Terminal Evaluation Review form, GEF Independent Evaluation Office, APR 2015

1. Project Data

GEE project ID		3672			
GEF Replenishment Phase		4166 GEF-4			
GEF Replenishment Phase Lead GEF Agency (include all for joint projects)		UNDP			
Lead GEF Agency (include all for joint projects)			amns & Energy Saving Lamns		
Project name		Phasing-Out of Incandescent Lamps & Energy Saving Lamps Promotion (PILESLAMP) Project			
Country/Countries			-		
Region			Asia		
Focal area	<u> </u>				
Operational Program or Strategic Priorities/Objectives		Climate Change GEF Strategic Program No.1, Promoting Energy Efficiency in Residential and Commercial Buildings (SP-1) GEF OP5: Removal of barriers to energy efficiency and energy conservation.			
Executing agencies in	volved	National Development & Refor	m Commission (NDRC)		
NGOs/CBOs involvement		None given	None given		
Private sector involvement		Project Partners, awarded sub-contracts and provided co-financing			
	SP) /Approval date (MSP)	March 5 th , 2009			
Effectiveness date /	project start	October 2009			
	ject completion (at start)	September 25, 2012			
Actual date of project completion		December 31, 2014			
	•	·			
			_		
	·	At Endorsement (US \$M)	At Completion (US \$M)		
Project Preparation	GEF funding	At Endorsement (US \$M) .25	At Completion (US \$M) .25		
		, , ,			
Project Preparation	GEF funding	, , ,			
Project Preparation Grant	GEF funding	.25	.25		
Project Preparation Grant	GEF funding Co-financing	.25	.25		
Project Preparation Grant	GEF funding Co-financing IA own	.25	14		
Project Preparation Grant GEF Project Grant	GEF funding Co-financing IA own Government	.25 14 27	.25 14 27		
Project Preparation Grant GEF Project Grant	GEF funding Co-financing IA own Government Other multi-/bi-laterals	.25 14 27 3	.25 14 27 1.28 ¹		
Project Preparation Grant GEF Project Grant Co-financing	GEF funding Co-financing IA own Government Other multi-/bi-laterals Private sector	.25 14 27 3	.25 14 27 1.28 ¹		
Project Preparation Grant GEF Project Grant	GEF funding Co-financing IA own Government Other multi-/bi-laterals Private sector	.25 14 27 3 40	.25 14 27 1.28 ¹ 170.439		
Project Preparation Grant GEF Project Grant Co-financing Total GEF funding	GEF funding Co-financing IA own Government Other multi-/bi-laterals Private sector NGOs/CSOs	.25 14 27 3 40 14.25 70	.25 14 27 1.28 ¹ 170.439 14.25 203.34		
Project Preparation Grant GEF Project Grant Co-financing Total GEF funding Total Co-financing	GEF funding Co-financing IA own Government Other multi-/bi-laterals Private sector NGOs/CSOs	.25 14 27 3 40 14.25	.25 14 27 1.28 ¹ 170.439		
Project Preparation Grant GEF Project Grant Co-financing Total GEF funding Total Co-financing Total project funding	GEF funding Co-financing IA own Government Other multi-/bi-laterals Private sector NGOs/CSOs	.25 14 27 3 40 14.25 70	.25 14 27 1.28 ¹ 170.439 14.25 203.34		
Project Preparation Grant GEF Project Grant Co-financing Total GEF funding Total Co-financing Total project funding	GEF funding Co-financing IA own Government Other multi-/bi-laterals Private sector NGOs/CSOs	.25 14 27 3 40 14.25 70	.25 14 27 1.28 ¹ 170.439 14.25 203.34		

¹ listed in the TE as other (p.34)

TER completion date April 28 2016	
TER prepared by	Molly Watts & Mia Lu
TER peer review by (if GEF IEO review)	Molly Watts

2. Summary of Project Ratings

Project Outcomes	S	S	NR	S
Sustainability of Outcomes		LS (Likely Sustainable)	NR	L
M&E Design		HS	NR	S
M&E Implementation		HS	NR	HS
Quality of Implementation		S	NR	S
Quality of Execution		S	NR	MS
Quality of the Terminal Evaluation Report		-	NR	S

