



Collaborative Labeling
and Appliance Standards Program

Communique

Lessons Learned in Asia: Regional Symposium on Energy Efficiency Standards and Labelling

29-31 May 2001

United Nations Conference Centre (UNCC), Bangkok, Thailand

Jointly Organised by:

The Collaborative Labeling and Appliance Standards Program (CLASP)
United Nations Department of Economic and Social Affairs (UN-DESA)
United Nations Economic and Social Commission for Asia and the Pacific (UN-ESCAP)

Supported by:

United Nations Foundation (UNF)
United States Agency for International Development (USAID)
National Energy Policy Office (NEPO)
Electricity Generating Authority of Thailand (EGAT)

Chapeau

The Regional Symposium on Energy Efficiency Standards and Labelling: Lessons Learned in Asia was co-organized by CLASP, and the Secretariats of United Nations DESA and United Nations ESCAP. The meeting was held at the United Nations Conference Centre in Bangkok from 29 to 31 May 2001, and was attended by 125 participants from 25 countries. Those assembled included government planners, equipment manufacturers, consumer union representatives, and technical experts. As of 2000, there are 28 countries in the world having energy efficiency standards and labelling programmes, and half of those countries are in Asia. Given the growing importance of such programmes within the region, the question is no longer whether a country should consider establishing or participating in such a programme, but when that programme should start. Given this imperative, the meeting decided to send the following message to the international community:

- ❑ Energy consumption in many Asian countries is growing rapidly, with some countries seeing a four-fold increase between 1980 and 2000. Asia has peak electricity demand deficits of up to 15 per cent in some countries, largely due to rapid consumer demand for home appliances. Typical saturation of key appliances such as refrigerators, air conditioners and televisions in urban areas has gone from 0 per cent in 1980 to as high as 90-100 per cent by 2000 in a number of countries;
- ❑ Energy standards and labelling programmes are some of the most cost effective ways for countries to realize their energy efficiency goals;
- ❑ Standards and labelling programmes have proved to be effective as measures to mitigate climate change in all the countries in which they have been instituted;
- ❑ 80-90 per cent of the products that will use energy in buildings around the globe in 2020 have not even been built yet. Therefore the potential for standards to positively affect all of these purchasing decisions is enormous;
- ❑ Worldwide, the potential savings from all appliance standards could reduce energy demand by nearly 30 per cent by the year 2050;
- ❑ It is the right of every country to determine the appliances and equipment that are included in its national standards programme and the stringency of the standards applied;
- ❑ Harmonizing or aligning standards, labels and test procedures across countries results in expanded trade;
- ❑ Many countries in Asia have only recently taken note of the magnitude of the problem of standby power losses in home electronics and office equipment, which can range from 5-15 per cent of residential energy use. To address this problem, partnerships are needed between governments and industries for voluntary agreements, research and development, and inclusion of standby power use in existing labelling programmes;
- ❑ International support has played a key role in the establishment of standards and labelling programmes in developing countries through such things as capacity building, strengthening of testing facilities, support to market research and analysis, and evaluation of impacts on manufacturers and the role of consumers in advocacy and in raising awareness;
- ❑ Further support is needed:
 - to countries without such programs in order to help them mobilize domestic stakeholders, establish appropriate legal/regulatory frameworks, and launch national programmes.
 - to countries with standards and labelling programmes in order to expand coverage of appliances and to upgrade existing standards.
- ❑ Therefore, the meeting calls upon the international community to provide additional support to standards and labelling programmes to help developing countries meet their energy efficiency and climate change goals.
- ❑ And furthermore, it calls upon all stakeholders to support national efforts to establish or promote standards and labelling programmes.

Summary: Lessons Learned in successful Minimum Energy Performance Standards (MEPS)

MEPS can be a very cost effective tool to promote energy efficiency. International experience shows that significant savings can be made even with small increases in MEPS levels on a regular basis.

International cooperation and information sharing can expedite national programmes. Many countries are looking for ways to improve the MEPS setting process, such as reducing the length of the revision cycle and shortening lead-times.

Cooperation with key stakeholders e.g., manufacturers and consumers, is essential for the MEPS setting process. Stringent MEPS tend to favour large multinational companies, therefore technical and/or financial assistance should be rendered to small companies to help them adapt their products.

Harmonizing or aligning testing procedures serves to enhance testing capacities. Experiences across Asian countries indicate that it can also speed MEPS development, implementation and enforcement. Government requirements for testing can create demand and a market for test facilities.

MEPS levels can vary from country to country. MEPS levels may be harmonized regionally but there are many factors to consider such as range of products in the market, average prices, market structures and competition, etc.

A new area of concern is standby power losses. MEPS should be promoted to reduce standby power losses, which can be substantial.

Summary: Lessons Learned in Labelling

Labelling can be a very cost effective tool to promote energy efficiency. Internationally, labelling has been shown to be a very successful policy tool leading to significant energy savings; in particular, the number of success stories in Asia is considerable and growing.

Labelling brings transparency to equipment energy efficiency. It serves multiple purposes to a range of stakeholders beyond the immediate aim of providing information on equipment energy performance to consumers.

