

Project Annual Report

DATE: 2010-12-xx

Award ID: 00045358

Description: Alternatives to DDT usage for Anti-fouling Paint production in China

Implementing Partner: Ministry of Environmental Protection (MEP)

Period Covered: January – December 2010

1. Project Issues:

<p>Status of Project Risks:</p> <p>Though the selection of alternatives has not completely finished, the data from the efficacy tests, risk assessment, and cost estimation show that technically feasible, environmentally friendly, and economically viable alternatives can be found by the project to replace DDT based antifouling paint. Therefore, the risk associated with failure to find no appropriate alternative appears very low.</p>	<p>Open Project Issues:</p> <p>The preliminary investigation at 2 shipyards found surprisingly high level of DDT concentrations as a result of the discharge of DDT from the painting and removal process. The consultant suggested investigating in details for the development of remediation plans. Besides, the list of shipyards that have ever applied and removed DDT based antifouling paint in open space of docks should be identified and established.</p> <p>UNDP has developed the TOR for an international consultant on optimization of antifouling paint formulations, and is recruiting such a consultant to disseminate the best available technologies to the domestic industry based on their existing technological level.</p>
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2. Project Performance

<p>OUTCOME 1: Description: Establish Project Management Institutions and Build Operational Capacity 2010 target: Project management mechanism and teams/groups at the central and local levels can be established or strengthened, and all capacities can be enhanced. 2010 Achievement: The project management office at the central level has operated effectively and efficiently, and 3 regional project management offices have been established and operated properly with necessary capacity built through project management trainings. .</p> <p>Activity 1.1 Establish the project management institutions and coordination mechanisms.</p> <p>The FECO has continuously co-financed the project management team by providing basic office space, computers, communication equipment and necessary furniture in its own office building named The China Convention Compliance Centre. The project management team consists of a project manager, a project coordinator, two project officers, and a project assistant whose tasks are defined by TORs. The national project management team normally organized the project activities following the requirements listed in TORs and Project Document.</p> <p>In 2010, 6 consultant contracts and 11 subcontracts have been signed. 14 consultant contracts and 11 subcontracts have been executed, with a total of \$617069.60 disbursed. The national project management team supported by the local PMOs and the consultants has consistently guided and supervised the implementation of all subcontracts with most of the outputs produced and received on time, in quality and within budget. The national project management team has maintained a regular communication and reporting mechanism with UNDP through meetings and reports on AWP, QORs, PIR, and APR. Intensive travels have been carried out in order to inspect the progress of the subcontracts with or without company of project experts, UNDP, and the local PMOs depending on actual needs.</p>

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The local PMOs have fully exercised their local advantages in organizing, coordinating, and supervising the implementation of major programs including on-ship patch tests, MAM-PEC scenario development, contaminated site investigation, and awareness raising within their jurisdictions together with the national project management team, project consultants, and subcontractors. The specific outputs of these programs will be introduced under the specific activities in the following parts. The national project management team has defined the TORs for the local PMOs for 2011, which focus on the organization and implementation of joint enforcement of upgraded regulations and the incentive program.

Start and End Date: From November 26, 2007 till the end of the project implementation

% Progress to date: 60%

Quality Criteria		Date	Results of Activities			
			User Perspective	Resource Status	Timeliness	
Financial						
Account	Fund	Donor	R. Party	Budget	Expenditure	Balance
71400	GEF	UNDP	FECO/MEP	60,000.00	76,400.00	-16,400.00
71600	GEF	UNDP	FECO/MEP	25,000.00	17,850.68	7,149.32
72100	GEF	UNDP	FECO/MEP	300,000.00	304,301.61	-4,301.61
72200	GEF	UNDP	FECO/MEP	100,000.00	109,645.00	-9,645.00
72400	GEF	UNDP	FECO/MEP	30,000.00	1,484.90	28,515.10
72500	GEF	UNDP	FECO/MEP	100,000.00	11,228.00	88,772.00
74700	GEF	UNDP	FECO/MEP	10,000.00	0.00	10,000.00

Activity 1.2 Establish a national expert team

In 2010, the national technical advisor (NTA), Mr. Jiang Feng, was continuously recruited by FECO to provide overall technical guidance to the project implementation as per the TOR.