3. Project Objectives

3.1 Global Environmental Objectives of the project:

The global environmental objective of the project, as stated in the project document is "reduced GHG emissions, which will be achieved by lower electricity consumption as a result of higher efficiency lighting products in use. Reduced use of inefficient ILs, and growth in the market share of ESLs, will reduce the expected electric load growth, resulting in lowered GHG emissions." (Project document p.45)

3.2 Development Objectives of the project:

The goal of PILESLAMP project is the reduction in the annual growth rate of GHG emissions from the Chinese commercial and residential (C&R) sectors. The project objective is the "enhanced promotion and implementation of the utilization of energy saving lamps (ESLs) in China through the transformation of the local lighting products market and the phasing-out of incandescent lamp production and sale."(p.52) It is expected to contribute to the reduction of GHG emissions through the transformation of the Chinese lighting market towards more energy-efficient lighting products, technologies and practices.

The Project aims to reduce the number of IL manufacturers and shift production capacity to ESLs, stimulate sustainable demand for ESLs through a variety of market development activities, and look into the efficiency improvements through institutional and policy levers that will phase out IL manufacturing.

The project is comprised of the following three major components as stated in the project document.

Component 1: <u>Lighting Industry Capacity Enhancement</u> – This component involves supporting the conversion of IL manufacturers to ESL lines, activities to improve the supply of high quality ESLs, and reduction in the environmental waste in production and disposal of ESLs.

Component 2: <u>ESL Market Development and Product Promotion</u> – This component comprises activities to improve awareness about ESL options and applications, especially in lower income, rural areas.

Component 3: <u>ESL Policy and Institutional Support</u> – This component supports policy and institutional activities that lock in the progress made through the other two components, including policy proposals regarding IL manufacturers business conversion and increasing market share of ESLs, along with a roadmap for IL phase-out and expanded ESL promotion.

3.3 Were there any **changes** in the Global Environmental Objectives, Development Objectives, or other activities during implementation?

There were no changes to the Global Environmental Objectives, or Development Objectives. According to the TE, to adjust the activities to the ground reality and to ensure efficient achievement of project goals, a few targets and activities were modified. Of these, significant changes include dropping Activity 2.5 (financing options for ESL applications) and a focus on ESL technology (TE, pg28).

Also, even though the project design focused on CFL technologies, during the project implementation period, the LED lighting technology developed rapidly. Realizing the potential impact of this technology on the project's goals and objectives, the PSC approved directing some of the project's focus to the development and promotion of LED lighting. Consequently, the project supported demonstration projects related to testing and documenting of LED lighting applications to feed into GOC policies on E.E. lighting.

4. GEF IEO assessment of Outcomes and Sustainability

Please refer to the GEF Terminal Evaluation Review Guidelines for detail on the criteria for ratings.

Relevance can receive either a Satisfactory or Unsatisfactory rating. For Effectiveness and Cost efficiency, a six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess. Sustainability ratings are assessed on a four-point scale: Likely=no or negligible risk; Moderately Likely=low risk; Moderately Unlikely=substantial risks; Unlikely=high risk. In assessing a Sustainability rating please note if, and to what degree, sustainability of project outcomes is threatened by financial, sociopolitical, institutional/governance, or environmental factors.

Please justify ratings in the space below each box.

4.1 **Relevance** Rating: Satisfactory

The TE rates the project's relevance as "Relevant". (TE, pg44). This TER, which uses a different scale, rates relevance as Satisfactory. Energy Efficient lighting has been a key priority of the Government of China since the 1990's. Green lighting has been listed as a key energy conservation field in both the "Ninth Five-year Plan" and the "Tenth Five-year Plan", and a key energy conservation project in both the "Eleventh Five-year Plan" and the "Twelfth Five-year Plan". NDRC, the Implementing Partner of the PILESLAMP project is a Government of China agency involved in the development and implementation of industry and energy policy and has implemented the previous two Green Lighting Projects in the country. The PILESLAMP project has been relevant to the Chinese development context and prioritized needs of all key stakeholders involved, according to TE.

