Annual Project Report (Consolidated)

Barrier Removal to the Cost Effective Development and Implementation of Energy Efficiency Standards and Labeling Project (BRESL)

Feb 2015

Basic Project Information

Project Title: **Barrier Removal to the Cost Effective Development and Implementation of Energy Efficiency Standards and Labeling Project (BRESL)**	
UNDP Award ID	48483 (Regional, PCs have their own IDs)
UNDP Project ID	3327 (Regional, PCs have their own IDs)
Project Duration	2009 – 2014
Reporting Period	January 1 – December 31, 2014
Total Approved Project Budget	USD 7,800,000
Participating UN agencies	UNDP
Implementing Partners/ National collaborating agencies	• National Development and Reform Commission (NDRC), China (Lead Country) • Bangladesh Standards and Testing Institute (BSTI), Bangladesh • Directorate General for New Renewable Energy and Energy Conservation (DGNREEC), Ministry of Energy and Mineral Resources), Indonesia • Ministry of Environment, Pakistan • Thailand Greenhouse Gas Management Office • Ministry of Industry, Vietnam
International collaborating agencies	
Cost-sharing third parties	International Copper Association
UNDP Contact officer	Shijun Liu (China); Sarwat Chowdhury (Bangladesh); Verania Andria (Indonesia); Saleem Ullah (Pakistan); Sutharin Koonphol (Thailand); Vu Thi Thu Hang (Vietnam)
Project websites	www.bresl.com; www.breslbd.org; www.labelhematenergi.ebtke.esdm.go.id/esl/; www.bresl.net.pk; www.bresl.tgo.or.th; www.bresl.com.vn

Executive Summary

As of December 31, 2014 or after five years and 10 months of implementation (since the Project Document signing in February 2009 by all six Participating Countries (PCs)), the BRESL Project

has sustained its smooth project implementation and satisfactorily produced the expected outputs and results at the national and regional levels. It has completed the whole project by December 31, 2014. Even though some PCs, like Bangladesh and Pakistan started their national project later than the other PCs (China, Indonesia, Thailand and Vietnam) and the pace of implementation varies among the PCs, but finally the whole project has been completed. The final project closure meeting was held during Feb 2-2, 2015. China as the lead country and host of the Regional Project Management Unit (RPMU), has finished all activities and initiated the development of a project concept that will include future activities to sustain the regional and national ES&L program implementation ushered successfully by the BRESL Project. China, Thailand and Vietnam, with ongoing national energy standards and labelling (ES&L) programs when the project started, have continued to share their experiences and practices (while further enhancing own programs) to the other PCs (Indonesia, Bangladesh and Pakistan) which were just starting then to develop theirs in a very productive and purposeful south-south cooperation.

Each PC has cooperated effectively and followed the overall strategies and activities diligently as stated in the regional and national Project Documents, including continuing advocacy, partnership, resource mobilization, close monitoring and follow-through and active co-financing and joint activities with various stakeholders in achieving project outcomes.

This year 2014, systematic training as crucial part of the overall strategy to address the main barrier of the project- that the lack of integrated institutional approach to EES&L implementation as the development and implementation of the EES&L has been largely ad hoc in PCs is still undergoing. The training related activities have been implemented under thoughtful arrangement: The final-7th training workshop was held on 1 Feb, 2015 in Guangzhou City, Guang Dong Province, China. So far, totally seven training courses have been conducted in regional level since year 2010. Those training courses have benefited to more than 200 participants from PCs directly. When participants came back to PCs after training, they brought with fresh knowledge regarding EES&L to build up/improve their own EES&L programs.

This year 2014, marked results were achieved. Through continuous four years of research and deliberation, and on the basis of the results of the feasibility studies conducted report for 7 target products, 5 products have reached a consensus on harmonized testing protocol and 3 products have reached a consensus on harmonized performance specification, which includes:
1) BRESL Specification: Energy Efficiency Testing Protocol for CFLs (BRESL-001/T: 2014); 2) BRESL Specification: Energy Efficiency Performance Specification for CFLs (BRESL-001/S: 2014); 3) BRESL Specification: Energy Efficiency Testing Protocol for Electric Fans (BRESL-002/T: 2014); 4) BRESL Specification: Energy Efficiency Performance Specification for Electric Fans (BRESL-002/S: 2014); 5) BRESL Specification: Energy Efficiency Testing Protocol for Rice Cookers (BRESL-003/T: 2014); 6) BRESL Specification: Energy Efficiency Performance Specification for Rice Cookers (BRESL-003/S: 2014); 7) BRESL Specification: Energy Efficiency Testing Protocol for Air Conditioners (BRESL-004/T: 2014); 8) BRESL Specification: Energy Efficiency Testing Protocol for Electric Motors (BRESL-005/T: 2014)

Another major progress in achieving project outcome is the agreement on the Strategic Plan and the commitment among the CTs on the establishment of the BRESL Regional Energy Efficiency Standards and Labeling Network (REESLN). Other national support activities for this year by the PCs are the continuance of strengthening policy support for energy efficient products, training and capacity development, establishing laboratory testing facilities to support regional harmonization of EE standards, information sharing of lessons learned and best practices, monitoring of project outcomes and adoption of labelling regulations.

In summary, the BRESL Project has therefore satisfactorily accelerated the adoption and implementation of ES&L in the PCs, and in so doing already start bringing about energy savings from the use of energy efficient appliances/equipment. The project has also facilitated adoption of harmonization plans on test procedures and EE standards, laid the ground work for future cooperation in labeling procedures among the PCs and paved the way likewise for other interested developing countries in Asia when appropriate. The project has completed all required outputs by end of 2014.

1. Background

Development Context

The development and implementation of energy-efficiency standards and labelling (ES&L) are among the most cost-effective types of policies and programs to mitigate global climate change. This is because ES&L programs have the potential to effect complete market transformation for different classes of energy-saving products, at a cost far below the cost of providing new energy supplies.

Asia accounts for 28% of world energy use with the average rate of growth in energy use over the past decade at 3.7%, over double the 1.6% world average. Throughout this region, particularly in China, growth in the demand for electric power is requiring massive energy supply and extensive transmission and distribution networks. A significant percentage of the region's total energy consumption is accounted for the energy consumption in the commercial, industrial and residential sectors (related to the use of appliances and equipment, motors and lighting). GHG emissions in the region will increase with economic growth, and these will have to be reduced if the global climate is to be stabilized. Clearly, focused efforts are needed to better utilize energy efficient technology and reduce energy consumption by these devices. Such programs, including ES&L however, are hindered by certain persistent barriers that continue to be addressed by the project.

The six BRESL Participating Countries in Asia (Bangladesh, China, Indonesia, Pakistan, Thailand and Vietnam) have manifested interest in including ES&L programs in their national energy and environment development policies and priorities and are in the varying stages in setting up their institutional and legal platforms for pursuing the project goals consistent with this development context. The challenge lies in harmonizing the interests and plans in ES&L of countries involved or reaching mutual recognition of standards.

Project Objectives and Strategy

BRESL has the objective, aligned with GEF Operational Programme 5, to remove barriers to energy efficiency and energy conservation through ES&L. As it addresses and removes the barriers, it aims for the desired market transformation for energy-efficient appliances and equipment in the Asia region, complementing the initiatives of the participating countries.

BRESL has been addressing the identified barriers through a combination of training and capacity-building, assessing and transmitting lessons learned, learning by doing, sharing work among countries to reduce the effort needed from each country, and technical assistance. Considering China's and other countries' advanced stage in their ES&L programs, majority of BRESL activities has also been addressing barriers that hinder governments from developing and implementing ES&L, with significant attention to also address manufacturers needs and the barriers that can hinder their support for ES&L efforts.

For each of the seven (7) BRESL target products, the designated Technical Working Group (TWG) has completed its ES&L feasibility study, developed the ES&L implementation road map, and determined the action plans in carrying out the activities towards harmonization or mutual recognition of ES&L as a long-term strategy during the project and sustained by the governments after the project.

With a major focus on capacity building as well as information and technical exchange, BRESL

has helped to collectively eliminate ineffective practices, reduce financial barriers, and strengthen both policy formulation and enforcement. The free-flowing exchange is envisioned, with the help of UNDP, to facilitate cooperation and dialogue starting among the participating countries for them to appreciate and benefit from ES&L harmonization and/or mutual recognition and to promote trade of energy-efficient products within the region in the coming years.

2. Key Results

Project Outcomes

As of December 31, 2014, the status/achievement of the BRESL Project in pursuit of the expected outcomes are as follows:

1) Main Outcome of Component 1: Establishment of legal and regulatory basis for removing lowest EE technologies from the market and promoting high-efficiency technologies.

- Relevant policies and regulatory related to EES&L have been developed/revised. The details are as following:

  Bangladesh: 1 Draft rules was developed
  China: 6 new implementing regulations were developed
  Indonesia: 2 regulations were developed
  PAK: 1 Draft Bill, 1 EES&L Summary for Cabinet, 1 Policy and Guidelines for implementation of MEPS and Labeling and 4 MEPS were developed
  THA: 4 policies/regulations and 2 MEPS were developed
  VIE: 5 policies/regulations (1 Law, 2 Decree, 1 Decision and 1 Circular) and 7 MEPS were developed

- Labels are in use in all PCs

  Bangladesh: Star Labels for CFL,EB & Electric Fan
  China: Energy Label for 7 target products
  Indonesia: Energy Label for CFL
  Pakistan: Energy Label for FAN CFL and Motor
  Thailand: Label for 6 target products (exclude rice cooker)
  Vietnam: Label for 7 target products

2) Main Outcome of Component 2: Building of institutional and individual capacity to secure on-the-ground implementation of regulatory frameworks, as well as actual standards and labeling programs.

- New testing standards and testing facilities in place and operational for the targeted products in all PCs
  Bangladesh: 5 new testing standards for CFL, EB, Refrigerator, AC, Motor are in place. Testing facility is on process
  China: 6 revised and 1 new testing standards. 400 labs newly registered and recognized for labeling information testing
  Indonesia: 7 testing protocols.8 testing labs upgraded
  Pakistan: 6 new testing standards for all target products are in place. With 2 testing facilities upgraded
  Thailand: to be calculated
  Vietnam: 3 draft new testing standards for Fan, CFL and Rice cooker are in place. With 5 testing labs.
- The mutual recognition agreements (MRA) have been signed within 4 participating countries

(including Bangladesh, China, Pakistan, Indonesia) and product certification and posting procedures have been continually discussed and developed at the TWG level in line with the regional harmonization goals of the project.

