INTERNATIONAL NEEDS SURVEY:

INFORMATION ON ENERGY EFFICIENCY STANDARDS AND LABELING

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EXECUTIVE SUMMARY

The International Institute for Energy Conservation (IIEC), Lawrence Berkeley National Laboratory (LBNL), and the Alliance to Save Energy (ASE) are engaged in a Collaborative Labeling and Appliance Standards Program (CLASP), a global program aimed to disseminate information on standards and labeling (S&L). The program will include a guidebook for policy makers, a web-based information clearinghouse, a policymaker toolkit, and regional conferences in Latin America and Asia. The first step in this program was to conduct an *international needs survey*. The survey was designed to assess the information needs of the people who are or will be involved in establishing standards and labeling programs in their specific countries.

IIEC sent 165 surveys via fax, mail and e-mail to government agencies, test laboratories, utilities, universities, non-governmental organizations (NGOs), financial institutions, and private sector firms in Asia, Africa, Australia, Europe, North America, Latin America, and the Pacific. The targeted sample frame was the contacts that IIEC, LBNL, and ASE have made in developing countries and economies of transitions over the past decade. For this reason, and the fact that the majority of respondents (62%) were from Asia, this assessment should not be viewed as a comprehensive international assessment, but rather as indicative of policymaker information needs on standards and labeling.

We received 65 completed surveys from 27 countries around the globe. A high response rate of 39% indicates strong interest in our international program from respondents. Nearly 75% of the 65 respondents were from government and public agencies.

To supplement our understanding of the survey results, we conducted seven in-person interviews of policymakers from Asia (6) and Latin America (1) to gather more qualitative and in-depth viewpoints. Based on the survey and interview results, we conclude the following:

Status of Programs
- All but one respondent indicated that their countries are either considering, planning, and/or implementing standards and/or labeling programs.
- Respondents from the same country often reported the status of programs in their country differently, implying that standards and labeling programs in most countries may not be well defined or well publicized.

Sources of Information
- Conferences and workshops were the dominant source of information on standards and labeling for the majority of respondents. Reports, newsletters, and periodicals were the next most common information source. The respondents, especially those in government agencies, still rely mostly on these "traditional" sources of information, instead of the Internet and e-mail.
- Government officials tend to prefer "traditional" sources of information (reports, newsletters, conferences, and workshops). On the other hand, respondents from

academic, research, and financial institutions and NGOs indicated that they preferred to receive information through the Internet and e-mail.

- The in-person interviews shed light on the limitations of conferences and workshops. Although such meetings help establish a network of contacts and are an effective medium for gathering relevant information, their usefulness is limited by relatively low frequency, low attendance, and lack of budget resources for respondents to attend.
- Respondents indicated that reports provide the most detailed and relevant information and can be easily shared among colleagues.
- Just over one-third (37%) of respondents indicated that they currently access information on standards and labeling via the Internet. Only 17% said that get such information via e-mail.
- The in-person interviews revealed the limitations of the Internet and e-mail in disseminating information to government officials. While the Internet and e-mail are useful means of exchanging information, many government officials are limited in their use of the Internet and e-mail for the following reasons:
  - There is limited access in many developing countries; officials must often share one e-mail account within their division or else have slow access to the Internet.
  - Senior policymakers and officials do not have time to browse the Internet themselves.
  - The officials whom we interviewed indicated that they often fail to find the detailed information they need on the Internet e.g. full reports, conference proceedings or copies of technical standards.

Topics of Interest

- The most popular topic among respondents was the energy savings potential of standards and labeling. However, the scores for all information topics were high and indicated strong interest in learning about the full range of technical, regulatory, and implementation issues related to standards and labeling.
- Respondents from different types of organizations chose topics most relevant to their field of work. The diversity of topical interests means that it will be difficult to accommodate the information needs of all types of energy professionals in one package. However, for CLASP's primary target group, government-related agencies, general information topics appear to be most useful at this stage.

Overall, respondents showed a high level of interest in the CLASP information dissemination program. Additional comments and written expressions of enthusiasm on cover letters that accompanied the completed surveys revealed strong support for the initiative. The survey results can help CLASP direct its efforts into the most effective means of information dissemination and the most useful information topics.

Recommendations for the Global Standards Initiative

In closing, we present some recommendations for the CLASP information outreach effort. In general, it is important for CLASP to first define its target audience for each information outreach product. The data in this survey can serve as an initial guide in our efforts.

Standards and Labeling Guidebook

- General information on standards and labeling is the most important information need for the majority of the respondents.
- Include specific case studies and success stories of programs implemented in different countries.
- The Guidebook will provide an overview and brief introduction to major topics related to standards and labeling; however, to be useful, the chapters should contain enough information and references so that the reader can easily follow-up and retrieve more detailed and in-depth information on various topics.
- Consider the information needs outlined in this report to ensure that the contents of the Guidebook provide adequate coverage of the most important topics.

Internet-Based Clearinghouse and Toolkit

Most respondents and interviewees were supportive and enthusiastic about a potential Web-based clearinghouse. Some recommendations are:
- Publicize the website thoroughly by informing all contacts by e-mail, newsletter, or flyers. Many policymakers do not have time to surf and find a Web site. They are more likely to use a site regularly if they are informed about the Web site via printed media or e-mail and told about the products it offers.
- Do not only provide an index page with just a search engine. Provide a full visual representation of the information topics and features available on the website.
- Based on IIEC's own experience with Internet research, we recommend providing a brief summary description for all downloadable documents.

Regional Conferences

- Select the right speakers with relevant presentations to the theme and focus topics of the conference.
- Obtain additional funding to finance travel for participants to ensure high attendance. Missing the key participants from various countries can make the supposedly "regional" or "international" conference less useful.
- Publish and provide thorough conference proceedings for reference.

Based on IIEC's own experience with regional conferences in Asia, we add the following recommendations:
- Publicize the event well beforehand with a defined agenda (speakers and topics).
- Provide some "free" time in between sessions for people to personally meet, exchange contact information, and share ideas.
- Producing a thick conference proceedings can be costly, especially when mailing the document to policymakers around the globe. We recommend a relatively brief summary proceedings, supplemented with a CD-ROM containing full copies of papers, presentations, and other background materials.

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I.   INTRODUCTION

Energy-efficiency standards and labeling programs have been implemented in many countries throughout the world. For a country looking to pursue standards and labeling programs, each of the implemented programs provides valuable lessons that should be carefully examined. However, there is currently no central place for ambitious countries to search and gather global information about establishing, implementing and enforcing standards and labeling programs.

The International Institute for Energy Conservation (IIEC), Lawrence Berkeley National Laboratory (LBNL), and the Alliance to Save Energy (ASE) are engaged in a global information program to disseminate info on standards and labeling. The Collaborative Labeling And Standards Program (CLASP) will include a guidebook for policy makers, a web-based information clearinghouse, a policymaker toolkit, and regional conferences in Latin America and Asia. The first step in this program was to conduct an *international needs survey*. The survey was designed to assess the information needs of the people who are or will be involved in establishing standards and labeling programs in their specific countries.

IIEC sent 165 surveys via fax, mail and e-mail to government agencies, test laboratories, utilities, universities, non-government organizations (NGOs), financial institutions, and private sector firms in Asia, Africa, Australia, Europe, North America, Latin America, and the Pacific. The targeted sample frame was the contacts that IIEC, LBNL, and ASE have made in developing countries and economies of transitions over the past decade.

We received a total of 65 responses, a response rate of 39%. Most people responded by fax, several by email, and two by regular mail. The surveys were sent out on 2 September 1999. The deadline for the responses was set for 22 September 1999. However, responses were accepted up until 30 September 1999.

IIEC also conducted several in-person interviews to gather more qualitative and in-depth information and to complement our understanding of the needs survey data. One interview was conducted in India, and six interviews were conducted at a regional workshop on energy performance standards held in Korea (6-8 October 1999). All but one of the interviewees (who was from Mexico) were from Asian countries.

In this report, we first present the results of the needs survey. This is followed by a discussion of the in-person interviews.   We end with conclusions and recommendations on the information needs of policymakers and the most effective strategy for providing them with useful information.

II.   RESPONDENT PROFILE

A. Needs Survey

The 65 respondents represented 27 countries from around the world. Two respondents did not indicate their name, organization, or country, but otherwise completed the survey. Table 1 shows the distribution of respondents by country, and Figure 1 shows the breakdown of recipients and respondents by region.

Table 1: Respondents by Country

Country	Respondents	Country	Respondents
Australia	1	Philippines	1
Brazil	1	Poland	2
Bulgaria	2	Romania	2
China (incl. Hong Kong)	8	Russia	1
Egypt	4	Saudi Arabia	1
Ghana	2	Singapore	2
Hungary	1	Sri Lanka	1
India	6	Tanzania	2
Indonesia	2	Thailand	6
Japan	1	Ukraine	2
Jordan	2	USA	1
Korea	2	Vietnam	1
Malaysia	6	Yemen	1
New Zealand	1	Zimbabwe	1
		Not Indicated	2
		Total	**65**

Survey Recipients
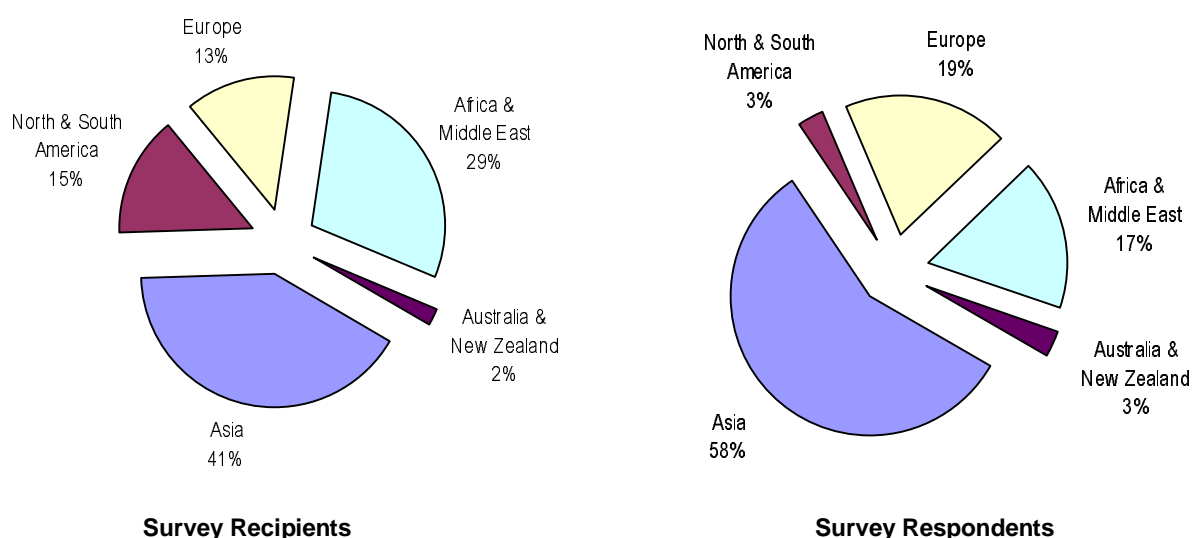
Survey Respondents

Figure 1: Breakdown of Survey Sample by Region

The surveys we sent out were biased toward the Asia region (41%) due to the extensive Asia network of IIEC, and since the survey was managed out of IIEC's Asia Regional Office in Bangkok. A reasonable share of the surveys was mailed to each of the other four regions, but the response rate for these regions was lower.

