

APLAC/PTB Proficiency Testing Training Course / Planning Workshop

13 -15 February 2007, the Regent, Kuala Lumpur,
Malaysia

REPORT



Asia Pacific Laboratory
Accreditation



Physikalisch-Technische
Bundesanstalt

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I. Introduction

The APLAC/PTB Proficiency Testing Training Course / Planning Workshop was the first of a planned series to be jointly organized by the Asia Pacific Laboratory Accreditation Cooperation (APLAC) and the Physikalisch-Technische Bundesanstalt (PTB). The first training course / planning workshop was organized during 13-15 February 2007 at the Regent Hotel, Kuala Lumpur, Malaysia. The host country organization was Standards Malaysia.

The training course / workshop had its aim to enhance capabilities of accreditation bodies in developing the provision of proficiency testing (PT) schemes. The series of training courses / workshops have 4 specific objectives.

1. To enable participants to develop and operate proficiency testing programs which meet the needs of their participating laboratories and fulfill the requirements of ISO/IEC Guide 43.
2. To enable participants to coordinate national and international inter-laboratory comparisons.
3. To enable participants to identify and plan for the proficiency testing needs in their economy.
4. To identify and motivate PT providers.

Twenty-five participants from 22 countries in Asia Pacific and 5 resource persons participated in the training course / workshop¹. The participating economies are at different levels of PT development. Most participating organizations are accreditation bodies; however, some economies have not got an accreditation body. In some participating economies, the accreditation bodies are also PT providers whilst some other economies have not yet started a PT scheme. Whereas, a more developed economy e.g. Australia has an accreditation body, who accredited PT providers.

The training course / workshop was designed to incorporate both theory sessions and practical discussions to enhance application of the PT scheme in each economy.

¹ List of Participants is attached in ANNEX 2.

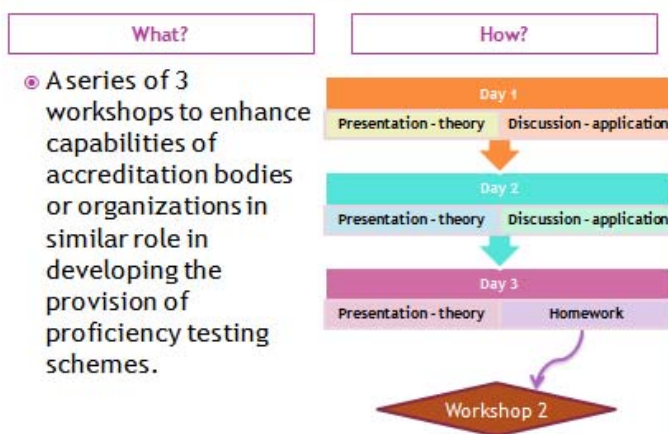
II. Summary of the Workshop Process and Outputs

Day 1: Tuesday, 13 February 2007

Session 1: Introduction to the Workshop

The workshop moderator, Ms. Kalayanee Chuncherd, welcomed the participants, facilitated self-introduction of the participants and introduced the training course / workshop, its program² and process.

WHAT IS THE PT TRAINING COURSE / PLANNING WORKSHOP?



The 2 joint organizers (APLAC and PTB) introduced their organizations to the participants. APLAC was introduced by Mr. John Gilmour³, consultant, Australia and PTB was introduced by Dr. Ulrich Diekmann⁴, Project Coordinator, PTB.

Session 2: Training Module 1

Mr. Philip Briggs, Proficiency Testing Australia General Manager and Chairman of the APLAC Proficiency Testing Committee, introduced the course objectives and an overview of PT program⁵.

² The Training Course/Workshop Program is attached in ANNEX 1.

³ The 'Introduction to APLAC' presented by Mr. John Gilmour is attached in a separate file.

⁴ The Introduction of PTB presented by Dr. Ulrich Diekmann is attached in a separate file.

⁵ Mr. Philip Briggs' Presentation is attached in a separate file.

Session 3: Kick-off Session

The introduction was followed by a brainstorming session to allow the participants to link what they have heard about the PT program to the situations in their economies. The session was introduced by 2 more perspectives from 2 resource persons; Mr. John Gilmour, and Dr. Clemens Sanetra, PTB consultant.

3.1 Mr. John Gilmour provided perspectives of the driving forces for PT program, why the PT program is needed, and some technical, financial, and administrative considerations of the PT program.

Driving Forces

- Trade
 - Need to satisfy requirements of foreign markets
 - Customer requirements
- National demands
 - Regulatory requirements
 - Customer requirements

Proficiency Testing – Why?

- Accreditation bodies
 - Required by standards
 - Required by MRAs
 - Enhance credibility
- Laboratories
 - Quality control
 - Regulatory requirements
 - Enhanced credibility

Obstacles

- Technical requirements
- Resources/finances
- Administrative impediments
- Legal/political obstacles

Technical Considerations

- Expertise
 - Management of PT programs
 - Sample/artefact preparation
 - Distribution of material
 - Statistical processing of data
 - Corrective actions

Financial Considerations

- Costs
 - Raw materials
 - Imported samples
 - Number of participants
 - Calibration
 - Sample preparation
 - Distribution

Administrative/Legal Issues

- Cooperation with authorities
 - Regulators
 - Customs

Some Questions

- Why do it?
- What do you do?
- Who will do it?
- How do you do it?
- What will you need to do it?

3.2 Dr. Clemens Sanetra shared observations of the different situations concerning PT in different developing economies during his field work in technical cooperation projects in Asia and Latin America:

General observations:

- In developing economies PT providers are usually government run, means no private initiatives.
- PT schemes are run by the AB or by government agencies in regulatory fields (health, food safety, drug control).
- Many PT schemes are conducted only for a specific clientele or a national level. No sharing of information with other interested parties or economies, no participation from outside, no recognition outside the group or economy.
- Biggest programs are mostly the External Quality Assurance Schemes - EQAS in the health sector with more than 500 labs and 3 - 4 times per year even in small economies.
- Normally no national coordination between the programs.
- No sharing experiences, harmonizing procedures or benefiting from coordinated administration or logistics.
- No ISO guide 34 implementation, in some few cases quality manual or some procedures available.
- In case of small economies or only small number of laboratories (insufficient critical mass) no consideration of regional collaboration or networking,

Conducting PT programs:

Pre PT:

- No clear concepts, how to select and prioritize the programs.
- PT provider are only organizers and have no own capability for sample preparation or even for evaluating if external sample preparation suppliers are competent.
- Laboratories give samples from PT programs special treatment, which does not reflect standard routine conditions.
- In some extreme cases laboratories sent their samples to laboratories with high reputation to report these supposedly better results as their own ones.