There is a diversity of approaches to label development. These include consideration of whether the programmes should be mandatory or voluntary, endorsement or comparative and within comparative labels, scales that are continuous or categorical. Whichever the approach taken, experience has shown that broad stakeholder participation helps to ensure program success.

Changes can be made to the label designs where there is evidence to suggest that improved consumer response will result. However, the value of consumer recognition of existing labels needs to be taken into account before changes are made. Changes can also be made to the technical parameters that underpin the label in cooperation with industry where this is warranted.

A new label design process should take into account social, cultural and linguistic parameters that are locally relevant. While a range of labels already in use may be considered as models during the design process, simply adopting some international label may or may not be meaningful to local consumers.

Consumer testing of label designs is critical. Comprehensive (multi-method and iterative) consumer testing is ideally undertaken at the outset of programme design to ensure labels are effective.

Labelling and MEPS are mutually supportive. Ideally, labels and MEPS should be designed to be complementary and coordinated with each other to create a dynamic market transformation effect.

Endorsement labels from other countries have value. Countries without labelling programmes and which rely on importation of appliances and equipment should only import those products that have received a reputable endorsement label elsewhere.

Summary: Lessons Learned in Performance Energy Testing

The number of different test standards is a concern. There needs to be a balance struck between relevance to local conditions and alignment with other countries.

It is necessary to keep a check on product quality and performance. There are a number of successful testing schemes employed internationally; these include mandatory government testing of all products, independent laboratory certification, and industry self-monitoring programmes, among others.

Accreditation of testing laboratories ensures stakeholder confidence. Laboratory accreditation provides a useful system for assuring laboratory reliability and for acceptability of test results in other countries.

Energy test laboratories must be properly funded and supported. Failure to do so undermines MEPS and labelling programmes.

Existing test methods are often far from perfect. While harmonization of testing procedures is important, methods may be adapted so that results better reflect real life usage.

Shared testing facilities are cost-effective. Countries should explore opportunities for harmonization and for the establishment of regional testing facilities in order to reduce costs; cooperation with international testing technical organizations, e.g., ISO, should be encouraged.

Summary: Lessons Learned in Monitoring, Evaluation and Enforcement

Build evaluation and monitoring into programme design. Ensure that monitoring and evaluation are incorporated into the programme design and budget. The evaluation should be designed in the initial stages of programme implementation.

Build capacity within the implementing agency. It is important for the country to have the resources to build capacity in both the private and public sectors to perform good evaluations.

Programme evaluation requires many different sources of data. It is necessary to examine a range of indicators in order to build a convincing overall picture of the degree of programme success. It is essential to have sources of reliable data on sales and efficiency levels for all relevant appliances in the market.

Establish a clear framework and guidelines for monitoring and enforcement. A monitoring and enforcement campaign should set ground rules and a clear framework to inform all stakeholders of how the programme elements will work.

Monitoring and enforcement can be done within a reasonable budget. It is possible to establish and operate an extensive national monitoring programme within a limited overall budget. (For example, Australia's programme operates effectively within an annual budget of less than US\$100,000.) Monitoring and enforcement can also be a profit centre.

Take steps to avoid a testing bottleneck. In order to accurately track market data, it is important to have adequate capacity to test product energy performance. This can be accomplished either through in-country test laboratories, or acceptance of test results from accredited international laboratories.

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The United Nations Foundation seeks to support the goals and objectives of the United Nations and its Charter in order to promote a more peaceful, prosperous, and just world - with special emphasis on the UN's work, especially on behalf of economic, social, environmental and humanitarian causes.

Within the overall responsibilities of the UN system in promoting international peace and security and fostering development, UNF has identified four areas of particular interest: women and population; children's health; the environment; and selected humanitarian causes. This symposium is being funded by a project in the environment programme area.

With respect to the environment, UNF will assist the United Nations in efforts to provide an effective global forum for environmental problems that can only be solved through global action, with a focus on fostering a more integrated and effective response to the problems of climate change and biodiversity loss. In doing so, the Foundation will seek innovative ways to assist with implementation of relevant agendas from UN conferences and conventions, including the UN Framework Convention on Climate Change and the Convention on Biological Diversity. In the climate area, specific attention will be focused on market mechanisms and sustainable energy technologies. The biodiversity emphasis will include promoting more effective conservation and environmentally sound management of priority ecosystems.



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for International Development**

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National Energy Policy Office

The National Energy Policy Office (NEPO) was established in 1986, functioning as the focal agency in the development of national energy policies and measures. The main responsibilities of NEPO are to study and analyse energy policies, management and development plans of the country as well as to evaluate any possible effects thereby and to disseminate energy information to concerned parties. Its principle roles are to monitor, evaluate and act as the focal point for coordinating and supporting the implementation under the established energy policies, management and development plans.



**Electricity Generating
Authority of Thailand**

The Electricity Generating Authority of Thailand (EGAT) is a state enterprise under the Prime Minister's Office. It was founded on May 1, 1969, entrusted with electricity generation and transmission for the whole country. The main policy of EGAT is to provide the country with a sufficient and reliable power service at the most reasonable price. Its power operation and development must be environmentally sound and promote the use of energy resources for maximum benefits.

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