More than half of the respondents were from Asia (58%). Other regions were less well-represented – 17% for Africa and the Middle East, 19% for Central and Eastern Europe, and just 6% from Australia, New Zealand, and the Americas.

Table 2 summarizes the respondents by type of organization. A more detailed list of respondents can be found in Appendix II. Out of 65 total respondents, 37 were from government and public agencies, which includes 13 energy-related agencies, 10 standards-related agencies, 3 utilities, 7 test laboratories, and 4 others. There were 3 respondents from academia and 2 from energy research institutes. Six respondents are consultants and professionals in consulting firms and non-government energy agencies. There were also 6 respondents from financial/aid institutions. Nine responses were from non-governmental organizations (NGOs) that are involved in energy efficiency and consumer protection. Two responses were received from the private sector.

Table 2: Respondents by Organization Type

Type of Organization	Respondents
Government – Energy Agency	13
Government – Standards Agency	10
Government – Other	4
Utility	3
Test Laboratory	7
Academia	3
Research Institute	2
Consultants	3
Energy Agency	3
Financial/Development/Aid Institution	6
Non-Governmental Organization	9
Private Sector	2
Total	**65**

B. In-Person Interviews

A total of seven in-person interviews were conducted. The first interview was conducted in India, with a high-level government official from the **Bureau of Indian Standards**. However, this person asked to remain anonymous since he felt that he is in a position or authority to view personal opinions for the Indian government. Thus, his interview answers were very general.

The other six interviews were conducted at a regional workshop on energy performance standards held in Korea during 6-8 October 1999. The six interviewees are:

Mr. Pedro Guzman
Certification Sub-Director, National Commission for Energy Conservation (CONAE), Mexico

Mr. Phanu Kiritporn
Managing Director, Energy Resources Management (ERM-Siam), Thailand

Dr. Robert Hu
Deputy Director, Thermofluids Technology Division, Industrial Technology Research Institute (ITRI), Taiwan

Engr. Isagani Soriano
Manager, A/C Testing Laboratory, Fuels and Appliance Testing Laboratory, Philippines

Ms. Ayako Sato
Manager, Japan International Energy & Environment Cooperation Center, Energy Conservation Center of Japan

Ir. Chuang Chu Kuen
Senior Assistant Director (Electrical), Public Works Department Malaysia

III. RESULTS AND ANALYSIS

A. Status of Programs

The respondents were asked about the status of standards and labeling programs in their respective countries.

Most of the countries surveyed have started to consider and plan the implementation of standards or labeling programs. This is not surprising, given that the respondents have been in contact with and received assistance from our organizations. Only one respondent indicated that his/her country has not considered any standards or labeling programs. The results are summarized in Table 3. While the consideration and planning of programs is roughly equally prevalent between standards and labeling, the implementation of standards programs was slightly more common among respondents than was the implementation of labeling programs.

Table 3: Status of Standards and Labeling Programs

Status of Programs	Number of Respondents*
Standards Programs	
Considering standards	25
Planning standards	23
Implementing standards	27
Labeling Programs	
Considering labeling	31
Planning labeling	24
Implementing labeling	22
Not considering any programs	1

* Total number of respondents = 65

A close look at the data reveals that respondents from the same country often reported the status programs in their country differently. This implies that standards and labeling programs in most countries are not well defined or well publicized, even among the community of energy professionals. This may result from lack of proper information dissemination. The implications are serious, considering that the respondents are people who are involved in energy-related issues in their own countries.

B. Sources of Information

In the survey, we asked the respondents to indicate the primary means by which they have been receiving information on standards and labeling. The choices were:
   A. Reports
   B. Conferences/Workshops
   C. Internet (World Wide Web)
   D. E-mail
   E. Training courses

F. Newsletters/Periodicals
G. Friends/Colleagues
H. Other (specification required)

In a separate question, respondents were also asked to rank three media of information in order of preference and usefulness. The choices were:
♦ Reports/Newsletters
♦ Internet Website/E-mail
♦ Conferences/Workshops

The results are summarized below, starting with an assessment of all respondents followed by results of specific groups categorized according to organization type.

Current Sources of Information – All Respondents

Overall, conferences and workshops were the dominant *current* source of information. Three-quarters (75%) of the respondents currently receive information on standards and labeling through attending conferences and workshops.

The second most prevalent source of information is reports (66%). More than one-third of respondents receive information through newsletters and periodicals (38%) and the Internet (37%). A smaller proportion of respondents said they receive information from friends and colleagues (29%) and training courses (26%). E-mail (17%) was indicated as the least common information source. The table below summarizes these results.

Table 4: Most Common Current Sources of Information (All Respondents)

Rank	Current Source of Information	Number of Respondents*	Percent of Respondents
1	Conferences/Workshops	49	75%
2	Reports	43	66%
3	Newsletters/Periodicals	25	38%
4	Internet	24	37%
5	Friends/Colleagues	19	29%
6	Training Courses	17	26%
7	E-mail	11	17%

* Total number of respondents = 65

The largest group of respondents was from government and public agencies; and conferences and workshops emerged as the dominant information source for this group and for respondents as a whole. Conventional sources of information such as reports, newsletters, and periodicals were the second and third most common sources of information. A few respondents cited other sources of information on standards such as specialized standards libraries, the IEC, the British standards publications, and APEC standards projects.

Current Sources of Information – Results by Organization

Table 5 summarizes the ranking of current sources of information by organization type. The first line of data is the results for all respondents, as discussed earlier, and will be used as the basis for comparing differences between groups.

Table 5: Ranking of Current Sources of Information by Organization

Source of Information Type of Organization	Conferences/ Workshops	Reports	Newsletters/ Periodicals	Internet	Friends/ Colleagues	Training Courses	E-mail
All Respondents	1	2	3	4	5	6	7
Government – Energy Agency	1	2	3	4	4	5	6
Government – Standards Agency	1	2	6	5	3	4	6
Government – Other	1	2	2	2	3	3	3
Utility	2	1	1	2	3	3	3
Test Laboratory	2	1	3	3	4	3	5
Academia/Research	1	1	3	1	4	2	4
Financial/Development/Aid Institution	2	1	5	3	4	5	5
Non-Governmental Organization	1	2	2	3	5	4	3
Energy Consultant/Agency	2	3	1	4	1	3	3
Private Sector	1	2	2	3	2	3	3

Note: Relative ranking scale with 1 = top ranking

Generally, the ranking results by organization type shows significant congruence to the results from all respondents. Conferences/workshops were ranked number 1 by most groups, followed by reports, newsletters/periodicals, the Internet, and friends/colleagues. Training courses and e-mail did not receive a no number 1 ranking from any group.

The results show that most government officials (including those from utilities and test laboratories) do not often receive information through the Internet and e-mail. Instead, they tend to rely primarily on "traditional" information sources such as conferences, reports, newsletters, and periodicals. Respondents from other types of organization also currently rely primarily on "traditional" information sources. The Internet was only ranked as the primary information source by respondents from academia and research institutes.

Preferred Medium of Information – All Respondents

We also asked respondents to narrow down their preferred information media and to rank their top three information sources. Reports/newsletters received the highest ranking (70 points out of 100), followed by the Internet and e-mail (67 points), and lastly, conferences and workshops (63 points). These results are shown in Table 6.

Table 6: Preferred Medium of Information (All Respondents)

Rank	Medium of Information	Score*
1	Reports/Newsletters	70
2	Internet Website/E-mail	67
3	Conferences/Workshops	63

* Normalized score (max =100)

The results appear to contradict the results from the earlier question on current sources of information, in which conferences and workshops were selected as the primary source of information. But since the three media achieved very close scores, it is difficult to derive a clear conclusion from these results. The next section analyzes the data in more detail.

Preferred Medium of Information – Results by Organization

When the results are represented by organization type as shown in Table 7, the normalized scores for each medium of information allowed us to make some distinctions. There was a strong concurrence on the top ranking within each organization type -- the number-1-ranked information media scored *at least* 70 points out of 100 while the second and third ranked choices received significantly lower scores. A more detailed set of results that make up the data in Table 7 can be found in Appendix III.

Table 7: Preferred Medium of Information by Organization

Type of Organization	Reports/ Newsletters		Conferences/ Workshops		Internet/ E-mail	
All Respondents	1	70	2	67	3	63
Government – Energy Agency	1	74	2	69	3	56
Government – Standards Agency	1	70	3	63	2	67
Government – Other	1	83	3	42	2	75
Utility	2	67	1	74	3	52
Test Laboratory	2	67	1	78	3	56
Academia/Research	2	67	3	40	1	93
Financial/Development/Aid Institution	2	61	3	50	1	89
Non-Governmental Organization	2	70	3	56	1	74
Energy Consultant/Agency	3	61	1	72	2	67
Private Sector	1*	83	1*	83	2	33

Note: For each medium of information, the first column shows relative ranking scale with 1 = top ranking.
The second column shows normalized score (max = 100)
* Equal scores = share of ranking

All respondents from government agencies ranked reports and newsletters as their preferred information medium. Internet/e-mail and conferences/workshops were ranked second or third. Respondents from utilities and test laboratories, the majority of who are government officials, also do not prefer to receive their information via the Internet and e-mail. They prefer to obtain information from conferences/workshops and reports/newsletters as their first and second choices, respectively.

In contrast, respondents from academic, research, and financial institutions and NGOs indicated that they preferred to receive information through the Internet and e-mail. This implies that these respondents frequently use the Internet and have greater access to this resource.