The project is relevant to the GEF Strategic Program No.1, Promoting Energy Efficiency in Residential and Commercial Buildings (SP-1) and also GEF OP5: Removal of barriers to energy efficiency and energy conservation. Again, according to the project document, the GEF objective is "reduced GHG emissions, which will be achieved by lower electricity consumption as a result of higher efficiency lighting products in use. (Project document p.45).

4.2 Effectiveness	Rating: Highly Satisfactory
-------------------	-----------------------------

Effectiveness is rated as Highly Satisfactory in the TE. This TER agrees with this rating because the project overachieved on 46 out of 56 core targets, warranting a Highly Satisfactory score. The project's achievements under each component are listed below:

i. Outcome 1: Lighting Industry Capacity Enhancement

Under this component, it was planned that the project would assist at least two manufacturers in converting to ESL production, and that starting year 2, 3.5 billion ESL bulbs would be produced and 2.4 billion exported each year (TE, pg38).

The project has supported 10 manufacturers in the development of business conversion strategies and supported and completed the incandescent lamp to efficient lighting products conversion of five selected manufacturers. Moreover, Phase-out of Incandescent Lamps and Energy Saving Lamps Promotion has assisted six manufacturers to produce low and micro mercury Energy Saving Lamps (ESLs), while eight manufacturers have been supported to have clean production audits. This support has resulted in the production of 358 million safer bulbs, accounting for 9% of the ELS production volume in the country. Also, pilot recycling activities were launched with public sector institutions in two provinces. So far, this has led to the recycling of 3.24 Compact Fluorescent Lamps. Finally, to ensure safer production, the project has developed and published guidelines such as "The suggested purchasing handbook of China

original materials, components and production devices" and trained 1,500 staff from 200 manufacturers on the procurement of raw material, and improvement of product quality and manufacturing technology. The project has also supported two lighting companies to establish nationally recognized testing laboratories.

i. Outcome 2: ESL Market Development and Product Promotion

Under this component, the project planned to increase the market share of ESL bulbs in rural pilot areas by at least 10%, increase the share of ESL in the national lighting market by 65%, have 90% of households utilize ESLs (including 90% in medium and large cities & 10% in small cities and rural areas), and have 95% commercial buildings in major urban areas use ESLs each year starting Year 2.

To increase public awareness about EE lighting, from 2009 to 2014 the project fielded the 'Light and Love Tour' campaign in 27 rural areas of 22 provinces. During the campaign, a total of 2.64 million ESLs were distributed to over 2,500 schools and more than 600,000 households. To spread its message on energy efficient lighting, the project has partnered with more than 200 media sources and published articles read by 3.9 million readers. Moreover, 26 books on different aspects of EE lighting have been published and distributed widely through partners and project events.

i. Outcome 3: ESL Policy and Institutional Support

The aim of this component was to provide policy support to Components 1 & 2. This included the development of one policy on the phasing out of the production and use of ILs, acceptance of a policy by the GOC for the widespread production and application of ESLs in the domestic market, and the development of a ready-to-implement roadmap for IL phase-out and expanded ESL promotion.

The project has funded 12 policy research studies on various important topics. In addition, the project has financed the development of an annual lighting market survey since 2009. Consequently, five surveys have been carried out between 2009 and 2014 and authoritative Chinese Market Application data has been published.

4.3 Efficiency	Rating: Moderately Satisfactory
----------------	---------------------------------

Project Efficiency was rated as Satisfactory in TE. It is downgraded to Moderately Satisfactory in this TER due to delays.

The project has met or exceeded expectations against all its planned activities and outcomes. The most effective activities have included the development of a roadmap for IL phase-out, development of standards and specifications, the successful conversion of five IL manufacturers to ESL technology, support to up-gradation of testing laboratories, and awareness-raising through outreach activities and pilots (TE, pg38).

