (1) Nuclear Polyhedrosis Virus formulations (NPV formulations), (2) Insect sex pheromone trapping or mating disruption formulations, (3) Olfactory trapping, (4) Bacon wasps (insect pest parasite), and (5) Alternative Insecticides.

Output 2.1.2: Field trials conducted and selected key biological control and alternative technologies demonstrated.

Activity: In the pilot site, the selected key biological control and alternative technologies will be demonstrated in the field, modified according to ecosystem and integrated into technical models (the crop IPM systems). One to two technical models will be developed based on the field demonstrations.

Output 2.1.3: Large scale field demonstration of integrated technical models of biological control and alternative technologies undertaken in pilot areas.

Activity: The technical models will be demonstrated in large scales to assess their economic and environmental appropriateness. Along with the field demonstration, a farmer training program based on the Farmer Field School (FFS) approach will be designed and implemented to educate farmers on the adoption of the technical models for substituting endosulfan. The demonstration, promotion and training activities will require the preparation of a detailed work plan prior to implementation. Technical model Operational Manuals will be developed for the demonstration crop of cotton and published after a peer review and consultative process, by national experts knowledgeable of the region and the specific crops. Training activities through Training of Trainers (TOT) and the Farmer Field Schools will be conducted to produce enough number of trainers to act as facilitators in the FFSs which in turn will provide effective training to raise awareness of farmers on the harms of endosulfan on human health and on the environment, inducing them to reduce and stop the use of endosulfan and other harmful pesticides.

Outcome 2.2: 300 extension agents and 12,000 representative farmers trained on the use of biological control and alternative technologies to replace endosulfan usage

Output 2.2.1: Training of Trainers (TOT) on the adoption of the integrated technical models of biological control and alternative technologies.

Activity: Training of Trainers on adoption of the integrated technical models of biological control and alternative technologies. Conduct 2 TOT sessions to train 300 extension agents in the 12 cotton producing provinces and Xinjiang Autonomous Region.

Output 2.2.2: Training of 12,000 representative farmers (through Farmer Filed School – FFS) on the adoption of the integrated technical models of biological control and alternative technologies.

Activity: Conduct 400 training sessions of FFSs to train 12,000 representative farmers on the adoption of the integrated technical models in the 12 cotton producing provinces and Xinjiang Autonomous Region. Track the integrated technical models of biological control and alternative technologies to substitute endosulfan

Outcome 2.3: Pest monitoring systems developed to better anticipate pest impacts, improve efficiency on information dissemination to better support farmers to use new alternative technologies

Output 2.3.1: Enhanced pest and endosulfan monitoring systems established in the pilot areas.

Activity: Review existing pest and endosulfan monitoring system in the pilot areas. Improve the pest monitoring and endosulfan systems in the pilot areas.

Output 2.3.2: Pest monitoring information dissemination systems established and information disseminated.

Activity: Review existing rural information dissemination system, and build or enhance the information dissemination systems in the pilot areas. The project will strengthen information dissemination system utilizing mobile devices or TV in the pilot areas. The project will improve the efficiency of the information dissemination to farmers, to support and promote farmers' adoption of the integrated technical models of biological control and alternative technologies to substitute endosulfan.

Output 2.3.3: Application and big data solution developed to improve services to farmers and enterprises.

Activity: Design application in mobile phones to better support farmers to use the new technologies through interactive consultation and information dissemination while at the same time to collect data from farmers and enterprises for service upgrade and improvement through better monitoring.

Component 3: National Replication

Outcome 3.1: National replication programme and work plan developed and disseminated

Output 3.1.1: National replication programme and work plan developed.

Activity: To ensure sustainability of the participants in the demonstration areas and for promotion of the integrated technical models of biological control and alternative technologies to substitute endosulfan, demonstration results and experience gained will be disseminated to farmers not participating in the demonstration or in other non-demonstration areas. The project will include planned activities to evaluate the results of field demonstration of the integrated technical models, and the preparation of a national replication programme to promote replication to other areas and other crops in China.

Output 3.1.2: National replication programme and work plan adopted and key stakeholders engaged on its implementation.

Activity: Once the national replication programme is developed and submitted to the National Agro-Technical Extension and Service Center (NATESC) of MOA for adoption through a peer review and consultative process by both national and international experts knowledgeable of the region and the specific crops, national workshops will be conducted to disseminate the adopted national replication programme, and to engage all relevant stakeholders, including policy makers, public extension agencies and private enterprises etc., to support the implementation of the national replication programme towards phasing out endosulfan in China. Furthermore, the project will undertake information sharing on experience and knowledge gained with related developing countries included in the areas within the China's "Belt and Road" economic development initiative to promote endosulfan substitution in their agriculture production.

Component 4: Project Monitoring and Evaluation

Outcome 4.1: Effective monitoring and evaluation; knowledge sharing and information dissemination ensured

Output 4.1.1 Monitoring, evaluation and impact assessment conducted.

Activity: Undertake continuous monitoring and periodic progress reviews on development and operation of the overall IPM management system and associated effectiveness evaluation. Develop and implement impact assessment procedures with respect to estimated POPs phase out.

Output 4.1.2 Knowledge sharing and post project action plan developed.

Activity: Document and disseminate experience and lessons learned nationally as the system develops and internationally through multilateral forums such as Basel Regional Centers and directly with other developing countries. Terminal evaluation conducted.

Component 5: Project Management

Outcome 5.1: Strengthened project management capacities and efficiency

Output 5.1.1 Project management capacities strengthened.

Activity: Strengthen institutional capacity of the National Project Team (NPT) in FECO/MEP and demonstration provinces/municipalities for project management; establish Local Project Management Offices (LPMOs) and strengthen project management capacity in each of the three demonstration provinces/municipalities; develop Project Implementation Manual (PIM), train staff on PIM and relevant GEF and UNDP requirements on project management.

Output 5.1.2 Effective project management.

Activity: Undertake day-to-day project management activities by NPT and LPMOs to ensure smooth and timely implementation of project activities including but not limited to: drafting TORs, select and contract with consultants, organize M&E activities, organize the review of substantial report.

IV. RESULTS AND PARTNERSHIPS

i. Expected Results:

The overall result of the project will be the elimination of endosulfan for pest management in cotton cultivation at the pilot sites through field trials and demonstration of selected key biological control and alternative technologies, which will be assessed for their economic and environmental appropriateness to substitute endosulfan and other chemical pesticides that can decrease pesticide use without lowering crop yields. The reduced spraying frequencies of pesticides will lead to eliminating both overuse and misuse of pesticides on cotton. The preparation and subsequent implementation of a national replication programme under this project will promote replication to other areas and other crops, to achieve a complete national phase out of endosulfan in China. The experience and lessons learned can also be shared by other countries encountering similar issues.

Global environmental benefits and adaption benefits

Endosulfan as one of POPs, is capable of trans-border long-range transport, bio-accumulate in human and animal tissue, bio-magnify in food chains, and poses potential significant threats on human health and the environment far from its resources, therefore, China is keen on the phase-out of endosulfan production and usage so as to minimize its release to the environment which will not only benefit the environment of China but also contributes to global environment as well as human health. Through the implementation of the project, significant global environmental benefits will be achieved through the elimination of release of endosulfan into the environment:

- (a) The production of 2,850 tons of endosulfan in the two enterprises used for controlling cotton pests will be phased out after the project;
- (b) During the spraying of endosulfan by the farmers in 12 provinces and Xinjiang Autonomous Region of China, endosulfan may release to air and transmit to the global environment, pollute water flows to the river and ocean and will eventually affect the global environment. The implementation of this project will reduce endosulfan level in air, water, soil and agricultural products and thus will not only improve the local environment but will extend significant contribution to the global environment to reduce the potential harm to the global ecosystem and human health;

- (c) The project will help China to strengthen its capacity for eliminating endosulfan and promoting biological control and the alternatives; gain valuable experience on pesticide risk reduction;
- (d) The field demonstration of biological control and alternative technologies, based on IPM principle, will provide the Government of China, extension agencies and relevant sectors with suitable techniques and experiences for the replication of the techniques nationwide and will ensure food safety and strongly strengthen the capacities of pest management;
- (e) The promotion of biological control and its increased awareness and acceptance among farmers will help to reduce the use of chemical pesticides remarkably and sustain the development of the sustainable pest management;
- (f) The experience on biological control application and replication in China can be extended to other developing countries, which is conducive to global sustainable management of POPs pesticides avoiding the environmental pollution and health risk by excessive or improper use of pesticides in the developing countries. In particular, it will benefit the developing countries in the areas of China's "Belt and Road" economic development initiatives through sharing of the experience and knowledge gained in this project, to significantly improve their environment and ecosystem through promoting the substitution of endosulfan.

Socioeconomic benefits at the national and local levels

The project will benefit small scale Chinese cotton farmers to significantly gain knowledge about pests, natural enemies, pest ecology and management through the participation of the training and capacity building, also to reduce their pesticide usages and costs. Economic benefits for the farmers will be revealed for the project's covered crops on that their economic efficiencies being increased, by increasing or maintaining crop yields and revenues. Social benefits for the communities will also be significant by implementing the project, in the form of contributions by the project's participating farmers towards social and community development.

In general, small holder farmers use chemical pesticides and fertilizers heavily along with the intensification of agriculture production. In several crop systems, repeated failures in some local areas have been experienced, mainly due to poor pest management strategy and over-reliance on chemical pest control. Thus, finding improved means of agricultural practices, in particular sound pest management, that will ensure sustainability and are free of the negative concerns, is of utmost importance to the agricultural sectors in China. This project, by using biological control and proper alternative technologies to substitute chemical pesticides, can decrease pesticide use without lowering crop yields. The field demonstration and farmer training through FFS approach designed in this project will reduce spraying frequencies of pesticides, and eliminate both overuse and misuse of pesticides on cotton.

The key Biological Control and Alternative Technologies developed in the project will be integrated into the technical models, which including variety resistances, cultivation, mechanical control, biological control and alternative chemical control according to their specific field conditions for controlling cotton pests, therefore farmer's skills in pest monitoring and knowledge of pest ecology are needed. Recent FFS training on integrated pest management involving adult, non-formal, education using the learning-discovery approach, has focused on filling gaps in farmers' ecological knowledge and misconceptions about pest management. FFS approach will be deployed in this project for training farmers on the adoption of key Biological Control and Alternative Technologies. IPM communities will be established by the FFS alumni after the implementation of the project, in addition to eradicating endosulfan, the trained farmers in this project will be able to distinguish correctly labeled pesticides from fake or illegal pesticides, and ban the entry of improperly labeled and illegal pesticides into the communities.

More ecologically sound crop management practices will be generated through reduced chemical pesticides including endosulfan in this project, and the FFS farmers trained in this project will become more economically efficient, reduce costs and increase incomes on cotton production. Farmers and their local communities will benefit by adopting environmental-friendly and sustainable pest management

practices such as conservation and utilization of natural enemies, use of biological control and prevention measures, and significantly reduce their pesticides risks on environment. Local agro-ecological stability will be improved dramatically with a clear increase of biodiversity, in particular the populations of beneficial natural enemy species of pests.

The education investment through FFS in this project can produce outcomes that go beyond the substituting endosulfan, which are farmers' contributions to their social and community developments. Ample previous evidences reflected the impacts of FFS on farmers' community and social developments, which could normally not be expected as results of the traditional training approach. Those could be: (1) FFS graduates conducted field studies after FFS, farmer experimentations organized or conducted by the FFS graduates; (2) Development of IPM communities, FFS resulted in the establishment of a critical mass of IPM alumni in farmer communities; (3) FFS alumni organized IPM farmers associations to conduct several types of activities, for example: certificating IPM agricultural products, or connecting to markets by establishing jointly contracts with agricultural marketing companies on the behalf of farmer communities.

Both directly and indirectly, this project will have deep impacts on national policies on eliminating POPs, in particular towards reduction in pesticide use or giving priority to less toxic products. Recent policy environment in China has shifted towards more supporting green pest control initiatives with significantly increasing investments both on technical and extension innovations of non-chemical pest control approaches including biological control. The Ministry of Agriculture issued a decree recently for taking actions on capping the use of chemical pesticides and fertilizers until 2020 and supporting the development and extension of non-chemical pest control approaches.

In addition, this project will make great contributions to improving Chinese people's health. In rural areas of China, most chemical exposure is linked to the use of pesticides including endosulfan in agriculture. The improper use, management and storage of pesticides can result in contamination of air, food, soil, and drinking water, leading to increased human exposure and associated health risks. This exposure is especially high to infants that get most of their "food" through breast feeding, where the highly fat soluble POPs are transferred from mother to child. The elimination of endosulfan in Chinese agriculture will make great contributions for improving Chinese people's health.

ii. Partnerships:

The project will be implemented following UNDP's national implementation modality (NIM), according to the Standard Basic Assistance Agreement between UNDP and the Government of China and the Country Programme Action Plan (CPAP). The Implementing Partner for this project is the Foreign Economic Cooperation Office (FECO) of the Ministry of Environmental Protection (MEP). MEP has designate FECO as the entity in the implementation of activities relating to fulfilling China's obligations under multilateral environmental convention, responsible for the daily execution and coordination of the project. The Implementing Partner is responsible and accountable for managing this project, including the monitoring and evaluation of project interventions achieving project outcomes and for effective use of UNDP resources. UNDP is the GEF Implementing Agency (IA) for the project. The role and responsibilities of the various partners directly involved in project implementation are described below:

Ministry of Environmental Protection (MEP). As the administrative authority on environmental protection, is designated by the State Council as the core agency for coordination of all POPs related activities in China and the focal point for the implementation of the POPs Convention in China. MEP is the national implementing agency for this project. Its responsibilities will include (1) responsible for the project in general and ensure its successful implementation and quality; (2) to provide political direction and guidance to FECO; (3) coordination with stakeholders, including GEF, donors, IAs, and relevant domestic ministries and agencies, including the member commissions and ministries of the NCG; (4) development/issuance/implementation of national policy and standards to regulate environmental performance of the IPM management system; (5) Identification of alternative technology requirements; (6) qualification and permitting of IPM demonstration; (7) supervision of the enforcement of environmental policies and performance requirements applied to IPM management; (8) supervision the

disclosure of environmental information; and (9) supervision of the day-to-day management of the project.

National Steering Group (NSG). An inter-ministerial steering group consists of NDRC, MEP, MIIT, MOC, MOF and STAGAC to provide overall guidance and coordination for the implementation of relevant activities and legislative measures, to ensure the committed inputs and contributions are available as needed. The NSG will meet twice a year or as needed.

Foreign Economic Cooperation Office (FECO), Ministry of Environmental Protection. FECO is an inter-departmental coordination unit of MEP and acts as the secretariat of the NSG. It is responsible for day-to-day compliance with the Stockholm Convention in China. FECO's responsibilities include: (1) provision of technical support for international negotiations and policy studies on the Stockholm Convention, (2) provision of support to the development and implementation of corresponding policy and regulations, as well as coordination of key governmental stakeholders, (3) mobilization of co-financing for the project from bilateral and domestic governmental and private sources, (4) collecting data and information, compiling reports, organizing trainings, and publishing information. In this project, FECO will represent MEP to provide political guidance to the implementation of this project, coordinate with various stakeholders with post-TCG and other appropriate approaches, and to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost.

Ministry of Finance (MOF). The MOF assumes the responsibility for negotiation and consultation with regard to fund from foreign governments and international institutions on behalf of the Government of China; supervises the implementation of guidelines, policies, laws and regulations on finance and taxation; examines and reflects material problems in government revenue and expenditure management; and proposes policy suggestions on strengthening the financial administration. MOF has the overall responsibility for national GEF programme. As the GEF Operational Focal Point for China, MOF reviews, endorses and supervises preparation and implementation of GEF funded projects, and supervises the use of GEF grant.

Ministry of Agriculture (MOA). MOA is in charge of agriculture and rural economic development by developing and implementing agriculture strategies, policies, regulations and guidelines etc., and is also responsible for pest control and technology promotion including IPM technology and other new technologies by demonstrating the technologies and training the farmers.

Post-technical Coordination Group Meeting (Post-TCG). During NIP development, FECO established a coordination mechanism for stakeholder involvement, called TCG. Relevant domestic stakeholders, international IAs and EAs, as well as potential bilateral donors, private sectors, NGOs etc. would be informed about the progress and further needs for Convention implementation, invited to advise on its design and encouraged to be involved and co-fund some of the activities. They would be briefed on the implementation progress and impacts at the TCG meetings. FECO will continue to convene TCG meetings at interval of around once per year. The coordination on the implementation of this project will be one of the important components of the TCG meetings.

National Project Team (NPT). The project team, composing of staff from MEP and possibly staff from other ministries with respective responsibilities on IPM management and legislative activities, is administratively managed by FECO/MEP. FECO is a professional office with more than 15 years experiences for the implementation of international environmental cooperation programmes and for the follow-up implementation of international environmental conventions. In general, the team is responsible for the day-to-day management, coordination and implementation of the proposed project under the guidance of FECO and with the support of the consultants recruited. Its responsibilities include (1) manage project procurement and financial resource in accordance with UNDP's procedures, prepare and amend as necessary the Annual Work Plan and relevant progress and financial report; (2) organize and convene project coordination and review meeting, including the Annual Review Meeting and prepare Project Review Report; (3) prepare TORs under this project; (4) select and contract with individual consultants and sub-contractors, supervise the implementation of contractors to ensure the smooth implementation

of the contracts; (5) provide guidance to the local Project Management Offices (LPMOs); and (6) organize the inspections and verifications related to the project achievement.

Expert Team. Consultants will be engaged to provide technical support for the implementation of the project. (i) international expert(s) will be recruited as needed to introduce international experience on IPM management, and to provide overall technical direction and guidance for the application of alternative technology demonstration; and (ii) national technical experts with experience and knowledge in pest management and IPM technology demonstration will be recruited to work with the international experts and assist FECO and LPMOs for the demonstration activities.

During project implementation, this project will coordinate closely with the Global Endosulfan programme being developed by UNEP and FAO, to exchange experience and replicate project results that will contribute to addressing the global endosulfan issues.

iii. Stakeholder engagement:

Key project stakeholders include national government ministries and their regional departments/bureaus, civil society organizations, private sector enterprises, they were consulted and engaged during the project formulation phase. During project implementation, these key stakeholders are the major active participants in all the project activities as well as the direct targeted groups and beneficiaries of the project achievements. The following describes their roles and responsibilities and strategy to ensure effective engagement of these key stakeholders.

The Government of Shawan County, Xinjiang Uygur Autonomous Region and Agricultural Bureau of Xinjiang Production and Construction Corps. In each demonstration location, these entities will be in the front line of action and be responsible for coordination and guidance, and undertake close interactions and liaison with cotton growers in their respective areas for the implementation of the activities locally, to ensure the committed inputs and contribution are available as needed, and the policies proposed in the project could be developed, promulgated and enforced effectively. Activities undertaken could include: (1) organization of IPM implementation; (2) supervision of local pesticides distributions and applications; (3) organization of joint inspections to ensure the effective implementation of related regulations; and (4) collection of information needed for M&E and preparation of the required progress reports.

Farmers in the Project Implementation County. Cotton growers in the pilot areas and the Farmer Associations to which they belong will be actively engaged in the field demonstration and the FFS training sessions on biological control and alternative technologies as active players in the demonstration activities. They will be responsible for (1) implementing biological control and alternative technologies to substitute endosulfan IPM implementation; (2) assisting the LPMO to collect field information needed for M&E and preparation of the required progress reports.

Private Sector of Producing and Marketing Biological Control Agencies. In order to deploy this private sector force as an effective agent to promote behavior change in the supply and use of environmentally friendly pesticides, the private sector will be engaged with the field implementation of biological control and alternative technologies on cotton to substitute endosulfan; and with collection of information needed for M&E and preparation of the required progress reports on the implementation of biological control and alternative technologies to substitute endosulfan.

iv. Mainstreaming gender:

In daily life, men, women, and children are exposed to different kinds of toxic chemicals include POPs in varying concentrations. In particular, farmers working in cotton industry are subjected to higher health risk due to close and frequent contacts with various pesticides including endosulfan. Endosulfan is toxic to humans and exposure to endosulfan has been linked to congenital physical disorders, mental retardations and deaths in farm workers and villagers in developing countries in Africa, Asia and Latin America. The improper use, management and storage of pesticide can also result in contamination of air, soil, food and drinking water, leading to increased scale of human exposure and associated health risks.

Substituting endosulfan and its complete phase-out will reduce adverse health risks for both men and women working in the fields and living in the proximity. Female farmers will be protected from poisoning their off-spring through pregnancy and breastfeeding.