3) Main Outcome of Component 3: Provision of information and technical assistance to manufacturers of covered products

- Tens of local manufacturers begin producing EE equipment
  Bangladesh: 13 (8 for CFL, 4 for Fan and 1 for Ballast)
  China: More than 9,000 manufacturers registered in China Energy Label Center for about 28 end-use products
  Indonesia: 13 (2 for CFL, 1 – AC, 1 – Ref, 1 – Ballast, 8 – Rice cooker)
  Pakistan: 5 manufacturers
  Thailand: to be calculated
  Vietnam: to be calculated
- More than 50 EE models were produced to their product lines
  Bangladesh: 115 (35 for Fan, 29 for CFL, 14 for Ballast, 7 for A/C, 14 for Motor, 16 for refrigerator)
  China: more than 50,000
  Indonesia: 120 models for CFL
  Pakistan: 2 models for FAN
  Thailand: to be calculated
  Vietnam: to be calculated

4) Main Outcome of Component 4: Regional cooperation and information sharing on-going and helps to maximize impacts

- All BRESL countries have ES&L websites operating
- All fully adopted or referred to harmonized standard to develop their own national standard

5) Main Outcome of Component 5: Demonstration of various aspects of the development and implementation of EES&L programs

- China, Indonesia and Vietnam has implemented government procurement schemes for EE products
- China, Indonesia and Vietnam have the on-line database available

The above outcomes reflect the Project's very significant and highly satisfactory achievements vis-a-vis the expected project outcomes resulting from the Project under the following five major ES&L components or programs consisting of complementary activities designed to remove barriers to achieve the project objectives: Policy-Making Program, Capacity Building Program, Manufacturer Support Program, Regional Cooperation Program and Pilot Projects.
At the country level, the following summarizes the achievement of outcomes in each PC:

- China
  China has continued to support and lead the project while implementing its ongoing ES&L program in line with its national policies and priorities. It has also continued to share with the various PCs relevant ES&L implementation experiences and standards with the very valuable inputs of Chinese ES&L experts. China will encourage the stakeholders to adopt the TWG outputs in the revision of China's national energy

efficiency standards for CFL, Rice Cooker and Electric Fan towards the project's regional harmonization objectives. It will coordinate the schedule for revision of relevant energy efficiency standards to consider TWG work plan time frame. In China, ES&L specifications of all the target products have been adopted except for the labelling specification of ballasts. It has also obtained very important breakthroughs in ES&L regulations, such as completion of the draft amendment of the Administration Regulation on China Energy Label, which will provide a more solid legislation foundation for mandatory labelling program in China. 6 new implementing regulations, namely Implementation Regulation for Energy Labelling Program of Variable Room Air Conditioners, Medium Three-phase Asynchronous Motor, CFL, AC, Auto-electrical Rice Cooker and AC Electric Fan were developed and 5 national standards namely, Minimum allowable values of the energy efficiency grades for variable speed room AC, small and medium three-phase asynchronous motor, CFL, ballast and AC were developed. The activities have effectively supported the realization of regional objectives of ES&L harmonization.

- Bangladesh

  The country has very significantly moved forward in its ES&L program development and implementation and strengthened testing and certification institutions with full support of the BRESL project and the Government and the shared ES&L experiences, templates and materials from the fellow BRESL PCs. In setting up its platform for ES&L program starting from almost nil, Bangladesh adopted BRESL Specification including testing protocols and EE performance standards to develop its own national standards for 6 target products. It has also continued to encourage the stakeholders to increase the use of EE products through institutional strengthening, awareness campaign, formulation of appropriate government policies and standards and market surveillance of EE standard products and non-EE products through the Law Enforcement Authority. Through BRESL, it has also mobilized support for the Sustainable Energy Resources Development Act (SERDA), for BSTI institutional capacity enhancement on ES&L program implementation.

- Indonesia

  Indonesia has very significantly advanced its ES&L program for this year with active implementation of plans in various activities of the Project. 1) Two (2) BRESL appliances: CFL (revised) and Air Conditioner, have been approved by the Legal Bureau of the Ministry of Energy and Mineral Resource (MEMR). Ministerial Decree no. 18 / 2014 for CFL labeling has been signed on June 18, 2014 and has been well socially announced to be enforced and mandated on June 2015. The other regulation for air conditioner has been expected to be legalized some time in January 2015. 2) Drafts of Ministerial regulation for refrigerator, electronic ballast, electric motor, rice cooker and electric fan are being examined by the directorate of energy conservation to be submitted to legal bureau of MEMR. The drafts will be bound in 1 regulation, which comprise of 5 appliances. 3) Official government accreditation program for appliance testing laboratories is established in the existing manufacturing plants, the state own and private companies laboratories, and in the government laboratories

- Pakistan

  The Project stipulated development and harmonization with participating countries, approval and implementation of national labeling policy/ procedure; 2) Energy Efficiency Testing Protocols have been adopted for all the six targeted appliances; 3) Minimum Energy Efficiency Performance Standards (MEPS) have been formulated/ adopted/ notified for CFLs, Electronic & Magnetic Ballasts, Fans, Motors and Air conditioners; 4)

MEPS for fans and CFLs have been revised to harmonize with participating countries; 5) EE Labelling Policy / Procedure including Energy Performance Rating Criteria and Label has been approved by Project Steering Committee (PSC). The Labelling Policy / procedure has been launched/ implemented for fans, CFLs and motors; 6) Revised Pakistan Energy Efficiency & Conservation (PEEC) Bill has been submitted to Ministry of Water & Power (MoWP) for processing and passage by the Parliament; 7) ES&L Policy Summary has been developed and submitted to MoWP for Approval of Federal Cabinet; 8) Mass awareness campaign has been undertaken on print and electronic media; 9) Manufacturers have been facilitated through Technical and Awareness Workshops to adopt ES&L regime for their products; 10) Facilitated stakeholders' training in China; 11) Project participated in all regional activities and contributed its inputs. The learning shows that the ground work created by the BRESL project needs to be continued and expanded to draw desired outcome of the project. Similarly, the stakeholders in implementing/ regulating government agencies need to be sufficiently strengthened to continue the effort.

- Thailand

  In this period, two technical reports were finalized (Activity 2.1b and 5.1a), one technical report was revised (Activity 5.6), two technical reports were in the process of preparation (Activity 3.3 and 5.1b). Two policy recommendations have been finalized: 1) Policy recommendations on ES&L and Carbon Footprint implementation (Activity 1.1, 1.2a and 1.2b) and 2) Policy recommendations to promote the market of energy-efficient A/C (Activity 3.3). All activities have been completed as a result of the completion of one working group and one focus group consultation meeting on the policy recommendations to promote the implementation of ES&L and CFP (Activity 1.1, 1.2a and 1.2b) and to promote the market of energy-efficient A/C (Activity 3.3). The working group and focus group consultation meeting was organized on 16 May and 11 June 2014, respectively.
  There were five key meetings which are: 1) three BRESL project team meeting on 29th January, 22nd April and 10th June 2014 2) RPSC meeting on 26 – 28 March 2014 in Hanoi, Vietnam and 3) one 1st/2014 PSC meeting on 24th June 2014

- Vietnam

  Vietnam has consistently and significantly progressed in its ES&L program implementation with the assistance of BRESL project activities. The national standards for Fan, Rice Cooker and CFL testing protocols are being revised based on final BRESL Testing Protocols for said products in consultation with the local stakeholders in pursuit of regional harmonization goals. The Bresl Vietnam with MOIT has promoted and disseminated the TWG outputs to local stakeholders in the testing protocol adoption process. The project has organized several workshops for manufacturers to be updated with energy labelling, MEPS policies and regulations and to deliver lessons learnt from compliance survey. The communication on energy labels was enhanced through the road show and promotion in media marts in Ho Chi Minh city. The key achievements and lessons learned of project has been completed and disseminated to all stakeholders. The EE expert and technical experts from Vietnam has contributed to the final outputs of TWG and met other requirements of RPMU.

Activities and Outputs

The following highlights the progress in achieving the results and outputs of the different activities towards the desired outcomes as of December 31, 2014 in view of the accomplishments of the 6 PCs for this APR reporting period. Since 2014 is the final year of project implementation

and most of activities have been finished. For China, there are not many activities left for 2014 hence they focused on project completion and development of project framework for future activities for program sustainability and other areas for ES&L regional cooperation.

Component 1: ES&L Policy-Making Program

The Project has achieved very significant moves in developing and putting in place the policy and legal basis for ES&L program and implementation guidelines in support of the PCs plans and programs for all the PCs. By this time, the project has successfully and satisfactorily accomplished the requisite policies and regulations as needed in the respective country situations and priorities in line with the national programs and prepares the ground for regional harmonization activities in the pursuit of project objectives and goals. As BRESL project coming to its end, all PCs have established clear legal framework on EES&L.

Activity 1.1 Strengthening of the Policy Context for Energy Standards and Labels

All six PCs have continued to strengthen the policy basis for national ES&L programs. For 2014, BRESL has demonstrated successful south-south cooperation in the case of Bangladesh and Pakistan that have accelerated their legal and legislative process in adopting their own ES&L laws and regulations fitting their ES&L regimes. They have benefited directly from the project's outputs, training and capacity building and from the shared experience of the other advanced PCs in terms of sharing ES&L materials, suggestions, technical documents and lessons learned.

Activity 1.2 Adoption and Implementation of Energy Standards and Labelling Regulations

In the recent TWG meeting held in Beijing during Oct.16 2015, the Country Teams have affirmed the finalization and adoption of the TWG outputs in the regional harmonization of testing protocols and EE standards for their own countries in AC, Fan, CFL and Rice Cooker, while pursuing the ES&L requirements on a national basis for the other targeted products, namely Refrigerator, Ballast and Electric Motor.