A thematic expert team for risk assessment include:

- The international expert for risk assessment, Mr. Kevin Long
- The national expert for assessment of alkali silicate AFPs, Mr. Wang Jian

Other experts include:

- The national expert for socio-economic assessment, Mr. Xia Youfu
- The expert for awareness raising, Mr. Huang Jun
- The expert for environmental monitoring, Mr. Zheng Minghui
- The expert for on-ship test, Mr. Li Gong
- The expert for contaminated site, Mr. Liu Xiang
- The expert for regulation enforcement in fishing ship sector, Mr. He Xinyong
- The expert for regulation enforcement in commercial ship sector, Mr. Gong Xuanwei
- The expert for incentive program design, Mr. Xu Yunxi

In general, these experts have assisted the CIO to review the existing experience in the above-mentioned areas and analyze the applicability to the project. Based on this, the experts have developed TORs containing general methodologies for subcontracts, and have been guiding and supervising the selected subcontractors to carry out the substantial work as per the TORs.

Start and End Date: From November 26, 2007 till the end of the project implementation

% Progress to date: 60%

Quality Criteria		Date	Results of Activities		
			User Perspective	Resource Status	Timeliness
Financial					

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Account	Fund	Donor	R. Party	Budget	Expenditure	Balance
71200	GEF	UNDP	UNDP	\$39000	\$8710.00	\$30290
74500	GEF	UNDP	UNDP	0	\$692.63	\$-692.63
71300	GEF	UNDP	FECO/MEP	190,680.00	187,320.00	3360.00

Activity 1.3 Conduct trainings to improve managerial and technical capabilities

On March 12, 2010, a training workshop was held by the project team in Jinan, the capital city of Shandong Province where the local project management office of the North Sea is located. Representatives of the national and local project management staff around 30 people attended the workshop. The objective of the workshop was to share information horizontally and vertically, better understand the progress, issues, problems, and develop corrective measures in the ensuing project implementation.

Ms. Han Wenya, the project manager of the national project management team, made a presentation introducing the overall project design, implementation progress, and results under all the outcomes. It was pointed out that the project has created an upgraded regulatory framework in harmony with the international norms and standards for the regulation of antifouling products. Following the creation and revision of relevant standards, trainings and education programs will be launched to enhance the awareness and capacity of the national and local officials in charge of antifouling product registration, certification, and inspection, as well as the industry, and thus promote the compliance and enforcement.

Representatives from the three local project management offices presented the progress since last summer when the local PMOs were inaugurated. Their emphasis has been put on the organization and arrangement of sample fishing ships for the patch test of alternatives in the three sea areas. In the middle point during the on-ship patch test, the test ships need to be docked for checking, recording and evaluating the efficacy. The local fishing ship inspection bureaus have played an irreplaceable role in facilitating the national project and expert teams to carry out the whole on-ship test.

The representatives from the three local project management offices showed their technical difficulty in collecting environmental data of ports, marinas, shipping lanes, and open sea for the development of exposure scenarios. They simply don't know the sources and way to collect. A presentation targeting these issues was made by the national risk assessment expert to help them understand the parameters, data and model.

The expert for contaminated site assessment made a presentation about the background, necessity, methodology and procedures for contaminated site risk assessment. It is expected that the local PMOs staff should help to distribute and collect the questionnaires to collect data and information about the potential DDT contaminated sites from the site owners and those who know the operation and the history of the sites, and facilitate the national experts in taking samples for instrument tests in next stage.

Mr. Zhou Yunrui, the project officer in charge of Outcome 1 and 4, introduced the overall strategy and plan for the project implementation in the rest of the project period. It was pointed out that the project implementation is moving to localization with the selection of the alternatives coming to a close and the promotion of selected alternatives approaching to jumpstart nationwide. It is expected that the local PMO staff will develop and implement local plans in consistency with the overall project strategy and plan based on the actual situation of the respective sea areas.

Start and End Date: From November 26, 2007 till the end of the project implementation

% Progress to date: 60%

Quality Criteria	Date	Results of Activities		
		User Perspective		

Financial

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Account	Fund	Donor	R. Party	Budget	Expenditure	Balance
72100	GEF	UNDP	FECO/MEP	200,000.00	9,715.00	190285.00

OUTCOME 2:

Description: **Management information system (MIS) and information management**

2010 Target: MIS and website can be commissioned to plan and trace project activities and outputs.

2010 Achievement: The MIS and website have been developed and put into use to plan and trace project activities and outputs.