During implementation, the project will be responsive to the different needs of different gender groups and address their priority concerns in particular the vulnerable groups including female farmers, villagers and the poor to strengthen capacity and benefit from the project. According to the demands and needs, the project will introduce consultation-based multi-stakeholder's participation to ensure all gender groups' access in the related activities of training and capacity building. In addition, the project will raise awareness and emphasize the importance of gender empowerment with relevant stakeholders, which will contribute to the successful implementation of gender mainstreaming.

v. South-South and Triangular Cooperation (SSTrC):

In addition to China, most of major cotton production countries, such as Uzbekistan, Turkmenistan, Turkey, India, Greece, and Egypt are lying on the Belt and Road zone, where the Government of China promotes connectivity and cooperation among those countries with China through the Belt and Road Initiative. The correspondence between cotton farming countries and Belt and Road Initiatives provides good opportunity and incentives for the project to undertake information/knowledge sharing and technical cooperation with those related countries. Experience, knowledge and lesson learnt on policy making, cotton farming and pesticide management gained from both China and those countries will be exchanged, sharpened and disseminated domestically and globally to not only achieving phase out of endosulfan in China but also promote sustainable farming and transfer of knowledge to relevant countries.

V. FEASIBILITY

i. Cost efficiency and effectiveness:

Proper assessment, careful evaluation, and adequate planning in selection are necessary to ensure correct identification of demonstration candidate sites. Biological control and the alternative technologies selected for substituting endosulfan will be tested in field first and evaluated to be viable in term of cost-effectiveness.

Specifically: (1) Biological control and the alternative technologies selected for substituting endosulfan will be evaluated on sound technological, management and economical basis, and must take into consideration the acceptance of farmers, the economic, social and environmental benefits as a whole; (2) Efforts will be taken to strengthen local capacity and participation; (3) Establish infrastructure and operational mechanism at county and grass root levels and design a practical model that can effectively promote and popularize biological control and the alternative technologies; (4) Motivate and mobilize policy, management and financial support from County Government, civil society (enterprises) and multiple sources.

The project goal is to eliminate endosulfan that causes harms to the environment and human health. To achieve the project goal, the project design encompasses project activities to address endosulfan consumption, supplemented with capacity building, policy and legislative actions. To encourage reduction in consumption of endosulfan, alternative technology, in particular biological control technologies will be demonstrated in the selected areas for cotton pest management. The field demonstration will engage the participating farmers to indicate the positive outcomes in terms of increased profit, reduced frequency of pesticides usage, increased quantity and improved quality of agro-produces, leading to better market opportunities by using biological control and the alternative technologies. And the education investment through FFS in this project can produce outcomes for the participating farmers to understand why and how to use biological control and the alternative technologies to substitute endosulfan. The success will lead the way for a positive national replication programme and work plan to be prepared. In addition, the project will enhance pesticide management policy amendment and its enforcement framework, in order to fully achieve the anticipated outputs as reflected in the project design.

ii. Risk Management:

The risks logically and practically identified in the project are listed in the table below. As biological control and alternative technologies are subject to externalities such as weather, soil conditions etc. and crop pest outbreak is also one of the major factors and they might frequently occur, the development of an emergence response plan would mitigate the effects of such incident. Unemployment of workers is considered a natural risk of the closure of endosulfan producing factories, it was logical at the project design stage to plan ahead to ameliorate such impact through retraining, compensation or resettlement. There are only two factories currently involved with producing endosulfan, and they may be able to change their endosulfan production lines to produce other pesticides, and subsequently ceased all operations due to completely market phasing-out. The issues of workers' reemployment and compensation might need to be handled in accordance to prevailing national policy on such matter.

As per standard UNDP requirements, the National Project Team will monitor risks quarterly and report on the status of risks to the UNDP Country Office. The UNDP Country Office will record progress in the UNDP ATLAS risk log. Risks will be reported as critical when the impact and probability are high (i.e. when impact is rated as 5, and when impact is rated as 4 and probability is rated at 3 or higher). Management responses to critical risks will also be reported to the GEF in the annual PIR.

Project risks					
Description	Type	Impact & Probability	Mitigation Measures	Owner	Status
Likelihood that endosulfan production and marketing industries are not willing to be involved in this project	Strategic	Probability: 1 Impact: 2 Lack of participation of endosulfan production and marketing industries will present significant challenges in promoting substitution of endosulfan with environmentally friendly alternatives and preclude the availability of such alternatives	1. Develop pesticide management policy on phasing out endosulfan and organize joint inspections to ensure effective implementation of the related amended pesticide management policies. 2. The workers' reemployment and compensation of the endosulfan production and marketing industries be handled in accordance with prevailing national policy on such matter. 3. Assist on the extension of the other alternative pesticides and thus encourage the involved industries to change the endosulfan production lines to produce other alternative pesticides.	FECO/MEP, UNDP	Continuous effective monitoring during project implementation
Crop pest outbreak due to climate changes, soil conditions and other environmental factors etc.	Environmental	Probability: 1 Impact: 3 Such outbreak will cause significant increase in the use of pesticides and raise doubts on endosulfan substitute	1. Develop an emergence response plan to deal with the possibilities of crop pest outbreak and minimize crop yield loss at such an extreme case. 2. Enhance crop pest monitoring and information dissemination system for farmers' urgent	Local Project Management Office (LPMO)	Continuous monitoring during project implementation

			<p>response to such an extreme case.</p> <p>3. Assess the economic and environmental appropriateness of the selected key biological control and alternative technologies in demonstration fields and at the different main crop agro-ecosystems before extension.</p>		
The timeframe for the project is too short to achieve its output.	Operational	<p>Probability: 1 Impact: 2</p> <p>Insufficient time to complete the demonstration cycle will hinder the availability and the effective promotion of the alternatives</p>	<p>1. Enhance project planning, monitoring and evaluation, to ensure timely implementing to achieve its outputs.</p> <p>2. Strengthen communications among project stakeholders and ensure the high visibility of the progress of the project.</p> <p>3. The project implementing and management teams at different levels are properly trained and ensure their efficiencies on implementing the project.</p>	FECO/MEP, UNDP, LPMO	Continuous monitoring during project implementation
Conflicts caused by claims on the intellectual property of the outputs	Regulatory	<p>Probability: 1 Impact: 2</p> <p>Possible obstacles and hindrance in promoting and replicating the demonstration results</p>	<p>1. Ensure all the project executing agencies reach a unanimous agreement on the intellectual property of the outputs through open discussion and communications at the beginning of the project.</p> <p>2. Ensure agreement on the intellectual property of the outputs developed by the project executing agencies complies with the relevant national and international policies and treaties.</p>	FECO/MEP, UNDP LPMO	Continuous monitoring during project implementation

iii. Social and environmental safeguards:

Environmental and social grievances will be reported to the GEF in the annual PIR.

Two low risks have been identified from the UNDP Social and Environmental Screening Procedure, i.e. 1) Release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts. 2) Significant consumption of raw materials, energy, and/or water.

The project's objective is to eliminate the usage of endosulfan by adopting biological control and IPM that are friendly to environment and human being. However, there is possibility that incomplete elimination of endosulfan will continue releasing contamination to the environment due to perpetual farming habits. To prevent the occurrence of this risk, selection of biological control and alternative technologies will consider into economic benefit and environmental appropriateness to adapt to local conditions. Targeted capacity buildings and FFS will be designed and implemented to train not only farmers but also decision makers and extension agencies to ensure effective acceptance and application of substitutional technologies.

IPM features in comprehensive benefits, not only reducing chemical usage but also promoting ecological crop management. Aside from eliminating endosulfan, more ecologically sound crop management practices will also reduce the consumption of water and fertilizer. In this connection, the introduction of IPM in cotton sector is very effective mitigation measure to control the risk of consuming raw materials, energy and water.

iv. Sustainability and Scaling Up:

Development of biological control and alternative technologies on cotton pest management will generate and increase profits for farmers, and encourage farmers to reduce chemical pesticide use, the innovation of this project is in line with the national policies for the reduction and capping of pesticide usages until 2020, once the benefits of the project in the demonstration areas is evident, sustainability can easily assure the support from both local and national governments upon project completion. The primary factors determining their continued application of biological control and alternative technologies will be costs and effectiveness of control measures; these can be elucidated by farmers' participatory researches and FFS training in the project field activities.

To ensure sustainability of biological control and alternative technologies to substitute endosulfan completely, special efforts will be taken in the project to change both the farmers and extension agents' perception and traditional behaviours, to raise the level of understanding on pesticides usage, and to apply effective ways of pest control that will not impose harms to the environment and human health. Overall, once phase-out of endosulfan is achieved in the project demonstration areas, sustainability of complete phase-out efforts will be taken after successful demonstration activities, which include such actions as promulgating appropriate legislative measures, strengthening enforcement actions and promoting effective public awareness campaign to change pesticides consumption behaviour to eradicate endosulfan in China through implementation of the national replication programme. Therefore, the project design includes planned activities to evaluate the results of the biological control and alternative technologies, and the preparation of a national replication programme to promote the project's successful models to all the other relevant areas in China.

VI. PROJECT RESULTS FRAMEWORK

This project will contribute to the following Sustainable Development Goal (s): 12. Responsible consumption and production; 14. life under water; 15. Life on land					
This project will contribute to the following country outcome included in the UNDAF/Country Programme Document: More people enjoy a cleaner, healthier, and safer environment as a result of improved environmental protection and sustainable green growth					
This project will be linked to the following output of the UNDP Strategic Plan: 1.3 Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste					
	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Assumptions
Project Objective: The project will address the phase out of endosulfan by Biological Control and Alternative Technologies in Cotton Pest Management in China	Quantity of endosulfan production reduced per year	2,850 tons per year	N/A	Production and consumption of endosulfan completely eliminated, 2,850 tons/year of endosulfan phased out	<ul style="list-style-type: none"> ♦ Crop pest monitoring and information dissemination system enhanced for farmers' urgent response to such an extreme case ♦ Project planning, monitoring and evaluation enhanced to ensure timely and effective implementation to achieve intended outputs ♦ Ensure all project executing agencies reach a unanimous agreement on the intellectual property of the outputs through open discussion and communications at the beginning of the project
	# direct project beneficiaries	None	N/A	60 policy makers, 300 extension agents and 12,000 representative farmers in 12 cotton producing provinces and Xinjiang Autonomous Region trained	
	Relevant policies for substituting of endosulfan at both local and national levels developed and enforced	None	N/A	<ul style="list-style-type: none"> ♦ Policies banning endosulfan production and consumption completed. ♦ Regulation promoting alternatives completed 	
	Models of biological control and alternative technologies successfully established and implemented	None	N/A	<ul style="list-style-type: none"> ♦ Key biological control and alternative technologies demonstrated in at least 3,000 hectares ♦ 1-2 integrated technical models developed ♦ The integrated technical models demonstrated in at least 15,000 hectares ♦ Operational manuals of the technical models published 	

Component 1: Institutional Strengthening and capacity building					
Outcome 1.1 Capacity of policy makers, national and local project teams and key stakeholders strengthened to facilitate endosulfan phase out	Expected Outputs: Output 1.1.1: National level project monitoring and supervision capacity strengthened Output 1.1.2: Reporting system on import and export management of endosulfan established and training on imports and exports management conducted				
	National level monitoring and supervision capacity strengthened	None	N/A	<ul style="list-style-type: none">♦ Gap analysis conducted♦ Monitoring and supervision capacity strengthened through training activities to facilitate achievement of outputs	Experience gained in successful implementation of the GEF funded dicofol project will contribute to effective project management
	Reporting system established and training on imports and exports management conducted	None	N/A	Reporting system established and training on imports and exports management conducted to strengthen enforcement actions	
Outcome 1.2 Policy development to promote and facilitate phase out of endosulfan	Expected Outputs: Output 1.2.1: Pesticide management policy on phasing out endosulfan in the agriculture sector developed Output 1.2.2: Agro-technical extension policy on phasing out endosulfan developed				
	Development of pesticide management policy	Policy on phasing out endosulfan and promoting biological control and the alternatives not formulated	N/A	<ul style="list-style-type: none">♦ Gap assessment undertaken, policy development workshops and training courses held♦ Decree by multi-Ministries collaterally issued and published♦ At least 60 policy makers from multi-Ministries and various local levels trained on pesticide policy development and enforcement	<ul style="list-style-type: none">♦ The relevant Ministries and national extension networks will be engaged and will support policy orientation towards the elimination of endosulfan♦ Close monitoring of policy development and approval process
	Development of agro-technical extension policy on phasing out endosulfan	Policy on phasing out endosulfan and promoting biological control and the alternatives is not formulated.	N/A	<ul style="list-style-type: none">♦ Gap assessment undertaken, policy development workshops & training courses held.♦ Agro-technical extension policy document published	

Component 2: Development of integrated technical models of biological control and alternative technologies					
Outcome 2.1 Production and Consumption of 2,850 tons of endosulfan reduced through introduction and field demonstration of biological control and alternative technologies	Expected Outputs: Output 2.1.1: Key biological control and alternative technologies to substitute endosulfan identified and selected Output 2.1.2: Field trials conducted and selected key biological control and alternative technologies demonstrated Output 2.1.3: Large scale field demonstration of integrated technical models of biological control and alternative technologies undertaken in pilot areas				
	Key biological control and alternative technologies identified and selected for demonstration to substitute endosulfan	<ul style="list-style-type: none"> Review of existing information on key biological control and alternative technologies not conducted Potential appropriate key biological control and alternative technologies are not screened and selected 	N/A	<ul style="list-style-type: none"> Review and assessment completed and review report submitted and published Appropriate key biological control and alternative technologies are screened out and verified by field trials 	<ul style="list-style-type: none"> No major crop pest outbreaks Farmers will be engaged and will support the demonstration of key biological control and alternative technologies, and the integrated technical models Previous experience of potential positive results
	Field trials and demonstration of the selected key biological control and alternative technologies	<ul style="list-style-type: none"> Selected key biological control and alternative technologies have not been demonstrated in fields The integrated technical models have not been developed 	N/A	<ul style="list-style-type: none"> Key biological control and alternative technologies demonstrated in at least 3,000 hectares 1-2 integrated technical models developed 	
	Field demonstration of the integrated technical models of biological control and alternative technologies	The integrated technical models have not been demonstrated in fields	N/A	<ul style="list-style-type: none"> The integrated technical models demonstrated in at least 15,000 hectares Operational manuals of the technical models published. 	
Outcome 2.2 300 extension agents and 12,000 representative farmers trained on the use of biological control and alternative technologies to replace endosulfan usage	Expected Outputs: Output 2.2.1: Training of Trainers (TOT) conducted to train 300 extension agents in the adoption of the integrated technical models of biological control and alternative technologies Output 2.2.2: Training of farmers (FFS) conducted to train 12,000 representative farmers on the adoption of the integrated technical models of biological control and alternative technologies				
	Training of Trainers (TOT) on the adoption of integrated technical models of biological control and alternative technologies	Extension agents not trained on the adoption of the integrated technical models	N/A	<ul style="list-style-type: none"> 10 TOT sessions conducted 300 extension agents trained 	<ul style="list-style-type: none"> Extension agencies and agents will be engaged and will support the training courses Farmers will be engaged and will

	Training of Farmers (Farmer Field School - FFS) on the adoption of the integrated technical models of biological control and alternative technologies	Farmers not trained on the adoption of the integrated technical models	N/A	<ul style="list-style-type: none"> ♦ 400 sessions of FFSs conducted ♦ 12,000 farmers trained on the adoption of the integrated technical models 	support the FFS
Outcome 2.3 Pest monitoring systems developed to better anticipate pest impacts, improve efficiency on information dissemination to better support farmers to use new alternative technologies	Expected Outputs: Output 2.3.1: Enhanced pest and endosulfan monitoring systems established in pilot areas Output 2.3.2: Pest monitoring information system established and information disseminated Output 2.3.3: Application and big data solution developed to improve services to farmers and enterprises				
	Enhanced pest and endosulfan monitoring systems in the pilot areas	<ul style="list-style-type: none"> ♦ Inadequate existing pest and endosulfan monitoring systems ♦ Improvements needed for existing pest and endosulfan monitoring systems 	N/A	<ul style="list-style-type: none"> ♦ Existing pest and endosulfan monitoring systems reviewed and a report recommending improvement submitted ♦ Pest and endosulfan monitoring systems improved for use in the pilot areas 	<ul style="list-style-type: none"> ♦ Extension agencies and agents will be engaged and will support the review and improvement of the pest and endosulfan monitoring system, and the rural information dissemination systems ♦ Buy-In and utilization of the application and big data solution ♦ Close monitoring of development process
	Establishment of information dissemination systems and information dissemination undertaken	Rural information dissemination systems lacking	N/A	Rural information dissemination system established to facilitate information dissemination	
	Application and big data solution developed to improve services to farmers and enterprises	<ul style="list-style-type: none"> ♦ No mobile phone application to provide information to farmers or enterprises ♦ Rural information dissemination system needs improvements and lacks interactive functions ♦ Lack of big data solution for farmers/enterprises as well as for the sector. 	N/A	<ul style="list-style-type: none"> ♦ Existing rural information dissemination system reviewed and improvements initiated ♦ Mobile application developed to provide better services and with the big data solution to strengthen relevant public and private services 	

Component 3: National replication					
Outcome 3.1 National replication programme and work plan developed and disseminated	Expected Outputs: Output 3.1.1: National replication programme and work plan developed Output 3.1.2: National replication programme and work plan adopted and key stakeholders engaged on its implementation				
	Results of field demonstration of the integrated technical models	None	N/A	Results of field demonstration of the integrated technical models evaluated and documented for substitution applicability	<ul style="list-style-type: none">♦ Positive field demonstration results♦ Relevant Ministries will be engaged and will support policy orientation towards elimination of endosulfan♦ All relevant stakeholders will support and participate in the implementation of the national replication plan towards phasing out endosulfan in China
	Preparation of a national replication programme	None	N/A	A national replication plan is developed, reviewed and approved	
	Adoption of the national replication programme and work plan and its dissemination	None	N/A	National workshops on dissemination of the adopted national replication plan are held.	
Component 4: Monitoring and evaluation					
Outcome 4.1 Effective monitoring and evaluation; knowledge sharing and information dissemination ensured	Expected Outputs: Output 4.1.1: Monitoring, evaluation and impact assessment conducted Output 4.1.2: Knowledge sharing and post-project action plan developed				
	<ul style="list-style-type: none">♦ Timing and quality of annual (APRs, PIRs etc.) and M&E reports♦ Terminal report and Terminal Evaluation	Indicative M&E plan, budget and timeframe	N/A	M&E activities implemented as scheduled and project implementation monitored to achieve project objectives	Efficient M&E activities undertaken to facilitate achievement of project objectives and outcomes
	Lessons learnt and experience documented and disseminated; post-project action plan formulated	None	N/A	Lessons learned and experience gained documented and disseminated	

VII. MONITORING AND EVALUATION (M&E) PLAN

The project results as outlined in the project results framework will be monitored annually and evaluated periodically during project implementation to ensure the project effectively achieves these results.

Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the [UNDP POPP](#) and [UNDP Evaluation Policy](#). While these UNDP requirements are not outlined in this project document, the UNDP Country Office will work with the relevant project stakeholders to ensure UNDP M&E requirements are met in a timely fashion and to high quality standards. Additional mandatory GEF-specific M&E requirements (as outlined below) will be undertaken in accordance with the [GEF M&E policy](#) and other relevant GEF policies.

In addition to these mandatory UNDP and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed during the Project Inception Workshop and will be detailed in the Inception Report. This will include the exact role of project target groups and other stakeholders in project M&E activities including the GEF Operational Focal Point and national/regional institutes assigned to undertake project monitoring. The GEF Operational Focal Point will strive to ensure consistency in the approach taken to the GEF-specific M&E requirements (notably the GEF Tracking Tools) across all GEF-financed projects in the country. This could be achieved for example by using one national institute to complete the GEF Tracking Tools for all GEF-financed projects in the country, including projects supported by other GEF Agencies.

M&E Oversight and monitoring responsibilities:

National Project Team: The National Project Team is responsible for day-to-day project management and regular monitoring of project results and risks, including social and environmental risks. The National Project Team will ensure that all project staff maintain a high level of transparency, responsibility and accountability in M&E and reporting of project results. The National Project Team will inform the Project Board, the UNDP Country Office and the UNDP-GEF RTA of any delays or difficulties as they arise during implementation so that appropriate support and corrective measures can be adopted.

The National Project Team will develop annual work plans based on the multi-year work plan included in Annex 1, including annual output targets to support the efficient implementation of the project. The National Project Team will ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality. This includes, but is not limited to, ensuring the results framework indicators are monitored annually in time for evidence-based reporting in the GEF PIR, and that the monitoring of risks and the various plans/strategies developed to support project implementation (e.g. gender strategy, KM strategy etc..) occur on a regular basis.

Project Board: The Project Board will take corrective action as needed to ensure the project achieves the desired results. The Project Board will hold project reviews to assess the performance of the project and appraise the Annual Work Plan for the following year. In the project's final year, the Project Board will hold an end-of-project review to capture lessons learned and discuss opportunities for scaling up and to highlight project results and lessons learned with relevant audiences. This final review meeting will also discuss the findings outlined in the project terminal evaluation report and the management response.

Project Implementing Partner: The Implementing Partner is responsible for providing any and all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary and appropriate. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes, and is aligned with national systems so that the data used by and generated by the project supports national systems.