The PCs have proceeded to adopt their own labelling systems and procedures according to their needs considering that the practices vary among the PCs. Energy efficiency labelling is therefore not feasible to be harmonized in the region at this time.

a. Bangladesh - It has conducted its "Policy Dialogue and Mass Awareness about Energy Efficient BRESL Products for Manufacturers, Importers, Traders and Consumers" in line with the proposed ES&L standards and the overall promotion of ES&L policy and planned standards for target products with the stakeholders.

b. China –6 new implementing regulations, namely Implementation Regulation for Energy Labelling Program of Variable Room Air Conditioners, Medium Three-phase Asynchronous Motor, CFL, AC, Auto-electrical Rice Cooker and AC Electric Fan were developed and 5 national standards namely, Minimum allowable values of the energy efficiency grades for variable speed room AC, small and medium three-phase asynchronous motor, CFL, ballast and AC were developed.

c. Indonesia – 1) Two (2) BRESL appliances: CFL (revised) and Air Conditioner, have been approved by the Legal Bureau of the Ministry of Energy and Mineral Resource (MEMR). Ministerial Decree no. 18 / 2014 for CFL labelling has been signed on June 18, 2014 and has been well socially announced to be enforced and mandated on June 2015. The other regulation for air conditioner has been expected to be legalized some time in January 2015. 2) Drafts of Ministerial regulation for refrigerator, electronic ballast, electric motor,

rice cooker and electric fan are being examined by the directorate of energy conservation to be submitted to legal bureau of MEMR. The drafts will be bound in 1 regulation, which comprise of 5 appliances. 3) Official government accreditation program for appliance testing laboratories is established in the existing manufacturing plants, the state own and private companies laboratories, and in the government laboratories;

d. Pakistan - The Project stipulated development and harmonization with participating countries, approval and implementation of national labelling policy/ procedure; 2) Energy Efficiency Testing Protocols have been adopted for all the six targeted appliances; 3) Minimum Energy Efficiency Performance Standards (MEPS) have been formulated/ adopted/ notified for CFLs, Electronic & Magnetic Ballasts, Fans, Motors and Air conditioners; 4) MEPS for fans and CFLs have been revised to harmonize with participating countries; 5) EE Labelling Policy / Procedure including Energy Performance Rating Criteria and Label has been approved by Project Steering Committee (PSC). The Labelling Policy / procedure has been launched/ implemented for fans, CFLs and motors;

e. Thailand- Under these three activities, policy recommendations on ES&L and Carbon Footprint implementation are summarized from the results of Activity 1.1 "Preparation of Policy Recommendation for Energy Standards and Labels", Activity 1.2a "Provision of MEPS Information for Other BRESL Countries" and Activity 1.2b "Development of a Carbon Footprint (CF) Program for Targeted BRESL products". The policy recommendations were presented in working group and focus group consultation meeting on the policy recommendations to promote the implementation of ES&L and CFP (Activity 1.1, 1.2a and 1.2b). The policy recommendations were revised according to comments and recommendations from the meetings. The policy recommendations were presented in 1st/2014 PSC meeting. The policy recommendations are now being finalized according to PSC comments and recommendations in order to be presented in the next PSC meeting.

f. Vietnam – Bresl Vietnam has supported MOIT in researching and proposing the energy levels for CFL and fan to be labelled by comparative label. The research results have been used for MOIT in the policy making process to manage the labelling program in a more efficient way. The expert hired by Bresl Vietnam also assisted MOIT in providing guidelines for manufacturers and importers in applying energy labels and supported to issue hundreds of energy labelling certificates.

Component 2: ES&L Capacity Building Program

Almost all planned capacity building activities for all CTs have been completed this year 2013 as the project prepares to complete all commitments by year-end 2014 and the final training workshop was held on Feb.1 2015. As a gauge of its success in the number of training and workshops conducted by each CT, the teams have been very successful in strengthening and enabling the public institutions to develop and implement the national ES&L programs in line with regional goals. The enhanced capacity of responsible agencies enabled them to build institutional and individual competence to secure on-the-ground development and implementation of pertinent policy and regulatory statutes and guidelines in the PCs and in strengthening the national testing and certification infrastructure. These were made possible through several regional and national training courses for various participants from the PCs and an in-depth immersion and capacity building for the Country Teams from the PCs in China and dissemination of relevant information materials and ES&L templates.

In line with expected Component 2 outcomes for 2014, the Project has built capacity of each PC to conduct the planned activities with the professional services of the TWG experts and other contracted services. The national EE Experts were also hired to augment capacity of each PC CT in developing the national action plan in adopting the TWG outputs and initiate the implementation of the following: a.) coordination mechanisms, promotional strategies and approaches on the country's participation in the regional EE performance standards and testing protocols harmonization and mutual recognition and other regional ES&L activities; b.) potential membership, promotion strategy, organizational structure of the BRESL REESLN establishment; c.) Identification of the barriers, needs, benefits, suggestions and inputs in the design of the next phase of the BRESL project; and, d.) recommendations on the development of data collection and reporting procedures.

Activity 2.1 Training to Strengthen and Enable Public Institutions to Support Development and Implementation of ES&L Programs

BRESL supported a number of training activities and workshops in conjunction with co-financed inputs and resources to enhance capacity of all the key stakeholders in various aspects of the national ES&L programs while considering specific country requirements and updated capacity needs assessment.

Activity 2.2 Capacity Enhancement in the Development and Implementation of Standards and Labelling for the 6 Targeted Products

This Activity involves mainly the tasks of the TWGs which have significantly and successfully augmented the CTs' capacity in the development and implementation of ES&L plans for each of the seven (7) BRESL target products (adding rice Cooker to the former list of 6 targeted products. 8 BRESL specifications were developed by the TWG experts.

The results of the TWG works are summarized in the outcomes listed above.

Activity 2.3 Strengthening of National and Regional Testing and Certification Infrastructure

In line with the Outputs of this activity for, For this year 2014, all the PCs have established their own ES&L development institutions for the national testing and certification taking into consideration the regional harmonization thrusts of BRESL. While the status of completion of establishing the national testing laboratories vary from PC to PC as well as across products, the CTs have progressed significantly in ES&L testing capability development and strengthening. The hardware and infrastructure requirements were sourced through co-financing support. The project looks forward in putting in place the ES&L certification program and institutional arrangements before the end of the Project.

Activity 2.4 Strengthening of Data Collection and Reporting Procedures on Equipment Availability and Sales by Efficiency Level in Participating Countries

For 2014, under the work of EE experts from each PC, some of the PCs have already established their own the data collection system and reporting procedures, such as Indonesia and China, also online system can be available to use.

Component 3: ES&L Manufacturer Support Program

For 2014, significant progress was also achieved in Component 3 activities regarding technical support for local product manufacturers to help them develop efficient products and realize profit opportunities from efficient products. Following are related outputs of the activities:

Activity 3.1 Product Technical Analysis and Reports

The Product Technical Analysis Reports have been finalized as part of the TWGs outputs as basis for the findings in the Feasibility Study reports. Further work by the TWGs were completed on the three products (Fan, CFL and Rice Cooker) that were found feasible to be harmonized for EE testing protocols and standards which guided the drafting of the proposed BRESL specifications for testing protocols and EE standards.

Activity 3.2 Educational Workshops for Manufacturers and Retailers on Impacts of Standards on Manufacturers and Retailers and Ways to Work with Standards to Increase Profitability

All of the educational workshops planned for the project have been completed by the CTs for manufacturers and retailers on impacts of standards on manufacturers and retailers. As a result all CTs reported increased interest and participation in advocacy campaigns and actual implementation of ES&L activities at the national and company levels.

Activity 3.3 Technical Assistance to Manufacturers

The TWG Experts and national EE experts have conducted relevant activities to provide specific technical assistance to manufacturers in 2014.

On a per-country basis, Component 3 outputs include the following:

Bangladesh

- Inter-ministerial Team visited Energy Star label Certificate Awarded Factory Energy Pac Electronic Ltd. and SEC Fan. For evaluation the field level activities of the project (which technical support have been provided through project) the MTE Team member visited one CFL factory (Energy Pac Electronic Ltd.) and one Fan factory (SEC Fan) at Hotapara and Nanduail, Gazipur on 20-09-2014. The team guided by Shahjahan Chowdhury, Project Manager and Mr. Md. Abdul Matin, NPD, BRESL. The team observed the positive attitude of the manufacturers regarding the production of Energy Efficient products. General Manager (GM) Plant of Energypac presented their products quality and production system by power point presentation. The team interviewed the core technicians of those companies who got hands on training from the project by National Expert and assured the acknowledgement of benefit from the training to produce Energy Efficient CFL and some health hazard precaution of mercury pollution.

China

- 6 Training workshops on China Energy Label for manufacturers have been organized in China considering that provision of technical assistance under Outcome 3 is difficult to achieve because of the proprietary attitude of manufacturers in improving their technology to produce EE products; however, these activities have stimulated them to

consider improving their technologies to reach the MEPS and top energy grade.

- Workshops on energy label database and label registration procedure

Indonesia

- - Manufacturing support program to remove barriers in the point of view of manufacturers are often distrustful of standards and labels, and their objections can delay ES&L efforts or result in weakening of standards, but the support must be dealt with in the context of each national economic and cultural setting.

  1) Workshop on accreditation scheme for manufacture's laboratory has been conducted. Nineteen (19) mid-management level from nine (9) manufacturer laboratories and university had been trained for ISO 17025.
  2) 30 local manufacturers adopting TA recommendation. 30 % local manufacturers satisfied with TA recommendation. 24 additional manufactures voluntarily participated in the EE label (CFL, AC, and Refrigerator).
  3) Sales data of EE labeled product of CFL is being collected.
  4) Workshop on ES&L Financing was conducted attended by manufacturers and other key stakeholders. 2 local banks/FIs were reviewing the possibility of financing the facility improvements to accommodate EE product manufacturing with AC and refrigerator as the pilot projects. However, the establishment of the financial scheme has not been materialized.

Pakistan

- Familiarization meetings with Manufacturers of Pumps and Motors on the benefits of upcoming Labelling Procedure being launched by ENERCON/ BRESL for possible technical assistance provision.
- Formation of a Working Group for Fans and CFLs to facilitate adoption/ implementation of the regime in fan sector and identification of strategy for providing technical assistance to manufacturers.
- Consultative meetings with manufacturers/ associations for awareness regarding ES&L Regime.