Analyzing the results by type of organization revealed the limitations of the Internet and e-mail in disseminating information on standards and labeling to government officials. Feedback from the in-person interviews with government officials was useful in interpreting the above results more qualitatively. When probing interviewees about their preferred information sources, we found the following:

- Reports and newsletters are often the most useful information source because they provided detailed information, can be shared easily with colleagues, and can be readily verified.
- Conferences and workshops are considered a useful medium for gathering information; however, their usefulness is limited by the frequency of events, low attendance, and available budget to attend workshops/conferences.
- Conferences and workshops are a valuable way to establish a network of contacts in a region or within a specific technical area. Interviewees indicated that, after personally meeting new colleagues during the meetings, they tended to rely on them for further information requests, which are often transmitted by e-mail.
- While the Internet and e-mail are useful means of exchanging information, many government officials are limited in their use of the Internet and e-mail:
  - There is limited access in many developing countries; officials must often share one e-mail account within their division or else have slow access to the Internet.
  - Senior policymakers and officials do not have time to browse the Internet themselves and often delegate information searches to their subordinates. This limits their reliance to on the Internet as a regular source of information.
  - Another limitation of the Internet is the lack of detailed technical content. The officials whom we interviewed indicated that they often fail to find the detailed information they need on the Internet e.g. full reports, conference proceedings or copies of technical standards. It is also sometimes inconvenient and time-consuming to obtain more detailed contents; they usually have to download a file, order a report by fax or e-mail, or send mail directly to an organization to request the information.
- When asked about what would encourage them to use the Internet more regularly, several interviewees indicated that specific lists and description of the locations and addresses of the websites would make it easier and less time-consuming for them to use the Internet. They want to know exactly where to go on the Internet, not to *search* for the websites. Several suggested that we would need to "market" our information clearinghouse website through other media such as newsletters, flyers, and e-mail.

C. Preferred Topics of Interest

The main part of the survey assessed the information interests and needs of the respondents on standards and labeling topics. This was the most important part of the survey. We asked respondents to rank each given topic from 1 to 5 according to their level of interest, with 5 being the highest score.

There were 36 specific topics presented in the survey. Respondents were also asked to suggest additional topics and issues that were not included in the choices. We

then asked respondents to choose their top three information needs out of the 36 given topics. The chosen topics received extra points in addition to the existing scores.

The 36 specific topics were grouped into 7 main categories as shown below:

1. General
- Overview of S&L policies and programs
- Energy savings potential of S&L
- Cost savings potential of S&L
- How S&L policies work together
- Mandatory vs. voluntary S&L programs
- Information on international S&L activities
- Country case studies (examples)
- Sources of consulting and technical assistance

2. Legal/Regulatory
- Legal aspects of S&L
- Enabling legislation
- Implementing agencies of S & L
- S & L in government procurement

3. Test Procedures and Services
- Setting up and running test laboratories
- Laboratory accreditation
- Mutual Recognition Agreements
- Selection of test procedures
- International test procedures

4. Developing Standards
- Data collection & survey methods
- Selecting products for standards and labeling
- Working with stakeholders
- Computer modeling of standards
- Benefit/cost analysis of standards
- Reviewing and updating standards

5. Developing Labels
- Consumer research
- Energy label design
- Applicability of labels
- Updating/revising labels
- Sample labels and promotional materials

6. Monitoring and Evaluation
- Compliance and enforcement methods
- Monitoring and evaluation of impact
- Applying evaluation results to improve program

7. Training and Outreach
- Program promotion and education
- Sample program materials
- Training opportunities for policymakers
- Training materials and teaching aids
- Funding to establish S&L capacity

All Respondents

Table 8: Preferred Category of Interest (All Respondents)

Rank	Category	Score*
1	General (1)	54
2	Monitoring and Evaluation (6)	53
3	Developing Standards (4)	52
4	Test Procedures and Services (3)	52
5	Training and Outreach (7)	51
6	Legal/Regulatory (2)	49
7	Developing Labels (5)	49

* Normalized score (max =100)

When we analyzed the data broadly by category, all of the main categories scored nearly equally high (see Table 8). That is, there were no categories for which the respondents indicated little interest. Thus, a lower ranking in this table implies *relatively* less interest in that category from the respondents, rather than a *low* level of interest. The small difference in the normalized scores implies that each main category has specific topics in which respondents were interested.

Table 9 shows the top 10 specific areas of interest. The topic in which most respondents clearly wanted to learn more was the energy savings potential of standards and labeling. This first-choice topic (with 63 points) scored higher than the second-choice topic, which is the information on international S&L activities (57 points). The following eight specific topics had nearly identical scores.

Table 9: Top Ten Specific Topics of Interest (All Respondents)

Rank	Specific Topics	Score*
1	Energy savings potential of S&L (1)	63
2	Information on international S&L activities (1)	57
3	International test procedures (3)	56
4	Benefit/cost analysis of standards (4)	55
5	Cost savings potential of S&L (1)	55
	Mandatory vs. voluntary S&L programs (1)	55
	Funding to establish S&L capacity (7)	55
6	How S&L policies work together (1)	54
7	Monitoring and evaluation of impact (6)	54
8	Setting up and running test laboratories (3)	54

* Normalized score (max =100)

Five out of the top ten specific topics are grouped under the "General" information category. There were two categories – legal/regulatory and training & outreach – which were not included among the top ten choices.

Results by Organization

Table 10: Preferred Category of Interest by Organization

Type of Organization	General	Monitoring and Evaluation	Developing Standards	Test Procedures and Services	Training and Outreach	Legal/Regulatory	Developing Labels
All Respondents	1	2	3	4	5	6	7
Government – Energy Agency	1	2	4	3	5	2	6
Government – Standards Agency	1	4	3	2	3	6	5
Government – Other	2	5	3	4	1	4	2
Utility	2	2	1	1	2	3	2
Test Laboratory	2	4	3	1	3	5	5
Academia/Research	1	5	4	2	3	5	2
Financial/Development/Aid Institution	3	2	4	3	7	1	5
Non-Governmental Organization	3	2	1	4	1	5	5
Energy Consultant/Agency	3	1	2	5	4	3	4
Private Sector	4	1	3	2	6	7	5

Note: Relative ranking scale with 1 = top ranking

Table 10 shows the breakdown of information preferences by type of organization. Since government officials (the first five organization types) make up about three-quarters of the respondents, their choices carry the most weight in the overall result. The category "General" was ranked only first or the second by government-related respondents and academic/research institutes. Training and outreach, legal/regulatory and developing labels were categories for which respondents indicated the lowest relative level of interest.

Not surprisingly, respondents from each organization type chose topics most relevant to their field of work. For example, government energy and standards officials chose general S&L information topics, while utilities and test laboratories were most interested in topics in the test procedures and services category. Respondents from financial institutions indicated that their first choice is to gather information on legal and regulatory topics, and NGOs desire information on topics related to training and outreach.

The diversity of topical interests means that it will be difficult to accommodate the information needs of all types of energy professionals in one package. However, for CLASP's primary target group, government-related agencies, general information topics appear to be most useful at this stage.

D. Additional Topics of Interest

We asked respondents to list additional topics of interest that were not included in our original survey list. These suggested topics are grouped thematically below. Note that many of these topics are more detailed sub-topics of the topics listed in our survey form. These topics will also act as a useful guideline in the development for the S&L Guidebook and the Web-based information clearinghouse.

General Information
• General guidelines and glossary for S&L
• Information on energy-intensive appliances
• Sources of energy-efficient equipment and appliances
• Periodicals on standards and labeling
• Energy research and development laboratories or institutes in different countries

Implementation Needs
• Independent body for S&L program implementation
• Adapting S&L from other countries
• Clear steps in implementing S&L programs
• Personnel requirements for implementing S&L programs

International Trends in S&L
• Information on trade barriers, the World Trade Organization, and cooperation between countries
• Regional and international harmonization of test procedures
• Common initiatives and integrating S&L across international markets
• Uniformity of various product labeling schemes

Testing Procedures and Services
• Training programs for running a test laboratory
• Comparison between test results under laboratory field conditions
• Information on manufacturers of energy-performance testing equipment
• Quality assurance and transparency of test results

Industry and Technology
- Interaction between government standards agencies and private enterprise
- Incentives and subsidies to industry
- Cost and benefits of S&L for industry; development energy-efficient technologies

Monitoring and Evaluation
- Effective monitoring of legislation
- Impact of S&L on appliance prices
- Possible legal actions against violators

E. Comments from Surveys and Interviews

The most prevalent comments from the surveys favor information exchange between countries through conferences and workshops. This will create the opportunity for others to learn from international experiences from implementing countries and apply the most relevant lessons learned to develop programs that suit their respective countries. One respondent and an interviewee stressed the importance of networking and personal contacts through conferences and workshops; information is more easily shared between peers who know each other personally.

The respondents also stressed the importance of consumer understanding of energy efficiency and S&L programs, which can be achieved through proper implementation of public awareness and education campaigns using different types of media.

To several of the interviewees, distribution of reports is the most effective method of information dissemination, whether they be distributed by mail or posted on the Internet. In order to make the Internet-based information clearinghouse effective, the website must be properly publicized. This is because most government officials and policymakers do not have time to search the Internet to find a particular website. All contacts should be given the address and a brief description of the website to inform them of the website's existence and contents.

IV. CONCLUSIONS

Based on the survey responses and the in-person interviews, we conclude the following:

Status of Programs
- All but one respondent indicated that their countries are either considering, planning, and/or implementing standards and/or labeling programs.
- Respondents from the same country often reported the status of programs in their country differently, implying that standards and labeling programs in most countries may not be well defined or well publicized.

Sources of Information
- Conferences and workshops were the dominant source of information on standards and labeling for the majority of respondents. Reports, newsletters, and periodicals were the next most common information source. The respondents, especially those in government agencies, still rely mostly on these "traditional" sources of information, instead of the Internet and e-mail.
- Government officials tend to prefer "traditional" sources of information (reports, newsletters, conferences, and workshops). On the other hand, respondents from academic, research, and financial institutions and NGOs indicated that they preferred to receive information through the Internet and e-mail.
- The in-person interviews shed light on the limitations of conferences and workshops. Although such meetings help establish a network of contacts and are an effective medium for gathering relevant information, their usefulness is limited by relatively low frequency, low attendance, and lack of budget resources for respondents to attend.
- Respondents indicated that reports provide the most detailed and relevant information and can be easily shared among colleagues.
- Just over one-third (37%) of respondents indicated that they currently access information on standards and labeling via the Internet. Only 17% said that get such information via e-mail.
- The in-person interviews revealed the limitations of the Internet and e-mail in disseminating information to government officials. While the Internet and e-mail are useful means of exchanging information, many government officials are limited in their use of the Internet and e-mail.