Activity 2.1+Activity 2.3 Establish an MIS and a website

The programs of the project MIS and website were upgraded to a new version that is compatible with the new upgraded version of the server environment at FECO. During the upgrading, the database structure, software version and data contained remained unchanged. Information regarding the progress and results of each project activity has been compiled and uploaded into the project MIS and website.

Information regarding the progress and results of each project activity has been compiled and uploaded into the project MIS and website. A training workshop on using MIS to LPMO and experts will be held combining with the training workshop in South Sea. As a supplement to the MIS, the papery documents like tender documents, contract with experts or sub-contractors, outputs of experts etc. have been classified and on shelf.

Start and End Date: From November 2008 till the end of the project implementation

% Progress to date: 60%

Quality Criteria	Date	Results of Activities		
		User Perspective	Resource Status	Timeliness

Financial

Account	Fund	Donor	R. Party	Budget	Expenditure	Balance
71300	GEF	UNDP	FECO/MEP	0	800.00	-800.00
72100	GEF	UNDP	FECO/MEP	100,000.00	0	100,000.00
72200	GEF	UNDP	FECO/MEP	100,000.00	0	100,000.00

Activity 2.2 Data collection, processing and analysis of data

The environmental monitoring program of the project is to compare the DDT concentrations in sea waters, air, sediments, and typical marine organisms before and after the substitution of DDT antifouling paint. In November and December 2008, Ningbo Municipal Environmental Monitoring Station has taken and analyzed x samples in total in South Sea, x samples in East Sea following national standards with proper quality control measures. DDT and metabolites including p,p'-DDE, p,p'-DDD, p,p'-DDT, and o,p'-DDT as well as their total concentrations were analyzed. The results showed moderate to severe exceeding of DDT concentrations in almost all environmental media and sea organisms.

Draft report of the socio-economic impact evaluation was discussed among the project team, the NTA and the subcontractor on January 19, 2009. Comments raised from the discussion covered the method for data collection, data analysis, and conclusion drawing. Incorporating the comments, the final report has extensively covered the methodologies and indicators for the socio-economic survey and evaluation. Based on the survey of the production, distribution, and consumption of DDT antifouling paint, the socio-economic impacts were analyzed and quantified. The chapter on the socio-economic impacts from introducing alternatives to the market focused on the estimation of total costs between DDT antifouling paint and alternatives and on the effective technical, economic, and administrative instruments to close up the cost gap. The environmental, health, and social benefits from deploying alternatives in the market were also analyzed in the report. The report established a baseline of the producers and users of antifouling paints for fishing ships in terms of their technical, economic, and social characteristics, which will be the basis for the development and implementation of the incentive program for promotion of the alternatives in the second stage of the project.

Start and End Date: From November 26, 2007 till the end of the project implementation						
% Progress to date: 70%						
Quality Criteria		Date		Results of Activities		
				User Perspective	Resource Status	Timeliness
Financial Summary						
Account	Fund	Donor	R. Party	Budget	Expenditure	Balance
71300	GEF	UNDP	FECO/MEP	85,806.00	0	85,806.00
72100	GEF	UNDP	FECO/MEP	158,264.00	0	158,264.00
OUTCOME 3:						
Description: Enabling policy environment						
2010 Target: Draft version of revised or established regulations and standards could be available, and capacity of enforcement could be enhanced at national level.						
2010 Achievement: The Method for DDT Content Detection in Antifouling Paints has been issued. Technical standard for certifying and labelling environmentally friendly antifouling products is being validated before final issuance by MEP. The capacity building and enforcement activities were initiated and will be strengthened.						
Activity 3.1 Establish or revise related regulations, standards, and rules						
The Method for DDT Content Detection in Antifouling Paints has been reviewed and approved by the State Standardization Administration for publication after iterative use and validation on the alternatives in the lab analysis by Tsinghua University. This method standard is now officially published as a GB coded national standard.						
Start and End Date: June 2010 to the end of the project.						
% Progress to date: 80%						
Quality Criteria		Date		Results of Activities		
				User Perspective	Resource Status	Timeliness
Financial Summary						
Account	Fund	Donor	R. Party	Budget	Expenditure	Balance
71300	GEF	UNDP	FECO/MEP	171,612.00	0	171,612.00
Activity 3.3 Establish and promote a voluntary certification and labelling program						
The standard draft <i>Technical Requirement for Environmental Labeling Products: Ship Anti-fouling Paints</i> gives bans or limits on certain substances that were previously used in large quantities as solvents (such as Di-n-octylphthalate, Dibutylphthalate, 2-Methoxyethanol 109-86-4, 2-Methoxyethyl acetate, 2-Ethoxyethanol, 2-Ethoxyethyl acetate, 2-(2-Butoxyethoxy) ethyl acetate, n-Hexane) or biocides (such as DDT, TBT, copper, and some heavy metals) in the antifouling paints. The risk assessment principles and procedures developed by this project are included in the standard to determine the level of risks of the active substances added to antifouling paints.						
A workshop on the environmental labelling standard and environmental risk assessment of antifouling paints was held in Beijing on 25th, March. More than 30 people including representatives from Certification Center of MEP which is responsible for the review and approval of applications from enterprises, enterprises who have submitted alternatives in the project, China Coating Industry Association, and international enterprises who show interests in the standard attended the workshop. The objective of the meeting was on one hand to disseminate the standard to the industry and on the other hand to collect comments from the industry. All representatives welcome the environmental labelling standard which is the first standard in China showing concerns about the environmental risks of antifouling products. Comments raised cover the concentration limits of some heavy metals and solvents, the positive/negative listing methods, and the compulsory/optional nature, all of which will be taken into account during the revision of the standard in the next stage. Preliminary results and conclusions of a high-risk sample and a						