Thailand

- Activity 3.3 is on 'Market-based Assistance to Manufacturers'. Two activities were conducted which are one working group and one focus group consultation meeting on the policy recommendations to promote the market of energy-efficient A/C (Activity 3.3). The working group and focus group consultation meeting was organized on 16 May and 11 June 2014, respectively. The policy recommendations to promote high energy-efficient A/C manufacturing development were adjusted and improved according to the results of the working group and focus group consultation meeting. The policy recommendations were presented in 1st/2014 PSC meeting and are now in the finalization process according to comments and recommendations from PSC. Then, the policy recommendations will be presented in the next PSC meeting. The report of Activity 3.3 has been preparing and is expected to be completed in Q1/2015.

Vietnam

- The event on energy label was organized for participants in green house; propagandized knowledge on energy labels and deliver environmentally-friendly bags
- 2000 copies of leaflet on energy labelled products have been delivered to consumers in 5 electric & electrical equipment supermarket.

Component 4: ES&L Regional Cooperation Program

In 2014, highly satisfactory results in regional cooperation activities were reported in promoting and implementing regional cooperation and harmonization of standards among the 6 PCs and in close cooperation with the key stakeholders. The activities mainly involved operation and maintenance of the national and regional website, sharing of best practices and lessons learned in a south-south cooperation scheme, finalized the establishment and membership of REESLN, Measures to sustain the momentum in the achievements by individual PCs in development and implementation of their respective ES&L programs were discussed to form the basis of the next phase of the project.

Activity 4.1 Project Web Site

For 2014, the regional BRESL website www.bresl.com and the respective national websites among the six PCs continued to operate and be maintained for effective use and access by interested parties and stakeholders in line with the regional harmonization thrust of the project and individual PC implementation of respective ES&L national programs. The internet-based facility will also form the information hubs for the information networking and communication linkages among the PCs as well as serving as portals and repository of ES&L information and documents as part of the REESLN design and working arrangements.

Activity 4.2 Lessons Learned Reports

The project continued its activities related to the preparation of the Lessons Learned Reports.

Activity 4.3 Regional Energy Efficiency Standards and Labelling Network (REESLN)

As of Dec. 2014, RPMU has already received 40 intention letters in total from all 6 participating countries, which includes representatives of the potential members, BRESL National Coordinators and EE Experts and finalized REESLN Documents which includes Organizational Structure, By-Laws and Strategic Plan. During the BRESL closure meeting, the around 17 MOUs from each PC were signed by Mr.Li Tienan who will be on behalf of REESLN Secretariat.

Activity 4.4 Regional ES&L Harmonization Initiative

In this year, the TWGs have finalized the 8 BRESL specification which includes:
1) BRESL Specification: Energy Efficiency Testing Protocol for CFLs (BRESL-001/T: 2014)
2) BRESL Specification: Energy Efficiency Performance Specification for CFLs (BRESL-001/S: 2014)
3) BRESL Specification: Energy Efficiency Testing Protocol for Electric Fans (BRESL-002/T: 2014)
4) BRESL Specification: Energy Efficiency Performance Specification for Electric Fans (BRESL-002/S: 2014)

5) BRESL Specification: Energy Efficiency Testing Protocol for Rice Cookers (BRESL-003/T: 2014)
6) BRESL Specification: Energy Efficiency Performance Specification for Rice Cookers (BRESL-003/S: 2014)
7) BRESL Specification: Energy Efficiency Testing Protocol for Air Conditioners (BRESL-004/T: 2014)
8) BRESL Specification: Energy Efficiency Testing Protocol for Electric Motors (BRESL-005/T: 2014)
In summary, the following items are the main results for each product for harmonization:

Products	Participating Countries	
	Testing Protocols	Performance Specifications
CFL	All the six PCs	Bangladesh, China and Pakistan
Fan	All the six PCs	Bangladesh, China and Pakistan
Rice Cooker	China, Indonesia and Vietnam	China, Indonesia and Vietnam
Air Conditioner	All the six PCs	/
Motor	All the six PCs	/
Refrigerator	All the six PCs	/

Activity 4.5 Preparation of a Plan for Regional Activities and Coordination after the GEF-Funded Project Ends

RPMU has continued work on the UNDP/GEF project identification and development process for the next phase of the BRESL program.

As recommended by the CTs, BRESL will give priority to the following products for the next round of regional cooperation and harmonization: air conditioner, motor, washing machine, LED lights, TV, electric iron, microwave oven, distribution transformers, refrigerators, ballast and others that may be further identified. BRESL will also give priority to the following activity areas for the next round of regional cooperation and harmonization: laboratory comparison test, acceptable testing tolerance for energy efficiency, compliance of EES&L, networking, public awareness campaign, training and capacity building, incentive policy in promotion of EE products, impact evaluation protocol for EES&L program, information dissemination, new EE technologies and other areas that may be further identified.

For the whole of Component 4, each country has reported significant progress in all the related activities as follows:

The harmonization of EE standards among participating countries is the key factor for the success

of the project. The low possibility to harmonize the MEPS level is the barrier to achieve this outcome because each country has different situation of industrial level. BRESL needs to continue its support to the implementation process as well as monitoring & verification stage. The national activities and outputs related to preparation of the plan for future regional cooperation include the following:

Bangladesh

- As the part of regional activities 6th RPSC Meeting in 2014 was held in in Hanoi, Vietnam during 26-28 March, 2014. UNDP Vietnam and Vietnam CT was organized this meeting. BRESL Bangladesh Team ; Mr. Iqramul Haque, Director General, BSTI, Mr. Md. Abdul Matin, Director (Physical), BSTI and NPD, Mr. Md. Abdul Matin, National Project Director, BRESL Project; Mr. Shahjahan Chowdhury, Project Manager, BRESL Project and UNDP Representative Mr. Mohammad Rezaul Haque, Programme Associate were attended that Meeting
- As a part of regional activities BRESL Bangladesh team (National Experts), NPD, Project Assistant Ms. Nasrin Akter and UNDP representative Mr. Md. Bahadur Hossain, Programme Assistant were attended 1nd TWG Meeting 2014 at Beijing, China from 13 October to 17 October 2014.
- As apart of regional activities BRESL Bangladesh team (National Expert) submitted Feasibility Study Report to RPMU, China.
- Submitted Project Implementation Report (PIR) with GHG emission calculation in the RPMU and that report were accepted by the RPMU.

China

- Information contents on EE standards and labelling programs posted in the www.energylabel.gov.cn and www.cnis.gov.cn .
- Identification of means to further remove remaining barriers and issues to regional cooperation in ES&L related to 1.) language barrier, i.e. China's laws/regulations, ES&L, testing protocols, and reports are in Chinese translation of which will require more resources such that related project deliverables have not been fully shared with other BRESL countries; and 2.) need to have a common methodology on calculation of energy savings and GHG emission as result of the project.

Indonesia

- Regional BRESL activities that intended to help the BRESL countries learn from one another so they can emulate successful efforts and avoid repeating mistakes that others have made.

  1) BRESL Indonesia web site: "www. bresl.or.id"has been launched and recently moved to the official page under the management of DGNREEC- MEMR at http://labelhematenergi.ebtke.esdm.go.id/esl/. The database model is designed to support the model of REESLN developed by BRESL – RPMU.

  2) Indonesian experts for lighting, home appliance, and energy efficiency also have been actively participating in the regional TWG activities.

  3) Development of concept on sustainable follow up plan for activities has been carried out

Pakistan

- Development and maintenance of the BRESL Pakistan web-site.
- Provision of required inputs by BRESL Pakistan to TWG/ RPMU for Regional ES&L harmonization.

- Finalization of the Feasibility Study Report for Fans and circulation to all the in-country stakeholders for review and comments and final adoption.
- Development of Draft BRESL specifications for EE standards for fans by BRESL Pakistan as lead country for fans and facilitation of the finalization and adoption.
- Revision of MEPS for fans and CFLs to harmonize with the participating countries as discussed with PSQCA and PCSIR for resubmission to Technical Committee of PSQCA for adoption/ notification.
- Identification of 25 stakeholders from Pakistan for participation in REESLN activities with seven having applied for registration.
- Establishment of an information sharing network with Lites Asia based in China for data collection, R & D on global EE lighting products .

Thailand

- Completion of reports on the development, implementation and enforcement of ES&L programs/projects in Thailand which identified the success and shortcomings of ES&L programs in the country through a SWOT analysis and provided recommendations for implementing more effective ES&L program.

Vietnam

- Information contents on EE standards and labelling programs posted in the www.nhannangluong.com.
- Submission of reports made by Vietnamese experts on the result of the TWG.
- Completion of report on project key achievement results and lessons learned.

Component 5: ES&L Pilot Projects

For 2014, each PC continued Component 5 activities related to ES&L pilot projects. Being a national initiative, the CTs continued to implement plans at the national level. Part of the expected outcomes for this component is the formulation and adoption of government procurement schemes for EE products and to design and model EE products databases and to showcase national EE consumer education schemes.

Activity 5.1 Government Procurement (Bangladesh, Indonesia, Thailand, and Vietnam)

For 2014, two (2) countries, namely: China and Vietnam, continued to implement government procurement plans for EE products while the other countries are still in the process of developing their government procurement schemes. In China, policy context for ES&L will be further strengthened. Government procurement program were evaluated, and best practices were identified, aiming at further improve the policy and removing the barriers of energy-efficient products promotion. Thai CT is recommending additional policies and guidelines on their Government Green Procurement Guidelines that is being completed. Currently, the guidelines for 5 BRESL products have been endorsed by Thai stakeholders for subsequent approval by the pertinent authorities. The report on evaluation on government procurement status on the electrical and electronic products has been delayed from Q2/2013 due to the literature review and analytical process which requires much effort, extensive time and human resources.

Activity 5.2 Database (and Web Site) of Energy-Efficient Equipment (Bangladesh and China)

The activities related to the expected outputs continued to be implemented in China as the

country which has an operational database and website for EE equipment. In 2014, Indonesia has established their own data collection model and the database is available on line.

Activity 5.3 Development of Consumer Education Schemes (Bangladesh, Indonesia and Pakistan)

As a country initiative for this activity, all countries have completed Consumer Education Scheme in their own countries.

Activity 5.4 ES&L Initiatives Financing (Indonesia)

Indonesia continued the implementation of the activity with ongoing arrangements on ES&L initiative financing. Rebate and revolving fund schemes were submitted to the government for further review with government concerned agencies.