Topics of Interest
- The most popular topic among respondents was the energy savings potential of standards and labeling. However, the scores for all information topics were high and indicated strong interest in learning about the full range of technical, regulatory, and implementation issues related to standards and labeling.
- Respondents from different types of organizations chose topics most relevant to their field of work. The diversity of topical interests means that it will be difficult to accommodate the information needs of all types of energy professionals in one package. However, for CLASP's primary target group, government-related agencies, general information topics appear to be most useful at this stage.

Overall, respondents showed a high level of interest in the CLASP information dissemination program. Additional comments and written expressions of enthusiasm on cover letters that accompanied the completed surveys revealed strong support for the initiative. The survey results can help CLASP direct its efforts into the most effective means of information dissemination and the most useful information topics.

Recommendations for the Global Standards Initiative

In closing, we present some recommendations for the CLASP information outreach effort. In general, it is important for CLASP to first define its target audience for each information outreach product. The data in this survey can serve as an initial guide in our efforts.

Standards and Labeling Guidebook
- General information on standards and labeling is the most important information need for the majority of the respondents.
- Include specific case studies and success stories of programs implemented in different countries.
- The Guidebook will provide an overview and brief introduction to major topics related to standards and labeling; however, to be useful, the chapters should contain enough information and references so that the reader can easily follow-up and retrieve more detailed and in-depth information on various topics.
- Consider the information needs outlined in this report to ensure that the contents of the Guidebook provide adequate coverage of the most important topics.

Internet-Based Clearinghouse and Toolkit

Most respondents and interviewees were supportive and enthusiastic about a potential Web-based clearinghouse. Some recommendations are:
- Publicize the website thoroughly by informing all contacts by e-mail, newsletter, or flyers. Many policymakers do not have time to surf and find a Web site. They are more likely to use a site regularly if they are informed about the Web site via printed media or e-mail and told about the products it offers.
- Do not only provide an index page with just a search engine. Provide a full visual representation of the information topics and features available on the website.
- Based on IIEC's own experience with Internet research, we recommend providing a brief summary description for all downloadable documents.

Regional Conferences
- Select the right speakers with relevant presentations to the theme and focus topics of the conference.
- Obtain additional funding to finance travel for participants to ensure high attendance. Missing the key participants from various countries can make the supposedly "regional" or "international" conference less useful.
- Publish and provide thorough conference proceedings for reference.
-
Based on IIEC's own experience with regional conferences in Asia, we add the

following recommendations:

- Publicize the event well beforehand with a defined agenda (speakers and topics).
- Provide some "free" time in between sessions for people to personally meet, exchange contact information, and share ideas.
- Producing a thick conference proceedings can be costly, especially when mailing the document to policymakers around the globe. We recommend a relatively brief summary proceedings, supplemented with a CD-ROM containing full copies of papers, presentations, and other background materials.

APPENDIX I: SURVEY & INTERVIEW QUESTIONNAIRES

International Needs Survey
Information on Energy Efficiency Standards and Labeling

1. What is your occupation?
   - ☐ Government (energy agency)
   - ☐ Government (standards agency)
   - ☐ Government (other)
   - ☐ Financial/Development/Aid Institution
   - ☐ Other: _____
   - ☐ Test Laboratory
   - ☐ Utility
   - ☐ Legislator
   - ☐ Private Sector

2. Is your country considering or implementing energy standards and/or energy labeling programs (check all that apply)?
   - ☐ *Not considering* any programs
   - ☐ *Considering* standards program
   - ☐ *Planning* standards program
   - ☐ *Implementing* standards program
   - ☐ *Considering* labeling program
   - ☐ *Planning* labeling program
   - ☐ *Implementing* labeling program

3. Where do you <u>currently</u> get information about appliance labeling and standards policies and programs? (check more than one if appropriate)
   - ☐ Reports
   - ☐ Conferences/workshops
   - ☐ Internet (World Wide Web)
   - ☐ E-mail
   - ☐ Other/Comments: _____
   - ☐ Training courses
   - ☐ Newsletters/Periodicals
   - ☐ Friends/Colleagues

4. What are your information needs? Please describe your level of interest in the following topics on standards and labeling (S&L).

Topics of Interest	Least Interested			Most Interested	
General	1	2	3	4	5
Overview of S&L policies and programs	☐	☐	☐	☐	☐
Energy savings potential of S&L	☐	☐	☐	☐	☐
Cost savings potential of S&L	☐	☐	☐	☐	☐
How S&L policies work together	☐	☐	☐	☐	☐
Mandatory vs. voluntary S&L programs	☐	☐	☐	☐	☐
Information on international S&L activities	☐	☐	☐	☐	☐
Country case studies (examples)	☐	☐	☐	☐	☐
Sources of consulting and technical assistance	☐	☐	☐	☐	☐
Other resources and information on S&L Specify: _____	☐	☐	☐	☐	☐
Legal/Regulatory					
Legal aspects of S&L	☐	☐	☐	☐	☐
Enabling legislation	☐	☐	☐	☐	☐
Implementing agencies of S & L	☐	☐	☐	☐	☐
S & L in government procurement	☐	☐	☐	☐	☐
Test Procedures and Services					
Setting up and running test laboratories	☐	☐	☐	☐	☐
Laboratory accreditation	☐	☐	☐	☐	☐
Mutual Recognition Agreements	☐	☐	☐	☐	☐
Selection of test procedures	☐	☐	☐	☐	☐
International test procedures	☐	☐	☐	☐	☐

Developing Standards

Data collection & survey methods	☐	☐	☐	☐	☐
Selecting products for standards and labeling	☐	☐	☐	☐	☐
Working with stakeholders	☐	☐	☐	☐	☐
Computer modeling of standards	☐	☐	☐	☐	☐
Benefit/cost analysis of standards	☐	☐	☐	☐	☐
Reviewing and updating standards	☐	☐	☐	☐	☐
Developing Labels					
Consumer research	☐	☐	☐	☐	☐
Energy label design	☐	☐	☐	☐	☐
Applicability of labels	☐	☐	☐	☐	☐
Updating/revising labels	☐	☐	☐	☐	☐
Sample labels and promotional materials	☐	☐	☐	☐	☐
Monitoring and Evaluation					
Compliance and enforcement methods	☐	☐	☐	☐	☐
Monitoring and evaluation of impact	☐	☐	☐	☐	☐
Applying evaluation results to improve program	☐	☐	☐	☐	☐
Training and Outreach					
Program promotion and education	☐	☐	☐	☐	☐
Sample program materials	☐	☐	☐	☐	☐
Training opportunities for policymakers	☐	☐	☐	☐	☐
Training materials and teaching aids	☐	☐	☐	☐	☐
Funding to establish S&L capacity	☐	☐	☐	☐	☐

5. In addition to topics listed in the table above, what other information topics on standards and labeling are you interested in?

1. _____
2. _____
3. _____
4. _____

6. Drawing from the lists above, what are *your top three information needs* related to standards and labeling?

1. _____
2. _____
3. _____

7. Please rank your preferred method for receiving information on standards and labeling policies and updates on successful programs. (Rank from 1 to 3, with 1 as the top preference.)

Ranking

_____ Reports/newsletters

_____ Internet Website/E-mail

_____ Conferences/workshops

Below, please write any additional comments or suggestions that we can use in developing our information outreach effort.

INTERVIEW GUIDE

International Needs Survey
Information on Energy Efficiency Standards and Labeling

INTRODUCTION

IIEC together with Lawrence Berkeley National Laboratory, and the Alliance to Save Energy have joined together to develop a partnership to promote effective energy efficiency standards and labeling programs internationally for appliances, equipment, and lighting. Our collaborative effort is known as the Collaborative Labeling and Appliance Standards Program (CLASP).

CLASP will provide technical assistance to countries developing standards and labeling programs, while also serving as a network for sharing information among countries globally. We hope that CLASP will become a valuable resource for international policymakers and government officials who are considering or planning to develop energy efficiency standards and labeling programs.

In both its customized country assistance and in its global information outreach effort, CLASP is seeking direct input from government officials, policymakers, and others involved in the energy efficiency field who will be responsible for planning and implementing standards and labeling programs in their respective countries. *We are thus using this short interview to ask for your suggestions and comments on topics that should be addressed in our outreach campaign and international activities.*

1. What is your occupation?
   - ☐ Government (energy agency)   ☐ Test Laboratory
   - ☐ Government (standards agency)   ☐ Utility
   - ☐ Government (other)   ☐ Legislator
   - ☐ Financial/Development/Aid Institution ☐ Private Sector
   - ☐ Other: _____

2. Is your country considering or implementing energy standards and/or energy labeling programs? (Please elaborate.)

3. Where do you get information about energy-efficiency standards and policies? Please rank your preferred method for receiving and reviewing information. (Rank from 1 to 3, with 1 as the top preference.)

   Ranking
   _____   Reports/newsletters
   _____   Internet Website/E-mail
   _____   Conferences/workshops

(Ask for comments about why each medium us useful and what types of information they get from each medium.)

4. What are *your top three information needs* related to standards and labeling?

(If they are not sure how to respond, prompt by reading this <u>entire</u> list: Savings potential, case studies, legal/regulatory, test procedures and services, developing standards, developing labels, monitoring and evaluation, training, promotion. Then, let them answer the question.)

5. What sort of <u>direct technical assistance</u> would you like in order to assist in planning, developing, or implementing these policies in your country?

6. Do you have any other comments or suggestions that CLASP can use as we develop our information and technical assistance program?