UNDP Country Office: The UNDP Country Office will support the National Project Team as needed, including through annual supervision missions. The annual supervision missions will take place according to the schedule outlined in the annual work plan. Supervision mission reports will be circulated to the project team and Project Board within one month of the mission. The UNDP Country Office will initiate and organize key GEF M&E activities

including the annual GEF PIR, the *independent mid-term review* and the independent terminal evaluation. The UNDP Country Office will also ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality.

The UNDP Country Office is responsible for complying with all UNDP project-level M&E requirements as outlined in the [UNDP POPP](#). This includes ensuring the UNDP Quality Assurance Assessment during implementation is undertaken annually; that annual targets at the output level are developed, and monitored and reported using UNDP corporate systems; the regular updating of the ATLAS risk log; and, the updating of the UNDP gender marker on an annual basis based on gender mainstreaming progress reported in the GEF PIR and the UNDP ROAR. Any quality concerns flagged during these M&E activities (e.g. annual GEF PIR quality assessment ratings) must be addressed by the UNDP Country Office and the National Project Team.

The UNDP Country Office will retain all M&E records for this project for up to seven years after project financial closure in order to support ex-post evaluations undertaken by the UNDP Independent Evaluation Office (IEO) and/or the GEF Independent Evaluation Office (IEO).

UNDP-GEF Unit: Additional M&E and implementation quality assurance and troubleshooting support will be provided by the UNDP-GEF Regional Technical Advisor and the UNDP-GEF Directorate as needed.

Audit: The project will be audited according to UNDP Financial Regulations and Rules and applicable audit policies on NIM implemented projects.¹

Additional GEF monitoring and reporting requirements:

Inception Workshop and Report: A project inception workshop will be held within two months after the project document has been signed by all relevant parties to, amongst others:

- (a) Re-orient project stakeholders to the project strategy and discuss any changes in the overall context that influence project implementation;
- (b) Discuss the roles and responsibilities of the project team, including reporting and communication lines and conflict resolution mechanisms;
- (c) Review the results framework and finalize the indicators, means of verification and monitoring plan;
- (d) Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the GEF OFP in M&E;
- (e) Update and review responsibilities for monitoring the various project plans and strategies, including the risk log; Environmental and Social Management Plan and other safeguard requirements; the gender strategy; the knowledge management strategy, and other relevant strategies;
- (f) Review financial reporting procedures and mandatory requirements, and agree on the arrangements for the annual audit; and
- (g) Plan and schedule Project Board meetings and finalize the first year annual work plan.

The National Project Team will prepare the inception report no later than one month after the inception workshop. The inception report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Board.

GEF Project Implementation Report (PIR): The National Project Team, the UNDP Country Office, and the UNDP-GEF Regional Technical Advisor will provide objective input to the annual GEF PIR covering the reporting period

¹ See guidance here: <https://info.undp.org/global/popp/frm/pages/financial-management-and-execution-modalities.aspx>

July (previous year) to June (current year) for each year of project implementation. The National Project Team will ensure that the indicators included in the project results framework are monitored annually in advance of the PIR submission deadline so that progress can be reported in the PIR. Any environmental and social risks and related management plans will be monitored regularly, and progress will be reported in the PIR.

The PIR submitted to the GEF will be shared with the Project Board. The UNDP Country Office will coordinate the input of the GEF Operational Focal Point and other stakeholders to the PIR as appropriate. The quality rating of the previous year's PIR will be used to inform the preparation of the subsequent PIR.

Lessons learned and knowledge generation: Results from the project will be disseminated within and beyond the project intervention area through existing information sharing networks and forums. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to the project. The project will identify, analyse and share lessons learned that might be beneficial to the design and implementation of similar projects and disseminate these lessons widely. There will be continuous information exchange between this project and other projects of similar focus in the same country, region and globally.

GEF Focal Area Tracking Tools: The following GEF Tracking Tool(s) will be used to monitor global environmental benefit results:

The baseline/CEO Endorsement GEF Focal Area Tracking Tool(s) – submitted in Annex 4 to this project document – will be updated by the National Project Team and shared with the terminal evaluation consultants (not the evaluation consultants hired to undertake the TE) before the required review/evaluation missions take place. The updated GEF Tracking Tool(s) will be submitted to the GEF along with the completed Terminal Evaluation report.

Terminal Evaluation (TE): An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The terminal evaluation process will begin three months before operational closure of the project allowing the evaluation mission to proceed while the project team is still in place, yet ensuring the project is close enough to completion for the evaluation team to reach conclusions on key aspects such as project sustainability. The National Project Team will remain on contract until the TE report and management response have been finalized. The terms of reference, the evaluation process and the final TE report will follow the standard templates and guidance prepared by the UNDP IEO for GEF-financed projects available on the [UNDP Evaluation Resource Center](#). As noted in this guidance, the evaluation will be 'independent, impartial and rigorous'. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. The GEF Operational Focal Point and other stakeholders will be involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the UNDP-GEF Directorate. The final TE report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Board. The TE report will be publically available in English on the UNDP ERC.

The UNDP Country Office will include the planned project terminal evaluation in the UNDP Country Office evaluation plan, and will upload the final terminal evaluation report in English and the corresponding management response to the UNDP Evaluation Resource Centre (ERC). Once uploaded to the ERC, the UNDP IEO will undertake a quality assessment and validate the findings and ratings in the TE report, and rate the quality of the TE report. The UNDP IEO assessment report will be sent to the GEF IEO along with the project terminal evaluation report.

Final Report: The project's terminal PIR along with the terminal evaluation (TE) report and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the Project Board during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.

Mandatory GEF M&E Requirements and M&E Budget:

GEF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget ² (US\$)		Time frame
		GEF grant	Co-financing	
Inception Workshop	UNDP Country Office	5,000	20,000	Within two months of project document signature
Inception Report	National Project Team	None	None	Within two weeks of inception workshop
Standard UNDP monitoring and reporting requirements as outlined in the UNDP POPP	UNDP Country Office	None	None	Quarterly, annually
Monitoring of indicators in project results framework	National Project Team	75,000	300,000	Annually
GEF Project Implementation Report (PIR)	National Project Team and UNDP Country Office and UNDP-GEF team	None	None	Annually
NIM Audit as per UNDP audit policies	UNDP Country Office	5,000	20,000	Annually or other frequency as per UNDP Audit policies
Lessons learned and knowledge generation	National Project Team	2,500	10,000	Annually
Monitoring of environmental and social risks, and corresponding management plans as relevant	National Project Team UNDP CO	None	None	On-going
Addressing environmental and social grievances	National Project Team UNDP Country Office BPPS as needed	None for time of National Project Team, and UNDP CO	none	
Project Board meetings	Project Board UNDP Country Office National Project Team	10,000	40,000	At minimum annually
Supervision missions	UNDP Country Office	None ³	None	Annually
Oversight missions	UNDP-GEF team	None ³		Troubleshooting as needed
Visits to field sites	National Project Team	10,000	40,000	At least once annually
Knowledge management as outlined in Outcome 4	National Project Team	2,500	10,000	On-going
GEF Secretariat learning missions/site visits	UNDP Country Office and National Project Team and UNDP-GEF team	None	None	To be determined.

² Excluding project team staff time and UNDP staff time and travel expenses.

³ The costs of UNDP Country Office and UNDP-GEF Unit's participation and time are charged to the GEF Agency Fee.

GEF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget ² (US\$)		Time frame
		GEF grant	Co-financing	
Terminal GEF Tracking Tool to be updated by the National Project Team	National Project Team	None	None	Before terminal evaluation mission takes place
Independent Terminal Evaluation (TE) included in UNDP evaluation plan, and management response	UNDP Country Office and Project team and UNDP-GEF team	35,000	140,000	At least three months before operational closure
Prepare Terminal Report, with social and economic impact assessment	National Project Team, UNDP Country Office, UNDP-GEF RTA	5,000	20,000	Two months after project completion
TOTAL indicative COST Excluding project team staff time, and UNDP staff and travel expenses		150,000	600,000	

VIII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

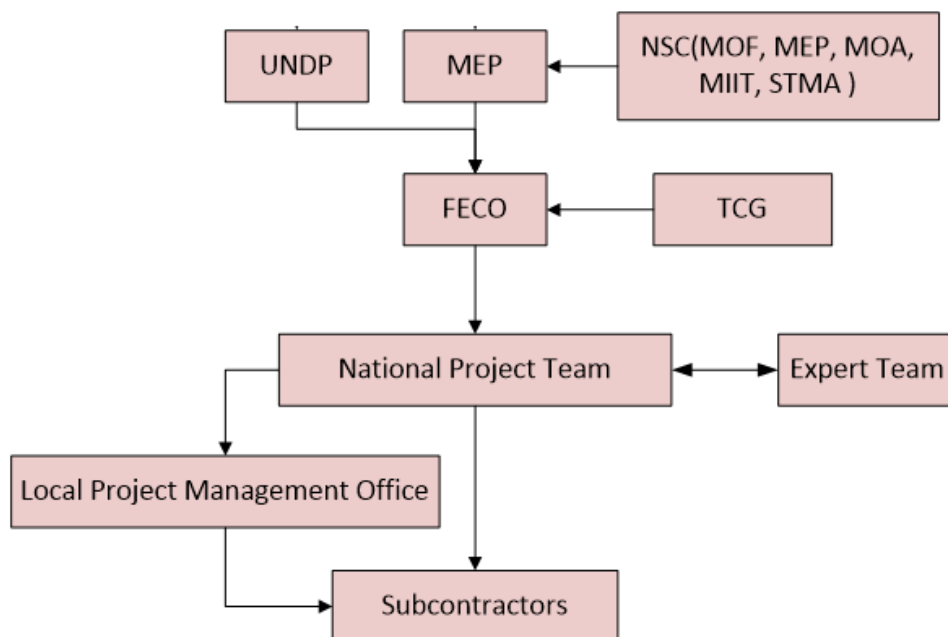
Roles and responsibilities of the project's governance mechanism: The project will be implemented following UNDP's national implementation modality, according to the Standard Basic Assistance Agreement between UNDP and the Government of China, and the Country Programme.

The **Implementing Partner** for this project is the Foreign Economic Cooperation Office (FECO) of the Ministry of Environmental Protection (MEP). MEP has designated FECO as the entity in the implementation of activities relating to fulfilling China's obligations under multilateral environmental conventions, responsible for the daily execution and coordination of the project. The Implementing Partner is responsible and accountable for managing this project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of UNDP resources. UNDP is the GEF Implementing Agency (IA) for the project.

The project will be implemented following UNDP's national implementation modality (NIM), according to the Standard Basic Assistance Agreement between UNDP and the Government of China, and the Country Programme Action Plan (CPAP). The Implementing Partner for this project is the Foreign Economic Cooperation Office (FECO) of the Ministry of Environmental Protection (MEP). MEP has designated FECO as the entity in the implementation of activities relating to fulfilling China's obligations under multilateral environmental conventions, responsible for the daily execution and coordination of the project. The Implementing Partner is responsible and accountable for managing this project, including the monitoring and evaluation of project interventions achieving project outcomes, and for effective use of UNDP resources. UNDP is the GEF Implementing Agency (IA) for the project.

For the implementation of this project, it will involve a wide range of stakeholders. The roles and responsibilities of the various stakeholders directly involved in project implementation, as well as the project organization structure are described below:

PROJECT ORGANIZATION STRUCTURE



The **Project Board** (also called Project Steering Committee), comprises of FECO/MEP, UNDP and the inter-ministerial National Steering Committee (NSC), is responsible for making by consensus, management decisions when guidance is required by the National Project Team, including recommendation for UNDP/Implementing Partner approval of project plans and revisions. In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. In case a consensus cannot be reached within the Board, final decision shall rest with the UNDP Programme Manager. The terms of reference for the Project Board are contained in Annex. The Project Board is comprised of the following individuals:

The **National Project Team** will run the project on a day-to-day basis on behalf of the Implementing Partner within the constraints laid down by the Board. The National Project Team function will end when the final project terminal evaluation report, and other documentation required by the GEF and UNDP, has been completed and submitted to UNDP (including operational closure of the project).

The **project assurance** roll will be provided by the UNDP Country Office specifically

Additional quality assurance will be provided by the UNDP Regional Technical Advisor as needed.

Governance role for project target groups:

The target groups are the key stakeholders which include national government ministries and their regional departments/bureaus, civil society organization and private sector enterprises. Some of them are also the major beneficiaries of the project achievements. As active participants in the project activities, they will be strongly engaged in all aspect of project implementation, and will participate in the decision making process through their roles in the project, and through their respective departments and ministries.

UNDP Direct Project Services as requested by Government:

As per Determination and Decision of UNDP's Executive Board on the Cost Recovery Policy over Regular and Other Resource-funded projects, the GEF contribution is subject to UNDP's cost recovery as follows:

- (a) Direct Costs incurred in the provision of Direct Project Services (DPS) by UNDP. These costs shall be unequivocally related to specific activities and transactional services clearly identified, charged annually as per the UNDP Universal Price List. For more details, please see Annex 9 describing Direct Project Services that may be requested by the Implementing Partner.

Agreement on intellectual property rights and use of logo on the project's deliverables and disclosure of information: In order to accord proper acknowledgement to the GEF for providing grant funding, the GEF logo will appear together with the UNDP logo on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications regarding projects funded by the GEF will also accord proper acknowledgement to the GEF. Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy⁴ and the GEF policy on public involvement⁵.

Project management:

The project will be implemented following UNDP's national implementation modality (NIM), according to the Standard Basic Assistance Agreement between UNDP and the Government of China, and the Country Programme Action Plan (CPAP). The Implementing Partner for this project is the Foreign Economic Cooperation Office (FECO) of the Ministry of Environmental Protection (MEP). MEP has designated FECO as the entity in the implementation of activities relating to fulfilling China's obligations under multilateral environmental conventions, responsible for the daily execution and coordination of the project. The Implementing Partner is responsible and accountable for managing this project, including the monitoring and evaluation of project interventions achieving project outcomes, and for effective use of UNDP resources. UNDP is the GEF Implementing Agency (IA) for the project. Xinjiang Autonomous Region is the demonstration province of the project, Xinjiang Provincial Plant Protection Unit and Agricultural Bureau of Xinjiang Production and Construction Corps will function as local Project management Office (LPMO).

The Government will provide the Resident Representative with certified periodic financial statements, and with an annual audit of the financial statements relating to the status of UNDP (including GEF) funds according to the established procedures set out in the Programming and Finance manuals. The Audit will be conducted according to UNDP financial regulations, rules and audit policies by the legally recognized auditor of the Government, or by a commercial auditor engaged by the Government.

The implementation of the Stockholm Convention in China has been supported by various multilateral and bilateral organizations. With this support, China has completed its NIP, and based on the strategic guidance it contains, prepared fourteen POPs projects funded by the GEF, nine of which are under implementation. To facilitate consultation, coordination and collaboration among all stakeholders, China has set up a Technical Coordination Group (TCG) for its NIP preparation and implementation. Through the TCG, China has maintained good communication with its multilateral and bilateral development partners.

The currently ongoing project of NIP Update by UNIDO will cover preliminary survey of production and use of endosulfan in China. Overall, this Project will coordinate its activities such that synergies between the inventory of endosulfan and programmes under the UNIDO NIP Update project and endosulfan phase out specific initiatives under this project will be ensured. The mechanisms for this coordination, including the involvement of private sector operators involved in both types of operations will be explored.

Experiences and lessons learned from formulation/design and implementation of other POPs projects in China will be applied to benefit the design and implementation of this proposed project. In addition, the experience gained

⁴ See http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/

⁵ See http://www.thegef.org/gef/policies_guidelines

and the lessons learned from the successful implementation of the UNDP-supported, GEF-funded POPs project “Improvement of DDT-based Production of Dicofol and Introduction of Alternative Technologies including IPM for Leaf Mites Control in China”, in particular, the introduction of IPM, TOT and FFS models, will contribute significantly to the success of this project.

IX. FINANCIAL PLANNING AND MANAGEMENT

The total cost of the project is USD 9,900,000. This is financed through a GEF of USD 1,980,000, parallel co-financing of USD 1,564,000 in cash co-financing, and USD 6,356,000 in-kind co-financing from the Ministry of Environmental Protection, the Government of Shawan County, Agricultural Bureau of Xinjiang Production and Construction Corps, and the cotton growers in these two areas of the Xinjiang Uygur Autonomous Region. UNDP, as the GEF Implementing Agency, is responsible for the execution of the GEF resources.

Parallel co-financing: The actual realization of project co-financing will be monitored during the terminal evaluation process and will be reported to the GEF. The planned parallel co-financing will be used as follows:

Co-financing source	Co-financing type	Co-financing amount (USD)	Planned Activities/Outputs	Risks	Risk Mitigation Measures
Ministry of Environmental Protection	Cash	200,000	Activities: Office space, policy development, M&E, project management Outputs: appropriate legislative measures and enforcement and efficient and effective project implementation	Low	MEP is fully committed to the project
	In-kind	800,000			
The Government of Shawan County, Xinjiang Uygur Autonomous Region	Cash	360,000	Activities: Support capacity strengthening activities, development, field trials and demonstration of integrated technical models of biological control and alternative technologies, training activities Outputs: Successful development, application and subsequent replication of biological control and alternative technologies for effective cotton pest management to subsequently phase out usage of endosulfan	Crop pest outbreak and other environmental factors that adversely affect the income and financial conditions of the region and farmers	Improved pest monitoring and management systems as well as the information dissemination system will improve anticipated impacts to take precautions to avoid unfavourable financial impact
	In-kind	1,440,000			
Cotton growers from Shawan County	Cash	322,000			
	In-kind	1,288,000			
Agricultural Bureau of Xinjiang Production and Construction Corps.	Cash	360,000			
	In-kind	1,440,000			
Cotton growers of the Xinjiang Production and Construction Corps	Cash	322,000			
	In-kind	1,288,000			
UNDP China Country Office	In-kind	100,000	Activities: M&E activities Outputs: Effective project management	Low	UNDP is full committed to the project

Budget Revision and Tolerance: As per UNDP requirements outlined in the UNDP POPP, the project board will agree on a budget tolerance level for each plan under the overall annual work plan allowing the National Project Team to expend up to the tolerance level beyond the approved project budget amount for the year without

requiring a revision from the Project Board. Should the following deviations occur, the National Project Team and UNDP Country Office will seek the approval of the UNDP-GEF team as these are considered major amendments by the GEF:

- (a) Budget re-allocations among components in the project with amounts involving 10% of the total project grant or more;
- (b) Introduction of new budget items/or components that exceed 5% of original GEF allocation.

Any over expenditure incurred beyond the available GEF grant amount will be absorbed by non-GEF resources (e.g. UNDP TRAC or cash co-financing).

Refund to Donor: Should a refund of unspent funds to the GEF be necessary, this will be managed directly by the UNDP-GEF Unit in New York.

Project Closure: Project closure will be conducted as per UNDP requirements outlined in the UNDP POPP. On an exceptional basis only, a no-cost extension beyond the initial duration of the project will be sought from in-country UNDP colleagues and then the UNDP-GEF Executive Coordinator.

Operational completion: The project will be operationally completed when the last UNDP-financed inputs have been provided and the related activities have been completed. This includes the final clearance of the Terminal Evaluation Report (that will be available in English) and the corresponding management response, and the end-of-project review Project Board meeting. The Implementing Partner through a Project Board decision will notify the UNDP Country Office when operational closure has been completed. At this time, the relevant parties will have already agreed and confirmed in writing on the arrangements for the disposal of any equipment that is still the property of UNDP.

Financial completion: The project will be financially closed when the following conditions have been met:

- (a) The project is operationally completed or has been cancelled;
- (b) The Implementing Partner has reported all financial transactions to UNDP;
- (c) UNDP has closed the accounts for the project;
- (d) UNDP and the Implementing Partner have certified a final Combined Delivery Report (which serves as final budget revision).

The project will be financially completed within 12 months of operational closure or after the date of cancellation. Between operational and financial closure, the implementing partner will identify and settle all financial obligations and prepare a final expenditure report. The UNDP Country Office will send the final signed closure documents including confirmation of final cumulative expenditure and unspent balance to the UNDP-GEF Unit for confirmation before the project will be financially closed in Atlas by the UNDP Country Office.