Activity 5.5 Regional Harmonization Promotion (China)

As lead country in this activity, China has continued promotional activities on regional ES&L harmonization with the help of China Country Team led by CNIS and CQM. All the PCs have continued to be very receptive to the harmonization plans on selected products and are prepared to resolve barriers that will be identified in order to achieve the objectives especially with the conclusions and recommendations during the successful 2nd 2013 TWG meeting in Xiamen. In another development, Thailand has continued to implement its complementary activity on implementing carbon footprint assessment and life cycle inventories in the manufacturing sector along with Activity 2.1 as a pilot activity with two manufacturing companies for lighting and air conditioner.

Therefore, the activities and outputs for Component 5 are varied among the PCs as described below:

Bangladesh

- Bangladesh is working towards creating awareness and providing beneficiaries with energy efficient choices to reduce per capita electricity consumption and wastage. In this connection BRESL Project demonstrated a Model Pilot Project at Char Alinagar, Char Sindur Union, Palash, Narsingdi within 50 House Holds by replacing 3 non EE bulbs and 3 non EE Electric Fan by energy star labelled of those appliances for comparing creating awareness among the local people by using energy star label products. It is to be noted that in Bangladesh electricity crisis is a burning issue. There is a gap of around 3000 MW between demand and supply. This gap is around 40% of its total peak demand of 7500 MW. And in the calculation it is seen that if this ES&L program is implemented a power capacity to the tune of 2000 MW will be reduced from the system immediately. So it is a win-win solution. Several times UNDP representatives and GOB Officials visited that area. The details are as follows: Inter-ministerial Team visited pilot project area, Finally a big Seminar on "Polash Model Project—A New Horizon to Solving Power Crisis in Bangladesh by using Energy Efficient Electrical Appliances"

China

- ES&L harmonization report by China experts of TWG of CFL, electric fan and rice cooker. For each of the BRESL target product, the designated Technical Working Group has

completed the draft testing protocols and energy efficiency standards, and participated in several workshops towards the harmonization or mutual recognition of ES&L.

Indonesia

- Pilot project on implementation of ES&L at the national level that building a foundation and on government-side awareness that are possible to be duplicated by other local government offices throughout of Indonesia.

    1) Pilot project of EE equipment is implemented in Makassar City government offices. With the ICED - USAID assistance, the project procured Energy Efficient Air Conditioners and Lighting, while BRESL project itself provided trainings and 8 units Energy Efficiency Monitoring Equipment, and redesigned the electrical single diagram. The energy consumption before and after EE equipment installation are being monitored since May 2014.

    2) Options of incentives for Consumers in Industrial / Commercial and Household sector has been developed and discussed in the FGD with the Ministry of Finance. The draft concept has been finalized. Incentive program (rebate) for AC could be difficult to achieve since the fund are come from state budget. However, a legalized regulation about the EE product obligation should be the basis of this incentive program.

Pakistan

- Initiation of awareness campaigns on adopted MEPS.
- Initiation of awareness campaign regarding introduction of ES&L Regime in the country through meetings with manufacturers and their associations.
- Planning for more vigorous awareness campaigns and workshops for the launching of EE labelling program.
- Consultative meetings with universities/ academia to encourage them to promote ES&L program in Pakistan.

Thailand

- Inclusion of the draft green procurement requirements for five BRESL products, A/C, refrigerator, electric fan, three phased induction motor and ballast in the government green procurement guideline which is being finalized for submission to the Green Procurement Promoting Subcommittee, including recommendations and suggestions for adding high EE criteria into the existing government green procurement guideline for BRESL products by the end of 2013.
- Conduct of seminar to provide knowledge on Low Carbon Society and Green Supply Chain Management for housing estates and high energy efficient appliances suppliers where the electricity consumption data of appliances used in housing estate are being collected in order to analyse and evaluate environmental impacts from GHG emission by comparing between existing and high energy efficient appliances.
- Implementation of a complementary program to ES&L, which is on establishing the carbon footprint program for participating companies to collect Life Cycle Inventory (LCI) and GHG accounting for carbon footprint assessment and provision of recommendations

and suggestions to reduce carbon emission from the hot spot in their manufacturing process.

Vietnam

- Report on compliance survey for 8 kinds of labelled product completed and shared to all stakeholders. The survey has been implemented in Ho Chi Minh city through around 10 media marts and super markets to find out the non-compliance errors of energy labels. The result is very helpful for MOIT in the management as well as steering of labelling program.

Leaflet on guideline for choosing EE AC and list of high-energy efficiency air conditioners designed and issued.

Sustainability

National ES&L programs are already operating in all PCs with plans to sustain these programs after the project completion by end of 2014 resulting from the policy and legal bases and institutional/organizational strengthening for the implementation of the ES&L programs that were developed and established through the project. In summary, the following sustainability-related developments among the PCs include the following:

a. Bangladesh – Designation of SREDA and BSTI to handle the ES&L responsibility; training of BCSIR and BUET as appliance testing centres; actively linking SREDA with the industry sector; resource mobilization for BSTI facility improvement; established 6 voluntary standards and 3 mandatory standards; application by numerous manufacturers for ES&L accreditation; adopting of the developed standards by manufacturers are new products with project's assistance in R&D capacity building and established partnerships to support sustainable country ES&L program.

b. China – In addition to close monitoring and adaptive management, the project partners were encouraged to continuously advocate and encourage the government policy makers to support ES&L regional cooperation and harmonization. Since the BRESL is designed as a capacity-building project with solid legal and institutional bases, the successful putting up of new energy efficiency standards and labels will also mean institutional structural growth with a capacity to effectively sustain the ES&L program. The responsible government agency with the ES&L mandate will play a significant role in the implementation of the national activities under BRESL. ES&L activities will be mainstreamed into the country's EE program. BRESL should already encourage establishing schemes for these agencies to continue to lead in the ES&L efforts and GHG emission mitigation activities. Periodic monitoring and evaluation shall be institutionalized even after BRESL. This will bring sustainability of the project with desired benefits in the long run.

c. Indonesia – 1) The activities of BRESL Indonesia project were coordinated and integrated into the program of Directorate General of New Renewable Energy and Energy Conservation (DGNREEC) - MEMR. It is expected that the integration ensures the project sustainability related to the coherency of its objectives with the core program of the affiliated Directorate. It is also informed that MEMR plan to implement ES&L into 10 (ten) home appliances product by 2016. 2) The current state of project achievements of also support the sustainability of ES&L program. Those are e.g. the drafted Ministerial Decree for rest of 5 electrical appliance (including the implemented CFL and AC regulation), the established information sharing and data collection system, and the compiled list manufacturer actively involved in the project. In addition, the forum named as

"Communication forum of Energy Efficiency Testing Laboratory" which was launched by the Director of Energy Conservation – DGNREEC, MEMR on Nov 28, 2013, is now working on track and supported by the Directorate of Energy Conservation. Thus, one of the objective of the communication forum is to continuing the BRESL program. The forum is lead by the P3TKEBT laboratory- MEMR (Centre of R&D for Electricity, New Energy Renewable and Energy Conservation) and advised by MEMR, MoI and MoT. The member of communication forum are 17 testing laboratories. The program of the forum are divided by 4 components; (1) Standard & Testing Method, (2) EE training, and workshop (3) Capacity Building, and (4) EE testing Research and Development. 3) To ensure the sustainability of the ES&L activity of the listed appliances in BRESL project, some unresolved issue must be integrated to the succeeding ES&L project i.e. the unsigned Ministerial Decree of 6 appliances and financial support scheme to the manufacturer or consumer. In addition the surveillance of market compliance with EE regulation and data collection must be strictly kept. Data collection must also contain the local manufacturer yearly production data that currently is not regulated in the Ministerial Decree. 4) Regarding the surveillance, although the agreement with MoT has been made, formal notification from MEMR that informing the additional item of inspection and the execution timing might be necessary to guarantee the smooth implementation of surveillance. Moreover, the establishment of an inter-ministerial Task Force for promoting and monitoring the implementation of ES&L program in central and district area might be essential.

d. Pakistan- 1) the groundwork created by the project needs to be continued and expanded to draw and visualize the desired outcome of the project at ground. 2) The stakeholders in ES&L implementing/ regulating government agencies need to be sufficiently strengthened to continue the effort. 3) ENERCON has established an "Energy Efficiency Labelling Section" and has been tasked to maintain a bank account exclusively for implementation and continuation of labelling regime. However, the "Energy Efficiency Labelling Section" at its present stage lacks the capacity to fully implement the labelling policy and needs to be urgently and sufficiently strengthened. 4) The awareness campaign started by the project needs to be continued in future to create sufficient market for energy efficient products. 5) There are very few energy efficiency testing laboratories in the country and these do not cover all the targeted products. Project undertook a major effort to encourage/ facilitate academia/ private sector institutions to establish accredited energy efficiency testing laboratories. This needs to be encouraged/ facilitated along with upgrading/expansion of testing laboratories in the public sector.

e. Thailand – To ensure that the outcomes and lessons learned derived from the implementation of project activities will be brought into the concrete practices, BRESL project working team has prepared policy recommendations on ES&L, carbon footprint, green government procurement and market based assistance for A/C to be presented to relevant government agencies.

f. Vietnam - The network of experts including technical testers, policy makers and c communication experts in ES&L area has been transferred to MOIT to continue the national ES&L program. The key achievements and lessons learnt from Bresl Vietnam were reported and delivered to all stakeholders for reference in the implementation of ES&L program as well as related energy efficiency projects. The Energy Efficiency Officer under MOIT still continues to manage and implement the national ES&L program based on the existing legal framework.