However, the TE notes ineffective annual financial planning of GEF funds, and rates the project's financial planning as marginally satisfactory. (TE p.33) This ineffective financial planning has resulted in a two-year

project delay, resulting the project to be implemented in 67% additional time. (TE, pg48). The project was completed slightly under budget (TE p. I32)

4.4 Sustainability	Rating: Likely
--------------------	----------------

Sustainability of project interventions has been inherent in the mainstreaming and replication potential incorporated into the project design. Certain project implementation practices, contributions, and outcomes have ensured sustainability in particular (TE, pg.45)

Financial resources

The TE rates financial resources as likely sustainable, but does not provide a discussion of sustainability of financial resources. This TER, which uses a different scale, rates it as Likely. Cofinancing from the Government of China and private sectors in China were both strong and consistent. It drove the overall well-being and sustainability of the project since the beginning and well beyond the project end date. Additionally, UNEP's Global Phase-out of inefficient lighting project will provide support for follow up activities. (TE p.46)

Sociopolitical

The TE rates sociopolitical sustainability as likely sustainable, and this TER, which uses a different scale, rates it as likely. Implementing the project through sub-contracts awarded to various public and private stakeholders, specifically industry network groups such as CALI, has resulted in capacity building of these organizations for future support to the EE lighting industry.

Institutional framework and governance

The TE rates institutional framework and governance as likely sustainable, and this TER, which uses a different scale, rates institutional framework and governance sustainability as likely. The IL phase-out roadmap and other policy measures such as contribution to the 12th EE five-year plan are believed to be the major determinants of sustainability. These measures have wide-reaching long term implications for private and public sectors as well as the consumers to continue switching to EE lighting.

Environmental

The TE rates environmental sustainability as likely sustainable, and this TER, which uses a different scale, rates environmental sustainability as likely. There are no apparent risks to environmental sustainability. The fact that people on the ground are purchasing the energy saving lamp (as the objective of the project), producers switch their producing lines for the

energy-saving lamps will all have very fundamental and positive impacts on the environment (TE, pg19).

5. Processes and factors affecting attainment of project outcomes

5.1 Co-financing. To what extent was the reported co-financing essential to the achievement of GEF objectives? If there was a difference in the level of expected co-financing and actual co-financing, then what were the reasons for it? Did the extent of materialization of co-financing affect project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

According to the project design, co-financing accounted for 83% of total resources expected for the project in either cash or in-kind contributions from stakeholders, viz., the Government of China (32%), private sector (47%) and others (4%). However, the total actual co-financing by November 2014 has reached almost three-fold (290%) of the commitments at project design. Resultantly, the total contribution from co-financing also jumped from 83% to 94% of the total expenditure (TE, pg34). The overall co-finance provided by the GOC exceeded by 17.12% of the committed funding. Also, the actual contribution from private sector is USD 170.4 million, i.e. a remarkable 426% of the total committed.

5.2 Project extensions and/or delays. If there were delays in project implementation and completion, then what were the reasons for it? Did the delay affect the project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

Similar to the analysis in the efficiency section, ineffective annual financial planning of GEF funds due to difficulties in collaboration between key stakeholders has resulted in a two-year project delay, resulting the project to be implemented in 67% additional time. However, the delay didn't affect the project's outcomes or sustainability, as the project was effective in achieving its objectives.

5.3 Country ownership. Assess the extent to which country ownership has affected project outcomes and sustainability? Describe the ways in which it affected outcomes and sustainability, highlighting the causal links:

The ownership from all stakeholders has been demonstrated in exceeding committed co-financing by 290% and has led to effective implementation, resulting in over-achievement of goals and outcome-level targets. The Government of China led the project to collaborate with six different government ministries to make sure the projects are highly awarded in the national level. At the meantime, the objective of the project was also included in the Five-Year Plan of the country.

6. Assessment of project's Monitoring and Evaluation system

Ratings are assessed on a six point scale: Highly Satisfactory=no shortcomings in this M&E component; Satisfactory=minor shortcomings in this M&E component; Moderately Satisfactory=moderate shortcomings in this M&E component; Moderately

Unsatisfactory=significant shortcomings in this M&E component; Unsatisfactory=major shortcomings in this M&E component; Highly Unsatisfactory=there were no project M&E systems.