low-risk sample from the first round of risk assessment were briefed to the audience on an anonymous basis to demonstrate the application of the risk assessment methodology.

The environmental labeling standard for antifouling products has been published on the official website of MEP for comments from the stakeholders and the general public in the country and abroad. So far, constructive and valuable comments regarding disputable limits such as copper content, release rate, heavy metals, risk assessment for biocides as well as the combined use of positive-listing and negative-listing methods have been received for consideration in the revision of this version for final publication. To substantiate and justify the technical and economic feasibility of some of the important indicators of the standard, a qualified size of samples will be collected from enterprises and the market for analysis of these indicators.

The environmental labeling standards are supposed to be met by top 20% products in the industry which will lead the rest 80% to catch up with the higher standard. In this logic, the environmental standards will be updated on a dynamic basis. The standard developer is collecting representative samples from antifouling paint manufacturers to verify this criterion. In this process, FECO is assisting the standard developer to collect all samples of the selected alternatives passing the efficacy tests and risk assessment from relating manufactures and research institutions. The contents of various regulated substances will be tested in certified labs. The final values for the limits will be readjusted based on the results from the laboratory tests. It is expected that the standard will be promulgated by MEP in the first half of 2011. The project will support the standard developer to implement the standard among the industry, particularly those with alternatives passing the selection process of the project.

Start and End Date: from March 2008 to the end of the project.

% Progress to date: 80%

Quality Criteria	Date	Results of Activities		
		User Perspective	Resource Status	Timeliness

Financial Summary

Account	Fund	Donor	R. Party	Budget	Expenditure	Balance
71600	GEF	UNDP	FECO/MEP	50,000.00	0	50,000.00
72100	GEF	UNDP	FECO/MEP	270,000.00	0	270,000.00

Activity 3.5 Strengthen the capacity of related departments to effectively enforce the regulations, standards and action plan

To inspect the enforcement of the ban on production, distribution, consumption, import, and export of pesticidal POPs including DDT in China following the issuance of the ban jointly by 10 ministries, a training workshop involving the national and local environmental inspectors was held on May 25, 2009 to introduce the methodology, tools, and responsibilities for the inspection on the production, distribution, consumption, import, and export of pesticidal POPs. Following the training, 1 chemical plant ever producing DDT, 12 antifouling paint manufacturers, and 3 fishing shipyards were inspected and found no DDT has been produced or used ever since the issuance of the ban in July 2009.

The action plans for training the local officials and technical staff for enforcing the new ban on DDT and supporting regulatory and technical standards are being developed by the two experts designated respectively by the Fishing Ship Inspection Bureau and China Classification Society.

Start and End Date: from June 2008 till the end of the project.

% Progress to date: 30%

Quality Criteria	Date	Results of Activities		
		User Perspective	Resource Status	Timeliness

Financial Summary

Account	Fund	Donor	R. Party	Budget	Expenditure	Balance
71600	GEF	UNDP	FECO/MEP	30,000.00	0	30,000.00
72100	GEF	UNDP	FECO/MEP	300,000.00	0	300,000.00

OUTCOME 4

Description: **Conversion from DDT based antifouling paints to alternatives**

2010 Target: Selection of alternatives will be basically completed following the technical, environmental, and economic criteria.