Partnership Effectiveness

The active policy and ample resources support of the respective governments of the PCs in the national ES&L programs that have been achieved thus far and aligned with regional thrusts have resulted in the integration of the principles of sustainability into the country policies and programs. This partnership has definitely led to the opening of the markets in the BRESL countries and the region as a whole due to an increased trade and sale of energy-efficient appliances and products and the diffusion of technology through technical exchange and demonstration to maximize the economic and environmental benefits of new energy efficient technologies. Each PC has established effective partnership to support its own resource mobilization and to augment GEF project funds and resource inputs by project partners to enhance institutional capability. The following are partnership achievements to support ES&L programs in each PC:

a. Bangladesh – in addition to co-financing partners, a new financial partner, GIZ, has completed the official formalities for assessing the equipments of ES&L testing laboratories prior to the fund release for establishing the testing facilities for Air conditioner, Refrigerator and Electric Motor.

b. China – BRESL has yet to prove its development effectiveness as it realizes that the goals and target benefits through a regional partnership strategy. BRESL is composed of able and committed stakeholders and partners, viz. the six ES&L-related agencies representing the participating governments in the project, the International Copper Association, ELI Quality Certification Institute, and the UNDP Country Offices of the BRESL PCs. The active and direct involvement of the partners has been fostering closer cooperation in achieving goals in a symbiotic way. Countries that are more advanced in ES&L cater to the needs of those countries that are still developing their own. For example, China started its ES&L program way ahead of the others and has accumulated extensive knowledge and experience that it can share with the other PCs. It takes lead in the development, and later, regional harmonization or mutual recognition of ES&L. Bangladesh and Pakistan shortened their learning curve and adopt accepted ES&L practices into their own situation and needs. Thailand, Indonesia and Vietnam also benefit by accelerating their ES&L development and at the same time provide assistance to each other and to Pakistan and Bangladesh by also sharing their own experiences. In that way, the regional approach becomes an effective development strategy and at the same time magnifies the ES&L benefits and environmental impacts in wider and sustained regional basis.

c. Indonesia – The main BRESL project partners and their other similar engagements in their regular functions in the ES&L (and related areas) implementation are strategically and optimally positioned and effectively leveraged to achieve maximum effect. Direct participation of stakeholders in the formulation of testing protocols and in the arrangement of technical content in policy has been very effective and efficient under the leadership of DGNREEC. Project information and progress of activities are adequately disseminated to current project partners and stakeholders.

   Inter-ministerial coordination also has been initiated. With the Ministry of Trade, the agreement for conducting market surveillance has been established and it will be started by June 2015 for CFL product. With the Ministry of Finance, the discussion about the financial support scheme has been performed but it is being suspended in accordance to the delay of the regulation issuance. An initial discussion Ministry of Home Affairs were

conducted regarding the option for government procurement schemes. However, the green procurement could not be implemented at present due to lack number of EE product that is legalized by the MEMR.

There are opportunities for stronger collaboration and substantive partnerships to enhance the project's achievement of results and outcomes in:

- Mass Media – for massively increase public awareness about the existence, importance and benefit of EE product.
- Product retailers – for an effective on-site market education and implementation of incentive scheme
- Ministry of Finance and Financial institution – for gaining some financial support for manufacturers and incentive for consumers
- State Universities – utilize the strategic role of university for some crucial items such as researching and developing the technology EE product and its production, disseminating technical information and providing technical assistance, as well as increasing public awareness
- Ministry of Environment – integration of ES&L project to the environmental protection program for the sake of gaining more significant and effective outcome.

Partership with USAID – ICED project was very effective in building up the pilot project for Energy Efficiency implementation in city of Makassar Government offices. The USAID-ICED Project procured Energy Efficient Air Conditioners and Lighting, and BRESL project provided 8 units Energy Efficiency Monitoring Equipment and redesign the electrical single diagram. Local Government received some training and other capacity building activities to run the program smoothly and be able to monitor the results of pilot activities. Handed over of the pilot project was officially conducted between the MEMR and Local Government of Makassar City.

d. Thailand - The project team has regularly contact with project stakeholders to ensure the partnership effectiveness. Cooperation among the working team, experts, specialists, and partnership agencies were observed to be effective.

Cross-cutting Issues

As an important part of the entire BRESL project, the project is now addressing relevant cross-cutting issues pertaining to environmental sustainability, gender equality, poverty alleviation, improving trade ties and developing global partnership for development. The project has paid ample attention to related cross-cutting issues as gender and south-south cooperation. On gender aspects, the project has encouraged the participation of women in community training on energy efficiency awareness and application. Women play a very important role in applying energy efficiency concepts as end-users particularly their constant presence and decision making in the household where the utilization of the target products mostly happens. It also promotes gender equality because of non-gender discrimination in the use of standard products. In Indonesia, for example, the technicians of most of EE performance testing laboratories are men, maybe because the electricity sector is perceived as for male sector. However, most of the manufacturer workers are women and the marketing chain also dominated by women. In addition, most of the users of the home appliances are women. It put women in

the unique position as influencer for the decision on the purchasing of home appliances On the south-south cooperation; BRESL has espoused this approach in the development and application of ES&L best practices and learning experiences between and among countries. The countries (China, Thailand and Vietnam) with ongoing ES&L programs of varied levels of development (while progressively advancing their own national initiatives) have effectively shared experiences and results to the other PCs (Indonesia, Bangladesh and Pakistan) who are in the process of developing and establishing their ES&L programs through the Project.

Most primary among these issues is regarding environmental sustainability by directly reducing GHG and regarding improving trade of energy efficient products and appliances that will redound to economic savings. Most PCs have proceeded to have follow-up related ES&L projects drawing from the BRESL experiences that will further multiply and expand the BRESL initiatives.

3. Project Management and Oversight

Implementation status

The year 2014 saw very significant and highly satisfactory accomplishment in line with desired outputs for the year while also catching up with delays in the achievement of some project outputs, work completion on the project activities both at the national and regional levels experienced in the past year 2012. The PCs have continued to implement their respective national activities in line with national priorities and regional commitments and has also accelerated compliance with the MTR recommendations particularly the putting in place of the testing and certification procedures and institutions using harmonized standards. The project continued with the necessary preparations for the development and implementation of the prescribed quantitative monitoring of electricity savings and the corresponding GHG emission reduction; establishing system of monitoring market share of energy efficient products; annual data collection system; operational government procurement systems and pilot demonstration of ES&L best practices as the project completes all output commitments before the project ends in December 31, 2014.

The project has delivered satisfactory results and very significant progress in achieving the expected outcomes. All the activities are implemented smoothly and have completed up the extended completion date at the end of December 2014. With the work of the TWGs, the harmonization action plans for the EE standards on testing protocols and EE performance standards for the 4 feasible products: AC, Fan, CFL and Rice Cooker, have progressed significantly with the BRESL specifications agreed at the recently by Indonesia, China, Pakistan and Bangladesh, relevant MRAs have been signed.

Each Country Team, with guidance by the National Project Steering Committees under the leadership of the RPMU, has satisfactorily implemented related activities to accelerate project progress and catch up with delays by effective adaptive management. The project has actively involved all stakeholders in effective consultative and participative approach considering national ES&L policy needs and priorities. In China, being the Host Centre for the RPMU, after reorganization of the designated executing agency (CSC) and change of Financial Manager (from CICETE to NECC), BRESL China project implementation got on the right track and proceeded smoothly and rapidly and contributed effectively in RPMU operations. Aggressive progress has been obtained mainly in 2009-2012. Some subcontracts have been finished and the corresponding outcomes have been replicated into daily management of ES&L. Some subcontracts which are tightly linked with national energy saving policies have been almost

finished under guidance of the government. BRESL have demonstrated greater impact and impetus on China ES&L infrastructure establishment, capacity building, and policy and system perfection. In 2014, BRESL China is sustaining the national efforts in ES&L policy context and legislation basis, and as a whole, at the regional level, the project is being implemented smoothly.

Internally, the PCs have Project Steering Committees, or Project Board in the case of Indonesia that monitors and evaluates the Project implementation through Project Board or PSC Meeting mechanism. Externally, UNDP also conduct project audits. In addition independent government inspection body (e.g. BPKP for Indonesia and similar bodies for other PCs) also conducts annual audit for monitoring and evaluation of the project implementation.

The management of successful project implementation was also influenced by external and internal barriers. The BRESL project is continuously seeking to remove both barriers, but some concerns, for example in Indonesia, were encountered to be a sort of external barriers which are beyond BRESL project scope such as: (1) the project could not interfere with setting of the testing fees that vary widely among laboratories; (2) the differences of Financial Institution policies on supporting Energy Efficiency Projects; and (3) the limited testing space and technicians in existing laboratories.

In summary, the expected project outputs and indicators for this APR 2014 have been met and even for the whole project outputs and indicators have been met. The project budget was planned and disbursed reasonably and consistently with the regulations of UNDP Budget resources have been allocated as planned in the reporting period. The actual GEF Fund expenditure of each Participating Country is higher than 90% and the total rate for budget allocation is more than 97%. Each PC has further increased the level of co-financing actualized to the project which is a strong manifestation of serious commitment and cooperation towards successful project completion.

Human Resource Management

The enhancement of manpower complement of RPMU has brought in very significant improvement in the day-to-day planning and implementation of project activities and oversight in accomplishing expected project outputs for the year. RPMU has also successfully addressed the concern related to the completion of the hiring of the TWG experts and National EE experts, which is very necessary in accomplishing very critical project tasks. RPMU has coordinated effectively the participation also of the Project Managers/Coordinators in said meetings thus completing the representation of each country in very important reporting and deliberations on critical matters about the finalization and adoption of the TWG outputs and the REESLN organization as they are introduced in each PC's ES&L program and along the line of the desired regional cooperation, harmonization and mutual recognition of the endorsed EE testing protocols and standards for the BRESL target products. For Indonesia, the lack of trained laboratory technicians is experienced.

Monitoring and Evaluation

Monitoring and evaluation (M&E) has continued to be implemented as a very important management function. Regular reporting through the UNDP/GEF prescribed M&E tools such as this APR, annual PIR, budget and expenditure analysis, quarterly reports, mid-term review and other M&E activities have all been satisfactory complied with by the project. In addition to these, BRESL PCs have established specific M&E practices at the national and industry levels:

- Bangladesh - BSTI tests certified appliances from the market, conducts factory inspections and provides feedback to manufacturers on findings twice a year. Results are compared against other countries BRESL projects coupled with knowledge sharing in terms of deliverables and outcomes.
- China - During daily project implementation, China CCT set a strict M&E system to monitor the progress of the activities and ensure the quality of project outcomes. All the undertakers of subcontracts were required to develop their own M&E plans which will be submitted to China CCT to serve as M&E tool. Based on that, China CCT required the undertakers to prepare and submit quarterly reports and meeting minutes/investigation summaries in order to fully keep abreast of the project progress and to evaluate whether the subcontracts are proceeding and adhering to committed schedules. Besides, routine meetings with the subcontract undertakers were held to discuss the project implementation and existing problems. The implementing agency NDRC, UNDP, NECC, and related experts were also invited to give guidance and suggestions. For acceptance of the first batch of subcontractors, several experts were invited to hear the report of undertakers, and then formal resolution/decisions were made after serious discussion. Besides, the project has been subjected to the mid-term review (MTR) as completed in 2012. By establishing and executing strict M&E system, the project activities were on track to committed outcomes, their outcomes and related information were timely collected, and the compliance between project actual deliverables with defined targets were effectively ensured.