X. TOTAL BUDGET AND WORK PLAN

Total Budget and Work Plan			
Atlas Proposal or Award ID:	00095048	Atlas Primary Output Project ID: 00099101	
Atlas Proposal or Award Title:	Phase out of Endosulfan in China		
Atlas Business Unit	CHN10		
Atlas Primary Output Project Title	Phase out of Endosulfan in China		
UNDP-GEF PIMS No.	6054		
Implementing Partner	Foreign Economic Cooperation Office, Ministry of Environmental Protection (FECO/MEP)		

GEF Component/Atlas Activity	Responsible Party (Atlas Implementing Agent)	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)
Component 1: Institutional strengthening and capacity building	MEP	62000	GEF	71300	Local Consultants	10,000	10,000	5,000	
				72100	Contractual services – companies	140,000	115,000	115,000	75,000
				75700	Training, workshop, and conference	9,000	7,000	7,000	7,000
				Total Component 1		159,000	132,000	127,000	82,000
Component 2: Development of integrated technical models of biological control and alternative technologies	MEP	62000	GEF	71200	International Consultants	10,000	10,000	5,000	
				71300	Local Consultants	5,000	5,000	5,000	5,000
				72100	Contractual services – companies	180,000	300,000	300,000	155,000
				75700	Training, workshop, and conference	5,000	5,000	5,000	5,000
				Total Component 2		200,000	320,000	315,000	165,000
Component 3: National replication	MEP	62000	GEF	71300	Local Consultants	-	5,000	7,500	7,500
				72100	Contractual services – companies	15,000	15,000	30,000	30,000

GEF Component/Atlas Activity	Responsible Party (Atlas Implementing Agent)	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)		Total (USD)	See Budget Note:
				75700	Training, workshop, and meetings	-	-	20,000	20,000		40,000	10
		Total Component 3				15,000	20,000	57,500	57,500		150,000	
Component 4: Project monitoring and evaluation	MEP	62000	GEF	71200	International Consultants			10,000	15,000		25,000	11
				71300	Local Consultants			5,000	5,000		10,000	12
				71600	Travel	5,000	5,000	5,000	5,000		20,000	13
				72100	Contractual services – companies			35,000	40,000		75,000	14
				75700	Training, workshop, and meetings	5,000	5,000	5,000	5,000		20,000	15
		Total Component 4				10,000	10,000	60,000	70,000		150,000	
Component 5: Project Management Unit	MEP	62000	GEF	71600	Travel	1,500	1,500	1,500	1,500		6,000	16
				72400	Communication & Audio Visual Eqpt	-	1,000	1,000	1,000		3,000	17
				74100	Professional Services	38,678	38,670	38,670	38,670		154,688	18
				74500	Miscellaneous	-	500	500	500		1,500	19
				75700	Training, workshop, and meetings	1,500	1,500	1,500	1,500		6,000	20
	UNDP	62000	GEF	74598	Direct project costs	-	4,406	-	4,406		8,812	21
		Total Management				41,678	47,576	43,170	47,576		180,000	
PROJECT TOTAL						425,678	529,576	602,670	422,076		1,980,000	

Budget Notes:	
Component 1 – Institutional strengthening and capacity building	
1	National consultant cost to assist on policy gap analysis, conduct workshops and training courses on pest and endosulfan management systems. (\$200/day for 125 working days).
2	Subcontracts on evaluation of endosulfan registration, imports and exports reporting system, pesticides management and agro-technical extension policy development
3	Training workshops for pesticides management policy, agro-technical extension policies and report system, for phase out of endosulfan
Component 2 – Development of integrated technical models of biological control and alternative technologies	
4	International consultant cost for identification, evaluation and selection of applicable substitution of endosulfan (\$700/day for 35 working days)
5	National consultant cost for identification, evaluation and selection of applicable substitution of endosulfan (\$200/day for 100 working days)
6	Subcontracts for identification and selection of key biological control and alternative technologies, conducting field trials and field demonstration, development of TOT and FFS training programme, endosulfan monitoring system and information dissemination system
7	Training workshops on biological control and alternative technologies to substitute endosulfan
Component 3 – National replication	
8	National consultant cost analysis and formulation of PPP (\$200/day for 100 working days)
9	Subcontracts for development of national replication programme and work plan, and publicity materials and products to promote national replication
10	Training, exchange and promotion workshops on project results and lessons learned, to share knowledge and experience on demonstration results of biological control and alternative technologies to substitute endosulfan
Component 4 - Project monitoring and evaluation	
11	International consultant cost to undertake evaluations and Terminal Evaluation. (\$700/day for 35 working days)
12	National consultant cost to conduct evaluations on project achievements and Terminal Evaluation. (\$200/day for 50 working days)
13	Pro-rata travel costs for international, national consultants and project staff at established travel, DSA and terminal allowance rates for regular M&E activities and Terminal Evaluation.
14	Subcontracts for evaluation of the effectiveness of project activities and demonstration results and lessons learned documented, published and disseminated to facilitate knowledge sharing
15	Inception Workshop (Year 1 mandatory); training workshops for project and technical personnel; periodical and annual review and coordination meetings
Component 5 – Project management	
16	Pro-rata travel costs for national consultants and project staff at established travel, DSA and terminal allowance rates for project management.
17	Communication costs
18	Project management costs covering institutional setup, materials, project staff costs, technical assistance and supervision costs
19	Costs to cover miscellaneous unbudgeted activities
20	Training workshop and rental of conference room for various meetings
21	UNDP Direct Support costs to National Implementation modality for recruitment of international and national consultants and travel arrangements for overseas training activities

Summary of Funds:

	Amount Year 1	Amount Year 2	Amount Year 3	Amount Year 4	Total
GEF	\$ 426,053	\$ 529,451	\$ 602,545	\$ 421,951	\$ 1,980,000
UNDP (in-kind)	\$25,000	\$25,000	\$25,000	\$25,000	\$ 100,000
Government (Grant and In-kind)	\$987,772	\$1,231,061	\$1,403,047	\$978,120	\$4,600,000
Private Sector (Cotton Growers, Grant and -kind)	\$691,440	\$861,743	\$982,133	\$684,684	\$3,220,000
TOTAL	\$2,130,265	\$2,647,255	\$3,012,725	\$2,109,755	\$9,900,000

XI. LEGAL CONTEXT

This document together with the CPAP signed by the Government and UNDP which is incorporated herein by reference, constitute together a Project Document as referred to in the Standard Basic Assistance Agreement (SBAA); as such all provisions of the CPAP apply to this document. All references in the SBAA to “Executing Agency” shall be deemed to refer to “Implementing Partner”, as such term is defined and used in the CPAP and this document.

Consistent with the Article III of the Standard Basic Assistance Agreement (SBAA), the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP’s property in the Implementing Partner’s custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:

- (a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
- (b) assume all risks and liabilities related to the implementing partner’s security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner’s obligations under this Project Document.

The Implementing Partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml. This provision must be included in all sub-contracts or sub-agreements entered into under/further to this Project Document”.

Any designations on maps or other references employed in this project document do not imply the expression of any opinion whatsoever on the part of UNDP concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries.

XII. ANNEXES

1. Multiyear Workplan
2. Monitoring Plan
3. Evaluation Plan
4. GEF Tracking Tool (s) at baseline
5. Terms of Reference for Project Board, National Project Team, Chief Technical Advisor and other positions as appropriate
6. UNDP Social and Environmental and Social Screening Template (SESP)
7. UNDP Project Quality Assurance Report
8. Evaluation and Selection of Demonstration Locations
9. Letter of Agreements for UNDP Direct Project Services
10. Letter of Endorsement by GEF Operational Focal Point of China
11. Letters of Co-financing

Annex 1. Multi Year Work Plan:

Task	Responsible Party	Year 1				Year 2				Year 3				Year 4			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Component 1: Institutional strengthening and capacity building																	
Establish project National Steering Committee with participation of the Ministry of Environmental Protection, the Ministry of Agriculture, the State Tobacco Administration and the Ministry of Industry and Information Technology etc.. Conduct policy development workshops and training courses annually to engage the relevant policy makers from the above mentioned Ministries to facilitate collaterally actions towards the elimination of endosulfan. A collateral decree by the Ministries is expected to be issued to the relevant departments to facilitate elimination of endosulfan, and promote biological control and the alternatives. Carry out gap analysis, conduct relevant training and establish appropriate setup for project implementation	FECO/MEP, MOA, National Project Team (NPT)																
Establish reporting system and conduct training on imports and exports management	FECO/MEP, MOA, NPT																
Review current pesticide management policy on producing, marketing and applying of endosulfan and lessons learned from home and abroad will be used to develop a framework of pesticide management policy on eliminating endosulfan. Conduct policy development workshops and training courses to engage the relevant policy makers from the Ministry of Environmental Protection, the Ministry of Agriculture (especially the Institute for the Control of Agrochemicals, the Ministry of Agriculture - ICAMA), the State Tobacco Administration and the Ministry of Industry and Information Technology to reach consensus on the development of pesticide management policy on eliminating endosulfan and promoting biological control and the alternatives	FECO/MEP, MOA, NPT																
Review current agro-technical extension policy on endosulfan and lessons learned from home and abroad will be used to develop a framework of agro-technical extension policy on eliminating endosulfan and promoting biological control and the alternatives. Conduct policy development workshops and training courses to engage the relevant policy makers from the Ministry of Environmental Protection, the Ministry of Agriculture, the State Tobacco Administration to reach consensus on the development of agro-technical extension policy on eliminating endosulfan and promoting biological control and the alternatives	FECO/MEP, MOA, NPT																
Component 2: Development of integrated technical models of biological control and alternative technologies																	
Review, analyze and assess existing information on key biological control and alternative technologies to identify and select the potential appropriate key technologies to substitute endosulfan. The applying researches and field trials will be conducted in one pilot site in the Xinjiang Autonomous Region to assess the economic and environmental appropriateness of the selected	National Project Team (NT), LPMO																

Task	Responsible Party	Year 1				Year 2				Year 3				Year 4			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
key biological control and alternative technologies. Once the economic and environmental appropriateness of the selected key biological control and alternative technologies are confirmed after the field applying researches and trials, the technologies will be demonstrated in appropriate scales for verification to substitute endosulfan. The potential key biological control and alternative technologies that will be evaluated and assessed in the field will include: (1) Nuclear Polyhedrosis Virus formulations (NPV formulations), (2) Insect sex pheromone trapping or mating disruption formulations, (3) Olfactory trapping, (4) Bacon wasps (insect pest parasite), and (5) Alternative Insecticides																	
In the pilot sites, the selected key biological control and alternative technologies will be demonstrated in the field, modified according to ecosystem and integrated into technical models (the crop IPM systems)	NPT LPMO																
The technical models will be demonstrated in large scales to assess their economic and environmental appropriateness. Along with the field demonstration, a farmer training programme utilizing the Farmer Field School (FFS) approach will be designed and implemented to educate farmers on the adoption of the technical models for substituting endosulfan	NPT, LPMO																
Training of Trainers on adoption of the integrated technical models of biological control and alternative technologies. Conduct 2 TOT sessions, train 300 extension agents in the 12 cotton producing provinces and Xinjiang Autonomous Region	NPT LPMO																
Conduct 400 training sessions of FFSs to train 12,000 representative farmers on the adoption of the integrated technical models in the 12 cotton producing provinces and Xinjiang Autonomous Region. Track the integrated technical models of biological control and alternative technologies to substitute endosulfan	NPT, LPMO																
Review existing pest and endosulfan monitoring system in the pilot areas. Improve the pest monitoring and endosulfan systems in the pilot areas	NPT LPMO																
Review existing rural information dissemination system, and build or enhance the information dissemination systems in the pilot areas	NPT LMPO																
Design application in mobile phones to better support farmers to use the new technologies through interactive consultation and information dissemination while at the same time to collect data from farmers and enterprises for service upgrade and improvement through better monitoring	NPT LPMO																
Component 3: National replication																	
To ensure sustainability of the participants in the demonstration areas and for promotion of the integrated technical models of biological control and alternative technologies to substitute endosulfan, demonstration results and experience gained will be disseminated to farmers not participating in the demonstration or in other non-demonstration areas	FECO/MEP, MOA NPT																

Task	Responsible Party	Year 1				Year 2				Year 3				Year 4			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Once the national replication programme is developed and submitted to the National Agro-Technical Extension and Service Center (NATESC) of MOA for adoption through a peer review and consultative process by both national and international experts knowledgeable of the region and the specific crops, national workshops on dissemination of the adopted national replication programme will be held to engage all relevant stakeholders, including policy makers, public extension agencies and private enterprises etc., to support the implementation of the national replication programme towards phasing out endosulfan in China	FECO/MEP, MOA NPT																
Component 4: Project monitoring and evaluation																	
Undertake continuous monitoring and periodic progress reviews on development and operation of the overall IPM management system and associated effectiveness evaluation. Develop and implement impact assessment procedures with respect to estimated POPs phase out	FECO/MEP, MOA NPT UNDP																
Document and disseminate experience and lessons learned nationally as the system develops and internationally through multilateral forums such as Basel Regional Centers and directly with other developing countries. Conduct Terminal Evaluation	FECO/MEP, MOA NPT UNDP																
Component 5: Project management																	
Strengthen institutional capacity of the National Project Team (NPT) in FECO/MEP and demonstration provinces/municipalities for project management; establish Local Project Management Offices (LPMOs) and strengthen project management capacity in each of the three demonstration provinces/municipalities; develop Project Implementation Manual (PIM), train staff on PIM and relevant GEF and UNDP requirements on project management	FECO/MEP UNDP																
Undertake day-to-day project management activities by NPT and LPMOs to ensure smooth and timely implementation of project activities including but not limited to: drafting TORs, select and contract with consultants, organize M&E activities, organize the review of substantial report	FECO/MEP UNDP																

Annex 2. Monitoring Plan: The National Project Team will collect results data according to the following monitoring plan.

Monitoring	Indicators	Description	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Assumptions and Risks
Project Objective: The project will address the phase out of endosulfan by Biological Control and Alternative Technologies in Cotton Pest Management in China	Quantity of endosulfan production reduced per year	Consumption of 2,850 tons per year of endosulfan eliminated	<ul style="list-style-type: none">Quarterly Progress ReportAnnual Progress Report	Annually Reported in DO tab of the GEF PIR	National Project Team (NPT) LPMO	Monitoring report	<u>Risks:</u> <ul style="list-style-type: none">Crop pest outbreak due to climate changes, soil conditions and other environmental factors etc.Timeframe for the project is too short to achieve its outputsConflicts caused by claims on the intellectual property of the outputs <u>Assumptions:</u> <ul style="list-style-type: none">Crop pest monitoring and information dissemination system enhanced for farmers' urgent response to such an extreme caseProject planning, monitoring and evaluation enhanced to ensure timely and effective implementation to achieve intended outputsEnsure all project executing agencies reach an unanimous agreement on the intellectual property of the outputs through open discussion and communications at the beginning of the project
	Number of direct project beneficiaries	60 policy makers, 300 extension agents and 12,000 farmers trained	<ul style="list-style-type: none">Quarterly Progress ReportAnnual Progress Report	Annually Reported in DO tab of the GEF PIR	NPT LPMO	Training workshop report	
	Relevant policies for substituting of endosulfan at both local and national levels developed and enforced	Policies banning endosulfan production and consumption, and regulation promoting alternatives completed	<ul style="list-style-type: none">Quarterly Progress ReportAnnual Progress Report	Annually Reported in DO tab of the GEF PIR	NPT	Policy document	
	Models of biological control and alternative technologies successfully established and implemented	Key biological control and alternative technologies reviewed, evaluated, selected and field demonstrated	<ul style="list-style-type: none">Quarterly Progress ReportAnnual Progress Report	Annually Reported in DO tab of the GEF PIR	NPT (assisted by Expert Team)	<ul style="list-style-type: none">Inspection report,Terminal report	
Component 1: Institutional strengthening and capacity building							
Outcome 1.1 Capacity of policy makers, national and local project teams and key stakeholders strengthened to facilitate	National level project monitoring and supervision capacity strengthened	Gap analyzed. Project monitoring and supervision capacity strengthened through training activities	<ul style="list-style-type: none">Quarterly Progress ReportAnnual Progress Report	Annually Reported in DO tab of the GEF PIR	<ul style="list-style-type: none">FECO/MEPNPT	Project progress report	<u>Risks:</u> Lengthy time to set up organizational structure and to improve staff capacities <u>Assumptions:</u> Experience gained in successful implementation of the GEF funded dicofol project will

endosulfan phase out	Reporting system established and training on imports and exports management conducted	Reporting system established and training on imports and exports management conducted	<ul style="list-style-type: none">Quarterly Progress ReportAnnual Progress ReportProject activities report	Annually Reported in DO tab of the GEF PIR	<ul style="list-style-type: none">FECO/MEPNPT	Project progress report	contribute to effective project management
Outcome 1.2 Policy development to promote and facilitate phase out of endosulfan	Development of pesticide management policy	Pesticide management policy on phasing out endosulfan in agriculture sector developed	<ul style="list-style-type: none">Draft policy documentQuarterly Progress ReportAnnual Progress Report	Annually Reported in DO tab of the GEF PIR	<ul style="list-style-type: none">FECO/MEPNPTLPMO	<ul style="list-style-type: none">Progress ReportPolicy document	<u>Risks:</u> <ul style="list-style-type: none">Lacking of interest of decision makers and practitioners on elimination of endosulfanLengthy policy development and approval process <u>Assumptions:</u> <ul style="list-style-type: none">The relevant Ministries and national extension networks will be engaged and will support policy orientation towards the elimination of endosulfanClose monitoring of policy development and approval process
	Development of agro-technical extension policy on phasing out endosulfan	Gap assessment undertaken and policy document on agro-technical extension completed	<ul style="list-style-type: none">Draft policy documentQuarterly Progress ReportAnnual Progress Report	Annually Reported in DO tab of the GEF PIR	<ul style="list-style-type: none">FECO/MEPNPTLPMO	<ul style="list-style-type: none">Progress ReportPolicy document	
Component 2: Development of an integrated technical models of biological control and alternative technologies							
Outcome 2.1 Production and consumption of 2,850 tons of endosulfan reduced through introduction and field demonstration of biological control and alternative technologies	Key biological control and alternative technologies identified and selected for demonstration to substitute endosulfan	Review and assessment completed, and appropriate key biological control and alternative technologies screened out and selected for field trials	<ul style="list-style-type: none">Technical assessment reportQuarterly Progress ReportAnnual Progress Report	Annually Reported in DO tab of the GEF PIR	<ul style="list-style-type: none">NPTLPMO	<ul style="list-style-type: none">Review and assessment reportProgress and technical report	<u>Risks:</u> <ul style="list-style-type: none">Crop pest outbreak due to climate changes, soil conditions and other environmental factorsLack of interest in the demonstration activitiesDemonstrations do not yield positive results <u>Assumptions:</u>
	Field trials and demonstration of the selected key biological control and alternative technologies	Key biological control and alternative technologies demonstrated in at least 3,000 hectares	<ul style="list-style-type: none">Project activity reportQuarterly Progress ReportAnnual Progress Report	Annually Reported in DO tab of the GEF PIR	<ul style="list-style-type: none">NPTLPMOCotton growers at pilot areas	<ul style="list-style-type: none">Progress reportMinutes of technical meetings	<ul style="list-style-type: none">No major crop pest outbreaksFarmers will be engaged and will support the demonstration of key biological control and alternative technologies, and