2010 Achievement: The efficacy tests, risk assessment, and cost estimation have almost completed to enable the final selection of alternatives.

Activity 4.1 Test, select and acquire alternative technologies

The efficacy tests have two parts: the panel tests and the on-ship patch tests. All the panel tests and the on-ship patch tests have been carried out in the three sea areas by qualified subcontractors selected out through a competitive bidding process. For the panel tests, all operations including panel design, submerging, and check should refer to the national standard Method for Submerging Test of Antifouling Paint (GB/T5370-2007) for one year. Efficacy data will be checked, recorded reported every quarter. For the on-ship patch tests, the subcontractors guided by the project experts and project officers have developed a standard method for the efficacy evaluation by referring to GB/T 5370-2007 and ISO standard 4628 Paint and Varnish Evaluation. Efficacy data of 3 months in South Sea, 6 months and 12 months in all seas will be checked, recorded and reported. For every check of the efficacy results from on-ship patch test, a qualified group of experts will be organized. In order to verify that the alternatives in the on-ship patch test are consistent with the ones in the panel test in formulation, the concentrations of DDT, tin and copper of the samples in the on-ship patch test were measured for comparison with the measured data of samples in the panel test.

FECO organized a workshop to review the implementation of the efficacy tests on September 3, 2010. The subcontractors undertaking the efficacy tests made presentations introducing the process, procedures, methods, and results to the experts and project officers. It was concluded by the experts and project officers that the efficacy tests have been well organized and implemented in compliance with relating standards and the results were complete, reliable, and defensible, and can be used for the selection of alternatives.

A final efficacy assessment workshop was held on October 14, 2010. With the efficacy results from the on-ship patch tests in combination with results from panel tests for efficacy and lab tests for mechanic-physical properties and DDT, TBT, copper contents, 11 samples were able to be selected as alternatives with superior efficacy for North Sea Area, 8 samples for East Sea Area, and 7 samples for South Sea Area.

With the data available from the public domain and the information provided by the project participating antifouling paint manufacturers and research institutions, the project experts have been able to finish the preliminary risk assessment. 11 alternatives were assessed as with low risk to the environment. Alternatives containing capsaicine, TPBP, chlorimuron-ethyl and bravo as active ingredients were assessed being of risk concern due to lack of sufficient hazard/effect data from eco-toxicological tests. The national project management team has contracted a qualified eco-toxicological institution to conduct necessary datasets to enable more reliable and convincing risk assessments on these alternatives. The results will come out in the first quarter of 2011.

Start and End Date: From November 26, 2007 till March 2011.

% Progress to date: 80%

Quality Criteria		Date	Results of Activities			
			User Perspective	Resource Status	Timeliness	
Financial Summary						
Account	Fund	Donor	R. Party	Budget	Expenditure	Balance
71200	GEF	UNDP	UNDP	\$72000	\$114.85	\$71885.15
71600	GEF	UNDP	UNDP	\$10000	\$8600	\$1400
71300	GEF	UNDP	FECO/MEP	166,164.00	76,056.00	90,108.00
71600	GEF	UNDP	FECO/MEP	130,000.00	4,159.00	125,841.00

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72100	GEF	UNDP	FECO/MEP	2,444,000.00	2,203,830.78	240,169.22
74700	GEF	UNDP	FECO/MEP	0	872.00	-872.00

Activity 4.3 Produce, distribute and promote alternatives

The consultant for incentive program has developed a draft version of the rules of the incentive program which specifies the general principles, subsidization model, eligibility, scale, monitoring, verification, and distribution. The incentive program adopts an application-implementation-verification approach. To support the implementation of the rules, the application dossier with instructions for providing required data and information about the applicants' basic information, product information, and production and distribution promotion models was also developed. A group of experts consisting of experts for technology transfer, antifouling paint production, risk assessment, marketing, auditing and verification will be organized to provide trainings before the application for subsidy to candidate enterprises and evaluate proposals before implementation. An qualified auditing and verification institution will be contracted to carry out independent auditing and verification of the implementation of proposals.