During PT:

- National institutes assign values on basis of legal responsibilities without proof of technical competence.

- Uncertainty concept not implemented, PT results are reported without uncertainty.
- Concept of Reference Value obtained through higher order method not applied, although examples show that consensus value and reference value approach could lead to significant differences.

Post PT:

- No in depth analysis of the results.
- Pt schemes are understood as exercises without direct impact on the accreditation.
- In case of unsatisfactory results no consequences for the accreditation, no follow-up, corrective action or improvements required from the laboratories.

The participants were asked to identify difficulties / challenges concerning PT program on cards. The cards were roughly grouped into 4 headings: How to, Access, General Problems, and Requirements. The following is a list of the sub-groups' findings.

3.3 Difficulties / Challenges Concerning PT Program of Your Economy

HOW TO?

- 1) The experience of sample preparation
- 2) How to conduct the PT program for specific testing area?
- 3) Logistics – sending sample from one place to another place
- 4) Suitable artefact / sample
- 5) Homogeneity of sample
- 6) How to prepare appropriate of PT samples
- 7) Destructive tests
- 8) Non-homogeneity of samples
- 9) Whether PT to be done in all disciplines
- 10) Not enough labs to conduct a PT program
- 11) How to address any potential provider's competency to run a quality program?
- 12) How to organize PT program for new technical method or field?
- 13) Qualitative tests - how to conduct programs
- 14) Less number labs / hazardous materials
- 15) For areas that PT programs are not available; how do we assure lab technical competency?
- 16) How do we categorise the sub areas for water chemistry analysis including different kind of method?
- 17) PT program for very specific area without reference lab

ACCESS

- 1) Different labs infrastructure
- 2) Too many fields of PT program compare to our capacity
- 3) How to address the funding for PT programs?
- 4) High cost and few labs
- 5) PT don't make money
- 6) Lack of finance
- 7) Cost of PT program
- 8) Lack of government support
- 9) Limited external programs relating to scope of Laboratories Accreditation

GENERAL PROBLEMS

- 1) Different skill levels of economies
- 2) Lack of human resources
- 3) Human knowledge in PT
- 4) Competence of PT provider
- 5) Labs unaware / not motivated about PT schemes
- 6) Lack of awareness of the importance of PT in Low Developing Countries
- 7) The importance not realise in terms of returns
- 8) Accredited lab only participate accredited testing
- 9) Lack of PT provider in the country
- 10) Grant of accreditation is delayed
- 11) Absence of experts
- 12) Lack of knowledge of regional or international standard for PT or inter-laboratory programs
- 13) Absence of PT program, ATLB has initiated, BAB plans to start
- 14) Competition between ABs and failure accept a competitors PT program

REQUIREMENTS

- 1) Clearly defined requirements
- 2) Lack of clearly defined regulations
- 3) We only accredited one lab, no PT
- 4) Administrative and legal requirements including freight cost and customs / clearance.
- 5) What is the major category of lab which has many accreditation fields?

The 'How to' difficulties/challenges mostly concerned the technical aspects, which would be covered by the theory sessions on the following days. Whereas, the other difficulties and challenges were transformed by the resource persons into 5 key questions to be discussed in the break-out sessions.

- How to start PT activities?
- How to finance PT activities?
- How to access PT providers?
- How to identify and prioritize needs for PT program?
- How to extend participation in PT program?

Session 4: Break-out Session I

The participants worked in 4 sub-groups with a sub-group facilitator. Each sub-group started with brief introduction of the current PT program of each participant's economy. The introduction was followed by the discussion on 2 key questions: 'How to start PT activities?' and 'How to finance PT activities?'