Indonesia – 1) Besides the Quarterly Project Monitoring Reports, the BRESL project had regular Project Meeting to evaluate the project implementation and discuss the follow up action plan. On the government side BPKP acting as government internal audit agency conducted overall project review once a year on behalf of the GoI and UNDP. The M&E arrangements provide clear and unbiased advice to the implementation of all project activities. The project audit and project evaluation show that the project implementation is still on track. 2) Final evaluation was conducted by two independent monitoring evaluation specialists for two months period- August up to September 2014. The results showed that BRESL, is one of the essential project for promoting the energy standardization and labelling in Indonesia, has been thoroughly executed since the past 5 years. UNDP CO Indonesia and GoI, as the project Board, established a comprehensive framework design that identified the specific project activities to address the common barriers to ES&L. The resulting project planning matrix (PPM) provided clear major activities and sub-activities under each project component and expected outputs as well as described the SMART (specific, measurable, achievable, realistic and time-bound) project success indicators. GoI through the DGNRREC-MEMR has been showing a strong driven and leadership on the project through a diligent controlling and advising activities. PMU has been executing the project satisfactorily and also making good connection between the stakeholders. Moreover, PMU has successfully arranged the establishment of some crucial infrastructures for the future project perpetuation. Manufacturers and testing laboratories have been supportive and cooperative during the development technical standard and resources improvement program. 3) The project of BRESL Indonesia has been well executed up to the EOP with the overall assessment level of "Satisfactory". The detail success indicators that have been achieved namely: the drafted Ministerial Decree for 7 target appliances (legalized for CFL), the readiness of manufacturers and testing laboratories to implement EE labelling regulation in term of proficiency and infrastructure, the established online information sharing and monitoring system regarding EE product, etc;

Risk management

The RPMU and the PCs have continued to assess the project's risk profile this year and to identify mitigation measures to manage. They have reported the issues and risks factors and risk management measures in the preparation of Annual Work Plans and Project Implementation Review. RPMU noted however that the PCs should be encouraged to pay needed attention in reporting completely in the Risk Management tab in the APR/PIR and in UNDP's ATLAS risk log for the project that requires that critical risks that may affect the project success are identified and what risk management measures to address them were undertaken in the reporting period. The RPSC in its 6th Annual Meeting has also reviewed the project implementation risks and discussed possible adjustments or adaptive management to mitigate the identified risks.

In summary, each PC has identified the following risks that continued to be addressed in 2014 as follows:

a. Bangladesh –1) No mandatory regulations for minimum energy performance standards (MEPS) for all BRESL Products. 2) Initial investment cost remains a problem from the perspective of manufacturers; 3) Despite reaching over 1 million people through Training, Workshop, Idea Exchange meeting Electronic media(TV Advertisement) and parallel print media like stickers poster campaigns, public awareness of energy efficient products still remains not up to the mark in comparison with total population. 4) There is a need for independent testing and accreditation of products to improve efficiency, currently only BSTI can provide accredited testing facility. 5) The present government based accreditation process is unable to cope with the quantity of accreditation requests posing a barrier to scale up. 6) Political Strike (Hartals) and blockades impacted project timelines and public events, contingency planning took up significant project time.

b. China – Among the external project concerns that were experienced by China CCT in varied degrees included: a.) unclear or changing government priorities and policies; b.) economic and political changes that affected the pace of implementation of activities and availability of co-financing resource inputs; and c.) long lead-time in government approving new guidelines and activities that are in the process of installing EES&L programs. As agreed in the RPSC Meeting, China CCT together with other BRESL Country Teams and RPMU are also encouraged to employ strategies for more effective implementation of BRESL activities, to make use of synergy with ongoing and upcoming ES&L projects/programs in all BRESL countries and to ensure that the staffing is maintained to ensure continuity of project operation and decision making. Besides, UNDP has and will provide more coordination and help for China CCT to prevent any high-level risks that may happen in the future.

c. Indonesia – The issues that potentially hinder the project accomplishment and/or reduce project effectiveness have been identified in the project document along with its potential countermeasure. The problems were related to:

   1. The sustainability of the support by key stakeholders in the participating countries;

   2. Lack of, or fading, interest of the private sector (particularly appliance/equipment manufacturers and suppliers);

   3. Ineffective project coordination at the national and/or regional levels;

   4. Failure of EE products to perform as claimed by manufacturers resulting to

customer dissatisfaction;

5. Unabated proliferation of illegally traded and unreliable EE equipment/appliances; and,

6. Unwillingness of consumers to buy EE products due to bad experiences in the past and high initial cost may lead to failure of the project to induce increased sales and widespread use of EE equipment and appliances.

d. Pakistan – the main risk in 2014 is: Lake of capacity of public sector to enforce the labelling regime

e. Thailand – Ineffective regional coordination and collaboration with regional organizations – Participating countries may continue to carry out ES&L activities on their own losing the potentials for synergetic work towards wider achievement of ES&L harmonization objectives. The mitigation actions could be that regular meetings of the Regional PSC to exchange work programmes and implementation plans and that meeting plans should be prepared in advance to ensure participation of participating countries.

f. Vietnam – the revision of energy efficiency standards on testing protocol for CFL, fan and rice cooker was planned in early 2014 but it usually takes more than 1 year to be completed. Therefore, this process may affect on the regional harmonization based on results of TWG. The Bresl has supported Vietnam Institute of Standard and Quality in the revision process and provided technical assistance to promote the completion and issuance of the revised standards on CFL, fan and rice cooker. In addition, Bresl Vietnam also provided capacity building for government officials, testers and technical experts to continue supporting ES&L program after Bresl completion in December 2014.

Communication and advocacy

In line with the Project's communication and advocacy strategy and plan, it continued to implement arrangements for the preparation and implementation of the BRESL Regional and National Annual Work Plans and enhancement of communication and advocacy among the country teams, as well as other project stakeholders. The project significantly achieved the marked improvement in the level of participation by the country teams and relevant government institutions and private organizations in advocating and rendering support ES&L national program implementation as well as regional cooperation and harmonization. Considering the varying needs and situations in ES&L by the stakeholders in the respective countries, such communication and advocacy strategies and plans have gained very significant grounds and satisfactory success this year. The RPMU has continued to coordinate with the CTs of the BRESL countries in achieving the regional objectives of the project and constantly guiding the individual Country Teams in project implementation to achieve expected outputs at the national and regional levels through improved coordination. RPMU noted each PC's advocacy-related outputs this year while continuing the usual communication and advocacy activities.

a. Bangladesh – A Computer Graphics (CG) Animation For creating mass awareness about the usages of Energy Star labelled CFL, EB & E.Fan one 18 second TV commercial 18 second was broadcasted whole the year. And another one is 35 second will be prepared and it would be broadcasted more than 6 Private TV channel. Media selection and work order has been given to the selected company. For creating mass awareness about Energy Star Label.

For creating mass awareness about the usages of Energy Star labelled CFL, EB & E.Fan one bengali & one English mobile message have been generated within 2.50 & 2.00 lac total 4.50 lac users on 18-09-2014 & 30-09-2014.

Paper advertisement also published in the Daily Bengali & English Newspaper.

As per printing communication, Festoons, Banner & Brochure were printed with Energy Saving Slogans and using in different Training Workshop with stakeholders.

Time to time updated project activities published in the project website as www.breslbd.org and also in UNDP inside story page. Another Inside Story published in Country's First & only Energy & Power Magazine and News letter etc..

b. China – Since China CCT was encouraged to continuously advocate and encourage the government policy makers to support ES&L regional cooperation and harmonization, to employ strategies for more effective implementation of BRESL activities and to make use of synergy with ongoing and upcoming ES&L projects/programs in their respective countries, effective communication and advocacy issues have been experienced in the reporting period. Firstly, China CCT constructed its own China Project Steering Committee (CPSC) which is composed of officers from NDRC, NECC and AQSIQ. CPSC has continued to discuss and make critical decisions regarding project direction. Since the CPSC members are all from government, the synergy of project activities with national policies were ensured. Secondly, China CCT sent project bulletins and reported project progress reports to NDRC and other government agencies from time to time. Finally, China CCT has conducted frequent communication with RPMU.

c. Indonesia – For better communication and coordination in the development and implementation of the ES&L program, communication and advocacy has been implemented to encourage involvement of the key stakeholders, to ensure sustainability of the program, and to raise awareness of the public on the ES&L program

   Audience of communication were mostly come from related government agencies, industry association, EE appliances manufacturers, retailers association, and other institutions. Awareness is mostly directed to retailers, government officials, women, youth, school/ university, home appliances user.

   The messages for the communication include ES&L program which involves many parties, and thus coordination is needed for implementation. In addition, using Energy-efficient appliances will save energy, save money, and save the environment

d. Pakistan – Communication with stakeholders is done through interactive meetings, soft & hard material and advocacy/ awareness among stakeholders is being created through print and electronic media, and consultative meetings.

e. Thailand – The BRESL working team has communicated with the implementing partners on regular basis to ensure the effective operation of the project and to immediately solve emerging problems.

f. Vietnam – ES&L program has been promoted through various channels of communication & media companies, association of women, energy efficiency association, refrigeration & AC association and DOITs, related government agencies. Bresl have organized frequent meetings with manufacturers, importers, testing labs, consumers to understand the difficulties and barriers in the implementation as well as

recognition of energy labels and find the appropriate ways to support.

4. Financial Management *(RPMU)*

The budget for the year 2014 is $444,736.40, and the accumulated annual expenditure by the end of the year 2014 was about $ 410,426.14, with the delivery rate of 92.29%.