	Field demonstration of the integrated technical models of biological control and alternative technologies	Integrated technical models demonstrated in at least 15,000 hectares	<ul style="list-style-type: none"> • Project activity report • Quarterly Progress Report • Annual Progress Report 	Annually Reported in DO tab of the GEF PIR	<ul style="list-style-type: none"> • NPT • LPMO • Cotton growers at pilot areas 	<ul style="list-style-type: none"> ♦ Progress report ♦ Minutes of technical meetings 	the integrated technical models <ul style="list-style-type: none"> ♦ Previous experience of potential positive results
Outcome 2.2 300 extension agents and 12,000 representative farmers trained on use of biological control and alternative technologies to replace endosulfan usage	Training of Trainers (TOT) on the adoption of integrated technical models of biological control and alternative technologies	Conduct 10 TOT training sessions to train 300 extension agents	<ul style="list-style-type: none"> • Project training activities • Quarterly Progress Report • Annual Progress Report 	Annually Reported in DO tab of the GEF PIR	<ul style="list-style-type: none"> • NPT • LPMO 	Training workshop report	<u>Risks:</u> Lack of interest in the participation of the trainings <u>Assumptions:</u> <ul style="list-style-type: none"> ♦ Extension agencies and agents will be engaged and will support the training courses ♦ Farmers will be engaged and will support the FFS
	Training of Farmers (Farmer Field School - FFS) on the adoption of the integrated technical models of biological control and alternative technologies	Conduct 400 sessions of FFS to train 12,000 representative farmers in the adoption of the integrated technical models	<ul style="list-style-type: none"> • Project training activities • Quarterly Progress Report • Annual Progress Report 	Annually Reported in DO tab of the GEF PIR	<ul style="list-style-type: none"> • NPT • LPMO 	Training workshop report	
Outcome 2.3: Pest monitoring systems developed to better anticipate pest impacts, improve efficiency on information dissemination to better support farmers to use new alternative technologist	Enhanced pest and endosulfan monitoring systems in the pilot areas	Review and improve existing pest and endosulfan monitoring systems for use in the pilot areas	<ul style="list-style-type: none"> • Evaluation report • Improvement system documentation • Quarterly Progress Report • Annual Progress Report 	Annually Reported in DO tab of the GEF PIR	<ul style="list-style-type: none"> • NPT • LPMO • Cotton growers 	<ul style="list-style-type: none"> ♦ Progress report ♦ Evaluation report 	<u>Risks:</u> <ul style="list-style-type: none"> ♦ Lack of interest on the pest management system, and on use of modern technology ♦ Lengthy development process <u>Assumptions:</u> <ul style="list-style-type: none"> ♦ Extension agencies and agents will be engaged and will support the review and improvement of the pest and endosulfan monitoring
	Establishment of information dissemination systems and information	Establish rural information dissemination system to facilitate	<ul style="list-style-type: none"> • Established information dissemination system • Quarterly Progress Report • Annual Progress Report 	Annually Reported in DO tab of the GEF PIR	<ul style="list-style-type: none"> • NPT • LPMO • Cotton growers 	<ul style="list-style-type: none"> ♦ Progress report ♦ Report on information dissemination workshop 	

	dissemination undertaken	information dissemination					system, and the rural information dissemination systems ♦ Buy-In and utilization of the application and big data solution ♦ Close monitoring of development process
	Application and big data solution developed to improve services to farmers and enterprises	Develop mobile application to provide better services and with the big data solution to strengthen relevant public and private services	<ul style="list-style-type: none">• Mobile application development• Quarterly Progress Report• Annual Progress Report	Annually Reported in DO tab of the GEF PIR	<ul style="list-style-type: none">• NPT• LPMO• Cotton growers	<ul style="list-style-type: none">♦ Progress report♦ Evaluation report♦ Mobile application♦ Service report	
Component 3: National replication							
Outcome 3.1 National replication programme and work plan developed and disseminated	Results of field demonstration of the integrated technical models	Results are evaluated and documented for substitution applicability	<ul style="list-style-type: none">• Technical evaluation report• Quarterly Progress Report• Annual Progress Report	Annually Reported in DO tab of the GEF PIR	<ul style="list-style-type: none">• FECO/MEP• NPT• LPMO	<ul style="list-style-type: none">♦ Progress report♦ Evaluation report	<u>Risks:</u> <ul style="list-style-type: none">♦ Demonstration results not fully viable for replication♦ Lack of political and financial support for replication
	Preparation of a national replication programme	A national replication plan is developed, reviewed and approved	<ul style="list-style-type: none">• Replication programme and work plan	Annually Reported in DO tab of the GEF PIR	<ul style="list-style-type: none">• FECO/MEP• NPT• LPMO	<ul style="list-style-type: none">♦ Progress report♦ National Replication Report	<u>Assumptions:</u> <ul style="list-style-type: none">♦ Positive field demonstration results♦ Relevant Ministries will be engaged and will support policy orientation towards elimination of endosulfan♦ All relevant stakeholders will support and participate in the implementation of the national replication plan towards phasing out endosulfan in China
	Adoption of the national replication programme and work plan and its dissemination	National workshops on dissemination of the national replication plan to engage key stakeholders to adopt for implementation	<ul style="list-style-type: none">• Comments and acceptance of key stakeholders• Quarterly Progress Report• Annual Progress Report	Annually Reported in DO tab of the GEF PIR	<ul style="list-style-type: none">• FECO/MEP• MOA• NPT• LPMO	Workshop report	
Component 4: Monitoring and evaluation							
Outcome 4.1 Effective monitoring and evaluation, knowledge sharing and information dissemination	Timing and quality of annual (APRs, PIRs etc.) and M&E reports Terminal report and Terminal Evaluation	M&E activities implemented as scheduled and project implementation monitored to achieve project objectives	<ul style="list-style-type: none">• Quarterly Progress Report• Annual Progress Report	Annually Reported in DO tab of the GEF PIR	<ul style="list-style-type: none">• FECO/MEP• UNDP• NPT• LPMO	<ul style="list-style-type: none">♦ Progress, technical, substantial and M&E reports♦ Terminal report and Terminal Evaluation report	<u>Risks:</u> <ul style="list-style-type: none">♦ Failure to exercise timely and effective M&E activities due to capacity issue <u>Assumptions:</u>

ensured	Lessons learnt and experience documented and disseminated; post-project action plan formulated	Lessons learned and experience gained documented and disseminated	<ul style="list-style-type: none"> • Evaluation and assessment report • Quarterly Progress Report • Annual Progress Report 	Annually Reported in DO tab of the GEF PIR	<ul style="list-style-type: none"> • FECO/MEP • UNDP • NPT • LPMO 	<ul style="list-style-type: none"> ♦ Knowledge products ♦ Report of workshops ♦ Post-project action plan 	<ul style="list-style-type: none"> ♦ Efficient M&E activities undertaken to facilitate achievement of project objectives and outcomes
Project Management							
Terminal GEF Tracking Tool	N/A	N/A	GEF Tracking Tool	After final PIR submitted to GEF		Completed GEF Tracking Tool	<u>Risks:</u> <ul style="list-style-type: none"> ♦ Inadequate capacity and insufficient coordination will impact project implementation <u>Assumptions:</u> <ul style="list-style-type: none"> ♦ Efficient project management will lead to timely achievement of project objectives and outcomes
Environmental and Social risks and management plans, as relevant.	N/A	N/A	Updated SESP and management plans	Annually	National Project Team UNDP CO	Updated SESP	

ANNEX 3. Evaluation Plan:

Evaluation Title	Planned start date Month/year	Planned end date Month/year	Included in the Country Office Evaluation Plan	Budget for consultants	Other budget (i.e. travel, site visits etc...)	Budget for translation
Terminal Evaluation	December 2020	28 February 2021	Yes	USD 35,000	Included in consultancy budget	N/A
Total evaluation budget				USD 35,000		

Annex 4. GEF Tracking Tool (s) at baseline

(Please see GEF Tracking Tool in Excel file attached)

Annex 5. Terms of Reference for International and national consultants:

Phase-out of Endosulfan in China

Consultant for Identification & selection of key biological control and alternative technologies to endosulfan

Terms of reference

1 Background

In May 2009, the fourth meeting of Conference of the Parties to the Stockholm Convention on Persistent Organic Pollutants (POPs) (hereinafter referred to as the Convention) has passed an Amendment, which added 9 new POPs, including endosulfan, into the Convention. Endosulfan was listed in Annex A and the Convention detailed 2 "specific exemptions"(controlling cotton and tobacco pests). On August 30, 2013, the NPC Standing Committee approved this amendment, which officially took effect in China on March 26, 2014.

Currently, endosulfan is legal to be used to control cotton and tobacco pests in China. As a kind of pesticide with broad spectrum, long persistent and low toxic to pollination insects (for example: honey bees), it is still widely used in some cotton production areas in China. There are still about 2,850 tons of endosulfan being used and released into the environments in the cotton producing areas. China has very large numbers of small farm households, and among them, 15 million in cotton cultivation. Due to its unique geographical size and the huge numbers of small farmers, one-step action of eliminating endosulfan would not be possible. A phased-out project approach is therefore necessary.

To implement the amendment requirements, and to promote endosulfan phase-out in China, Foreign Economic Cooperation Office of Ministry of Environmental Protection (FECO) and the United Nations Development Programme (UNDP) are developing the phase-out of endosulfan in China project (hereinafter referred to as the Project) together. The four-year project will help China to fulfill the requirement of the Stockholm Convention. Consistent with this objective, the project aims to address endosulfan phase out by biological control and alternative technologies in China. The project will achieve this project objective through demonstration of biological control and alternative technologies in pilot locations that will lead to subsequent complete endosulfan phase out in China through the implementation of a national replication programme prepared under this project.

To carry out the identification, evaluation and selection of applicable substitution for China endosulfan project, and submit the relevant reports in accordance with the requirements of the UNDP and FECO, the project intends to hire an expert familiar with pesticide use and management and IPM to undertake this consulting service.

2 Objectives

There are two objectives of this consulting service:

- (1) Provide a summary and review of the latest progress in endosulfan key biological control and alternative technologies domestically and abroad;
- (2) Recommendations on endosulfan biological control and alternative technical practice for our project demonstration sites.

3 Task Assignments

To achieve the above objectives, the following tasks shall be carried out (but not limited to):

Review and evaluate the key biological control and alternative technologies

- a) The latest endosulfan alternatives research and development domestically and abroad, especially the biological control approach, which should include detailed alternative application practice, application areas, performance (including comparison with endosulfan) and so on;
- b) Evaluate the strengths and weaknesses of the current alternative technologies in terms of technological features and cost.

Recommendations on endosulfan biological control and alternative technical practice for our project demonstration sites

- c) To carry out on-site investigation of the demonstration area to grasp the existing cotton pest control information, listen to local agricultural technical staff on the endosulfan substitution and IPM technology existing, and to make recommendations on the endosulfan biological control and alternative technical practice for our project demonstration sites.

Others

Review and make comments on the relevant manuals and guidelines; Participate in the relevant workshops; Support the technical coordination related to the outcome propaganda and so on.

4 outputs

There are two outputs of this consulting service:

- Review Report of endosulfan key biological control and alternative technologies;
- Recommendations on endosulfan biological control and alternative technical practice for our project demonstration sites.

5 Duration and Budget

This consulting service will last 3 years, payable based on an all-inclusive daily fee for a maximum of 35 working days, inclusive of mission travel(s) to China.

6 Qualification

- i. At least a master degree or above in agriculture, ecology, environment or related majors;
- ii. Five years of research or practice experience in pesticide use management, agricultural pest control or IPM study;
- iii. Familiarity with the domestic and international pest control policies;
- iv. Understanding of the requirements of the Stockholm Convention on Persistent Organic Pollutants;
- v. Excellent written ability of English;
- vi. Work Experience with GEF, UNDP and/or Government Ministry of China is preferred.

Terminal Evaluation Terms of Reference

INTRODUCTION

In accordance with UNDP and GEF M&E policies and procedures, all full and medium-sized UNDP support GEF financed projects are required to undergo a terminal evaluation upon completion of implementation. These terms of reference (TOR) sets out the expectations for a Terminal Evaluation (TE) of the *Project title* (PIMS #.)

The essentials of the project to be evaluated are as follows: *(fully complete the table below)*.

PROJECT SUMMARY TABLE

Project Title:	Phase out of Endosulfan in China			
GEF Project ID:			<i>at endorsement (Million US\$)</i>	<i>at completion (Million US\$)</i>
UNDP Project ID:	00095048	GEF financing:	1.98	
Country:	China	IA/EA own:		
Region:	RBAP	Government:		
Focal Area:	Chemicals	Other:		
FA Objectives, (OP/SP):		Total co-financing:	7.92	
Executing Agency:	UNDP	Total Project Cost:	9.9	
Other Partners involved:		ProDoc Signature (date project began):		
		(Operational) Closing Date:	Proposed: December 2020	Actual:

OBJECTIVE AND SCOPE

The four-year project will help China to fulfill the requirement of the Stockholm Convention. Consistent with this objective, the project aims to address endosulfan phase out by biological control and alternative technologies in cotton pest management in China. The project will achieve this project objective through demonstration of biological control and alternative technologies in pilot locations that will lead to subsequent complete endosulfan phase out in China through the implementation of a national replication programme prepared under this project. The project as outlined is structured with four components: Component 1 will identify the project needs through collection and analysis of baseline information; Component 2 will develop and demonstrate integrated technical models of biological control and alternative technologies; Component 3 covers the preparation of a national replication programme and work plan, when implemented, will achieve complete phase out of endosulfan in China; Component 4 supports the monitoring and evaluation of the project and dissemination of experience and lessons learned, something that is seen as useful for other developing countries dealing with the issue globally. In addition; project management capacity at national and the demonstration locations will be strengthened to achieve implementation effectiveness and efficiency.

The TE will be conducted according to the guidance, rules and procedures established by UNDP and GEF as reflected in the UNDP Evaluation Guidance for GEF Financed Projects.

The objectives of the evaluation are to assess the achievement of project results, and to draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming.

EVALUATION APPROACH AND METHOD

An overall approach and method⁶ for conducting project terminal evaluations of UNDP supported GEF financed projects has developed over time. The evaluator is expected to frame the evaluation effort using the criteria of **relevance, effectiveness, efficiency, sustainability, and impact**, as defined and explained in the [UNDP Guidance for Conducting Terminal Evaluations of UNDP-supported, GEF-financed Projects](#). A set of questions covering each of these criteria have been drafted and are included with this TOR (*fill in Annex C*). The evaluator is expected to amend, complete and submit this matrix as part of an evaluation inception report, and shall include it as an annex to the final report.

The evaluation must provide evidence-based information that is credible, reliable and useful. The evaluator is expected to follow a participatory and consultative approach ensuring close engagement with government counterparts, in particular the GEF operational focal point, UNDP Country Office, project team, UNDP GEF Technical Adviser based in the region and key stakeholders. The evaluator is expected to conduct a field mission to **Xinjiang**, including the following project sites, Shawan County and Xinjiang Production & Construction Corps. Interviews will be held with the following organizations and individuals at a minimum: The Government of Shawan County, Agricultural Bureau of Xinjiang Production & Construction Corps, and cotton growers.

The evaluator will review all relevant sources of information, such as the project document, project reports – including Annual APR/PIR, project budget revisions, midterm review, progress reports, GEF focal area tracking tools, project files, national strategic and legal documents, and any other materials that the evaluator considers useful for this evidence-based assessment. A list of documents that the project team will provide to the evaluator for review is included in [Annex B](#) of this Terms of Reference.

EVALUATION CRITERIA & RATINGS

An assessment of project performance will be carried out, based against expectations set out in the Project Logical Framework/Results Framework (see [Annex A](#)), which provides performance and impact indicators for project implementation along with their corresponding means of verification. The evaluation will at a minimum cover the criteria of: **relevance, effectiveness, efficiency, sustainability and impact**. Ratings must be provided on the following performance criteria. The completed table must be included in the evaluation executive summary. The obligatory rating scales are included in [Annex D](#).

Evaluation Ratings:			
1. Monitoring and Evaluation	rating	2. IA& EA Execution	rating
M&E design at entry		Quality of UNDP Implementation	
M&E Plan Implementation		Quality of Execution - Executing Agency	
Overall quality of M&E		Overall quality of Implementation / Execution	
3. Assessment of Outcomes	rating	4. Sustainability	rating
Relevance		Financial resources:	
Effectiveness		Socio-political:	
Efficiency		Institutional framework and governance:	
Overall Project Outcome Rating		Environmental:	
		Overall likelihood of sustainability:	

PROJECT FINANCE / COFINANCE

The Evaluation will assess the key financial aspects of the project, including the extent of co-financing planned and realized. Project cost and funding data will be required, including annual expenditures. Variances between planned and actual expenditures will need to be assessed and explained. Results from recent financial audits, as available,

⁶ For additional information on methods, see the [Handbook on Planning, Monitoring and Evaluating for Development Results](#), Chapter 7, pg. 163

should be taken into consideration. The evaluator(s) will receive assistance from the Country Office (CO) and Project Team to obtain financial data in order to complete the co-financing table below, which will be included in the terminal evaluation report.

Co-financing (type/source)	UNDP own financing (mill. US\$)		Government (mill. US\$)		Partner Agency (mill. US\$)		Total (mill. US\$)	
	Planned	Actual	Planned	Actual	Planned	Actual	Actual	Actual
Grants								
Loans/Concessions								
1. In-kind support								
2. Other								
Totals								

MAINSTREAMING

UNDP supported GEF financed projects are key components in UNDP country programming, as well as regional and global programmes. The evaluation will assess the extent to which the project was successfully mainstreamed with other UNDP priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and gender.

IMPACT

The evaluators will assess the extent to which the project is achieving impacts or progressing towards the achievement of impacts. Key findings that should be brought out in the evaluations include whether the project has demonstrated: a) verifiable improvements in ecological status, b) verifiable reductions in stress on ecological systems, and/or c) demonstrated progress towards these impact achievements.⁷

CONCLUSIONS, RECOMMENDATIONS & LESSONS

The evaluation report must include a chapter providing a set of **conclusions, recommendations** and **lessons**.

IMPLEMENTATION ARRANGEMENTS

The principal responsibility for managing this evaluation resides with the UNDP CO in *(include Country name)*. The UNDP CO will contract the evaluators and ensure the timely provision of per diems and travel arrangements within the country for the evaluation team. The Project Team will be responsible for liaising with the Evaluators team to set up stakeholder interviews, arrange field visits, coordinate with the Government etc.

EVALUATION TIMEFRAME

The total duration of the evaluation will be **XX** days according to the following plan:

Activity	Timing	Completion Date
Preparation	4 days	date
Evaluation Mission	10 days	date
Draft Evaluation Report	7 days	date
Final Report	2 days	date

⁷ A useful tool for gauging progress to impact is the Review of Outcomes to Impacts (ROtI) method developed by the GEF Evaluation Office: [ROTI Handbook 2009](#)

EVALUATION DELIVERABLES

The evaluation team is expected to deliver the following:

Deliverable	Content	Timing	Responsibilities
Inception Report	Evaluator provides clarifications on timing and method	No later than 2 weeks before the evaluation mission.	Evaluator submits to UNDP CO
Presentation	Initial Findings	End of evaluation mission	To project management, UNDP CO
Draft Final Report	Full report, (per annexed template) with annexes	Within 3 weeks of the evaluation mission	Sent to CO, reviewed by RTA, PCU, GEF OFPs
Final Report*	Revised report	Within 1 week of receiving UNDP comments on draft	Sent to CO for uploading to UNDP ERC.

*When submitting the final evaluation report, the evaluator is required also to provide an 'audit trail', detailing how all received comments have (and have not) been addressed in the final evaluation report.

TEAM COMPOSITION

The evaluation team will be composed of *(1-2 international /national evaluators)*. The consultants shall have prior experience in evaluating similar projects. Experience with GEF financed projects is an advantage. *(If the team has more than 1 evaluator, one will be designated as the team leader and will be responsible for finalizing the report)*. The evaluators selected should not have participated in the project preparation and/or implementation and should not have conflict of interest with project related activities.

The Team members must present the following qualifications:

3. Minimum **10** years of relevant professional experience
4. Knowledge of UNDP and GEF
5. Previous experience with results-based monitoring and evaluation methodologies;
6. Technical knowledge in the targeted focal area(s)

EVALUATOR ETHICS

Evaluation consultants will be held to the highest ethical standards and are required to sign a Code of Conduct (Annex E) upon acceptance of the assignment. UNDP evaluations are conducted in accordance with the principles outlined in the [UNEG 'Ethical Guidelines for Evaluations'](#)

PAYMENT MODALITIES AND SPECIFICATIONS

(this payment schedule is indicative, to be filled in by the CO and UNDP GEF Technical Adviser based on their standard procurement procedures)

%	Milestone
10%	At contract signing
40%	Following submission and approval of the 1ST draft terminal evaluation report
50%	Following submission and approval (UNDP-CO and UNDP RTA) of the final terminal evaluation report

APPLICATION PROCESS

Applicants are requested to apply online *(indicate the site, such as <http://jobs.undp.org>, etc.)* by *(date)*. Individual consultants are invited to submit applications together with their CV for these positions. The application should

contain a current and complete C.V. in English (Spanish in LAC, French in Francophone Africa, etc.) with indication of the e-mail and phone contact. Shortlisted candidates will be requested to submit a price offer indicating the total cost of the assignment (including daily fee, per diem and travel costs).

UNDP applies a fair and transparent selection process that will take into account the competencies/skills of the applicants as well as their financial proposals. Qualified women and members of social minorities are encouraged to apply.