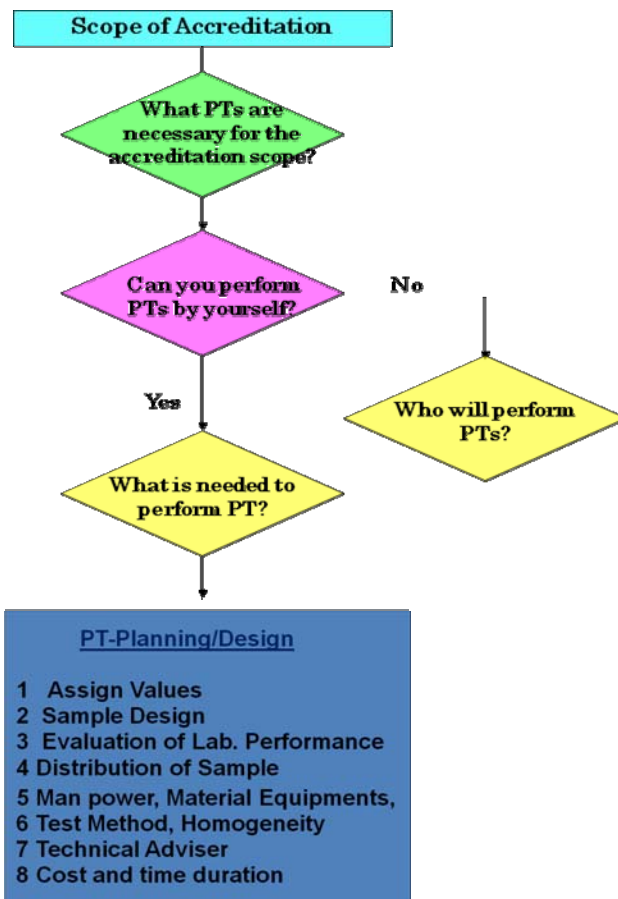
DISCUSSION IN SUB-GROUPS

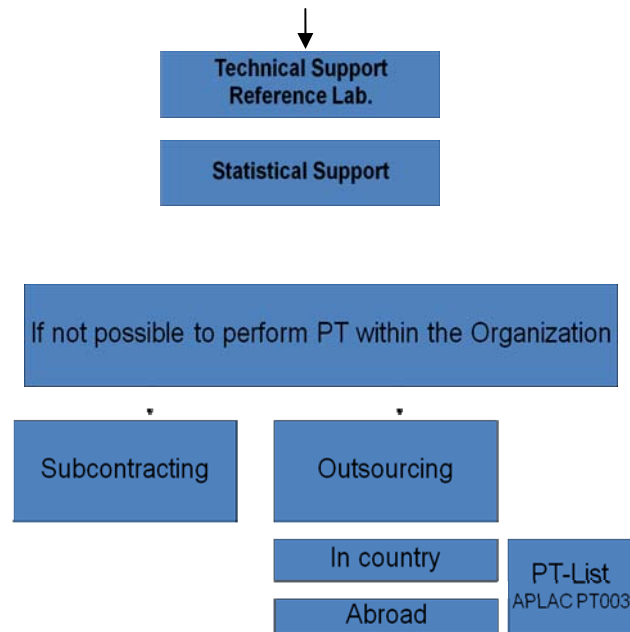
- ◉ **4 sub-groups with a facilitator/resource person in each sub-group**
 - Sub-group 1: Mr. Yoshinobu
 - Sub-group 2: Mr. Philip
 - Sub-group 3: Mr. John
 - Sub-group 4: Dr. Diekmann/Dr. Sanetra
- ◉ **Guided questions for the discussion**
 - How to start PT activities?
 - How to finance PT activities?
- ◉ **Discussion room:**
 - Group 1 & 2 are in room Regent VII
 - Group 3 & 4 are in room Regent IX
- ◉ **Time:**
 - in sub-groups 13.30 - 16.00 hrs.
 - presented in plenary 16.00 - 17.00 hrs.

The results of the discussion of the break-out session I are as follows.

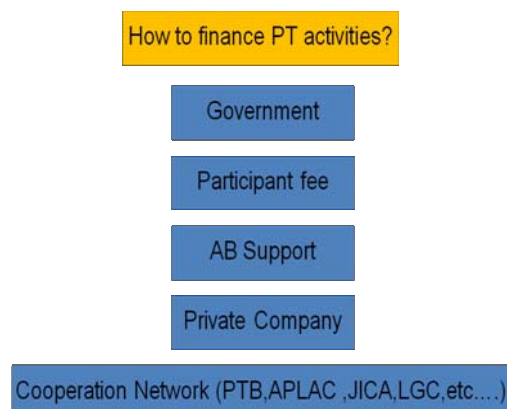
GROUP 1:

a) HOW TO START PT ACTIVITIES?





b) HOW TO FINANCE THE PT ACTIVITIES?



GROUP 2

a) HOW TO START PT ACTIVITIES?

1. Identify access to APLAC programs or IAAC programs
2. APLAC PT Directory
3. www.eptis.bam.de
4. Appoint PT contact in AB/organization
5. Internal PT
 - + Number of laboratory
 - + Impact of testing
 - + Risk assessment
 - + Mandatory regulator requirements
 - + Do not duplicate existing programs
 - + Sample preparation cost
 - + Identify sample suppliers and pre-testing
 - + Identify major sub-disciplines

b) HOW TO FINANCE THE PT ACTIVITIES?

1. APLAC has available funding US 10,000 / program.
2. PTB funded PT programs.
3. Lobby government agencies.
4. Identify international funding agencies e.g. EU, OAS.
5. Program participation fees.
6. Negotiate sample cost/technical input cost.
7. AB fee structure for PT activities.

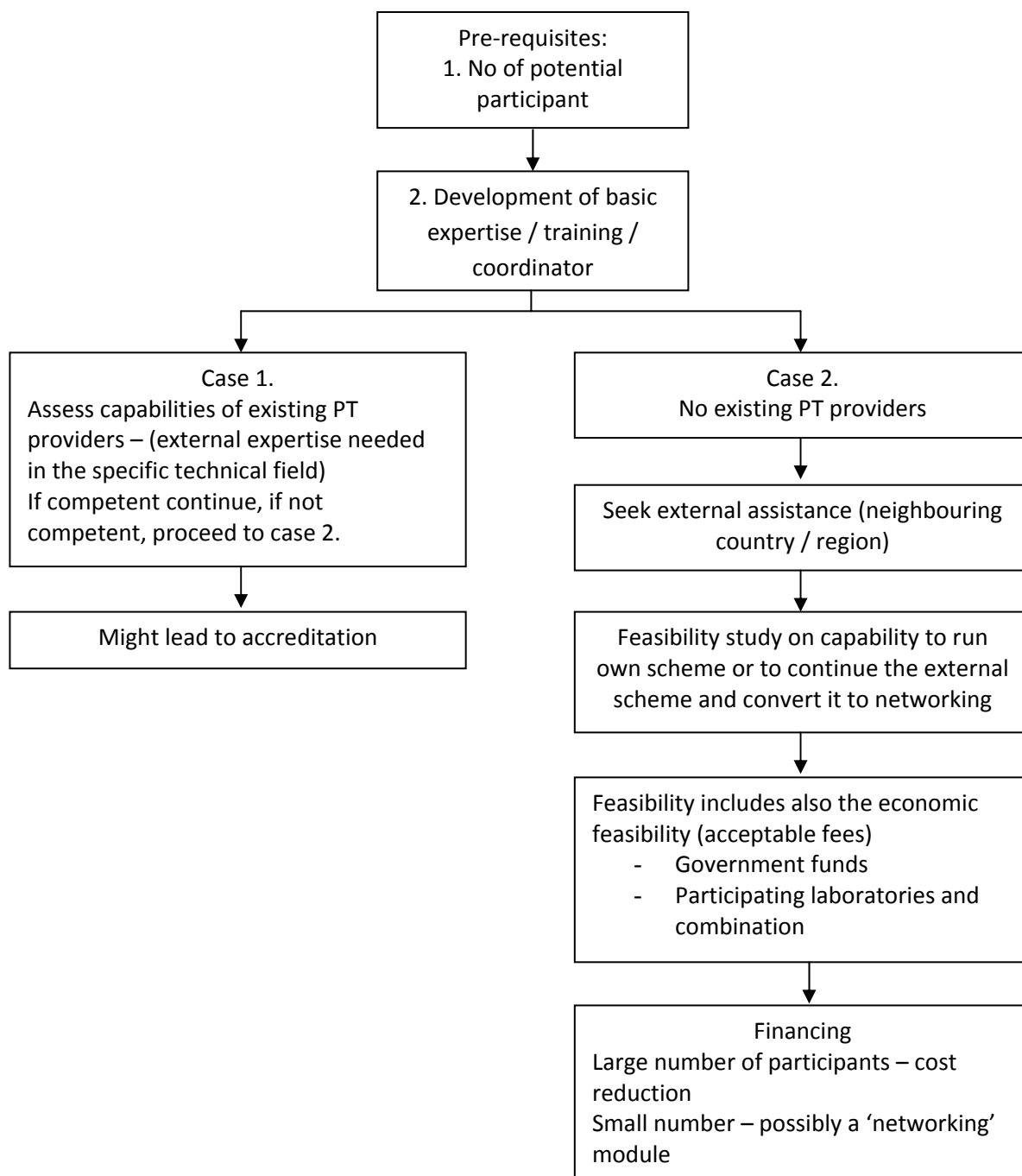
GROUP 3**a) HOW TO START PT ACTIVITIES?**

- Range of PT → Scope of accreditation
- National PT preferred
- Other Drivers:
 - o Regulators and legal requirements
 - o Commercial users- may have specific requirement
- Obstacles
 - o Small numbers of participant
 - o Costs
 - o Technical Requirements
- International Standards - minimum
- National Providers
 - o AB's
 - o External PT providers
- Process Committee - all providers
 - o Managers
 - o Statisticians
 - o Technical Experts
 - o Reference Labs
 - o Samples - access and preparation
- distribution

b) HOW TO FINANCE THE PT ACTIVITIES?