APPENDIX II: RESPONDENT LIST

List of Needs Survey Respondents

No.	Name	Organization	Country
1	Mr. Lloyd Harrington	Energy Efficient Strategies	Australia
2	Mr. Reynaldo Sigilio da Costa	CEPEL	Brazil
3	Dr. Zdravko Genchev	Center for Energy Efficiency (EnEffect)	Bulgaria
4	Tzonio Botev	Committee of Standardization and Metrology	Bulgaria
5	Not Indicated	China Energy Conservation Association (CECA)	China
6	Li Aixian	China Standardization and Information Classifying and Coding Institute	China
7	Mr. Yin Minghan	China State Bureau of Quality & Technical Supervision	China
8	Xie Ji	State Economic and Trade Commission and Comprehensive Utilization	China
9	Zhou Fengqi	Energy Research Institute State Planning Commission	China
10	Mr. Jianhong Cheng	Standardization and Information Classifying and Coding Institute	China
11	Chen Rumei	Shanghai Energy Conservation Supervision Center	China
12	Mr. Brian Cheng	Consumer Council	China (Hong Kong)
13	Dr. Mohamed Salah El-Sobki	Development Research & Technological Planning Center	Egypt
14	Mr. Ibrahim Abdel Gelil	EEAA	Egypt
15	Eng. Ezzat Abdel Hameed Moustafa	Egyptian Environmental Affairs Agency	Egypt
16	Ms. Ayat Soliman	UNDP Cairo	Egypt
17	Dr. A.K. Ofosu-Ahenkora	Energy Foundation	Ghana
18	Mr. A.A. Dsane	P.O. Box M245	Ghana
19	Zoltan Lontay	EGI-Contracting Engineering Co. Ltd.	Hungary
20	SHRI D.K. Mathir	Bureau of Indian Standards	India
21	Mr. G. Radhakrishnan	Bureau of Indian Standards	India
22	Madhavi Joshi	Center for Environment Education (CEE)	India
23	Mr. L.S. Sharma	Consumer Education & Research Centre	India
24	Mr. Avinash Barve	Indian Electrical & Electronics Manufacturers Association (IEEMA)	India
25	Kavita Sinha and Mr. Richard Edwards	USAID	India
26	Mr. Hendra Iswahyudi	Ministry of Mines and Energy	Indonesia
27	Ms. Yani Witjaksono	Yayasan BINA USAHA LINGKUNGAN	Indonesia
28	Mr. Hidetoshi Nakagami	Jyunkankyo Research Institute	Japan
29	Mr. Hussein Badarin	General Corporation for Environmental Protection	Jordan
30	Engr. Ali Al-Zu'bi	National Electric Power Company	Jordan
31	Sun-Keun Lee	Appliance Efficiency Sector Korea Institute of Energy Research	Korea
32	Dr. Junyoung Choi	Korea Testing Laboratory	Korea
33	Ir. Chong Cheong Yin	Department of Electricity and Gas Supply	Malaysia
34	Roslee Saad	Department of Standards Malaysia	Malaysia
35	Mrs. Hasimah Abdul Rahman	Institute Sultan Iskandar of Urban Habitat & Highrise, Universiti Teknologi Malaysia	Malaysia
36	Prof. Ir. Dr. K. S. Kannan	Institute Sultan Iskandar of Urban Habitat & Highrise, Universiti Teknologi Malaysia	Malaysia
37	Mr. Goh Tok Poie	SIRIM Berhad	Malaysia
38	Mrs. Zahara Alatas	Yayasan Salam Malaysia	Malaysia

39	Mr. David Cogan	Energy Efficiency and Conservation Authority	New Zealand
40	Ms. Mirna Campanano	Fuels and Appliance Testing Laboratory	Philippines
41	Mr. Aleksander Panek	National Energy Conservation Agency (NAPE)	Poland
42	Ewaryst Hille	Polish Foundation for Energy Efficiency FEWE-Warsaw	Poland
43	Corneliu Rotaru	Romanian Agency for Energy Consrvation	Romania
44	Doina Caloianu	Romanian Energy Policy Association (APER)	Romania
45	Svetlana Sorokina	Center for Energy Efficiency (CENEf)	Russia
46	Dr. Saleh Alawaji	King Abdulaziz City for Science & Technology	Saudi Arabia
47	Mr. Leong Weng Kwai	Singapore Productivity and Standards Board	Singapore
48	Ms. Swee Gee Lee	Singapore Productivity and Standards Board	Singapore
49	Mr. M.S. Jayalath	DSM-Branch Ceylon Electricity Board	Sri Lanka
50	Dr. Maneno J.J. Katyega	TANESCO-Directorate of Corporate Services	Tanzania
51	Mr. E.N. Sawe	TaTEDO	Tanzania
52	Dr Romeo B. Pacudan	Asian Institute of Technology	Thailand
53	Mr. Pairach Worawech	Department of Energy Development and Promotion	Thailand
54	Dr. Prasert Sinsukprasert	Department of Energy Development and Promotion	Thailand
55	Dr. Kovit Masarat	Electrical & Electronics Institute	Thailand
56	Khun Sitthiporn Ratanopas	Electricity Generating Authority of Thailand	Thailand
57	Mr. Morten Blarke	Thai-Danish Cooperation on Sustainable Energy	Thailand
58	Mykola Raptsun	Agency for Rational Energy Use and Ecology	Ukraine
59	Victor Zhovtyanski Andrijovich	State Committee of Ukraine for Energy Conservation	Ukraine
60	Jaime Millan	Inter-American Development Bank	USA
61	Mr. Phan Do Gia	Vietnam Standard and Consumers Association (VINASTAS)	Vietnam
62	Eng. Fuad H Al-kawsi	Public Electricity Corporation (PEC)	Yemen
63	Ms. Susan Madau	Ministry of Energy	Zimbabwe
64	Not Indicated		
65	Not Indicated		

APPENDIX III: SOURCES OF INFORMATION - RESULTS

All respondents

Table 11: Most Common Current Sources of Information (All Respondents)

Rank	Current Source of Information	Number of Respondents*	Percent of Respondents
1	Conferences/Workshops	49	75
2	Reports	43	66
3	Newsletters/Periodicals	25	38
4	Internet	24	37
5	Friends/Colleagues	19	29
6	Training Courses	17	26
7	E-mail	11	17

* Total number of respondents = 65

Table 12: Preferred Medium of Information (All Respondents)

Rank	Medium of Information	Points*	Score**
1	Reports/Newsletters	136	70
2	Internet Website/E-mail	130	67
3	Conferences/Workshops	122	63

* Maximum points = 195
** Max normalized score = 100

Academia and Research

Table 13: Most Common Current Sources of Information (Academia/Research)

Rank	Current Source of Information	Number of Respondents*	Percent of Respondents
1	Conferences/Workshops	4	80
	Reports	4	80
	Internet	4	60
2	Training Courses	3	80
3	Newsletters/Periodicals	2	40
4	Friends/Colleagues	1	20
	E-mail	1	20

* Total number of respondents = 5

Table 14: Preferred Medium of Information (Academia/Research)

Rank	Medium of Information	Points*	Score**
1	Internet Website/E-mail	14	93
2	Reports/Newsletters	10	67
3	Conferences/Workshops	6	40

* Maximum points = 15
** Max normalized score = 100

Government – Energy Agencies

Table 15: Most Common Current Sources of Information (Government - Energy)

Rank	Current Source of Information	Number of Respondents*	Percent of Respondents
1	Conferences/Workshops	11	85
2	Reports	10	77
3	Newsletters/Periodicals	4	31
4	Internet	3	23
	Friends/Colleagues	3	23
5	Training Courses	2	15
6	E-mail	1	7.7

* Total number of respondents = 13

Table 16: Preferred Medium of Information (Government - Energy)

Rank	Medium of Information	Points*	Score**
1	Reports/Newsletters	29	74
2	Conferences/Workshops	27	69
3	Internet Website/E-mail	22	56

* Maximum points = 39
** Max normalized score = 100

Government – Standards Agencies

Table 17: Most Common Current Sources of Information (Government - Standards)

Rank	Current Source of Information	Number of Respondents*	Percent of Respondents
1	Conferences/Workshops	9	90
2	Reports	6	60
3	Friends/Colleagues	3	30
4	Training Courses	2	20
5	Internet	1	10
6	Newsletters/Periodicals	0	0
	E-mail	0	0

* Total number of respondents = 10

Table 18: Preferred Medium of Information (Government - Standards)

Rank	Medium of Information	Points*	Score**
1	Reports/Newsletters	21	70
2	Internet Website/E-mail	20	67
3	Conferences/Workshops	19	63

* Maximum points = 30
** Max normalized score = 100

Government – Others

Table 19: Most Common Current Sources of Information (Government - Others)

Rank	Current Source of Information	Number of Respondents*	Percent of Respondents
1	Conferences/Workshops	4	100
2	Reports	3	75
	Newsletters/Periodicals	3	75
	Internet	3	75
3	Friends/Colleagues	1	25
	Training Courses	1	25
	E-mail	1	25

* Total number of respondents = 4

Table 20: Preferred Medium of Information (Government - Others)

Rank	Medium of Information	Points*	Score**
1	Reports/Newsletters	10	83
2	Internet Website/E-mail	9	75
3	Conferences/Workshops	5	42

* Maximum points = 12
** Max normalized score = 100

Energy Testing Laboratories

Total of 9 respondents, with 9 who have also indicated themselves as government agencies.

Table 21: Most Common Current Sources of Information (Test Lab)

Rank	Current Source of Information	Number of Respondents*	Percent of Respondents
1	Reports	7	78
2	Conferences/Workshops	6	67
3	Newsletters/Periodicals	3	33
	Internet	3	33
	Training Courses	3	33
4	Friends/Colleagues	2	22
5	E-mail	1	11

* Total number of respondents = 9

Table 22: Preferred Medium of Information (Test Lab)

Rank	Medium of Information	Points*	Score**
1	Conferences/Workshops	20	74
2	Reports/Newsletters	18	67
3	Internet Website/E-mail	14	52

* Maximum points = 27
** Max normalized score = 100

Utilities

Table 23: Most Common Current Sources of Information (Utilities)

Rank	Current Source of Information	Number of Respondents*	Percent of Respondents
1	Reports	2	67
	Newsletters/Periodicals	2	67
2	Conferences/Workshops	1	33
	Internet	1	33
3	Friends/Colleagues	0	0
	Training Courses	0	0
	E-mail	0	0

* Total number of respondents = 3

Table 24: Preferred Medium of Information (Utilities)

Rank	Medium of Information	Points*	Score**
1	Conferences/Workshops	7	78
2	Reports/Newsletters	6	67
3	Internet Website/E-mail	5	56

* Maximum points = 9
** Max normalized score = 100

Non-Governmental Organizations

Table 25: Most Common Current Sources of Information (NGOs)

Rank	Current Source of Information	Number of Respondents*	Percent of Respondents
1	Conferences/Workshops	6	67
2	Reports	4	44
	Newsletters/Periodicals	4	44
3	Internet	3	33
	E-mail	3	33
4	Training Courses	2	22
5	Friends/Colleagues	1	11

* Total number of respondents = 9

Table 26: Preferred Medium of Information (NGOs)

Rank	Medium of Information	Points*	Score**
1	Internet Website/E-mail	20	74
2	Reports/Newsletters	19	70
3	Conferences/Workshops	15	56

* Maximum points = 27
** Max normalized score = 100

Financial and Aid Institutions

Table 27: Most Common Current Sources of Information (Financial/Aid)

Rank	Current Source of Information	Number of Respondents*	Percent of Respondents
1	Reports	6	100
2	Conferences/Workshops	5	83
3	Internet	4	67
4	Friends/Colleagues	3	50
5	Newsletters/Periodicals	2	33
	Training Courses	2	33
	E-mail	2	33

* Total number of respondents = 6

Table 28: Preferred Medium of Information (Financial/Aid)