ANNEX A: PROJECT LOGICAL FRAMEWORK

This project will contribute to the following Sustainable Development Goal (s): 12. Responsible consumption and production; 14. life under water; 15. Life on land					
This project will contribute to the following country outcome included in the UNDAF/Country Programme Document: More people enjoy a cleaner, healthier, and safer environment as a result of improved environmental protection and sustainable green growth					
This project will be linked to the following output of the UNDP Strategic Plan: 1.3 Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste					
	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target	Assumptions
Project Objective: The project will address the phase out of endosulfan by Biological Control and Alternative Technologies in Cotton Pest Management in China	Quantity of endosulfan production reduced per year	2,850 tons per year	N/A	Production and consumption of endosulfan completely eliminated, 2,850 tons/year of endosulfan phased out	<ul style="list-style-type: none"> ♦ Crop pest monitoring and information dissemination system enhanced for farmers' urgent response to such an extreme case ♦ Project planning, monitoring and evaluation enhanced to ensure timely and effective implementation to achieve intended outputs ♦ Ensure all project executing agencies reach a unanimous agreement on the intellectual property of the outputs through open discussion and communications at the beginning of the project
	# direct project beneficiaries	None	N/A	60 policy makers, 300 extension agents and 12,000 representative farmers in 12 cotton producing provinces and Xinjiang Autonomous Region trained	
	Relevant policies for substituting of endosulfan at both local and national levels developed and enforced	None	N/A	<ul style="list-style-type: none"> ♦ Policies banning endosulfan production and consumption completed. ♦ Regulation promoting alternatives completed 	
	Models of biological control and alternative technologies successfully established and implemented	None	N/A	<ul style="list-style-type: none"> ♦ Key biological control and alternative technologies demonstrated in at least 3,000 hectares ♦ 1-2 integrated technical models developed ♦ The integrated technical models demonstrated in at least 15,000 hectares ♦ Operational manuals of the technical models published 	

Component 1: Institutional Strengthening and capacity building					
Outcome 1.1 Capacity of policy makers, national and local project teams and key stakeholders strengthened to facilitate endosulfan phase out	Expected Outputs: Output 1.1.1: National level project monitoring and supervision capacity strengthened Output 1.1.2: Reporting system on import and export management of endosulfan established and training on imports and exports management conducted				
	National level monitoring and supervision capacity strengthened	None	N/A	<ul style="list-style-type: none">♦ Gap analysis conducted♦ Monitoring and supervision capacity strengthened through training activities to facilitate achievement of outputs	Experience gained in successful implementation of the GEF funded dicofol project will contribute to effective project management
	Reporting system established and training on imports and exports management conducted	None	N/A	Reporting system established and training on imports and exports management conducted to strengthen enforcement actions	
Outcome 1.2 Policy development to promote and facilitate phase out of endosulfan	Expected Outputs: Output 1.2.1: Pesticide management policy on phasing out endosulfan in the agriculture sector developed Output 1.2.2: Agro-technical extension policy on phasing out endosulfan developed				
	Development of pesticide management policy	Policy on phasing out endosulfan and promoting biological control and the alternatives not formulated	N/A	<ul style="list-style-type: none">♦ Gap assessment undertaken, policy development workshops and training courses held♦ Decree by multi-Ministries collaterally issued and published♦ At least 60 policy makers from multi-Ministries and various local levels trained on pesticide policy development and enforcement	<ul style="list-style-type: none">♦ The relevant Ministries and national extension networks will be engaged and will support policy orientation towards the elimination of endosulfan♦ Close monitoring of policy development and approval process
	Development of agro-technical extension policy on phasing out endosulfan	Policy on phasing out endosulfan and promoting biological control and the alternatives is not formulated.	N/A	<ul style="list-style-type: none">♦ Gap assessment undertaken, policy development workshops & training courses held.♦ Agro-technical extension policy document published	

Component 2: Development of integrated technical models of biological control and alternative technologies					
Outcome 2.1 Production and consumption of 2,850 tons of endosulfan reduced through introduction and field demonstration of biological control and alternative technologies	Expected Outputs: Output 2.1.1: Key biological control and alternative technologies to substitute endosulfan identified and selected Output 2.1.2: Field trials conducted and selected key biological control and alternative technologies demonstrated Output 2.1.3: Large scale field demonstration of integrated technical models of biological control and alternative technologies undertaken in pilot areas				
	Key biological control and alternative technologies identified and selected for demonstration to substitute endosulfan	<ul style="list-style-type: none">♦ Review of existing information on key biological control and alternative technologies not conducted♦ Potential appropriate key biological control and alternative technologies are not screened and selected	N/A	<ul style="list-style-type: none">♦ Review and assessment completed and review report submitted and published♦ Appropriate key biological control and alternative technologies are screened out and verified by field trials	<ul style="list-style-type: none">♦ No major crop pest outbreaks♦ Farmers will be engaged and will support the demonstration of key biological control and alternative technologies, and the integrated technical models♦ Previous experience of potential positive results
	Field trials and demonstration of the selected key biological control and alternative technologies	<ul style="list-style-type: none">♦ Selected key biological control and alternative technologies have not been demonstrated in fields♦ The integrated technical models have not been developed	N/A	<ul style="list-style-type: none">♦ Key biological control and alternative technologies demonstrated in at least 3,000 hectares♦ 1-2 integrated technical models developed	
	Field demonstration of the integrated technical models of biological control and alternative technologies	The integrated technical models have not been demonstrated in fields	N/A	<ul style="list-style-type: none">♦ The integrated technical models demonstrated in at least 15,000 hectares♦ Operational manuals of the technical models published.	
Outcome 2.2 300 extension agents and 12,000 representative farmers trained on the use of biological control and alternative technologies to replace	Expected Outputs: Output 2.2.1: Training of Trainers (TOT) conducted to train 300 extension agents in the adoption of the integrated technical models of biological control and alternative technologies Output 2.2.2: Training of farmers (FFS) conducted to train 12,000 representative farmers on the adoption of the integrated technical models of biological control and alternative technologies				
	Training of Trainers (TOT) on the adoption of integrated technical models	Extension agents not trained on the	N/A	<ul style="list-style-type: none">♦ 10 TOT sessions conducted	<ul style="list-style-type: none">♦ Extension agencies and agents will be engaged and will support

endosulfan usage	of biological control and alternative technologies	adoption of the integrated technical models		♦ 300 extension agents trained	the training courses ♦ Farmers will be engaged and will support the FFS
	Training of Farmers (Farmer Field School - FFS) on the adoption of the integrated technical models of biological control and alternative technologies	Farmers not trained on the adoption of the integrated technical models	N/A	♦ 400 sessions of FFSs conducted ♦ 12,000 farmers trained on the adoption of the integrated technical models	
Outcome 2.3 Pest monitoring systems developed to better anticipate pest impacts, improve efficiency on information dissemination to better support farmers to use new alternative technologies	Expected Outputs: Output 2.3.1: Enhanced pest and endosulfan monitoring systems established in pilot areas Output 2.3.2: Pest monitoring information system established and information disseminated Output 2.3.3: Application and big data solution developed to improve services to farmers and enterprises				
	Enhanced pest and endosulfan monitoring systems in the pilot areas	♦ Inadequate existing pest and endosulfan monitoring systems ♦ Improvements needed for existing pest and endosulfan monitoring systems	N/A	♦ Existing pest and endosulfan monitoring systems reviewed and a report recommending improvement submitted ♦ Pest and endosulfan monitoring systems improved for use in the pilot areas	♦ Extension agencies and agents will be engaged and will support the review and improvement of the pest and endosulfan monitoring system, and the rural information dissemination systems ♦ Buy-In and utilization of the application and big data solution ♦ Close monitoring of development process
	Establishment of information dissemination systems and information dissemination undertaken	Rural information dissemination systems lacking	N/A	Rural information dissemination system established to facilitate information dissemination	
	Application and big data solution developed to improve services to farmers and enterprises	♦ No mobile phone application to provide information to farmers or enterprises ♦ Rural information dissemination system needs improvements and lacks interactive functions ♦ Lack of big data solution for farmers/enterprises as well as for the sector.	N/A	♦ Existing rural information dissemination system reviewed and improvements initiated ♦ Mobile application developed to provide better services and with the big data solution to strengthen relevant public and private services	

Component 3: National replication					
Outcome 3.1 National replication programme and work plan developed and disseminated	Expected Outputs: Output 3.1.1: National replication programme and work plan developed Output 3.1.2: National replication programme and work plan adopted and key stakeholders engaged on its implementation				
	Results of field demonstration of the integrated technical models	None	N/A	Results of field demonstration of the integrated technical models evaluated and documented for substitution applicability	<ul style="list-style-type: none">♦ Positive field demonstration results♦ Relevant Ministries will be engaged and will support policy orientation towards elimination of endosulfan♦ All relevant stakeholders will support and participate in the implementation of the national replication plan towards phasing out endosulfan in China
	Preparation of a national replication programme	None	N/A	A national replication plan is developed, reviewed and approved	
	Adoption of the national replication programme and work plan and its dissemination	None	N/A	National workshops on dissemination of the adopted national replication plan are held.	
	Component 4: Monitoring and evaluation				
Outcome 4.1 Effective monitoring and evaluation; knowledge sharing and information dissemination ensured	Expected Outputs: Output 4.1.1: Monitoring, evaluation and impact assessment conducted Output 4.1.2: Knowledge sharing and post-project action plan developed				
	<ul style="list-style-type: none">♦ Timing and quality of annual (APRs, PIRs etc.) and M&E reports♦ Terminal report and Terminal Evaluation	Indicative M&E plan, budget and timeframe	N/A	M&E activities implemented as scheduled and project implementation monitored to achieve project objectives	Efficient M&E activities undertaken to facilitate achievement of project objectives and outcomes
	Lessons learnt and experience documented and disseminated; post-project action plan formulated	None	N/A	Lessons learned and experience gained documented and disseminated	

ANNEX B: LIST OF DOCUMENTS TO BE REVIEWED BY THE EVALUATORS

1. PIF
2. UNDP Initiation Plan
3. UNDP Project Document
4. UNDP Environmental and Social Screening results
5. Project Inception Report
6. All annual Project Implementation Reports (PIRs)
7. Quarterly progress reports and work plans of the various implementation task teams
8. Audit reports
9. Finalized GEF focal area Tracking Tools at CEO endorsement and midterm (fill in specific TTs for this project's focal area)
10. Oversight mission reports
11. All monitoring reports prepared by the project
12. Financial and Administration guidelines used by Project Team

The following documents will also be available:

13. Project operational guidelines, manuals and systems
14. UNDP country/ countries programme document(s)
15. Minutes of the Project Board Meetings and other meetings (i.e. Project Appraisal Committee meetings)
16. Project site location maps

ANNEX C: EVALUATION QUESTIONS

This is a generic list, to be further detailed with more specific questions by CO and UNDP GEF Technical Adviser based on the particulars of the project.

Evaluative Criteria Questions	Indicators	Sources	Methodology
Relevance: How does the project relate to the main objectives of the GEF focal area, and to the environment and development priorities at the local, regional and national levels?			
1.	2.	3.	4.
5.	6.	7.	8.
9.	10.	11.	12.
Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?			
13.	14.	15.	16.
17.	18.	19.	20.

21.		22.	23.
Efficiency: Was the project implemented efficiently, in-line with international and national norms and standards?			
24.	25.	26.	27.
28.	29.	30.	31.
32.	33.	34.	35.
Sustainability: To what extent are there financial, institutional, social-economic, and/or environmental risks to sustaining long-term project results?			
36.	37.	38.	39.
40.	41.	42.	43.
44.	45.	46.	47.
Impact: Are there indications that the project has contributed to, or enabled progress toward, reduced environmental stress and/or improved ecological status?			
48.	49.	50.	51.
52.	53.	54.	55.

ANNEX D: RATING SCALES

<p><i>Ratings for Outcomes, Effectiveness, Efficiency, M&E, I&E Execution</i></p> <p>6: Highly Satisfactory (HS): no shortcomings 5: Satisfactory (S): minor shortcomings 4: Moderately Satisfactory (MS) 3. Moderately Unsatisfactory (MU): significant shortcomings 2. Unsatisfactory (U): major problems 1. Highly Unsatisfactory (HU): severe problems</p>	<p><i>Sustainability ratings:</i></p> <p>4. Likely (L): negligible risks to sustainability 3. Moderately Likely (ML): moderate risks 2. Moderately Unlikely (MU): significant risks 1. Unlikely (U): severe risks</p>	<p><i>Relevance ratings:</i></p> <p>2. Relevant (R) 1.. Not relevant (NR)</p> <p><i>Impact Ratings:</i></p> <p>3. Significant (S) 2. Minimal (M) 1. Negligible (N)</p>
<p><i>Additional ratings where relevant:</i></p> <p>Not Applicable (N/A) Unable to Assess (U/A)</p>		

ANNEX E: EVALUATION CONSULTANT CODE OF CONDUCT AND AGREEMENT FORM

Evaluators:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study imitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

Evaluation Consultant Agreement Form⁸

Agreement to abide by the Code of Conduct for Evaluation in the UN System

Name of Consultant: _____

Name of Consultancy Organization (where relevant): _____

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at place on date

Signature: _____

⁸www.unevaluation.org/unegcodeofconduct

ANNEX F: EVALUATION REPORT OUTLINE⁹

- i. Opening page:
 - 8. Title of UNDP supported GEF financed project
 - 9. UNDP and GEF project ID#s.
 - 10. Evaluation time frame and date of evaluation report
 - 11. Region and countries included in the project
 - 12. GEF Operational Program/Strategic Program
 - 13. Implementing Partner and other project partners
 - 14. Evaluation team members
 - 15. Acknowledgements
- ii. Executive Summary
 - 16. Project Summary Table
 - 17. Project Description (brief)
 - 18. Evaluation Rating Table
 - 19. Summary of conclusions, recommendations and lessons
- iii. Acronyms and Abbreviations
(See: UNDP Editorial Manual¹⁰)
- 1. Introduction
 - 20. Purpose of the evaluation
 - 21. Scope & Methodology
 - 22. Structure of the evaluation report
- 2. Project description and development context
 - 1. Project start and duration
 - 2. Problems that the project sought to address
 - 3. Immediate and development objectives of the project
 - 4. Baseline Indicators established
 - 5. Main stakeholders
 - 6. Expected Results
- 3. Findings
(In addition to a descriptive assessment, all criteria marked with (*) must be rated¹¹)
- 3.1 Project Design / Formulation
 - 7. Analysis of LFA/Results Framework (Project logic /strategy; Indicators)
 - 8. Assumptions and Risks
 - 9. Lessons from other relevant projects (e.g., same focal area) incorporated into project design
 - 10. Planned stakeholder participation
 - 11. Replication approach
 - 12. UNDP comparative advantage
 - 13. Linkages between project and other interventions within the sector
 - 14. Management arrangements
- 3.2 Project Implementation
 - 15. Adaptive management (changes to the project design and project outputs during implementation)
 - 16. Partnership arrangements (with relevant stakeholders involved in the country/region)
 - 17. Feedback from M&E activities used for adaptive management
 - 18. Project Finance:
 - 19. Monitoring and evaluation: design at entry and implementation (*)

⁹The Report length should not exceed 40 pages in total (not including annexes).

¹⁰ UNDP Style Manual, Office of Communications, Partnerships Bureau, updated November 2008

¹¹ Using a six-point rating scale: 6: Highly Satisfactory, 5: Satisfactory, 4: Marginally Satisfactory, 3: Marginally Unsatisfactory, 2: Unsatisfactory and 1: Highly Unsatisfactory, see section 3.5, page 37 for ratings explanations.

- 20. UNDP and Implementing Partner implementation / execution (*) coordination, and operational issues
- 3.3 Project Results
 - 21. Overall results (attainment of objectives) (*)
 - 22. Relevance (*)
 - 23. Effectiveness & Efficiency (*)
 - 24. Country ownership
 - 25. Mainstreaming
 - 26. Sustainability (*)
 - 27. Impact
- 4. Conclusions, Recommendations & Lessons
 - 28. Corrective actions for the design, implementation, monitoring and evaluation of the project
 - 29. Actions to follow up or reinforce initial benefits from the project
 - 30. Proposals for future directions underlining main objectives
 - 31. Best and worst practices in addressing issues relating to relevance, performance and success
- 5. Annexes
 - 32. ToR
 - 33. Itinerary
 - 34. List of persons interviewed
 - 35. Summary of field visits
 - 36. List of documents reviewed
 - 37. Evaluation Question Matrix
 - 38. Questionnaire used and summary of results
 - 39. Evaluation Consultant Agreement Form

Annex G: Evaluation Report Clearance Form

(to be completed by CO and UNDP GEF Technical Adviser based in the region and included in the final document)

Evaluation Report Reviewed and Cleared by

UNDP Country Office

Name: _____

Signature: _____ Date: _____

UNDP GEF RTA

Name: _____

Signature: _____ Date: _____

Annex 6. Social and Environmental Screening Template

Project Information	
1. Project Title	Phase out of Endosulfan in China
2. Project Number	PIMS6054
3. Location (Global/Region/Country)	People's Republic of China

Part A. Integrating Overarching Principles to Strengthen Social and Environmental Sustainability

Briefly describe in the space below how the Project mainstreams the human-rights based approach

In China, there are only two enterprises that produce active ingredient of endosulfan, about 95% was used in China. As of March 26, 2014, the production of endosulfan were forbidden, except for acceptable uses and specific exemption of the Stockholm Convention. Currently endosulfan formulations are used on cotton and tobacco crops for controlling cotton bollworm, tobacco budworm and tobacco aphid. As a kind of pesticide with broad spectrum, endosulfan is widely used in cotton production areas in China. In general, cotton and tobacco receives high pesticide sprayings per season, the intensive application lead to a range of environmental and social consequences, for example, increasing the costs, the risk of poisoning farmers and the pollution of soil and underground water.

The project aims to phase out endosulfan in cotton pest management through strengthening current institutional capacity; establishment of a new management mechanism and reinforcing policy framework; demonstration of biological control and alternative technologies; development of a monitoring system; dissemination of information of biological and alternative technologies to project communities including policy makers, extension workers and farmers; development of a National Replication Programme for disseminating the project achievements and for achieving complete phase out of the product.

The scope of the project is thus closely linked to a number of the Articles of the Universal Declaration of Human Rights proclaimed by the General Assembly. The human rights based approach is mainstreamed in the project.

Article 3: "Everyone has the right to life, liberty and security of person". The project will directly contribute to protecting the environment and human health and eventual phase out of endosulfan as pesticide for pest management, thus the project will contribute to protecting people's right to life;

Article 23 (1): "Everyone has the right to work, to free choice of employment, to just and favourable conditions of work and to protection against unemployment". In addition to protecting the environment and enhancing human health, through demonstration and introduction of biological control and alternative technologies, production and use of endosulfan, will protect the farmers' health, reduce frequencies and costs of pesticide spraying, and most probably leading to increased profit/income, thus maintain and stabilize employment and income generating opportunities, and more importantly, in addition to protection against unemployment, creates a healthy, safe and favourable working environment;

Article 25 (1) "Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in his control". Through reduced pesticide usage, food security for farmers and general public is ensured.

Briefly describe in the space below how the Project is likely to improve gender equality and women's empowerment

In daily life, men, women, and children are exposed to different kinds of toxic chemicals include POPs in varying concentrations. By substituting endosulfan completely, cotton farmers and related workers will encounter reduced exposure of POPs, and are not poisoning their off-spring through breastfeeding. To address the priority concerns of vulnerable groups including female farmers and workers and the poor to assess and strengthen capacity to reduce exposure, the project will ensure equal access and participation of female farmers in the demonstration and related activities of training and capacity building, and access to empower their decision-making role. In addition, the project will raise awareness that will contribute to ensuring the successful mainstreaming.

Briefly describe in the space below how the Project mainstreams environmental sustainability
<p>The project is essentially an environmental project supported by the Global Environment Facility, to address the root problem of POPs pesticide usage through introduction of Integrated Pest Management (IPM) technology, biological control and alternative technologies. To ensure environmental sustainability, the project will:</p> <ul style="list-style-type: none"> • Creating an enabling environment for the introduction alternative to replace endosulfan use; • Capacity building and policy development to strengthen environmental management capacities • Introducing, demonstrating, field trial of biological control and alternative technologies; • Reducing frequency and quantity of endosulfan usage; • Development of pest monitoring system; • Utilizing Farmer Field School approach to educate farmers on the adoption of the technical models for substituting endosulfan; • Development of a National Replication Programme to ensure sustained phase out efforts.




Part B. Identifying and Managing Social and Environmental Risks

QUESTION 2: What are the Potential Social and Environmental Risks? <i>Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any “Yes” responses).</i>	QUESTION 3: What is the level of significance of the potential social and environmental risks? <i>Note: Respond to Questions 4 and 5 below before proceeding to Question 6</i>			QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?
Risk Description	Impact and Probability (1-5)	Significance (Low, Moderate, High)	Comments	Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.
Risk 1: Release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts	I = 3 P = 1	Low	The project will support cotton cultivation that traditionally rely on a spectrum of chemicals and pesticide, including endosulfan, for pest management and will generate release of pollutants. Through the introduction and demonstration of IPM, biological control and alternative technologies, endosulfan usage, and possibly other pesticides will decrease in terms of frequency and quantity of spraying	No specific management measures are required. As part of the project implemented, activities will include capacity strengthening, policy framework, demonstration of alternative technologies, and training of farmers, decision-makers, extension agencies etc. endosulfan usage will be reduced, and production and use of endosulfan will be eliminated at end of project.
Risk 2: Significant consumption of raw	I = 1	Low	In cotton cultivation, large	

materials, energy, and/or water?	P =3		quantity of water is consumed. The project will introduce IPM technologies that will include the optimal use of natural resources	
QUESTION 4: What is the overall Project risk categorization?				
Select one (see SESP for guidance)			Comments	
Low Risk			<input checked="" type="checkbox"/>	Minimal environmental and social risks related to this project have been identified.
Moderate Risk			<input type="checkbox"/>	
High Risk			<input type="checkbox"/>	
QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are relevant?				
Check all that apply			Comments	
Principle 1: Human Rights			<input type="checkbox"/>	None required
Principle 2: Gender Equality and Women's Empowerment			<input type="checkbox"/>	None Required
1. Biodiversity Conservation and Natural Resource Management			<input type="checkbox"/>	None required
2. Climate Change Mitigation and Adaptation			<input type="checkbox"/>	None required
3. Community Health, Safety and Working Conditions			<input checked="" type="checkbox"/>	
4. Cultural Heritage			<input type="checkbox"/>	None required
5. Displacement and Resettlement			<input type="checkbox"/>	None required
6. Indigenous Peoples			<input type="checkbox"/>	None required
7. Pollution Prevention and Resource Efficiency			<input type="checkbox"/>	None required

Final Sign Off

Final Sign Off

Signature	Date	Description
QA Assessor Hong Yun 		UNDP staff member responsible for the Project, typically a UNDP Programme Officer. Final signature confirms they have "checked" to ensure that the SESP is adequately conducted.
QA Approver Patrick Haverman 		UNDP senior manager, typically the UNDP Deputy Country Director (DCD), Country Director (CD), Deputy Resident Representative (DRR), or Resident Representative (RR). The QA Approver cannot also be the QA Assessor. Final signature confirms they have "cleared" the SESP prior to submittal to the PAC.
PAC Chair Carsten Gerner 		UNDP chair of the PAC. In some cases PAC Chair may also be the QA Approver. Final signature confirms that the SESP was considered as part of the project appraisal and considered in recommendations of the PAC.