- Who are the beneficiaries?
 - o Producers/trade associates
 - o Government
 - o ABs
- Foreign technical/financial assistance-long and short term
- PT-National capacity building and government support (long term)

GROUP 4



Session 5: Evaluation of Day 1

The participants wrote what they liked about the first day and what needed to be improved on the second day on cards. The following is their feedback.

WHAT I LIKE ABOUT TODAY

1. Performance of moderator.
2. The brainstorming to identify the needed in each country.
3. Meeting people, sharing ideas and kicking-off the program in a positive manner.
4. Workshop is very good.
5. Sharing different ideas by many cases (ABs).
6. Awareness of PT program difficulties.
7. To share experiences.
8. Interactive session.
9. Informative discussion.
10. Workshop in small group – it make all of us could share our opinions and to join discussion.
11. I enjoy having the input from people representing different economies.
12. Explanation of the policy of APLAC and ILAC.
13. Everything.
14. The groups discuss valuable information on how to start and finance PT activities.
15. Introduction to PT.
16. To work in group we can change our opinion.
17. Good understanding there are great differences between economies, but a lot of common problems too.
18. Good outcome from working group.
19. Place of the workshop is OK.
20. Group discussion was very informative and interactive.
21. Group discussion, as it allows all groups members to interact.
22. Do the same way.
23. Group discussion.

WHAT NEED TO BE IMPROVED

1. Flipchart boards are inadequate.
2. The detail for PT design.
3. More about statistical method.
4. It's OK.
5. Technical aspect coverage regarding PT.
6. Schedule declaration for second and third workshops.
7. It is better if we can discuss more specific.
8. Technical aspect and the PT matter rather than prevail on general discussion.
9. Seminar room is too small.
10. When we have discussion someone speak quickly and difficult to understand.
11. Nothing.
12. More time for questions at the end of the day.
13. To give solution for the question so that we can follow that as guidance.
14. Clear handwriting for the workshop notes.
15. More in-depth discussion for selection of PT providers.
16. More discussion might be needed about the needs for PT (identification).
17. For in-depth coverage on the theory part (if time permits).
18. More explanation.
19. Should provide more explanation.
20. I want to know more about PT by presentation - theory than brainstorming.
21. Statistical analysis – further detail.

22. How to manage PT information, within AB.
23. Nil.
24. More time for discussion.
25. The discussion done to be made available to other groups.

Day 2: Wednesday, 14 February 2007

Session 6: Training Module 2

Mr. Philip Briggs continued with the presentation and questions-answers on the APLAC testing and calibration, MRA and some elements on how to run a PT scheme. Presentation slides are in a separate file. Benefits of PT were brainstormed by the participants.

BENEFITS OF PT

1. Labs – improvement tool for laboratories.
AB – surveillance tool.
2. Provide a snapshot of the laboratory performance.
3. To identify the problems of labs testing.
4. To conduct and improve testing.
5. Improve the testing lab.
6. To improve the laboratory competency.
7. AB can improve the ability the accredited lab.
8. Make sure about competence of accredited lab or to confirm competence of accredited lab.
9. Indicative of competency.
10. Know the competency of labs.
11. To know competency for given test.
12. To ensure the ability of lab.
13. Enhance the accuracy of the results.
14. Helps improvement of testing quality.
15. Assessment of lab's efficiency to deliver accurate result.
16. Wider acceptance of test results, building confidence.
17. Confidence in result produced by the laboratory.
18. Laboratory's confidence in own performance (or lack of it, including the educational aspect).
19. Enable lab to monitor their routine analysis.
20. AB can monitor several lab with equal condition at the same time.
21. Verify that the methods, procedures and RM in the lab are ok.
22. Measurement traceability is verified.

Session 7: Break-out Session II

Participants broke out to discuss in the same sub-groups on 'How to identify and prioritize needs for PT program?' The discussion in plenary on the first day reflected that there has been no guide for this important step yet. The discussion was then intended to develop a list of points to be considered in the identification and prioritization of needs for PT scheme. The following is the findings of the 4 sub-group discussions.

GROUP 1: How to identify and prioritize needs for PT program?

1. Based on needs / public health safety (scandals – incidents, issues)
2. regulatory requirements / mandatory standard
3. PT design / test method / technical support
4. To support import / export (trade barrier)
5. Major scope of accreditation
6. Assessor's feedback

Feedback information:

- Lab (program needs)
- Assessor (AB)
- Committees / Government

PT: Gathering information

1. Identify lab's needs
2. Identify AB's needs
3. PT scheme detail (matrix, range of test etc.)
4. Draw up a matrix listing all major areas of testing and calibration

Questionnaires from laboratories:

1. Scope of accreditation
2. Comply with PT participant as requirement by standards
3. protocols / methods

Questionnaires from committee / government:

1. Public health / construction issue
2. Support import / export

GROUP 2: How to identify and prioritise PT needs?

1. List the scope – is the list with you today?
2. Identify the major sub-disciplines of the scope
3. Match the potential PT to the sub-disciplines
4. Survey PT program availability
5. Match available PT to the potential PT
6. Conduct a gap analysis

To prioritise PT

1. Health and safety
2. Costs
3. Number of labs
4. Regulatory requirements
5. Economic consideration e.g. trade
6. Benchmarking with other ABs

GROUP 3: How to identify and prioritize needs for PT program?

Priorities

- ✚ Scopes: calibration areas, testing fields
- ✚ Number of labs accredited
- ✚ Number of non-accredited labs
- ✚ Importance / risk
- ✚ Demands – legal (national, foreign), commercial
- ✚ Frequency

Feasibility

- ✚ PT provider availability
- ✚ Access to samples – materials, artefacts
- ✚ Cost
- ✚ Logistics / transportation

Costs

- ✚ Cost to AB (expert, samples, transport)
- ✚ Cost to participant (test, time & fees)

Technical issues

- ✚ Expertise within PT provider
- ✚ Method selection
- ✚ Sample stability / integrity
- ✚ Homogeneity

GROUP 4: How to identify and prioritize needs for PT program?