Rank	Medium of Information	Points*	Score**
1	Internet Website/E-mail	16	89
2	Reports/Newsletters	11	61
3	Conferences/Workshops	9	50

* Maximum points = 18
** Max normalized score = 100

Energy Consultants

Table 29: Most Common Current Sources of Information (Consultants)

Rank	Current Source of Information	Number of Respondents*	Percent of Respondents
1	Newsletters/Periodicals	4	67
	Friends/Colleagues	4	67
2	Conferences/Workshops	3	50
3	Reports	2	33
	Training Courses	2	33
	E-mail	2	33
4	Internet	1	17

* Total number of respondents = 6

Table 30: Preferred Medium of Information (Consultants)

Rank	Medium of Information	Points*	Score**
1	Conferences/Workshops	13	72
2	Internet Website/E-mail	12	67
3	Reports/Newsletters	11	61

* Maximum points = 18
** Max normalized score = 100

Private Sector

Table 31: Most Common Current Sources of Information (Private Sector)

Rank	Current Source of Information	Number of Respondents*	Percent of Respondents
1	Conferences/Workshops	2	100
2	Reports	1	50
	Newsletters/Periodicals	1	50
	Friends/Colleagues	1	50
3	Internet	0	0
	Training Courses	0	0
	E-mail	0	0

* Total number of respondents = 2

Table 32: Preferred Medium of Information (Private Sector)

Rank	Medium of Information	Points*	Score**
1	Reports/Newsletters	5	83
	Conferences/Workshops	5	83
2	Internet Website/E-mail	2	33

* Maximum points = 6
** Max normalized score = 100

APPENDIX IV: PREFERRED TOPICS OF INTEREST - RESULTS

All Respondents

Table 33: Preferred Main Topics of Interest (All Respondents)

Rank	Main Topics	Score*
1	General (1)	54
2	Monitoring and Evaluation (6)	53
3	Developing Standards (4)	52
4	Test Procedures and Services (3)	52
5	Training and Outreach (7)	52
6	Legal/Regulatory (2)	49
7	Developing Labels (5)	49

* Normalized score (max = 100)

Table 34: Top Ten Specific Topics of Interest (All Respondents)

Rank	Specific Topics	Score*
1	Energy savings potential of S&L (1)	63
2	Information on international S&L activities (1)	57
3	International test procedures (3)	56
4	Benefit/cost analysis of standards (4)	55
5	Cost savings potential of S&L (1)	55
	Mandatory vs. voluntary S&L programs (1)	55
	Funding to establish S&L capacity (7)	55
6	How S&L policies work together (1)	54
7	Monitoring and evaluation of impact (6)	54
8	Setting up and running test laboratories (3)	54

* Normalized score (max = 100)

Academia and Research

Table 35: Preferred Main Topics of Interest (Academia/Research)

Rank	Main Topics	Score*
1	General (1)	59
2	Test Procedures and Services (3)	58
	Developing Labels (5)	57
3	Training and Outreach (7)	54
4	Developing Standards (4)	51
5	Legal/Regulatory (2)	49
	Monitoring and Evaluation (6)	49

* Normalized score (max = 100)

Table 36: Top Ten Specific Topics of Interest (Academia/Research)

Rank	Specific Topics	Score*
1	Energy savings potential of S&L (1)	70
2	Information on international S&L activities (1)	68
	International test procedures (3)	68
3	Energy label design (5)	65
4	Mandatory vs. voluntary S&L programs (1)	60
	Setting up and running test laboratories (3)	60
5	Cost savings potential of S&L (1)	58
	How S&L policies work together (1)	58
	Country case studies (examples) (1)	58
	Consumer research (5)	58

* Normalized score (max = 100)

Government – Energy Agencies

Table 37: Preferred Main Topics of Interest (Government - Energy)

Rank	Main Topics	Score*
1	General (1)	56
2	Monitoring and Evaluation (6)	54
	Legal/Regulatory (2)	54
3	Test Procedures and Services (3)	53
4	Developing Standards (4)	50
5	Training and Outreach (7)	49
6	Developing Labels (5)	48

* Normalized score (max = 100)

Table 38: Top Ten Specific Topics of Interest (Government - Energy)

Rank	Specific Topics	Score*
1	Energy savings potential of S&L (1)	65
2	Cost savings potential of S&L (1)	61
	Legal aspects of S&L (2)	61
3	Funding to establish S&L capacity (7)	60
4	Compliance and enforcement methods (6)	59
5	Information on international S&L activities (1)	58
6	International test procedures (3)	56
	How S&L policies work together (1)	56
	Overview of S&L policies and programs (1)	56
7	Mandatory vs. voluntary S&L programs (1)	55

* Normalized score (max = 100)

Government – Standards Agencies

Table 39: Preferred Main Topics of Interest (Government - Standards)

Rank	Main Topics	Score*
1	General (1)	55
2	Test Procedures and Services (3)	51
3	Training and Outreach (7)	51
	Developing Standards (4)	50
4	Monitoring and Evaluation (6)	48
5	Developing Labels (5)	47
6	Legal/Regulatory (2)	44

* Maximum points = 80

Table 40: Top Ten Specific Topics of Interest (Government - Standards)

Rank	Specific Topics	Score*
1	Energy savings potential of S&L (1)	61
2	Information on international S&L activities (1)	60
	Cost savings potential of S&L (1)	60
3	Program promotion and education (7)	56
4	Overview of S&L policies and programs (1)	55
5	Mandatory vs. voluntary S&L programs (1)	54
	Reviewing and updating standards (4)	54
	Data collection & survey methods (4)	54
6	Country case studies (examples) (1)	53
	Selection of test procedures (3)	53

* Normalized score (max = 100)

Government – Others

Table 41: Preferred Main Topics of Interest (Government - Other)

Rank	Main Topics	Score*
1	Training and Outreach (7)	61
2	General (1)	56
	Developing Labels (5)	55
3	Developing Standards (4)	53
4	Test Procedures and Services (3)	48
	Legal/Regulatory (2)	47
5	Monitoring and Evaluation (6)	44

* Normalized score (max = 100)

Table 42: Top Ten Specific Topics of Interest (Government - Other)

Rank	Specific Topics	Score*
1	Energy savings potential of S&L (1)	72
2	Benefit/cost anvalysis of standards (4)	66
3	Funding to establish S&L capacity (7)	63
	Country case studies (examples) (1)	63
	Sample program materials (7)	63
4	Program promotion and education (7)	59
	Training opportunities for policymakers (7)	59
	Energy label design (5)	59
	Training materials and teaching aids (7)	59
	Sample labels and promotional materials (5)	59

* Normalized score (max = 100)

Energy Testing Laboratories

Table 43: Preferred Main Topics of Interest (Test Lab)

Rank	Main Topics	Score*
1	Test Procedures and Services (3)	57
2	General (1)	55
3	Training and Outreach (7)	51
	Developing Standards (4)	51
4	Monitoring and Evaluation (6)	50
5	Legal/Regulatory (2)	46
	Developing Labels (5)	45

* Normalized score (max = 100)

Table 44: Top Ten Specific Topics of Interest (Test Lab)

Rank	Specific Topics	Score*
1	Information on international S&L activities (1)	64
	Funding to establish S&L capacity (7)	64
2	Energy savings potential of S&L (1)	61
3	International test procedures (3)	60
	Setting up and running test laboratories (3)	60
4	Benefit/cost analysis of standards (4)	58
	Mutual Recognition Agreements (3)	58
5	Mandatory vs. voluntary S&L programs (1)	57
	Monitoring and evaluation of impact (6)	57
	Training opportunities for policymakers (7)	57

* Normalized score (max = 100)

Utilities

Table 45: Preferred Main Topics of Interest (Utilities)

Rank	Main Topics	Score*
1	Developing Standards (4)	58
	Test Procedures and Services (3)	58
2	Monitoring and Evaluation (6)	56
	Developing Labels (5)	54
	General (1)	54
	Training and Outreach (7)	53
3	Legal/Regulatory (2)	42

* Normalized score (max = 100)

Table 46: Top Ten Specific Topics of Interest (Utilities)

Rank	Specific Topics	Score*
1	Selecting products for standards and labeling (4)	67
2	International test procedures (3)	63
	Setting up and running test laboratories (3)	63
	Computer modeling of standards (4)	63
	Applicability of labels (5)	63
3	Energy savings potential of S&L (1)	58
	Cost savings potential of S&L (1)	58
	Mandatory vs. voluntary S&L programs (1)	58
	How S&L policies work together (1)	58
	Benefit/cost analysis of standards (4)	58

* Normalized score (max = 100)

Non-Governmental Organizations

Table 47: Preferred Main Topics of Interest (NGOs)

Rank	Main Topics	Score*
1	Training and Outreach (7)	52
	Developing Standards (4)	51
2	Monitoring and Evaluation (6)	50
3	General (1)	49
4	Test Procedures and Services (3)	43
5	Developing Labels (5)	41
	Legal/Regulatory (2)	41

* Normalized score (max = 100)

Table 48: Top Ten Specific Topics of Interest (NGOs)

Rank	Specific Topics	Score*
1	Energy savings potential of S&L (1)	64
2	Data collection & survey methods (4)	58
3	Funding to establish S&L capacity (7)	57
4	Training materials and teaching aids (7)	56
5	Mandatory vs. voluntary S&L programs (1)	53
	Program promotion and education (7)	53
6	Monitoring and evaluation of impact (6)	51
	Setting up and running test laboratories (3)	51
	Compliance and enforcement methods (6)	51
	Computer modeling of standards (4)	51

* Normalized score (max = 100)

Financial and Aid Institutions

Table 49: Preferred Main Topics of Interest (Financial/Aid)

Rank	Main Topics	Score*
1	Legal/Regulatory (2)	60
2	Monitoring and Evaluation (6)	58
3	Test Procedures and Services (3)	55
	General (1)	53
4	Developing Standards (4)	50
5	Developing Labels (5)	48
6	Training and Outreach (7)	40

* Normalized score (max = 100)

Table 50: Top Ten Specific Topics of Interest (Financial/Aid)

Rank	Specific Topics	Score*
1	Legal aspects of S&L (2)	69
2	How S&L policies work together (1)	65
3	International test procedures (3)	63
4	Applying evaluation results to improve program (6)	60
	Enabling legislation(2)	60
5	Energy savings potential of S&L (1)	58
	Overview of S&L policies and programs (1)	58
	Compliance and enforcement methods (6)	58
	Consumer research (5)	58
	S & L in government procurement (2)	58

* Normalized score (max = 100)

Energy Consultants

Table 51: Preferred Main Topics of Interest (Consultants)