Several internal and external meetings were held to review the incentive program among the contract department, the accounting department, the national project management team, and UNDP. Three meetings were held respectively in North Sea Area, East Sea Area, and South Sea Area to present the draft design of the incentive program and collect comments from key stakeholders including shipyard owners, ship owners, antifouling paint producers and distributors. In general, all stakeholders involved support the logic and approach of the incentive program. Comments and concerns focused on the criteria for determining the scale of the subsidy in contrast with the total cost and total incremental cost of the concerned alternatives. It was agreed among the incentive program development expert and the national project management team that cost estimation on the concerned alternatives should be conducted more thoroughly to support the clear determination of the subsidy scale.

Start and End Date: September 2009 till the end of the project
 % Progress to date: 30%

Quality Criteria	Date	Results of Activities		
		User Perspective	Resource Status	Timeliness

Financial Summary						
Account	Fund	Donor	R. Party	Budget	Expenditure	Balance
71300	GEF	UNDP	FECO/MEP	0	36,991.00	-36991.00
72100	GEF	UNDP	FECO/MEP	4,700,000.00	27,130.00	4,672,870.00

Activity 4.4 Conduct environmental sound management of DDT at contaminated sites and equipment

The expert has targeted 12 antifouling paint manufacturers that may have DDT contaminated field problem, and carried out preliminary investigations in 4 manufacturers that have used relatively larger amount of DDT for the production of antifouling paints. It was found through preliminary investigations that 2 manufacturing plants have serious DDT pollution. The preliminary investigation at 2 shipyards found surprisingly high level of DDT concentrations as a result of the discharge of DDT from the painting and removal process. The expert has provided a list of priority sites that need to be investigated in details for the development of remediation plans. Besides, the list of shipyards that have ever applied and removed DDT based antifouling paint in open space should be identified and established.

Start and End Date: March 2009 till the end of the project
 % Progress to date: 40%

Quality Criteria	Date	Results of Activities		
		User Perspective	Resource Status	Timeliness

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Deliverable Description

Date: January xx, 2010

Financial Summary						
Account	Fund	Donor	R. Party	Budget	Expenditure	Balance
71300	GEF	UNDP	FECO/MEP	133,476.00	55,692.00	77,784.00
71600	GEF	UNDP	FECO/MEP	20,000.00	30,130.80	-10,130.80
72100	GEF	UNDP	FECO/MEP	500,000.00	0.00	500,000.00
OUTCOME 5:						
Description: Environmental education and awareness raising						
2010 Target: Awareness raising materials will be prepared and distributed to raise concerns about use of DDT based antifouling paint among fishermen.						
2010 Achievement: The project documentary is being prepared. Local awareness raising activities have been organized.						
Activity 5.1 Prepare publicity materials						
An overall strategy for awareness raising has been developed by the awareness raising consultant. The strategy has envisaged the awareness raising tasks as cost-effective means to changed behaviours towards DDT free choices and improving the project visibility and impacts among the key stakeholders and the public. Posters and brochures incorporating the project progress for awareness raising and education were prepared and printed for this year. Audio, video, and photos have been taken for all milestone events including panel tests, on-ship tests, and workshops, and will be compiled and edited to produce a documentary for this project. The project team had intensive discussion in determining the objectives, the major components, and the way of knowledge presentation and audience reaching of the documentary. The contract can be signed in 2011 to start the compilation and editing of the first part of the documentary, which will snapshot the good practices and present good experience and knowledge generated during the selection of alternatives to DDT based antifouling paint.						
Start and End Date: From November 26, 2007 till the end of the project						
% Progress to date: 60%						
Quality Criteria		Date	Results of Activities			
			User Perspective	Resource Status	Timeliness	
Financial Summary						
Account	Fund	Donor	R. Party	Budget	Expenditure	Balance
71300	GEF	UNDP	FECO/MEP	128,028.00	0	128,028.00
72100	GEF	UNDP	FECO/MEP	812,000.00	0	812,000.00
Activity 5.2 Mobilize NGOs to conduct community based environmental education and awareness raising						
On June 5 2010, the 38 th World Environment Day, taking advantage of the fishing ban from June 1 st to September 16 in the East Sea Area, the LPMO organized an awareness raising event in Xiangshan County, where fishing ships are concentrated. The event targeted fishermen and general public. Brochures and posters introducing harms of DDT antifouling paint and protection of the marine environment were distributed. Souvenirs such as T-shirts, shopping bags, and hats with the logo of the project were also distributed in parallel with the knowledge imparting process.						
Start and End Date: From November 26, 2007 till the end of the project						
% Progress to date: 60%						
Quality Criteria		Date	Results of Activities			
			User Perspective	Resource Status	Timeliness	
Financial Summary						
Account	Fund	Donor	R. Party	Budget	Expenditure	Balance
7600	GEF	UNDP	FECO/MEP	50,000.00	0	50,000.00
72100	GEF	UNDP	FECO/MEP	800,000.00	840,088.00	-40,088.00

OUTCOME 6:**Description: Monitoring and evaluation**

2009 Target: The project is monitored and evaluated according to the requirements of UNDP and GEF.

2009 Achievement: The annual work plan, quarterly operational reports, funding authorization and certificate of expenditures, project implementation review, annual project review report have been prepared and endorsed.