Identification of needs for PT

1. Survey of laboratories
2. Requirement by regulatory bodies
3. Standardization – national standard, customers' standard
4. Scope of accreditation
5. Questionnaire
6. Requirements of exports / target markets

Prioritise needs for PT

1. Risk assessment
2. Impacts:
 - economy
 - safety / environment
3. Number of participant laboratories / need for more groups

Session 8: Training Module 3

Mr. Philip Briggs continued with the presentation and questions-answers on requirements for PT providers and how to run a PT scheme. Presentation slides are in a separate file.

Session 9: Break-out Session III

The discussion topic in this break-out session was ‘How to extend participation in PT program?’ This topic was based on an assumption that even the needs for PT program have been identified and prioritized, it does not mean that the testing laboratories would participate in the PT program. ‘How can a PT provider motivate the participation of testing labs?’ is a challenge.

Group 1: How to extend participation in PT program?

1. Who are targets of PT?
 - Labs (Government / non-government)
 - Industries
 - Regulatory Bodies (Authorities)
 - Institutes
2. Directory of business
3. Website / announce on website
4. Send to AB (in country, abroad), APLAC, etc.
5. Advertise in magazine / newspaper / mailing
6. Mail merge to labs / company
7. Conduct seminar / training course for awareness
8. Brochure

Group 2: How to extend participation in PT program?

1. ABs promote the PT policy.
2. ABs may fund PT participation fees.
3. ABs ensure maximum number of labs enrolled in regional PT.
4. ABs promote the benefits of PT.
5. APLAC extends invitation to developing economies for PT programs.
6. ABs reward good performance in PT by extending surveillance interval.
7. ABs promote the availability of PT providers in the economy.
8. Use of PT to speed-up the process of applicant or extensions.
9. Government agencies may set new PT requirements.

Group 3: How to extend participation in PT program?

1. Accredited labs – mandatory?
 - Non-accredited - encourage other mandatory requirement
2. Motivation – voluntary participation
 - general awareness
 - advantages
 - benefits
 - incentives
 - aspiring to be accredited
3. Advantages / benefits / incentives
 - peer comparison
 - QC – cost / benefit
 - reassurance / confidence

- enhance recognition
- 4. Choice of programs
 - designated by AB?
 - choice by lab?
- 5. Experience
 - Already substantial voluntary participation.

Group 4: How to extend participation in PT program?

1. Create awareness (seminars, workshops, meetings).
2. Make certain programs mandatory.
3. Lobbying government to make PT as a requirement.
4. Guarantee easy access to the business (e.g. Government Bidding).

Day 3: Thursday, 15 February 2007

Session 10: Training Module 4

Mr. Philip Briggs continued with the presentation and questions-answers on the evaluation of results, reporting and corrective action. Presentation slides are in a separate file.

Session 11: Break-out Session IV

The participants worked in different sub-groups and discussed 'How to develop national capability for PT program?' The result of the discussion was recorded below.

GROUP 1: Development of national capabilities for PT program

Targets: Lab: Government / Industrial / Accredited lab / institutes

Strategies:

1. Improving capabilities / capacity of ABs in PT.
2. Conducting PT training courses / workshops (for potential PT providers).
3. Encouragement and motivation to PT users (provide funds, recognition).
4. Sharing experiences, knowledge from neighbouring countries / international co-operation (networking).
5. Providing guidance documents for PT providers.

GROUP 2: How to develop national capability for PT programs?

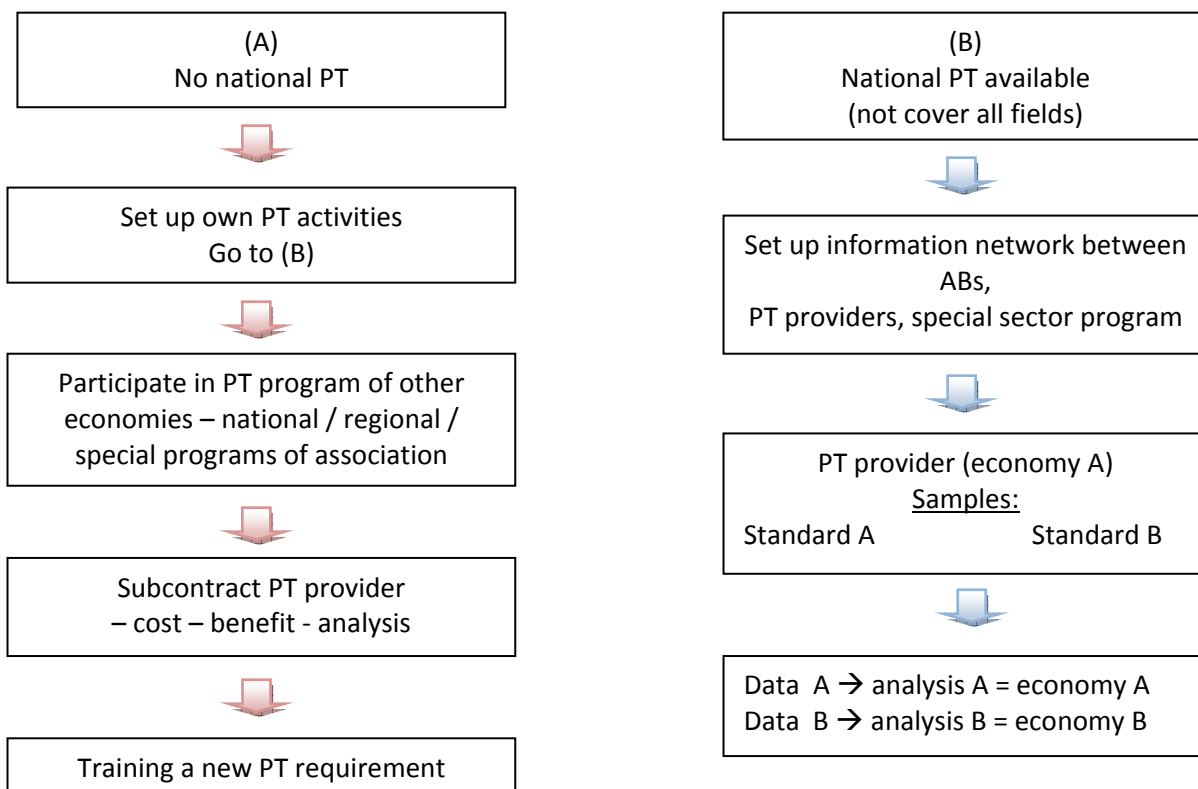
1. Develop PT recognition by PT accreditation.
2. Include PT providers in the next APLAC / PTB workshop.
3. Networking with other PT providers – sharing samples, sharing statistical design.
4. Domestic PT training activities.
5. Competence of PT provider training course.