Please justify ratings in the space below each box.

6.1 M&E Design at entry	Rating: Satisfactory

According to the project design, UNDP China, the Phase-out of Incandescent Lamps and Energy Saving Lamps Promotion (PILESLAMP) PSC, and PMO have been assigned M&E responsibilities. In addition, the design provided a clear M&E plan and budget, including annual outcome level targets and a detailed M&E plan, a monitoring plan together with concise targets, a simple logical framework with SMART indicators, and a budget for M&E activities.

The PILESLAMP PMO has had the responsibility of project-level monitoring. For this purpose, the PMO has devised and implemented a comprehensive M&E plan that is responsive to the project's logical framework. The plan comprises of the following key elements:

- Project management rules
- Sub-contract bidding evaluation management rules
- M&E rules
- PMO logistic administration rules
- Duties and responsibilities of PMO staff
- Website maintenance rules

The plan was well thought out and has been subject to only slight modifications in response to the project's needs arising over time. The M&E plan complies with UNDP-GEF project reporting guidelines. In addition, the PMO has developed and made appropriate use of a Project Management System that helps in monitoring activities and tracking results (TE, pg31).

The TE ranked the M&E design at entry as Satisfactory, and TER agrees with the ranking as Satisfactory.

The TE found the project's M&E to be Highly Satisfactory, and this TER agrees with that rating. The evaluation team concluded that the PILESLAMP project's M&E plan was well designed and has been implemented effectively. All three responsible stakeholders, including the UNDP, PSC, and PMO have undertaken their M&E responsibilities diligently. Special arrangements made by PMO for the M&E of subcontracts, including the Project Management software and retention of an expert team have specifically contributed to the successful and on-time completion of such a large number of sub-contracts. Similarly,

the project has undertaken impact assessments to demonstrate progress towards its goals and objectives. In addition, during the process of the implementation, the project committee was awared of the fast-growing technology of LED lights and quickly responded to the innovation by including the LED lights into the adaptive management, as a result, the implementation deserved a rating higher than Satisfactory. The issue of late submission of standard UNDP-GEF progress reports by the PMO to the UNDP reported in the Mid-Term Review (MTR) was resolved, and subsequent to the Mid-Term Review all reports have been submitted on time.

7. Assessment of project implementation and execution

Quality of Implementation includes the quality of project design, as well as the quality of supervision and assistance provided by implementing agency(s) to execution agencies throughout project implementation. Quality of Execution covers the effectiveness of the executing agency(s) in performing its roles and responsibilities. In both instances, the focus is upon factors that are largely within the control of the respective implementing and executing agency(s). A six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess.

Please justify ratings in the space below each box.

7.1 Quality of Project Implementation Rating: Sa	atisfactory
--	-------------

The implementing agency for this project was UNDP. The TE rated the quality of implementation as Satisfactory, and TER keeps the same rating as Satisfactory. The TE rated process of project formulation and project design as satisfactory. Activities with significant impact include: the development of the IL phase-out roadmap, assistance to five manufacturers for conversion from ILs to ESLs, establishment of a large ESL marketing network, and public awareness raising about EE lighting. This positive implementation environment has also led to unintended positive impact of a variety of activities (TE, pg9).

7.2 Quality of Project Execution	Rating: Moderately Satisfactory
7.2 Quanty of Froject Execution	Nating. Moderately Satisfactory

The project's executing agency was China's National Development and Reform Commission (NDRC.) The TE rated the execution as Satisfactory, and this TER downgrades the rating slightly to Moderately Satisfactory due to some issues surrounding project delays.

The various stakeholders engaged in coordinated management of PILESLAMP include the Project Steering Committee (PSC), NDRC, Energy Research Institute (ERI) (2009 to 2011), National Energy Conservation Centre (NECC) (2011 to 2014). The NDRC has provided a National Project Director (NPD) who has been in charge of overall responsibilities of achievement of the project objectives, and planning, coordination, administration and financial management of the project.