Activity 6.1 Conduct meetings for project inception, review progress and project results

An international workshop between China and Sweden was held in October 26-27 2010 to learn advanced experience from Sweden in regulating antifouling paint products and exchange information about the progress and results of the project. This workshop was a part of the bi-lateral cooperation program between China and Sweden on chemicals management. More than 60 representatives from governments, industries, enterprises, and research institutions participated in the workshop. The workshop covered a wide range of topics including regulations, technologies, risk assessment, environmental labeling standards, and awareness raising. It was concluded that the workshop provided valuable technical support to the design and implementation of project activities during the rest period of the project.

Start and End Date: From November 26, 2007 till the end of the project.

% Progress to date: 60%

Quality Criteria	Date	Results of Activities		
		User Perspective	Resource Status	Timeliness

Financial Summary

Account	Fund	Donor	R. Party	Budget	Expenditure	Balance
72100	GEF	UNDP	FECO/MEP	0	0	0

Activity 6.2 + 6.3+6.4 Launch field investigations and inspections and prepare progress and result reports

Deliverable Description: The project team has prepared and submitted to UNDP the 2009 annual project review report, the 2010 annual work plan, 4 quarterly operational reports and a project implementation review for 2010 according to the M&E requirements of UNDP and GEF.

An independent mid-term evaluation has been carried out from April to July 2011 for the project. The evaluators have taken desk reviews, stakeholder interviews, site visits, and workshops to find out the relevance, progress, impacts, sustainability as well as the project management of the project design and implementation. Specific recommendations were given regarding project management, alternatives selection, monitoring program, incentive program, and extension of project completion, which will be adopted and reflected in the readjustment of the project implementation strategies and plans.

Start and End Date: From November 26, 2007 till the end of the project

% Progress to date: 60%

Quality Criteria	Date	Results of Activities		
		User Perspective	Resource Status	Timeliness

Financial Summary

Account	Fund	Donor	R. Party	Budget	Expenditure	Balance
71200	GEF	UNDP	UNDP	\$23,000.00	\$20,021.20	\$2978.8
71300	GEF	UNDP	UNDP	\$10000.00	\$6,827.04	\$3172.96
71600	GEF	UNDP	UNDP	\$11013.00	\$5,069.88	\$5943.12
76100	GEF	UNDP	UNDP	0	\$-2.55	\$2.55
71600	GEF	UNDP	FECO/MEP	30,000.00	0	30,000.00
72100	GEF	UNDP	FECO/MEP	320,000	17,967.50	302,032.5

3. Lessons Learned

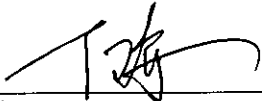
This part summarizes the experience and lessons learnt from the project implementation in 2010. The project team will sustain the good experience and incorporate lessons into the project implementation in 2011.

Good experience includes:

- The project has been able to create solid infrastructure for cross-sectoral coordination, stakeholder mobilization and participation, regulatory framework innovation, and experience exchange since the inception of the project. Based on this infrastructure, the project implementation in 2010 has achieved planned outputs effectively, efficiently and sustainably. For instance, the successful completion of the large-scale on-ship patch tests in the three sea areas would not have been possible without the strong coordination and technical support from the local PMOs, the consultants, and the subcontractors. The reports from the consultants and the subcontractors have included the methodology, procedures, responsibility allocation scheme, emergency response plans, conflict resolution mechanism, data recording, and result evaluation as well as financial expenditures. The risk assessment has well used the experience from EU and the international community. In the later stage of the project implementation, market-based instruments such as supply push and demand pull will be adopted taking advantage of the infrastructure.

Signed by Implementing Partner:

Ding Qiong, Director of Division V, FECO
Name and Title (print)


Signature

Feb. 18, 2011
Date

Signed by UNDP China:

Name and Title (print)

Signature

Date