6. Add PT linkage to the AB website.
7. PT chat room on APLAC website.
8. Practice design of PT program: workshop activities.
9. Improve communication between AB and PT provider.
10. Develop PT newsletter.

GROUP 3: How to develop national capability for PT programs?

1. Identify fields / tests etc.
2. Look for resources
Resources: national, foreign
National resources
 - Material suppliers
 - Technical expertise → people, centre of excellence
 - Funding → government, industry, AB, donorsForeign resources
 - Commercial providers
 - Regional
 - Other national
 - Consultants
3. Training
 - All aspects → specialists, how to
 - Practical → attachment
 - Theoretical
4. Leadership / Champion
 - Industry / science
 - AB – broad overview
 - Industry / economic ministry
5. Sustaining system
 - Develop infrastructure
 - Motivate users
 - Funding concerns
 - Follow technology development → not static

GROUP 4: How to develop national capability for PT programs?



Session 12: Future Steps

12.1 Homework Assignment

Mr. Philip Briggs, APLAC and Dr. Ulrich Diekmann, PTB assigned homework to the participants to prepare and submit before the next training course/workshop (by the end of July 2007). The task is the 'Assessment of National Needs and priorities for PT Program'. The findings of the needs assessment and their priorities will be used to plan the PT program during the second workshop. After the training workshop II, the participants will be asked to implement the PT plan. The training workshop III will be the evaluation of the implementation of the PT plan.

The following is a **guide to the assessment of national needs and priorities for proficiency testing**.

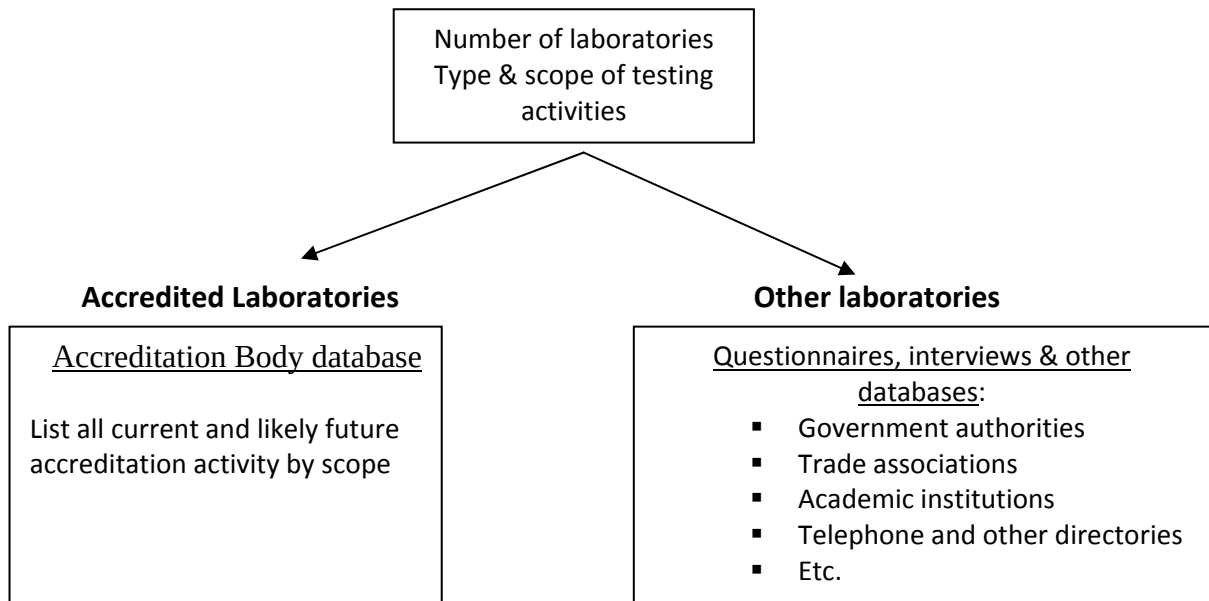
Drivers:

- Laboratories – quality control, peer comparison, problem identification, confidence building, enhancement of credibility, traceability, etc.
- Regulatory authorities and government requirements
- Commercial and contractual requirements, trade facilitation
- Accreditation bodies – compliance with ISO/IEC 17011, 17025, MRA requirements, surveillance tool etc.

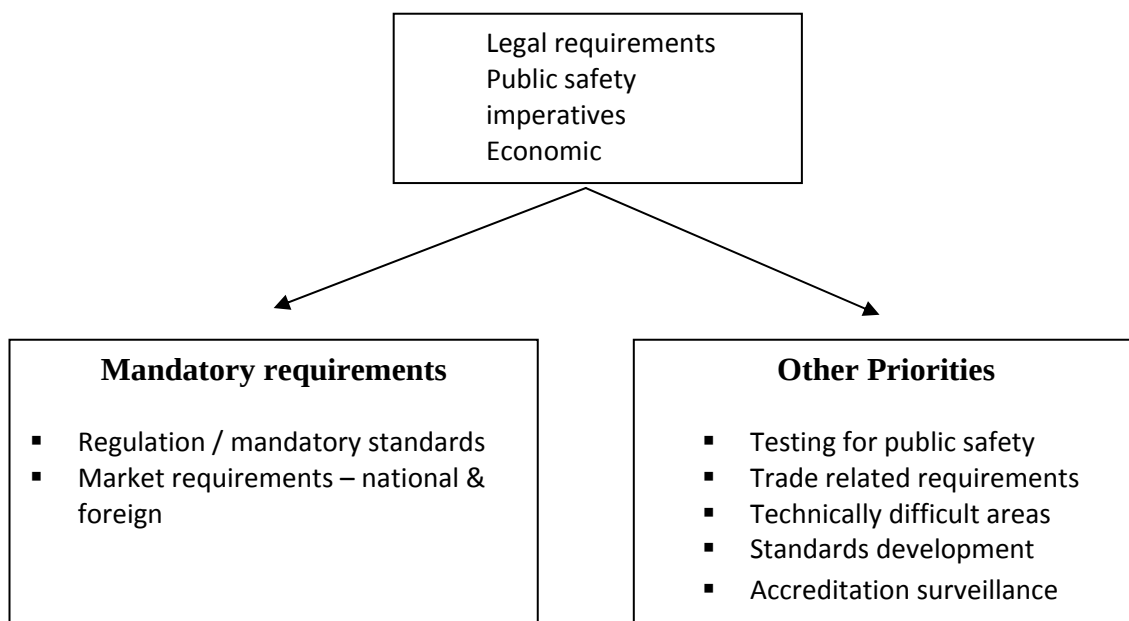
HOMEWORK

ASSESSMENT OF NATIONAL NEEDS AND PRIORITIES FOR PROFICIENCY TESTING

i. Potential Market Size



ii. Needs and Priorities



IMPLEMENTATION CONSIDERATIONS

iii. Feasibility

(a) Technical Issues

- Availability of PT providers (national and foreign)
- Program design
- Availability of technical expertise
- Access to suitable materials
- Sample preparation
- Homogeneity testing
- Sample integrity & stability
- Method selection