A major project delay was caused by the transfer of the project management office from Energy Research Institute to National Energy Conservation Centre. The reason for this shift was the higher relevance of the NECC mandate to the project objectives; while NECC was a newly formed institution at the time of project design and did not have the capacity to take on the project. Therefore, once the NECC was somewhat established by 2011, the NDRC prompted the project to be moved from ERI. However, the transfer was not smooth mostly due to issues of inter-agency collaboration and the process took around seven months. Also, once the project was transferred, there was a delay of three months in the approval of the 2012 AWP, as the UNDP could not approve the devised AWP due to a significantly low delivery rate in 2011 (TE, pg27).

8. Assessment of Project Impacts

Note - In instances where information on any impact related topic is not provided in the terminal evaluations, the reviewer should indicate in the relevant sections below that this is indeed the case and identify the information gaps. When providing information on topics related to impact, please cite the page number of the terminal evaluation from where the information is sourced.

8.1 Environmental Change. Describe the changes in environmental stress and environmental status that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

The goal of the PILESLAMP project was to reduce carbon emissions by an estimated 4.4 million metric tons (Mtons) per year (cumulative total of 5 Mtons) by end of the project, and five years after the project end, carbon emissions were projected to be around 17.3 - 22.9 Mtons lower each year (cumulative total of about 80.3 - 90.0 Mtons), or a reduction of about 2-3% in annual emissions compared to the estimated total 2008 emissions in China (TE, pg46).

According to the tracker, the project exceeded its target. For example, the project reduced carbon emissions by an estimated 25.6 million metric tons (Mtons) per year, which was 582% of the target realization. The Five-year end realized was 64 Mtons.

8.2 Socioeconomic change. Describe any changes in human well-being (income, education, health, community relationships, etc.) that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

The project significantly improved people's knowledge of the green and energy saving lights, also changed their purchasing patterns to demand for more green energies. From the supply side, producers tend to produce more of the green lights, and even more of LED in the future because of the technology improvement (TE, pg19).

8.3 Capacity and governance changes. Describe notable changes in capacities and governance that can lead to large-scale action (both mass and legislative) bringing about positive environmental change. "Capacities" include awareness, knowledge, skills, infrastructure, and environmental monitoring systems, among others. "Governance" refers to decision-making processes, structures and systems, including access to and use of information, and thus would include laws, administrative bodies, trust-building and conflict resolution processes, information-sharing systems, etc. Indicate how project activities contributed to/ hindered these changes, as well as how contextual factors have influenced these changes.

a) Capacities

During the project, over 1,200 staff from 31 selected IL manufacturers have been trained on various issues, including ESL conversion strategies and improved production techniques. The training was tailored to three different audiences, namely management staff, technical staff, and production workers (TE, pg39).

b) Governance

The impacts of the project on governance is reflected in a way that the objective of the project is included in the national Five-Year Plan designed by the government. Also, the central government collaborated with six different ministries to cooperate the project, which showed the impact of the project on governance as well (TE, pg25, pg43).

8.4 Unintended impacts. Describe any impacts not targeted by the project, whether positive or negative, affecting either ecological or social aspects. Indicate the factors that contributed to these unintended impacts occurring.

The TE also realized that there are a number of areas where the project has had significant unintended impacts, e.g. the NLTC laboratory gaining international recognition, the quick uptake by the public sector and manufacturers, e.g. 20 municipalities replicating the EMC modality on their own initiative, and the continuation of the lighting product competition, etc. Therefore, the evaluation team believes that it is necessary for the project to assess the impact and replication effect of such activities as these will contribute to the set of positive lessons learned and these approaches can feed into future projects (TE, pg47).

8.5 Adoption of GEF initiatives at scale. Identify any initiatives (e.g. technologies, approaches, financing instruments, implementing bodies, legal frameworks, information systems) that have been mainstreamed, replicated and/or scaled up by government and other stakeholders by project end. Include the extent to which this broader adoption has taken place, e.g. if plans and resources have been established but no actual adoption has taken place, or if market change and large-scale environmental benefits have begun to occur. Indicate how project activities and other contextual factors contributed to these taking place. If broader adoption has not taken place as expected, indicate which factors (both project-related and contextual) have hindered this from happening.