SESP Attachment 1. Social and Environmental Risk Screening Checklist

Checklist Potential Social and Environmental Risks		Answer (Yes/No)
Principles 1: Human Rights		
1.	Could the Project lead to adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?	No
2.	Is there a likelihood that the Project would have inequitable or discriminatory adverse impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups? ¹²	No
3.	Could the Project potentially restrict availability, quality of and access to resources or basic services, in particular to marginalized individuals or groups?	No
4.	Is there a likelihood that the Project would exclude any potentially affected stakeholders, in particular marginalized groups, from fully participating in decisions that may affect them?	No
5.	Are there measures or mechanisms in place to respond to local community grievances?	No
6.	Is there a risk that duty-bearers do not have the capacity to meet their obligations in the Project?	No
7.	Is there a risk that rights-holders do not have the capacity to claim their rights?	No
8.	Have local communities or individuals, given the opportunity, raised human rights concerns regarding the Project during the stakeholder engagement process?	No
9.	Is there a risk that the Project would exacerbate conflicts among and/or the risk of violence to project-affected communities and individuals?	No
Principle 2: Gender Equality and Women's Empowerment		
1.	Is there a likelihood that the proposed Project would have adverse impacts on gender equality and/or the situation of women and girls?	No
2.	Would the Project potentially reproduce discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	No
3.	Have women's groups/leaders raised gender equality concerns regarding the Project during the stakeholder engagement process and has this been included in the overall Project proposal and in the risk assessment?	No
7.	Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services? <i>For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well being</i>	No
Principle 3: Environmental Sustainability: Screening questions regarding environmental risks are encompassed by the specific Standard-related questions below		
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management		
1.1	Would the Project potentially cause adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services? <i>For example, through habitat loss, conversion or degradation, fragmentation, hydrological changes</i>	No

¹² Prohibited grounds of discrimination include race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. References to "women and men" or similar is understood to include women and men, boys and girls, and other groups discriminated against based on their gender identities, such as transgender people and transsexuals.

1.2	Are any Project activities proposed within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?	No
1.3	Does the Project involve changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods? (Note: if restrictions and/or limitations of access to lands would apply, refer to Standard 5)	No
1.4	Would Project activities pose risks to endangered species?	No
1.5	Would the Project pose a risk of introducing invasive alien species?	No
1.6	Does the Project involve harvesting of natural forests, plantation development, or reforestation?	No
1.7	Does the Project involve the production and/or harvesting of fish populations or other aquatic species?	No
1.8	Does the Project involve significant extraction, diversion or containment of surface or ground water? <i>For example, construction of dams, reservoirs, river basin developments, groundwater extraction</i>	No
1.9	Does the Project involve utilization of genetic resources? (e.g. collection and/or harvesting, commercial development)	No
1.10	Would the Project generate potential adverse transboundary or global environmental concerns?	No
1.11	Would the Project result in secondary or consequential development activities which could lead to adverse social and environmental effects, or would it generate cumulative impacts with other known existing or planned activities in the area? <i>For example, a new road through forested lands will generate direct environmental and social impacts (e.g. felling of trees, earthworks, potential relocation of inhabitants). The new road may also facilitate encroachment on lands by illegal settlers or generate unplanned commercial development along the route, potentially in sensitive areas. These are indirect, secondary, or induced impacts that need to be considered. Also, if similar developments in the same forested area are planned, then cumulative impacts of multiple activities (even if not part of the same Project) need to be considered.</i>	No
Standard 2: Climate Change Mitigation and Adaptation		
2.1	Will the proposed Project result in significant ¹³ greenhouse gas emissions or may exacerbate climate change?	No
2.2	Would the potential outcomes of the Project be sensitive or vulnerable to potential impacts of climate change?	No
2.3	Is the proposed Project likely to directly or indirectly increase social and environmental vulnerability to climate change now or in the future (also known as maladaptive practices)? <i>For example, changes to land use planning may encourage further development of floodplains, potentially increasing the population's vulnerability to climate change, specifically flooding</i>	No
Standard 3: Community Health, Safety and Working Conditions		
3.1	Would elements of Project construction, operation, or decommissioning pose potential safety risks to local communities?	No
3.2	Would the Project pose potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	No
3.3	Does the Project involve large-scale infrastructure development (e.g. dams, roads, buildings)?	No

¹³ In regards to CO₂, 'significant emissions' corresponds generally to more than 25,000 tons per year (from both direct and indirect sources). [The Guidance Note on Climate Change Mitigation and Adaptation provides additional information on GHG emissions.]

3.4	Would failure of structural elements of the Project pose risks to communities? (e.g. collapse of buildings or infrastructure)	No
3.5	Would the proposed Project be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?	No
3.6	Would the Project result in potential increased health risks (e.g. from water-borne or other vector-borne diseases or communicable infections such as HIV/AIDS)?	No
3.7	Does the Project pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning?	No
3.8	Does the Project involve support for employment or livelihoods that may fail to comply with national and international labour standards (i.e. principles and standards of ILO fundamental conventions)?	No
3.9	Does the Project engage security personnel that may pose a potential risk to health and safety of communities and/or individuals (e.g. due to a lack of adequate training or accountability)?	No
Standard 4: Cultural Heritage		
4.1	Will the proposed Project result in interventions that would potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: Projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	No
4.2	Does the Project propose utilizing tangible and/or intangible forms of cultural heritage for commercial or other purposes?	No
Standard 5: Displacement and Resettlement		
5.1	Would the Project potentially involve temporary or permanent and full or partial physical displacement?	No
5.2	Would the Project possibly result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	No
5.3	Is there a risk that the Project would lead to forced evictions? ¹⁴	No
5.4	Would the proposed Project possibly affect land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	No
Standard 6: Indigenous Peoples		
6.1	Are indigenous peoples present in the Project area (including Project area of influence)?	Yes
6.2	Is it likely that the Project or portions of the Project will be located on lands and territories claimed by indigenous peoples?	No
6.3	Would the proposed Project potentially affect the rights, lands and territories of indigenous peoples (regardless of whether Indigenous Peoples possess the legal titles to such areas)?	No
6.4	Has there been an absence of culturally appropriate consultations carried out with the objective of achieving FPIC on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	No
6.5	Does the proposed Project involve the utilization and/or commercial development of natural resources on	No

¹⁴ Forced evictions include acts and/or omissions involving the coerced or involuntary displacement of individuals, groups, or communities from homes and/or lands and common property resources that were occupied or depended upon, thus eliminating the ability of an individual, group, or community to reside or work in a particular dwelling, residence, or location without the provision of, and access to, appropriate forms of legal or other protections.

	lands and territories claimed by indigenous peoples?	
6.6	Is there a potential for forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources?	No
6.7	Would the Project adversely affect the development priorities of indigenous peoples as defined by them?	No
6.8	Would the Project potentially affect the traditional livelihoods, physical and cultural survival of indigenous peoples?	No
6.9	Would the Project potentially affect the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	No
Standard 7: Pollution Prevention and Resource Efficiency		
7.1	Would the Project potentially result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	Yes
7.2	Would the proposed Project potentially result in the generation of waste (both hazardous and non-hazardous)?	No
7.3	Will the proposed Project potentially involve the manufacture, trade, release, and/or use of hazardous chemicals and/or materials? Does the Project propose use of chemicals or materials subject to international bans or phase-outs? <i>For example, DDT, PCBs and other chemicals listed in international conventions such as the Stockholm Conventions on Persistent Organic Pollutants or the Montreal Protocol</i>	No
7.4	Will the proposed Project involve the application of pesticides that may have a negative effect on the environment or human health?	No
7.5	Does the Project include activities that require significant consumption of raw materials, energy, and/or water?	Yes

Annex 7. UNDP Project Quality Assurance Report

Design & Appraisal Stage Quality Assurance Report

https://intranet.undp.org/sites/CHN/project/00095048/_layouts/15/proj...

Design & Appraisal Stage Quality Assurance Report

Overall Project Rating: Satisfactory

Decision: Approve: The project is of sufficient quality to continue as planned. Any management actions must be addressed in a timely manner.

Project Number: 00095048

Project Title: The four-year project aims to address endosulfan phase out by biological control and alternative technologies in cotton and tobacco pest management in China.

Project Date: 01-Jan-2017

Strategic

Quality Rating: Satisfactory

1. Does the project's Theory of Change specify how it will contribute to higher level change? (Select the option from 1-3 that best reflects the project)

- ☐ 3: The project has a theory of change with explicit assumptions and clear change pathway describing how the project will contribute to outcome level change as specified in the programme/CPD, backed by credible evidence of what works effectively in this context. The project document clearly describes why the project's strategy is the best approach at this point in time.
- ☒ 2: *The project has a theory of change. It has an explicit change pathway that explains how the project intends to contribute to outcome-level change and why the project strategy is the best approach at this point in time, but is backed by limited evidence.*
- ☐ 1: The project does not have a theory of change, but the project document may describe in generic terms how the project will contribute to development results, without specifying the key assumptions. It does not make an explicit link to the programme/CPD's theory of change.

Evidence

Management Response

The theory of change is specified in Session I and Session II of the PD, where the baselines and barriers, as well as needs and intervention activities are stated to explicit the pathway of change and obtainment of project objectives.

2. Is the project aligned with the thematic focus of the UNDP Strategic Plan? (select the option from 1-3 that best reflects the project)

- ☐ 3: The project responds to one of the three areas of development [work](#) as specified in the Strategic Plan; it addresses at least one of the proposed new and emerging [areas](#); an issues-based analysis has been incorporated into the project design; and the project's RRF includes all the relevant SP output indicators. (all must be true to select this option)
- ☒ 2: *The project responds to one of the three areas of development [work](#) as specified in the Strategic Plan. The project's RRF includes at least one SP output indicator, if relevant. (both must be true to select this option)*
- ☐ 1: While the project may respond to one of the three areas of development [work](#) as specified in the Strategic Plan, it is based on a sectoral approach without addressing the complexity of the development issue. None of the relevant SP indicators are included in the RRF. This answer is also selected if the project does not respond to any of the three areas of development work in the Strategic Plan.

Evidence

The project responds to the development areas of Sustainable Development Pathway. The project includes SP output indicator 1.3 Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste

Relevant

Quality Rating: Satisfactory

3. Does the project have strategies to effectively identify, engage and ensure the meaningful participation of targeted groups/geographic areas with a priority focus on the excluded and marginalized? (select the option from 1-3 that best reflects this project)

- ☒ 3: *The target groups/geographic areas are appropriately specified, prioritising the excluded and/or marginalised. Beneficiaries will be identified through a rigorous process based on evidence (if applicable.)The project has an explicit strategy to identify, engage and ensure the meaningful participation of specified target groups/geographic areas throughout the project, including through monitoring and decision-making (such as representation on the project board) (all must be true to select this option)*
- ☐ 2: The target groups/geographic areas are appropriately specified, prioritising the excluded and/or marginalised. The project document states how beneficiaries will be identified, engaged and how meaningful participation will be ensured throughout the project. (both must be true to select this option)
- ☐ 1: The target groups/geographic areas are not specified, or do not prioritize excluded and/or marginalised populations. The project does not have a written strategy to identify or engage or ensure the meaningful participation of the target groups/geographic areas throughout the project.
- ☐ Not Applicable

Evidence

Management Response

Stakeholders and their engagement plans are specified in Session IV. Result AND Partnership.

4. Have knowledge, good practices, and past lessons learned of UNDP and others informed the project design? (select the option from 1-3 that best reflects this project)

- ☐ 3: Knowledge and lessons learned (gained e.g. through peer assist sessions) backed by credible evidence from evaluation, corporate policies/strategies, and monitoring have been explicitly used, with appropriate referencing, to develop the project's theory of change and justify the approach used by the project over alternatives.
- ☒ 2: *The project design mentions knowledge and lessons learned backed by evidence/sources, which inform the project's theory of change but have not been used/are not sufficient to justify the approach selected over alternatives.*
- ☐ 1: There is only scant or no mention of knowledge and lessons learned informing the project design. Any references that are made are not backed by evidence.

Evidence

Management Response

Lesson learned and experience and skills accumulated from the completed GEF project "Improvement of DDT-based Production of Dicofol and Introduction of Alternative Technologies including IPM for Leaf Mites Control in China" are introduced into this project.

5. Does the project use gender analysis in the project design and does the project respond to this gender analysis with concrete measures to address gender inequities and empower women? (select the option from 1-3 that best reflects this project)

☒ 3: A participatory gender analysis on the project has been conducted. This analysis reflects on the different needs, roles and access to/control over resources of women and men, and it is fully integrated into the project document. The project establishes concrete priorities to address gender inequalities in its strategy. The results framework includes outputs and activities that specifically respond to this gender analysis, with indicators that measure and monitor results contributing to gender equality. (all must be true to select this option)

☒ 2: *A gender analysis on the project has been conducted. This analysis reflects on the different needs, roles and access to/control over resources of women and men. Gender concerns are integrated in the development challenge and strategy sections of the project document. The results framework includes outputs and activities that specifically respond to this gender analysis, with indicators that measure and monitor results contributing to gender equality. (all must be true to select this option)*

☐ 1: The project design may or may not mention information and/or data on the differential impact of the project's development situation on gender relations, women and men, but the constraints have not been clearly identified and interventions have not been considered.

Evidence

Management Response

Gender mainstreaming is included in the project in the forms of capacity building, empowerment, and protection of farmers in particular female farmers from pesticide pollution. There are indicators in the result framework to monitor the achievement of training and capacity building, where men and women will be trained equally.

6. Does UNDP have a clear advantage to engage in the role envisioned by the project vis-à-vis national partners, other development partners, and other actors? (select the option from 1-3 that best reflects this project)

☒ 3: An analysis has been conducted on the role of other partners in the area where the project intends to work, and credible evidence supports the proposed engagement of UNDP and partners through the project. It is clear how results achieved by relevant partners will contribute to outcome level change complementing the project's intended results. If relevant, options for south-south and triangular cooperation have been considered, as appropriate. (all must be true to select this option)

☒ 2: *Some analysis has been conducted on the role of other partners where the project intends to work, and relatively limited evidence supports the proposed engagement of and division of labour between UNDP and partners through the project. Options for south-south and triangular cooperation may not have not been fully developed during project design, even if relevant opportunities have been identified.*

☐ 1: No clear analysis has been conducted on the role of other partners in the area that the project intends to work, and relatively limited evidence supports the proposed engagement of UNDP and partners through the project. There is risk that the project overlaps and/or does not coordinate with partners' interventions in this area. Options for south-south and triangular cooperation have not been considered, despite its potential relevance.

Evidence

Management Response

There is description of UNDP and different partners' roles and responsibilities in Session V and Session VI of the PD. South-south cooperation is not clearly divided into different partners, however in the whole opportunities of South-south cooperation has been identified in the project design.

Social & Environmental Standards

Quality Rating: Highly Satisfactory

7. Does the project seek to further the realization of human rights using a human rights based approach? (select from options 1-3 that best reflects this project)

☒ 3: Credible evidence that the project aims to further the realization of human rights, upholding the relevant international and national laws and standards in the area of the project. Any potential adverse impacts on enjoyment of human rights were rigorously identified and assessed as relevant, with appropriate mitigation and management measures incorporated into project design and budget. (all must be true to select this option)

☒ 2: *Some evidence that the project aims to further the realization of human rights. Potential adverse impacts on enjoyment of human rights were identified and assessed as relevant, and appropriate mitigation and management measures incorporated into the project design and budget.*

☐ 1: No evidence that the project aims to further the realization of human rights. Limited or no evidence that potential adverse impacts on enjoyment of human rights were considered.

Evidence

Management Response

The project contributes to the realization of human rights in following aspects 1) protection of human health, in particular female and male farmers 2) The application of IPM will promote economic returns of local farmers 3) capacity buildings targeting at different stakeholders and beneficiaries will improve their empowerment and resilience.

8. Did the project consider potential environmental opportunities and adverse impacts, applying a precautionary approach? (select from options 1-3 that best reflects this project)

☒ 3: *Credible evidence that opportunities to enhance environmental sustainability and integrate poverty-environment linkages were fully considered as relevant, and integrated in project strategy and design. Credible evidence that potential adverse environmental impacts have been identified and rigorously assessed with appropriate management and mitigation measures incorporated into project design and budget. (all must be true to select this option).*

☐ 2: No evidence that opportunities to strengthen environmental sustainability and poverty-environment linkages were considered. Credible evidence that potential adverse environmental impacts have been identified and assessed, if relevant, and appropriate management and mitigation measures incorporated into project design and budget.

☐ 1: No evidence that opportunities to strengthen environmental sustainability and poverty-environment linkages were considered. Limited or no evidence that potential adverse environmental impacts were adequately considered.

Evidence

Management Response

Phase out of endosulfan through IPM including biological control is effective approach to promote agriculture ecosystem sustainability. IPM will also contribute to better quality cotton and expand economic opportunities and returns for farmers and growers. IPM is based on biological or physical pest control that has minimal negative impact on environment. Two low risks identified in SESP are coupled with strong mitigation measures to rigorously control any risks.

9. Has the Social and Environmental Screening Procedure (SESP) been conducted to identify potential social and environmental impacts and risks? [If yes, upload the completed checklist as evidence. If SESP is not required, provide the reason(s) for the exemption in the evidence section. Exemptions include the following:

- Preparation and dissemination of reports, documents and communication materials
- Organization of an event, workshop, training
- Strengthening capacities of partners to participate in international negotiations and conferences
- Partnership coordination (including UN coordination) and management of networks
- Global/regional projects with no country level activities (e.g. knowledge management, inter-governmental processes)

- UNDP acting as Administrative Agent

☒ Yes

☐ No

☐ SESP not required

Evidence

SESP has been done for this project.

List of Uploaded Documents

File Name	Modified By	Modified
Social and Environmental Screening Template-with_singature.pdf	yiting.qi@undp.org	12/30/2016 5:56:40 AM

Management & Monitoring

Quality Rating: Satisfactory

10. Does the project have a strong results framework? (select from options 1-3 that best reflects this project)

- ☒ 3: The project's selection of outputs and activities are at an appropriate level and relate in a clear way to the project's theory of change. Outputs are accompanied by SMART, results-oriented indicators that measure all of the key expected changes identified in the theory of change, each with credible data sources, and populated baselines and targets, including gender sensitive, sex-disaggregated indicators where appropriate. (all must be true to select this option)
- ☐ 2: *The project's selection of outputs and activities are at an appropriate level, but may not cover all aspects of the project's theory of change. Outputs are accompanied by SMART, results-oriented indicators, but baselines, targets and data sources may not yet be fully specified. Some use of gender sensitive, sex-disaggregated indicators, as appropriate. (all must be true to select this option)*
- ☐ 1: The results framework does not meet all of the conditions specified in selection "2" above. This includes: the project's selection of outputs and activities are not at an appropriate level and do not relate in a clear way to the project's theory of change; outputs are not accompanied by SMART, results-oriented indicators that measure the expected change, and have not been populated with baselines and targets; data sources are not specified, and/or no gender sensitive, sex-disaggregation of indicators.

Evidence

Management Response

The project has logic and consistent framework together with measurable indicators and verifiable baseline and targets. Please see Session VI Project Result Framework in the PD.

11. Is there a comprehensive and costed M&E plan with specified data collection sources and methods to support evidence-based management, monitoring and evaluation of the project?

☒ Yes

☐ No

Evidence

Please see the Session VII. Monitoring and Evaluation Plan

12. Is the project's governance mechanism clearly defined in the project document, including planned composition of the project board? (select from options 1-3 that best reflects this project)

- ☒ 3: The project's governance mechanism is fully defined in the project document. Individuals have been specified for each position in the governance mechanism (especially all members of the project board.) Project Board members have agreed on their roles and responsibilities as specified in the terms of reference. The ToR of the project board has been attached to the project document. (all must be true to select this option).
- ☐ 2: *The project's governance mechanism is defined in the project document; specific institutions are noted as holding key governance roles, but individuals may not have been specified yet. The prodoc lists the most important responsibilities of the project board, project director/manager and quality assurance roles. (all must be true to select this option)*
- ☐ 1: The project's governance mechanism is loosely defined in the project document, only mentioning key roles that will need to be filled at a later date. No information on the responsibilities of key positions in the governance mechanism is provided.