(b) Administrative Issues

- Selection of programs - methodology
- Management of programs - roles of respective bodies
- Logistics
- Data treatment/reporting
- Analysis of data
- Use of data by accreditation body

(c) Costs Considerations

Costs to:

- accreditation body
- PT provider
- Laboratory
 - fees
 - testing
 - time

ASSESSMENT OF NATIONAL NEEDS AND PRIORITIES FOR PROFICIENCY TESTING

Reporting of Results

Participants in the workshop in Kuala Lumpur are requested to conduct the survey on needs and priorities as outlined in the earlier document on the subject.

It is not intended that this survey should be exhaustive. It is intended to identify those areas of testing in each participating country where proficiency testing (PT) is mandatory or desirable and to assess the feasibility of providing appropriate PT programs where required.

The information on market size is simply required to assess the feasibility of conducting such programs at the national level. Where there are insufficient numbers of potential participants, PT programs either cannot be conducted or must be sourced from external sources.

Where the data indicates that sufficient laboratories exist, then the question as to whether or not to undertake PT programs is a matter of national priorities, policies and legislation and some technical considerations.

Where there are insufficient laboratories and no pressing need for PT, then such areas of testing can be given low priority.

Please report the results of your findings in the format of the attached document.

Sectors should be identified by reference to common descriptions of the products normally understood e.g. foods, waters, oil, coal, textiles etc. The list given is purely indicative and can be expanded to describe the particular needs of each economy.

Priorities should be assigned on the basis of:

1. Very High

Where PT is specified as an element of regulatory enforcement or as part of trading arrangements for a country's major export product(s). Public safety issues could also affect the priority of a particular area e.g. potable waters.

2. High

Where serious problems exist in a particular field leading to disputes about the validity of test reports, particularly where there may be serious commercial or economic impacts.

3. Medium

Where PT is thought to be of value e.g. peer comparison between a significant number of laboratories providing test data of commercial importance, routine surveillance by an accreditation body, providing data to support development of a standard etc.

4. Low

Where there are very few laboratories working in non-contentious areas of testing.

The questionnaire seeks only macro level information but, where special national needs and priorities exist that could pin point a particular PT program e.g. seafood exports to the EU, arsenic in drinking water etc. more detail may be provided. Feel free to use free text to describe these special needs.

ASSESSMENT OF NATIONAL NEEDS AND PRIORITIES FOR PROFICIENCY TESTING

National Reports

Sector/ Product	Accredited Laboratories No. (0-5, 6-10, >10)	Non-accredited Laboratories No. (0-5, 6-10, >10)	Priority 1, 2, 3, or 4
Drugs & pharmaceuticals			
Foods			
- fish & seafood			
- meat			
- fruit & vegetables			
- other			
Textiles & garments			
Chemicals & minerals			
- petroleum			
- vegetable oils			
- rubber			
- metals			
- other industrial chemicals			
Construction materials			
Coal			
Environmental measurements			
Medical testing			
Medical imaging			
Calibration			
Other products			

12.2 Training Course / Workshop II and Time Frame

The training course / workshop II will be organized either late August or early September 2007. APLAC/PTB is looking for a host country for the next workshop. To facilitate the process, APLAC will issue an invitation letter for hosting the second PT Training Course / Workshop. An economy who is interested to host the second workshop should submit a letter of 'Expression of Interest' to APLAC. Time frame of the key steps after the first training course / workshop and the second one is elaborated below.

	What?	By When?	By Whom?
1	Workshop report with presentations, group records, and homework report format.	2 March 2007	Prepared by Kalayanee Distributed by APLAC/PTB
2	Homework submitted	End of July 2007	Workshop participants
3	PT Workshop II • Invitation for hosting the 2nd PT workshop • 'Expression of Interest to be a Host Country for Workshop II' letter • Organized PT workshop II	April 2007 May 2007 Late August or early September 2007	APLAC Country/economy who is interested to be the host country for PT workshop II Host country

The organizers also mentioned the host country's functions and benefits to clarify what a host country has to do and what benefits they will have to host the training course/ workshop.

Host Country Functions

- Arrange the workshop with the selected hotel (cost, meeting room, accommodation, workshop materials and equipment, etc.).
- Be a secretariat of the workshop.
- Host a dinner (Optional).

Host Country Benefits

- Access to experts in the PT field.
- Awareness raising seminars.
- More staff can attend the workshop.

12.3 Needs for the Training Course / Workshop II

The participants were asked to suggest the subject areas / topics they would like to cover in the training course / workshop II. Below is a list of their expression of needs.

General Needs

- More detailed session and/or exercises on evaluation of PT data.
- How to make use of PT data to estimate MU?
- Coverage of Technical aspects of PT.
- More detailed statistics.

Specific Topics and Case Study

- Training in specific PT skills.
- PT for laboratories conducting destructive tests.
- Course for PT managers/coordinators.
- Present some case studies (experiences).
- Case study based discussion on implementing PT.
- Guidance on:
 - Method of implementation.
 - Different ways of doing PT successfully.
- Focus on:
 - Conducting PT programs (means & methods).
 - Practical problems and solutions.
- Allocate enough time for the discussion on the implementation of PT programs.

Logistics/Access

- Discussion about how to share PT programs between PT providers.
- How to prepare PT providers?
- Get more information how to survey the needs or market.
- List what are considered to be major obstacles in the development of PT programs.
- List of accredited laboratories, what should do in workshop II.
- NATA database - accredited and PT information.
- How to manage PT information effectively?
- How to manage PT system to be accredited?

12.4 Training Course / Workshop Evaluation

The participants evaluated the first PT training course / workshop in an evaluation form. The results of the evaluation are compiled in the next chapter of the report.