The further replication of the initiative was not formally introduced yet, but it was part of the recommendation that TE wrote down for future activities (TE, pg49).

9. Lessons and recommendations

9.1 Briefly describe the key lessons, good practices, or approaches mentioned in the terminal evaluation report that could have application for other GEF projects.

Based on consultations with key stakeholders and the conclusions drawn by the TE team, key lessons learnt from the PILESLAMP project design and implementation experience are as follows (TE, pg9):

- i. The project has demonstrated that full <u>support by Recipient country government (GOC)</u> and cooperation between relevant ministries/departments can lead to successful projects.
- ii. Also <u>productive engagement of the private sector</u> can result in a multiplier effect for achieving market-related goals;
- iii. A simple and concise <u>project document</u> with clearly delineated roles and responsibilities and defined financial resources facilitate the implementation process;
- iv. Similarly, a good <u>M&E system</u> that focuses on all aspects, including co-financing and sub-contracts is key to assessing a project's progress and impacts;
- v. Efficient and effective <u>communication and coordination</u> arrangement are essential to project planning and implementation, such as regular meetings within PMO and with stakeholders, as well as with UNDP, NDRC, etc.;
- vi. Selection and organization of <u>sub-contracts and delivery management</u> is crucial for overall project performance;
- vii. <u>Policy and standards</u> are cost-effective tools for market transformation in China; and
- viii. Accessibility and availability in <u>medium and small cities and rural areas</u> can significantly increase market share of ESLs in these areas.

9.2 Briefly describe the recommendations given in the terminal evaluation.

Based on its conclusions and the lessons learnt, the evaluation team recommends the following actions (TE, pg9):

a) Replication and Up-Scaling

The project has made significant contributions to the promotion of EE lighting in China. To ensure sustainability, it will be important for the private and public sectors to continue collaborating and provide support to further up-scaling and replication of these activities.

b) Documentation and Dissemination of Results:

The project has made important progress towards the development of the EE lighting industry by undertaking research, pilots, and technology transfer, etc. Similarly, the M&E system designed and implemented by the project has worked specifically well. For future efforts and projects to build on these lessons it is important that the documents and widely disseminates its approach, processes, results, and achievements. Key recommended actions include the development of a project 'closing/exit' report, assessment of unintended positive impact, and continuation of the project website.

c) Stakeholder Collaboration

To ensure effective planning and implementation, it is important to have open communication lines between key stakeholders. To <u>avoid communication problems</u> in the future, the UNDP and PMO need communicate openly and project decisions need to be open and based on mutual trust.

10. Quality of the Terminal Evaluation Report

A six point rating scale is used for each sub-criteria and overall rating of the terminal evaluation report (Highly Satisfactory to Highly Unsatisfactory)

To what extent does the report contain an assessment of relevant outcomes and impacts of the project and the achievement of the objectives?	The TE communicates in a clear and precise with all relevant information for the review. The overall structure and wording of the TE is well organized. Therefore, it's rated as Highly Satisfactory.	HS
To what extent is the report internally consistent, the evidence presented complete and convincing, and ratings well substantiated?	The report is internally consistent, and evidence presented is complete and convincing. The discussion of project implementation would have been improved by focusing separately on the performance of UNDP and the executing agency rather than discussing them together.	S
To what extent does the report properly assess project sustainability and/or project exit strategy?	The report addresses sustainability with compelling evidence but does not consider the four dimensions separately.	MS
To what extent are the lessons learned supported by the evidence presented and are they comprehensive?	Taken together, the lessons learned are supported by evidence presented, and they are comprehensive.	s
Does the report include the actual project costs (total and per activity) and actual co-financing used?	The report contains detailed costs both total and per activity, broken down both annually and by financing source.	HS
Assess the quality of the report's evaluation of project M&E systems:	The report contains a detailed evaluation of project M&E, although it addresses design and implementation together, enough information is provided to reach conclusions on both separately. The HS score provided in the TE is somewhat inflated.	S
Overall TE Rating		S

11. Note any additional sources of information used in the preparation of the terminal evaluation report (excluding PIRs, TEs, and PADs).