	Source of Fund	Budget	Expenditure
Expenditure Vs. Approved project budget by source of funding	UNDP	444,736.40	410,426.14
	Government Cost Sharing	0	0
	Third Party Cost-sharing	0	0
	Other (please specify)	0	0
	Total	444,736.40	410,426.14

Output	Activities	Source of Funding	Budget Description	Annual Budget (USD)	Annual Expenditure (USD)	Note
Output 1	1.1	/	/	0	0	
	1.2	/	/	0	0	
Output 2	2.1	/	/	0	0	
	2.2	GEF	TWG and training	145,560.93	-157,610.11	
	2.3	GEF	EE comparison test	16,000.00	16,000.00	
	2.4	GEF	EE experts	25,000.00	20,000.00	
Output 3	3.1	/	/	0	284,738.88	
Output 4	4.1	/	/	0	0	
	4.2	GEF	Interviews	45,000.00	45,000.00	
	4.3	GEF	REESLN	36,000.00	36,000.00	
	4.4	/	/	0	0	
	4.5	GEF	BRESL phase 2	16,000.00	40,806.46	
Output 5	5.1	/	/	0	0	
	5.2	/	/	0	0	
	5.3	/	/	0	0	
	5.4	/	/	0	0	
	5.5	/	/	0	0	
Output 6		GEF	Project management	161,175.47	125,490.91	
	Total			444,736.40	410,426.14	

5. Management recommendations

Among the key recommendations noted per country are the following:

a. China – (a.) Strengthen sharing of project information and deliverables. As the leading country of BRESL, China hopes to provide more technical support to other countries. However, because of communication limit, the needs of other countries are not well understood. The progress of all the BRESL countries should be circulated around from time to time; (b.) Cut short and simplify approval procedures of project implementation. Regarding project implementation of BRESL China, the dual approvals of NDRC and RPMU are necessary. The process always takes a long time. The procedure should be cut short and simplified, and China CCT should be given more flexibility; and (c.) Further strengthen communication and advocacy efforts. A systematic communication and advocacy plan should be developed and adequately resourced. The corresponding efforts should be strengthened by involving government officers in BRESL China decision making regarding project direction, hearing routine reporting and sharing project information and outcomes by bulletins dispatched by China CCT, etc.

b. Indonesia

5.1 Implementation of ES&L: To avoid delayed and unbalance of volume testing process in certain laboratories due to existing differences on testing fees, the Directorate of Energy Conservation should conduct policy meeting and discussion. Each government testing laboratory should review and revise testing fees (non-tax revenue) and approved by their institution and validated in the form of a Government Regulation. Communication Forum of testing laboratories, may take a priority action to accelerate the revision on testing fees to be a competitive price.

5.2 Initiative Financing: With the assistance from the Consultant (EY – India Consultant), conduct a comprehensive quantitative review of the future energy saving and GHG mitigation potential from the use of energy-efficient appliances associated with the implementation of ES&L program. The project will also review the energy cost saving potential of such initiative. The project outcome will help policy makers assess the benefit of ES&L programs and to identify the most attractive appliances and efficiency levels to be included in the ES&L program. Based on the outcome of the primary survey, estimate the energy and cost saving potential associated with implementation of ES&L for 7 BRESL appliances. The savings will be estimated for coming 20 years. The energy consumption level for the appliances currently available in Indonesian market will be considered for baseline calculation. Finally, a rebate scheme for promoting ES&L program may be developed. Additionally a cost-benefit analysis should be conducted for two BRESL appliances (AC and refrigerators)

5.3 Promoting ES&L: Low purchasing power and price oriented leads Indonesian to buy non-Energy Efficient product. Promoting ES&L by continuing consumer education and combining with financial incentive program such as rebate, instalment payment or other financial scheme may attract and affect on Indonesian mind-set. Pertinent data, information, and inputs required in the development of designs of concept should be collated after a desk research interacting rapidly with other stakeholders including the implementing partner and the relevant associations of producers and manufactures of energy saving home appliances. All the data collected from the relevant websites provided a significant factor in the concept and design process.

5.4 Government Procurement: Programs to reduce energy use in public facilities can reduce public energy expenses, creating fiscal space to allow governments to expand social services and meet other critical infrastructure investment priorities.

Energy efficiency investments in public facilities can also be an attractive economic stimulus, by creating local jobs to "green" existing infrastructure while upgrading facilities and lowering future operating costs. Government procurement in the pilot project Of Makassar City should be a stimulus for expanding the program of EE. Many public office buildings in Indonesia can easily achieve 20–40% energy savings through retrofits of existing equipment, where access to and use of electricity may be relatively low. Key areas for saving include government office buildings, water utilities, public lighting, and institutional facilities (e.g., schools, hospitals).

5.5 Government Regulation: The basic regulations and directives required to support an EE-S&L program is already implemented in Indonesia. However, there is a need for enacting regulations, decrees or directives to support an effective and transparent monitoring, verification and enforcement (MV&E) at the national and provincial level. The regulation or directive can authorize a central department like "supervision division" of Director General of New and Renewable Energy and Energy Conservation (DGNREEC) to run the MV&E related activities. Similarly, a cell inside an existing department under MEMR has to be identified to support S&L related activities at provincial level. Additionally, a special unit can be created within the "supervision division" of DGNREEC for MV&E. This unit in turn can communicate with provincial level authorities on MV&E related activities.

5.6 Administration of ES&L: An appropriate administrative set up is required for executing various activities related to EE-S&L program. As a pre-requisite to setting up EE-S&L administration, all key performance indicators for agencies involved in different aspects of managing S&L scheme, roles and responsibilities of key functionaries, standard operating practices and different forms have to be developed. Further, detailed guideline is required on 'how to select a new product' and 'how many new products to be included' under S&L program. Similarly an MV&E guideline has to be developed. The MV&E guideline should focus on issues like market surveillance, check testing, challenge testing, suggested penal actions etc. All forms and guideline once prepared should be reviewed by the industry experts, government officials, legal experts and other key stakeholders before integrating it to the EE-S&L program. There is an urgent need for documenting different EE-S&L related forms and guidelines in a language which is clearly understandable by the target audience.

5.7 Capacity Building: Detailed plan has to be prepared on providing training on various aspects of energy efficiency standards and labelling. These trainings should be developed principally for provincial level authorities, DGNREEC employees and Test Labs related with S&L program. Annual plans should be prepared with quarterly checks and milestones. Capacity building exercise for government agencies should start immediately and should be regularly carried out as an ongoing activity. Prior to designing the capacity building exercise, a detailed training need assessment and gap analysis of the trainees should be conducted.

5.4 Social marketing: A comprehensive outreach and awareness strategy has to be developed by engaging an experienced and professional PR agency. The objective of the outreach program is to publicize benefits of using energy efficient appliances through various public media including news agencies, television, FM radio, newspapers, magazines etc. These focused outreach strategy will complement the existing initiatives taken by DGNREEC. A long term outreach plan has to be developed keeping in mind the professional cost and effort involved in reaching out to consumers, retailers and manufacturers in various provinces.

Finally, it is envisaged that Directorate of Energy Conservation and DGNREEC will continue to work with industry experts or working group formed under BRESL

project with an objective of implementing an affective EE-S&L program for Indonesia.

c. Pakistan – a.) Project organogram realigned to fulfil the project requirements due to non-availability of experts in ES&L field; b.) Reiterate request to Government and UNDP on Project Bank Account being non-operational since April 2013, due to non-availability of signatories as either of the two signatories i.e. National Project Director or National Project Coordinator was not on board; and c.) Closer cooperation and speedy interaction with TWG members to address delayed and inconsistent inputs from TWG members.
d. Thailand - After the completed policy recommendation should be officially presented to relevant agencies. Furthermore, the BRESL working team should seek the way to push the policy recommendation to be the concrete implementations through related agencies.
e. Vietnam - a.) The capacity of testing labs and monitoring & verification must be improved and conducted frequently. MOST needs to invest in improving the capacity of testing labs as well as building more capable testing labs to meet the demand of the market. In addition, the testing experts should be trained and shared experiences with other colleagues. Beside, MOIT also needs to pay more attention to the monitoring and verification activities after mandatory phase came into effect by conducting compliance surveys in different areas and enhancing market surveillance of labeled products. BRESL can assist both MOIT and MOST in improving capacity of testing labs through training for technical experts and implementing M&V activity nationwide; b.) A management software of labeling applications database should be prepared and applied for the officers at MOIT. The management of database of energy labeling applications will be the difficulty for MOIT when hundreds of applications submitted for approval. Additionally, there are many kinds of equipment and appliances needs to be classified and managed in a systematic way.

Annual Project Report (UNDP conclusion)

[Name of project] BRESL

[Date of report] Feb 9, 2015

Project annual report rating

Item rated	*Rating provided*
Overall quality of the report	*4*
Does the project still fit with the Country office Strategic direction	*5*
Is the project still Relevant within the country setting	*5*
Sustainability	*4*
Efficiency: Financial performance (overall)	*4*
Efficiency: Financial performance (reporting period)	*4*
Effectiveness: Activity implementation (overall)	*4*
Effectiveness: Activity implementation (reporting period)	*4*
Partnership Effectiveness (if applicable)	*4*
Total	*4*

Partnership Effectiveness (only for joint inter-UN agency initiatives)

The partnership effectiveness of the project is satisfying. The active policy and ample resources support of the respective governments of the project countries in the national ES&L programs have resulted in the integration of the principles of sustainability into the country policies and programs. This partnership has definitely led to the opening of the markets in the BRESL countries and the region as a whole due to an increased trade and sale of energy-efficient appliances and products and the diffusion of technology through technical exchange and demonstration to maximize the economic and environmental benefits of new energy efficient technologies.

Overall assessment

As a regional project which involved 6 countries, the report of this project is satisfying. The main activities have been described, the main issues have been addressed, and suggestions have been raised. Meanwhile, information about some countries are not sufficient.

Sustainability (either separate or as part of the overall assessment)

Although this project will be ended soon, the achievement will be sustainable. This project is focused on establishing energy efficiency standard and labelling among 6 Asian countries. National ES&L programs are already operating in all PCs with plans to sustain these programs after the project completion resulting from the policy and legal bases and institutional/organizational strengthening for the implementation of the ES&L programs that were developed and established through the project.

Management steps to be taken

Being a regional project, the importance of understanding the organization culture, communication approaches, and assessment of possible interests of related parties will be considered. Barriers to good communication/ approaches in getting things done and in successfully gathering valuable information and inputs in pursuit of common BRESL Project objectives will be overcome through frequent communication by emails, tele-conferences and meetings.

Signed by: Liu Shijun

Date: Feb 9, 2015