12.5 Awarding Certificates and Closing

Mr. Philip Briggs and Dr. Ulrich Diekmann, as representatives of APLAC and PTB, who are co-organizers of the training course / workshop, awarded a certificate to each of the participants. The co-organizer thanked the host country team for a wonderful arrangement and administrative supports, the resource persons, the moderator, and the participants for their active participation throughout the training course / workshop.

III. Training Course/Workshop Evaluation

APLAC/PTB

PROFICIENCY TESTING TRAINING COURSE Kuala Lumpur 13 – 15 February 2007

COURSE EVALUATION RESULTS

1. Course objectives and outcomes

	Yes	Probably	No
a) Were the course objectives clearly explained to you at the beginning of the course?	21	4	-
b) Do you believe that these course objectives were met?	21	4	-
c) Were you satisfied that the course content had relevance to your organization and role?	21	3	1

Comments:

- There are one or two objectives that are yet to be achieved. I strongly believe they will be achieved in the next 2 workshops.
- Positively. The course content had relevance to my organization (different aspects: for main PT issues, for assistance if we can offer it). For my role, the course content was beneficial from the point of view of training as well as better understanding of what applies to other economies.
- The course is very much beneficial for my present job.
- Participants have different background. I think statistic is important for PT but had short time and we spent more time for workshop, so we had short time for theory.
- The course objectives and the outcomes are good when considering the time frame. However, if more time had been allocated, the efficiency of the outcome could have been even better.
- It was an eye opening for an economy like ours especially when we are taking first steps towards accreditation & PT schemes.

2. Course Delivery

	Yes	Probably	No
b) Was there enough practical application in the course?	15	9	1
b) Did the activities improve your understanding of the topic?	22	3	-
c) Were the course notes and reference documents useful?	23	2	-
d) Do you think you will use the course notes and reference documents in future?	22	2	-

Comments:

- I would like more case studies.
- The workshop should be more than 3 days.

- The course notes will be a valuable reference. Document notes issued during the course are a 'back-up' for acquired knowledge about other economies.
- Since case study/work-outs was lacking, full effect is not got.
- Handbook for PT program may be published.
- We spent short time on the course notes. I think I will study after this course. If I'm not clear with some points, whom I can ask or email to Mr. Philip.
- Can reduce 1-2 group discussion and use this time to cover more theory.
Discussion can be done in the class by asking participants to write on cards.

3. Course Presenters

	Yes	Probably	No
a) Did the presenters have adequate knowledge of the content?	24	1	-
b) Did the presenters make the course interesting?	23	2	-
c) Was the course well organized?	22	3	-

Comments:

- Good and measured balance achieved between presentations and group discussions.
- Practical points would have given full knowledge to the participants.
- Need better organization in the planning of the second training course.
- Short description of course presenters could be included in the training document.
- Please speak clearly.

4. Workshop process and design

	Yes	Probably	No
a) Did you have adequate opportunity to share experiences, ideas and/or specific needs during the workshop?	14	11	-
b) Was the workshop design flexible enough to address your specific needs?	16	9	-
c) Was the discussion guided in a way that the group best benefited from it?	20	5	-
d) Was the course duration, location, training venue, and other organizational issues well organized?	22	3	-

5. Overall impression

	Yes	Probably	No
a) Do you think you will be able to implement the knowledge/skills presented in this course in your workplace?	18	7	-
b) Were your expectations for the course met?	15	9	1
c) Do you think time was well spent?	20	2	-

6. Further suggestions (e.g. Content, delivery, other courses)

- The first email with the course invitation did not share the multiple workshops. It was not discovered until after the commitment to attend was provided.
- I want to demonstrate on PT testing.
- Training in PT skills such as environment PT sample, estimate uncertainty in environmental field, etc.
- Suggestions will be covered in the last round of participants' comments.
- Guidance on method of implementation, different ways of doing PT successfully is needed.
- Course content, if given earlier (prior to the course), then time will be there to prepare.
- Focus on conducting PT programs (means and methods), practical problems and solutions (other than stated in guide 43) would have given added benefits.
- We spend much time in planning the second workshop, for me was confusing.
- Training room selection could be done in a better way so that there were windows for sunlight.
- Everything is nice but may be it would be better if practical aspects (i.e. statistical method) increased.
- Cover the theory in more details.
- Cover all topics in the course book.
- Less on discussion. Presenters need to summarize the point of discussion and tabulate the best way to solve the situational discussion problems from all the view points presented by the various groups.
- The workshop gave me valuable information that I could use for my work.
- Need further discussion and should be discussed in the next workshop.
- Little more time/duration would be better so that we spend more time on each topic in discussion.
- Should have also the discussion for the countries that have no AB and accredited. Seek the way for them how to run PT program at their national level and regional level as well.

Name (optional).....

Thank you

ANNEX 1

APLAC/PTB PROFICIENCY TESTING TRAINING COURSE/ PLANNING WORKSHOP PROGRAM

Time	TUESDAY 13 February 2007	WEDNESDAY 14 February 2007	THURSDAY 15 February 2007
9:00 – 10:30	Opening Introduction Kick-off session	Training module 2 ILAC and APLAC policies APLAC Testing, Calibration & MRA	Training module 4 How to run a PT scheme? Selection of programs Program design Introduction to - artifact stability - sample homogeneity - packaging and handling - statistical theory - measurement uncertainty
10:30 – 10:50		BREAK	
10:50 – 12:45	Training module 1 General introduction to PT - Benefits of PT - Guides and standards ISO/IEC 17025 ISO/IEC Guide 43	Break-out session* How to identify and prioritize needs for PT programs?	Break-out session* How to develop national capabilities for PT programs?
12:45 – 1:30		LUNCH	
1:30 – 3:00	Break-out session* How to start PT activities? How to finance PT activities?	Training module 3 Requirements for PT providers - motivation and use - accreditation	Future steps Homework - need assessment Planning of the 2nd workshop
3:00 – 3:20		BREAK	
3:20 – 5:00	Break-out session cont. How to start PT activities? How to finance PT activities?	Break-out session How to extend participation in PT programs?	3:20 – 4:00 Evaluation Awarding Certificates Closing

* these sessions will be interactive and goal-oriented, they will start with short presentations, require the input from the participants and will be moderated by a facilitator

List of Participants APLAC/PTB Proficiency Testing Training Course / Planning Workshop 13-15 February 2007

ANNEX 2

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List of Participants APLAC/PTB Proficiency Testing Training Course / Planning Workshop 13-15 February 2007

ANNEX 2

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