Rank	Main Topics	Score*
1	Monitoring and Evaluation (6)	63
2	Developing Standards (4)	61
3	Legal/Regulatory (2)	58
	General (1)	58
4	Training and Outreach (7)	56
	Developing Labels (5)	56
5	Test Procedures and Services (3)	48

* Normalized score (max = 100)

Table 52: Top Ten Specific Topics of Interest (Consultants)

Rank	Specific Topics	Score*
1	Benefit/cost analysis of standards (4)	73
2	Overview of S&L policies and programs (1)	69
3	Monitoring and evaluation of impact (6)	65
	Compliance and enforcement methods (6)	65
4	Selecting products for standards and labeling (4)	63
5	Energy savings potential of S&L (1)	60
	Legal aspects of S&L (2)	60
	Applying evaluation results to improve program (6)	60
6	Cost savings potential of S&L (1)	58
	How S&L policies work together (1)	58

* Normalized score (max = 100)

Private Sector

Table 53: Preferred Main Topics of Interest (Private Sector)

Rank	Main Topics	Score*
1	Monitoring and Evaluation (6)	60
2	Test Procedures and Services (3)	51
3	Developing Standards (4)	50
4	General (1)	47
5	Developing Labels (5)	44
6	Training and Outreach (7)	36
7	Legal/Regulatory (2)	30

* Normalized score (max = 100)

Table 54: Top Ten Specific Topics of Interest (Private Sector)

Rank	Specific Topics	Score*
1	Compliance and enforcement methods (6)	69
	Consumer research (5)	69
2	Selecting products for standards and labeling (4)	63
3	Energy savings potential of S&L (1)	56
	International test procedures (3)	56
	Cost savings potential of S&L (1)	56
	Mandatory vs. voluntary S&L programs (1)	56
	Monitoring and evaluation of impact (6)	56
	Reviewing and updating standards (4)	56
	Applying evaluation results to improve program (6)	56

* Normalized score (max = 100)

APPENDIX V: INTERVIEW RESULTS

IN-PERSON INTERVIEW NUMBER: 1

Anonymous Interviewee
Bureau of Indian Standards (BIS), India

Date
September 27, 1999

Background
Bureau of Indian Standards (BIS) is an apex institution of Government of India for developing and implementing standards and also act as a certification agency. It uses network of laboratories (such as Central Power Research Institute (CPRI), Electrical Research and Development Laboratory (ERDA), other Regional Laboratories and Testing Centers of the Government of India and Research Institutes of Department of Scientific and Industrial Research).

Headquarter of BIS is located in New Delhi. Standards development and revision activity is coordinated from New Delhi, whereas regional offices support testing and compliance of standards. Regional offices provide services of certification and conduct activities for implementation and compliance of standards. Officials form regional centers visit different industrial units and facilities and survey them from the point of adequacy to provide required performance (of products).

Activities on standards and labeling
The interviewee informed that India has initiated efforts on labeling by introducing labels for Storage Water Heaters under IS: 2082. Manufacturers of Storage Water Heaters have to display the electricity consumption on the product. Thus, his response to item #2 was BIS has been implementing labels program for storage water heaters. (However, this effort of specifying consumption may not be considered as labeling program – it is more of a namplate rating requirement).

The interviewee was aware of the labeling format designed and introduced by IRG under EMCAT program. He observed that BIS has not taken decision on whether the labels for all the appliances should follow same pattern.

Where does he get information? (in order of priority)
Main sources of information for BIS officials include Reports and technical journals. BIS is member organization of International Electrotech Commission (IEC), Geneva and International Organization for Standards (ISO). BIS receives information/inputs from these two organizations.

Information needs
The interviewee indicated his top three topics of interest are:
1. **Legal/Regulatory**
2. **Test Procedures and Services**
3. **Developing Standards**

Suggestions for CLASP Information Outreach

The interviewee supports standards and labeling prorams. He believes standards (and labeling) help reduce energy cost of consumers. The fact that the standard specifies upper limit for energy consumption as in case of lamps helps reducing energy consumption at consumer end. (e.g. Tolerance for energy consumption in lamps is maximum 4% +0.5W. Energy consumption can be on the lower side – no limit specified for this.)

IN-PERSON INTERVIEW NUMBER: 2

Mr. Pedro Guzman

Certification Sub-Director
National Commission for Energy Conservation (CONAE), Mexico

Date

7 October 1999

Background

Pedro helps to oversee the certification effort for the testing and labeling of appliances to meet Mexico's government regulations.

Activities on standards and labeling

Mexico is implementing a standard and labeling program through a process that relies heavily on input from working groups, which include representation from manufacturers, importers, research institutes, and academia.

Where does she get information? (in order of priority)

1. **Conferences.** He finds conferences and their proceedings very useful. He mentioned a working group on fluorescent lamps in Mexico; the APEC-funded workshop on energy performance testing held in Manila in July 1998,; and a working group meeting that will be held in October 1998 to discuss 5 proposed minimum efficiency standards.
2. **Internet/E-mail.** He gets a lot of information through e-mail from Japan, Korea, and Malaysia – people he met at conferences and who have follow up by sending him information that he requested. For example, he said he had gotten a lot of information from people he met at the July Manila workshop. He does not use the Web much himself. However, his staff often use it as much as 3-4 hours per day, searching and exchanging information with other organizations (in English, Spanish, and French). For example, he mentioned the number of refrigerators sold per year in Mexico, or new and innovative energy-efficiency programs in other countries.
3. **Reports.** He receives 2-3 reports per month, as well as invitations to workshops and conferences (mostly in the U.S. and U.K.) He also reads magazines, and

receives 1-2 per week with technical information. He said 90% of the reports and magazines he gets are in Spanish.

Information Needs

1. **Criteria for standards in other countries.** Applicable test methods for room air conditioners. He tries to get this information from laboratories in other countries (mainly the U.S., Canada, and Mexico).
2. **Work toward harmonization. For example, the U.S. has a testing method, and Mexico may want to harmonize its standard and adapt the U.S. standard to Mexico.**
3. **New models and technologies on the market.** New models are introduced to Mexico, and many of these models incorporate new technologies. For example, a new Mexican standard incporoprated packaged terminal A/Cs (no ducts). There has been a surge in sales of these companies in Northern Mexico.

Technical Assistance Needs

More A/C test facilities. There are 2 A/C labs in Mexico, but 12 refrigerator labs. He said he needs more time and information. He said that since he makes the standard, GTZ may be able to support him to visit Shanghai with IIE and to learn more about A/C test methods

Suggestions for CLASP Information Outreach

None

IN-PERSON INTERVIEW NUMBER: 3

Mr. Phanu Kiritporn

Managing Director
Energy Resources Management (ERM-Siam), Thailand

Date

7 October 1999

Background

Phanu is managing director of the Bangkok office of an international environmental consulting firm, based in the U.K. He was at the APEC Korea Colloquium representing the Thai National Energy Policy Office (NEPO). He is a very savvy individual and has worked in the energy field for more than a decade, including stints working for the private sector (Caltex) and the Thai government (NEPO). His firm has just completed a major year-long assessment in which they assessed and recommended minimum efficiency standards for the Thai government. The government has taken the first steps at legislating these standards, and it is likely that they will be passed into law in the year 2000.

Activities on standards and labeling

Thailand has a voluntary energy labeling program and is poised to enact minimum efficiency standards.

Where does he get information? (in order of priority)

1. **Reports.** Canadian standards and guidelines on MEPS. Information flyers and regular information from Canada. He got a guidebook that covered their appliances for Canada and a regular newsletter called EnergyGuide, which is produced quarterly by NR Canada. He has also picked up information from the EU from the local EU office in Bangkok. One of the documents was a (very thick) compendium of energy acts, which he got 3-4 years ago. How he gets information has a lot to do with the person and their interests. He reads a lot of magazines and newsletters to get feedback. He mentioned another newsletter called Australian Energy News, which covers end-use equipment and renewable energy.
2. **Internet.** He said that, frankly, he does not have time to open Web sites himself. He sometimes asks his researchers to do a Web search when they can't find information in Thailand or through his company's affiliate offices. Typically, he will call or e-mail his firm's other international offices and can often find the information or expertise he is seeking. He is not very familiar with Web sites, but said that the EnergyGuide (Canada) site is good and that the EPA site was not as interesting, because the presentation of information was not as good.
3. **Conferences.** He goes to conferences once or twice a year. There are a lot of regional conferences, and they are often not worth the time and money. He said they are either (a) too expensive (b) not the right speakers or topics or (c) he does not have the time in his busy schedule to spend at the conference. He said that the Thai government does not have their staff attend these conferences mainly because of the language problem. He said that language was a real problem for mid-level Thai government officials.

Information Needs

1. **Level of standards in other countries.** He needs to get information on the standards, how they are established and also get actual copies of the standard.
2. **Trade flows and impacts.** Information on the import and export of energy-using products. Now, for example, he is seeking information on imports/exports of motors, breakdown of standard vs. efficient models, and the potential loss (through exports) of high-efficiency motors produced in Thailand.
3. **Economic impacts of standards.** Information on the economic impacts has to be viewed in the context of the culture, lifestyle, and living standards. For example, a few years back an Australian consultant recommended that Thailand establish MEPS for washing machines. However, Phanu said that washing machines were not in wide use and that perhaps a better target technology would be rice cookers.

Technical Assistance Needs

Local experts. He has a real problem finding real local experts. In the manufacturing sector, there are very good technical experts, but they often do not have good design engineering skills. He tries to use local consultants as much as

possible in his work. He said that a lot of research funded by the Thai Energy Conservation Fund is not completed in time. Local consultants, especially academics, have many jobs and (a) they do not have enough time to do the work properly (b) it is difficult for him to criticize their work because of the status of academics within Thai culture and (c) they always hand their work in late. As a result, he often has to use foreign experts to get the work done properly and on time. **Project management skills.** Many of the projects carried out by the Thai government suffer from a lack of large-scale project management experience. These projects are often technically straightforward, but the project fails because of lack of attention to (a) management structure (b) project timeline and (c) quality control.

IN-PERSON INTERVIEW NUMBER: 4

Dr. Robert Hu

Deputy Director, Thermofluids Technology Division
Industrial Technology Research Institute (ITRI), Taiwan

Date
7 October 1999

Background
Robert works on A/C testing at a large, private testing laboratory in Taiwan. His focus is on technical issues related to testing and improving the efficiency of air conditioners. His clients are primarily manufacturers and importers.

Activities on standards and labeling
Taiwan is implementing both energy standards and labeling programs.