Evidence

Management Response

Please see Session VIII. Governance and Management Arrangement in the PD

13. Have the project risks been identified with clear plans stated to manage and mitigate each risks? (select from options 1-3 that best reflects this project)

- ☒ 3: Project risks related to the achievement of results are fully described in the project risk log, based on comprehensive analysis drawing on the theory of change, Social and Environmental Standards and screening, situation analysis, capacity assessments and other analysis. Clear and complete plan in place to manage and mitigate each risk. (both must be true to select this option)
- ☐ 2: *Project risks related to the achievement of results identified in the initial project risk log with mitigation measures identified for each risk.*
- ☐ 1: Some risks may be identified in the initial project risk log, but no evidence of analysis and no clear risk mitigation measures identified. This option is also selected if risks are not clearly identified and no initial risk log is included with the project document.

Evidence

Management Response

Risks are identified and supported with mitigation measures in Risks and Mitigation Measures part of Session II in the PD.

Efficient

Quality Rating: Highly Satisfactory

14. Have specific measures for ensuring cost-efficient use of resources been explicitly mentioned as part of the project design? This can include: i) using the theory of change analysis to explore different options of achieving the maximum results with the resources available; ii) using a portfolio management approach to improve cost effectiveness through synergies with other interventions; iii) through joint operations (e.g., monitoring or procurement) with other partners.

- ☒ Yes
- ☐ No

Evidence

Cost efficiency and effectiveness detailed in Session V of the PD.

15. Are explicit plans in place to ensure the project links up with other relevant on-going projects and initiatives, whether led by UNDP, national or other partners, to achieve more efficient results (including, for example, through sharing resources or coordinating delivery?)

☒ Yes

☐ No

Evidence

Lesson learned and experience and skills accumulated from the completed GEF project "Improvement of DDT-based Production of Dicofol and Introduction of Alternative Technologies including IPM for Leaf Mites Control in China" are introduced into this project. The project will also closely coordinate with a Global Endosulfan project being developed jointly by UNEP/FAO

16. Is the budget justified and supported with valid estimates?

☒ 3: The project's budget is at the activity level with funding sources, and is specified for the duration of the project period in a multi-year budget. Costs are supported with valid estimates using benchmarks from similar projects or activities. Cost implications from inflation and foreign exchange exposure have been estimated and incorporated in the budget.

☐ 2: The project's budget is at the activity level with funding sources, when possible, and is specified for the duration of the project in a multi-year budget. Costs are supported with valid estimates based on prevailing rates.

☐ 1: The project's budget is not specified at the activity level, and/or may not be captured in a multi-year budget.

Evidence

Please refer to Session IX and X for Financial Planning and Management and Total Budget and Work Plan.

17. Is the Country Office fully recovering the costs involved with project implementation?

☐ 3: The budget fully covers all direct project costs that are directly attributable to the project, including programme management and development effectiveness services related to strategic country programme planning, quality assurance, pipeline development, policy advocacy services, finance, procurement, human resources, administration, issuance of contracts, security, travel, assets, general services, information and communications based on full costing in accordance with prevailing UNDP policies (i.e., UPL, LPL.)

☒ 2: The budget covers significant direct project costs that are directly attributable to the project based on prevailing UNDP policies (i.e., UPL, LPL) as relevant.

☐ 1: The budget does not reimburse UNDP for direct project costs. UNDP is cross-subsidizing the project and the office should advocate for the inclusion of DPC in any project budget revisions.

Evidence

Management Response

Direct Project Service cost will be charged, please refer to Session IX and IX of PD.

Effective

Quality Rating: Satisfactory

18. Is the chosen implementation modality most appropriate? (select from options 1-3 that best reflects this project)

☒ 3: The required implementing partner assessments (capacity assessment, HACT micro assessment) have been conducted, and there is evidence that options for implementation modalities have been thoroughly considered. There is a strong justification for choosing the selected modality, based on the development context. (both must be true to select this option)

☐ 2: The required implementing partner assessments (capacity assessment, HACT micro assessment) have been conducted and the implementation modality chosen is consistent with the results of the assessments.

☐ 1: The required assessments have not been conducted, but there may be evidence that options for implementation modalities have been considered.

Evidence

Management Response

This is a NIM project and FECO will be the national implementation partner and please see Session VIII. Governance and Management Arrangement for detailed description.

FECO is UNDP's long-term national partner in developing and implementing POPs projects to implement Stockholm Convention. FECO is very experienced in eliminating POPs pesticide.

19. Have targeted groups, prioritizing marginalized and excluded populations that will be affected by the project, been engaged in the design of the project in a way that addresses any underlying causes of exclusion and discrimination?

☒ 3: Credible evidence that all targeted groups, prioritising marginalized and excluded populations that will be involved in or affected by the project, have been actively engaged in the design of the project. Their views, rights and any constraints have been analysed and incorporated into the root cause analysis of the theory of change which seeks to address any underlying causes of exclusion and discrimination and the selection of project interventions.

☐ 2: Some evidence that key targeted groups, prioritising marginalized and excluded populations that will be involved in the project, have been engaged in the design of the project. Some evidence that their views, rights and any constraints have been analysed and incorporated into the root cause analysis of the theory of change and the selection of project interventions.

☐ 1: No evidence of engagement with marginalized and excluded populations that will be involved in the project during project design. No evidence that the views, rights and constraints of populations have been incorporated into the project.

☐ Not Applicable

Evidence

Targeted groups such as policy makers, Ministry of Agriculture, extension agencies, local agriculture bureaus and cotton growers are included in the consultation and baseline study of the project design.

20. Does the project conduct regular monitoring activities, have explicit plans for evaluation, and include other lesson learning (e.g. through After Action Reviews or Lessons Learned Workshops), timed to inform course corrections if needed during project implementation?

☒ Yes

☐ No

Evidence

The project has clear M&E plan (in Session VII of the PD. Component 4 of the project aims to share knowledge, experience and lesson learnt domestically and globally.

21. The gender marker for all project outputs are scored at GEN2 or GEN3, indicating that gender has been fully mainstreamed into all project outputs at a minimum.

- ☐ Yes
- ☒ No

Evidence

Although gender empowerment is mainstreamed in to the project, GEN 1 will be assigned to the project.

Management Response

It is a technical project aiming to improve the environmental sustainability, which is not directly related to gender issues.

22. Is there a realistic multi-year work plan and budget to ensure outputs are delivered on time and within allotted resources? (select from options 1-3 that best reflects this project)

- ☒ 3: The project has a realistic work plan & budget covering the duration of the project at the activity level to ensure outputs are delivered on time and within the allotted resources.
- ☐ 2: The project has a work plan & budget covering the duration of the project at the output level.
- ☐ 1: The project does not yet have a work plan & budget covering the duration of the project.

Evidence

please see Session X. Total Budget and Work Plan of the PD

Sustainability & National Ownership

Quality Rating: Exemplary

23. Have national partners led, or proactively engaged in, the design of the project?

- ☒ 3: National partners have full ownership of the project and led the process of the development of the project jointly with UNDP.
- ☐ 2: The project has been developed by UNDP in close consultation with national partners.
- ☐ 1: The project has been developed by UNDP with limited or no engagement with national partners.
- ☐ Not Applicable

Evidence

National partners including FECO, MOA, Agricultural Bureau of Xinjiang Province and the Xinjiang Construction Corps took initiative to develop project concept and with the assistance of UNDP, finalize the project proposal

24. Are key institutions and systems identified, and is there a strategy for strengthening specific/ comprehensive capacities based on capacity assessments conducted? (select from options 0-4 that best reflects this project):

- ☒ 3: The project has a comprehensive strategy for strengthening specific capacities of national institutions based on a systematic and detailed capacity assessment that has been completed. This strategy includes an approach to regularly monitor national capacities using clear indicators and rigorous methods of data collection, and adjust the strategy to strengthen national capacities accordingly.

☒ 2.5: A capacity assessment has been completed. The project document has identified activities that will be undertaken to strengthen capacity of national institutions, but these activities are not part of a comprehensive strategy to monitor and strengthen national capacities.

☐ 2: A capacity assessment is planned after the start of the project. There are plans to develop a strategy to strengthen specific capacities of national institutions based on the results of the capacity assessment.

☐ 1.5: There is mention in the project document of capacities of national institutions to be strengthened through the project, but no capacity assessments or specific strategy development are planned.

☐ 1: Capacity assessments have not been carried out and are not foreseen. There is no strategy for strengthening specific capacities of national institutions.

☐ Not Applicable

Evidence

One of the barriers of phasing out endosulfan and promoting IPM and biological control is that a policy makers and government leaders' limited awareness and technical capacity. Therefore, component 1 of the project is about identifying needs and baseline information, which include capacity assessment and strengthening.

25. Is there is a clear strategy embedded in the project specifying how the project will use national systems (i.e., procurement, monitoring, evaluations, etc..) to the extent possible?

☒ Yes

☐ No

☐ Not Applicable

Evidence

There is a clear M&E plan to divide labors between UNDP and national partners.

26. Is there a clear transition arrangement/ phase-out plan developed with key stakeholders in order to sustain or scale up results (including resource mobilisation strategy)?

☒ Yes

☐ No

Evidence

The component 3 of the project is national replication, which aims to disseminate and scale up the results of the project to benefit more areas and people.

Quality Assurance Summary/PAC Comments

Annex 8. Evaluation and Selection of Demonstration Locations

According data from ICAMA, the production of technical endosulfan was 3,000 tons in 2011. Currently in China, endosulfan formulations are registered for use only on cotton and tobacco crops for controlling cotton bollworm, tobacco budworm and tobacco aphid. The project aims to phase out the consumption of endosulfan usage for pest management, on completion of the project, a total of 2,850 tons of endosulfan will be completely eliminated. As the active ingredient of technical endosulfan contains 5% impurities, the phase out quantity is a total of 2,850 tons.

Evaluation and selection of cotton demonstration locations

Total cotton production in 2014 is 6.16 million tons, a reduction of 13.8 tons, or 2.2% lower than the 2013 production. This is mainly due to reduction in cotton planting acreage. In 2014, cotton acreage is about 4.21 million hectares which is 2.9% lower than the previous year, a reduction of 126,500 hectares. Xinjiang Autonomous Region is the largest cotton production area in China, is best suited as a pilot area of targeted price reform. Xinjiang's 2014 cotton production is 3.68 million tons, accounting for 59.7% of national output. 2014 cotton acreage in Xinjiang is about 1.95 million hectares, an increase of 235,100 hectares over 2013. Xinjiang's proportion of the national cotton acreage increased from 39.5% in 2013 to 46.3% in 2014. Due to prospective lower earning, cotton acreage is generally reduced in other provinces.

Table 1 Cotton acreage and endosulfan usage in the main provinces, 2014

NO.	Province	Cotton acreage (thousand hectares)	Endosulfan Usage (tons)
1	Xinjiang Autonomous Region	1,409	200 (209.7 in 2014)
2	Shandong	800	Unknown (<1)
3	Hebei	620	Unknown (<1)
4	Henan	537	Unknown (<1)
5	Hubei	460	Unknown (<1)
6	Anhui	351	Unknown (<1)
7	Jiangsu	252	Unknown (<1)
8	Hunan	152	Unknown (<1)
9	Jiangxi	75	Unknown (<1)
10	Shanxi	73	Unknown (<1)

Survey research results from the traditional cotton producing area Xinxiang City in Henan Province showed that there is little actual demand for endosulfan and the use of endosulfan is not promoted in large scale. This may be caused by the adoption of the transgenic Bt cotton, reduction of cotton acreage, good effect and low cost of alternative substitution for endosulfan, etc. It is speculated that the other cotton production areas, except Xinjiang, encounter similar situation as in Xinxiang City, Henan Province. However, transgenic Bt cotton has not been widely adopted in Xinjiang Autonomous Region, it is estimated that 90% of endosulfan produced is sold to the Xinjiang region.

According to related surveys, annual endosulfan consumption in Xinjiang Production and Construction Corp. was about 100 tons in 2014, 35% of which are endosulfan emulsifiable concentrates (350 g/L), the common dosage form. Its major control targets are cotton bollworm and cotton aphid, bug, thrip etc., it is used for foliage spraying during hatching period of cotton bollworm. The usage rate in the field is 120ml-180ml per mu, and could go up to 200ml-250ml per mu in certain fields. In recent years, in addition to Xinjiang Production and Construction Corp., endosulfan is still widely used in Xinjiang cotton area for cotton bollworm control (with usage rate of 150 ml per mu), their actual endosulfan consumption in 2014 was 109.72 tons.

Selection results

1. Considering safety of agriculture production, non-transgenic cotton planting is particularly important.

Xinjiang Autonomous Region is the only production base of non-transgenic cotton with the largest cotton acreage, and it is also the major area of endosulfan usage. Therefore, it is logical to select Xinjiang as the demonstration location of alternative technologies of endosulfan.

2. At present, most of endosulfan is used in Xinjiang cotton area. The endosulfan usage is up to 209.7 tons in 2014. Top priority of eliminating endosulfan should be targeted to the gradually reduction and elimination of endosulfan usage in Xinjiang.

3. Farmers and specialized planting corps have gotten use to and accepted endosulfan. At the end of 20th century, endosulfan was used as alternative insecticides of organophosphorus pesticides and was promoted at scale in Xinjiang. So far, endosulfan is highly accepted by dealers and farmers for cotton bollworm and aphid control, and it is also the main choice of local cotton planting famers on controlling cotton pest because of habits of pesticides usage. Therefore, IPM should be designed and implemented, including field demonstration for substituting endosulfan, farmer training program on IPM etc.

Evaluation and selection of tobacco demonstration locations

China is the largest tobacco production country in the world with tobacco acreage of more than 1 million hectares and total production of over 2 million tons. The most suitable region of flue-cured tobacco is distributed mainly over central, south central and eastern Yunnan Province; southwestern, southern and northern Guizhou Province, western Hunan Province, eastern and northern Chongqing, western Fujian Province, eastern Jiangxi Province, southeastern Shandong Province, and western Henan Province etc.

Table 2 Tobacco acreage and endosulfan usage in the main provinces, 2014

NO.	Province	Tobacco Acreage (thousand hectares)	Endosulfan Usage (tons)
1	Yunnan	484.5	little
2	Guizhou	186.4	little
3	Henan	62.6	little
4	Sichuan	92.3	little
5	Hunan	88.8	little
6	Hubei	36.1	little
7	Fujian	62.1	little
8	Chongqing	40.7	little
9	Shanxi	24.1	little
10	Shandong	20.0	little

Survey research results from major tobacco planting counties of Yunnan Province showed that the Integrated Pest Management (IPM) is the main technology on tobacco pest control and emamectin benzoate and deltamethrin are the commonly used pesticides but with low quantity of usage. Therefore, it is concluded that endosulfan is rarely used in other regions of China, except for cotton pest control in Xinjiang Province.

Selection results

1. Considering endosulfan is rarely used for tobacco pest control, the project will not design technical demonstration activities in the tobacco sector;
2. Tobacco pest management followed strictly a unified control approach. All pesticides on controlling tobacco pest are unified purchased by the tobacco company and then distributed to farmers. From 2006, endosulfan has been deleted from purchase list by tobacco company and already realized elimination of endosulfan in tobacco sector.

Annex 9. Letter of Agreement for UNDP Direct Project Services

(Draft at submission time)

STANDARD LETTER OF AGREEMENT BETWEEN UNDP AND FOREIGN ECONOMIC COOPERATION OFFICE, MINISTRY OF ENVIRONMENTAL PROTECTION OF THE PEOPLE'S REPUBLIC OF CHINA FOR PROVISION OF SUPPORT SERVICES

Dear Mr. ,

1. Reference is made to consultations between officials of the Foreign Economic Cooperation Office of the Ministry of Environmental Protection (FECO/MEP) of the People's Republic of China (hereinafter referred to as "FECO/MEP") and officials of UNDP China Country Office (hereinafter referred to as UNDP) with respect to the provision of support services by the UNDP China Country Office for the nationally executed project "Phase out of Endosulfan in China" **(hereinafter referred to as Project)**. UNDP and the FECO/MEP hereby agree that the UNDP China Country Office may provide such support services at the request of FECO/MEP through its institution designated in the relevant project support document or project document, as described below.
2. The UNDP China Country Office may provide support services for assistance with reporting requirements and direct payment. In providing such support services, the UNDP China Country Office shall ensure that the capacity of the FECO/MEP-designated institution is strengthened to enable it to carry out such activities directly. The costs incurred by the UNDP China Country Office in providing such support services shall be recovered from the administrative budget of the office.
3. The UNDP China Country Office may provide, at the request of FECO/MEP or its designated institutions, the following support services for the activities of the project:
 - a) Identification and/or recruitment of project international consultant;
 - b) Identification and arrangement of overseas training activities
4. The procurement of project international consultant service by the UNDP China Country Office shall be in accordance with the UNDP regulations, rules, policies and procedures. Support services described in paragraph 3 above shall be detailed in an annex to the project support document or project document, in the form provided in the Attachment hereto. If the requirements for support services by the country office change during the life of a project, the annex to the project support document is revised with the mutual agreement of the UNDP Country Director and the designated institution.
5. The relevant provisions of the Standard Basic Assistance Agreement between the Government of China and UNDP signed on January 29, 1979 (the "SBAA"), including the provisions on liability and privileges and immunities, shall apply to the provision of such support services. The Government shall retain overall responsibility for the nationally managed programme or project through FECO/MEP or its designated institution. The responsibility of the UNDP China Country Office for the provision of the support services described herein shall be limited to the provision of such support services detailed in the annex to the project support document or project document.
6. Any claim or dispute arising under or in connection with the provision of support services by the UNDP China Country Office in accordance with this letter shall be handled pursuant to the relevant provisions of the SBAA and the project support document or project document.
7. The manner and method of cost-recovery by the UNDP China Country Office in providing the support services described in paragraph 3 above shall be specified in the annex to project support document.
8. The UNDP China Country Office shall submit progress reports on the support services provided and shall report on the costs reimbursed in providing such services, as may be required.
9. Any modification of the present arrangements shall be effected by mutual written agreement of the parties hereto.
10. If you are in agreement with the provisions set forth above, please sign and return to this office two signed copies of this letter. Upon your signature, this letter shall constitute an agreement between the FECO/MEP and

UNDP on the terms and conditions for the provision of support services by the UNDP China Country Office for nationally managed projects.

Deputy Country Director
United Nations Development Programme

Date:

Deputy Director General
Foreign Economic Cooperation Office
Ministry of Environmental Protection

Date:

Attachment

DESCRIPTION OF UNDP COUNTRY OFFICE SUPPORT SERVICES

1. Reference is made to consultations between the Foreign Economic Cooperation Office of the Ministry of Environmental Protection (FECO/MEP), the institution designated by the Government of China and officials of UNDP with respect to the provision of support services by the UNDP country office for the nationally managed GEF funded project "*Phase out of Endosulfan in China*" (PIMS No. xxxx).
2. In accordance with the provisions of the letter of agreement signed on (Date) 2016 and the project document, the UNDP country office shall provide support services for the project as described below.
3. Support services to be provided:

Support services	Schedule for the provision of the support services	Cost to UNDP of providing such support services (where appropriate)	Amount and method of reimbursement of UNDP (where appropriate)
Identification and/or recruitment of international consultants and one national consultant	To be recruited during 2017 and 2020 as per AWP	As specified in the Universal Price List (UPL). The service fee per case is US\$953	ATLAS billing – estimated amount \$3,812
Arrangement of overseas training activities	To be conducted during 2017 and 2020 as per AWP	As per UPL, the service fee per case is US\$2,500	ATLAS billing – estimated amount \$5,000

4. Description of functions and responsibilities of the parties involved:

Description of functions and responsibilities of the parties involved as per the project document. UNDP China Country Office will provide the services as stated above upon the request of FECO/MEP. The reimbursement of the UNDP support cost will be recorded as per transactions based on the established UNDP financial regulations and rules.

Annex 10. OFP Letter of Endorsement

Annex 11. Letter of Co-financing

- (i) Letter of Co-financing from China Ministry of Environmental Protection, \$200,000 in cash and \$800,000 in-kind contribution.

- (ii) Letter of co-financing from Shawan County, Xinjiang Uygur Autonomous Region in the total amount of \$3,410,000, consists of cash contribution of \$360,000 from Government of Shawan County, \$322,000 from cotton growers from Shawan County, \$2,728,000 in-kind contribution of \$1,440,000 from the Government of Shawan County and \$1,288,000 from the cotton growers from Shawan County.

- (iii) Letter of co-financing from Xinjiang Production and Construction Corps, Xinjiang Uygur Autonomous Region in the total amount of \$3,410,000, consists of cash contribution of \$360,000 from the Xinjiang Production and Construction Corps, \$322,000 from cotton growers from the Xinjiang Production and Construction Corps, \$2,728,000 in-kind contribution of \$1,440,000 from the Xinjiang Production and Construction Corps and \$1,288,000 from the cotton growers from Xinjiang Production and Construction Corps.

- (iv) Letter of Co-financing from UNDP