Where does he get information? (in order of priority)
1. **Conferences.** Robert spent a number of years at graduate school in the U.S. and also worked for a while at Argonne National Laboratory on heart transfer. He goes to ASHRAE conferences in the U.S. He goes there regularly. He gets information about new technologies, standards, products performance, technology development, and progress on alternatives. He also goes to conferences of the International Institute of Refrigeration (IIR), which is more Europe-based. He gets similar type of information as at the ASHRAE conferences. He also goes often to Japan for private trips or conferences.
2. **Internet.** Here he gets information on different organizations, standards, information about specific companies and new products. The Web searches are usually done by his staff. For example, before coming to this meeting, he was looking for details on the ISO standard, and he asked his staff to look for it. He could not get all of the standard (it was not all downloadable), but he could get enough to use in preparing his talk. Usually, you can see an abstract of a report or standard and then order a hard copy.

3. **E-mail** helps him connect to organizations and people he knows throughout the world. It is a very good way of getting information if he can find the right person by using his personal network. In fact, personal communication from colleagues in other countries is a major way for him to learn and access information.
4. **Reports.** Reports are also very useful way for him to get information. Often, finds out about these by contacting other people. He reads the report first and then gives for his staff to analyze in detail. Then they have discussions about twice a month, and this is how the staff in his laboratory internalize information. His regular information sources are *ASHRAE Journal*; a refrigeration journal from IIR, Journal of Refrigeration (Chinese, in Mandarin); JRAN News (Japanese Refrigerating and Air conditioning News); information from private companies (eg, Ebara and Mitsubishi Reviews, which are technical journals).

Information needs

1. **Standard testing method and requirements.** What criteria they need to meet in order to test according to a standard. (He would also like to know how the standard test protocol is set up, under what conditions, for what kind of reasons, etc.)
2. **Standard evaluation.** He needs to evaluate whether the products in his country can meet international standards or standards in other countries (for export).
3. **Product improvement.** If products cannot meet a standard, he needs to know how to improve the product. Generally, a product can be improved through in-country research or by getting outside help, e.g., from other countries.

Technical assistance needs

Robert's laboratory is now primarily a provider, rather than a receiver, of technical assistance. They used to have help from JRAIA (Japanese Air Conditioning Industry Association) and ETL, but that was back 6-7 years ago. He has also received technical assistance on the testing of fans and blowers from AAMCA (the American Air Movement and Control Association). His laboratory has a lot of communication with Japan and America, from where they get information and technical assistance. They also provide some technical assistance in the region. They have been helping Hong Kong Technology University to set up their test lab for A/Cs. They have been organizing a training for the Hong Kong laboratory staff in Taiwan and other countries in the region. One of his firm's role is consulting: they consult on training, testing needs assessment, setting up lab, and developing new and more efficient products (for Taiwanese industry).

Suggestions for CLASP Information Outreach

Information on new technology.
He would like to get information by Internet or e-mail and then can pass on to necessary people in Taiwan
Web site. A Web site would be useful but, we would have to notify him by mail, e-mail, or through a newsletter, since he doesn't search the Web himself regularly

IN-PERSON INTERVIEW NUMBER: 5

Engr. Isagani Soriano
Manager, A/C Testing Laboratory
Fuels and Appliance Testing Laboratory, Philippines

Date

8 October 1999

Background

FATL is a government-operated testing laboratory under the Philippines Department of Energy. Isagani is head of the refrigeration and A/C testing facility under the appliance testing group. He has three staff working under him.

Activities on standards and labeling

The Philippines is implementing standards, and labeling for a number of products.

Where does he get information? (in order of priority)

1. **Workshop.** The recent useful workshops he has attended were an APEC workshop on energy performance testing in Manila in July 1999, and an IIEC-sponsored workshop in Malaysia on standards and labeling in December 1998.. Typically, he goes to international workshops once or twice a year.
2. **Internet.** On the Web, he gets information on labeling programs in other countries. For New Zealand, they got information off the APEC web site. He also gets copies of actual standards (MEPS) and enabling legislation. Usually, he has his staff do the Web search. For example, prior to this workshop, he has his staff do a general search on standards and labeling. The most useful source of information is the APEC standards site.
   E-mail. He does not use it very often as a way of getting information.
3. **Newsletters.** He gets newsletters irregularly from countries in the region, and some from NGOs like IIEC and EECA (New Zealand). He does not use reports much in his work.

Information needs

1. **Information on testing procedures.** How other countries perform specific procedures. How they do testing based on the ISO or IEC test standard. Variation between laboratories (different labs have slightly different practices).
2. **Design of the test facilities.** Cost of facilities, equipment available, suppliers, etc.
3. **Available standards.** Hard copies of international standards. Mainly IEC and ISO standards. Sometimes copies of the latest IEC standards are not available from the Philippines standards agency, the Bureau of Product Standards (BPS).

Technical Assistance Needs

1. **Technical consultants.** To assist in establishing and designing a facility.
2. **Funding for lab equipment.** They are trying to improve the lab (eg, data

acquisition and other, vintage auxiliary equipment), but there is not interest or initiative from top level within his organization.

3. **Training of staff and funding for lab.** FATL is planning to build a motor efficiency test lab (with dynamometer). Need funding for the proposed test facility and also for training staff.

Suggestions for CLASP information outreach

They would like out help in developing a promotional program for the general public. They did a public campaign called "Power Patrol," but it did not appear to be effective. They need assistance on how to best reach the general public.

For CLASP to be effective: we should send reports to implementing agencies on how other countries have successfully implemented their programs and developed public awareness campaigns.

Method of dissemination: mail or e-mail would be best.

IN-PERSON INTERVIEW NUMBER: 6

Ms. Ayako Sato

Manager, Japan International Energy & Environment Cooperation Center
Energy Conservation Center of Japan

Date

8 October 1999

Background

Ayako works for the Energy Conservation Center of Japan, a government-funded agency that provides technical assistance on energy conservation activities in Japan as well as technology transfer in developing countries overseas. Ayako's main duties are managing international cooperation projects on technology transfer of energy conservation. The main clients are in Asia and Eastern Europe. Mostly, ECCJ is a provider of technical assistance. A small part of her work involves cooperation on energy standards and labeling.

Activities on standards and labeling

Japan is implementing standards, and labeling is under consideration.

Where does she get information? (in order of priority)

1. **Reports.** She gets reports from IIEC on APEC meetings and regional workshops. She gets about 2-3 per year that are very useful. Reports are usually more useful than the Internet information because the information is more detailed and better documented.

2. **Conferences.** This is her first international conference. The recent reports on standards and labeling that she has received on international meetings (esp.

regarding regional APEC workshops) have been very useful. She herself does not go to conferences in Japan very often, but within ECCJ many people do, and they share information from each other's visits to conferences inside and outside Japan.

3. **Internet.** She uses the Internet very often. She uses the Web whenever she wants to get information. She uses Yahoo to do searches. The first thing she does is check the Internet. For example, before attending this conference, she checked the home page of The APEC Energy Working Group to see how issues were discussed. Even though she uses the Internet a lot, the Internet information is often not detailed enough to be extremely useful. But the Internet is quick and convenient.

Information Needs

1. **Country-specific information.** Standard values, test procedures, do they have a labeling program, etc? This sort of information helps in her technical outreach.
2. **Program evaluations.** This is important in order to ascertain whether programs are effective or not, and the reasons why, in detail.
3. **Harmonization.** She seeks information on future prospects to harmonize standards, labeling, and testing procedures.

Technical Assistance

This question was not applicable, since EECJ is a provider, and not a recipient of technical assistance.

Suggestions for CLASP Information Outreach

<u>Short, concise summary reports.</u> Reports on standards and labeling are often very thick. She finds that shorter, summary reports are very useful for governmentt officers, since they are easy to read and these officers do not have much time and in-depth technical expertise on the topics. In addition, for Japanese officials, language is a limitation, and they can typically only read short summaries in English.

<u>Directories of reports and documents.</u> She also would like to get a directory of what reports we use or publish. This could be listed on the CLASP Web Site. She would like to be able to download reports.

IN-PERSON INTERVIEW NUMBER: 7

Ir. Chuang Chu Kuen

Senior Assistant Director (Electrical)
Public Works Department Malaysia

Date

8 October 1999

Background

Chuang works within the Public Works Department (PWD) which has a role in helping defining standards and building codes in Malaysia. PWD works closely with the Department of Electricity and Gas Supply (DEGS) to derive standards for different types of electrical products. Cuang also works closesly with Sirim Berhad Testing Laboratory, which is Malaysia' official energy testing laboratory.

Activities on standards and labeling

Malaysia has implemented standards for motors many years ago, it is outdated. Malaysia is now planning to establish mandatory standards for many different types of electrical products, starting with ballasts. It is also planning to enforce mandatory labeling for several household appliances, starting with ceiling fans. The other products will be included in the programs very soon. These activities will headed by the newly estblished Energy Centre soon.

Where does he get information? (in order of priority)

1. **Conferences.** He pointed out that conferences and workshops are very useful in creating network of contacts within the relevant field. Information exchange through these events are very valuable.
2. **Reports and Internet.** Chuang ranked these two medium of information together because he thinks they are equally convenient and useful. He often receives informative reports through circulation in the government. For him, e-mail is very convenient for exchanging information and keeping in contact with international peers. He surfs the net, but does not use it much to "search" for information because the lack of time. He suggested that a list of specific websites for certain information topics would be extremely useful – to avoid wasting a lot of time searching. In the website, he suggests that a list of the total information contained should be presented to the visitor, not just a stand-alone search bot. It is difficult and time-consuming to find the exact keywords.

Information Needs

1. **International listing of energy standards.** He is nterested in what enegy efficiency standards are available in IEC. He needs to study the listing. Since Malaysia is an exporter of electric goods, it needs to know and meet international requirements.
2. **Case studies on products.** He wants to see case studies on effects of S&L on

products that Malaysia is considering to be covered under the programs.

3. **Effective use of labels.** He is interested in learning about how to use the labels effectively, especially how to educate consumers and create awareness so that they can understand the labels.

Technical Assistance

There is no harm in learning from other countries through case studies, lessons learned, and recommendations. He welcomes all information from all the countries that have had experience implementing S&L programs. Malaysians will then develop their own programs from what they learn. Workshops are good places where useful information exchange can occur. He is very surprised to learn from other representatives about programs and efforts in Thailand, Philippines, etc.

Suggestions for CLASP Information Outreach

Information Exchange Tours. There should be some kind of exchange program where Malaysian experts can visit countries that have experience in S&L programs and see how others have implemented their programs and the impact they have on the country.

Quality control of Energy-Efficient Products. Chuang brought up this point to stress the need for monitoring and penalizing manufacturers who are producing low-quality and unreliable energy-efficient goods.