

Asia Pacific Metrology Programme

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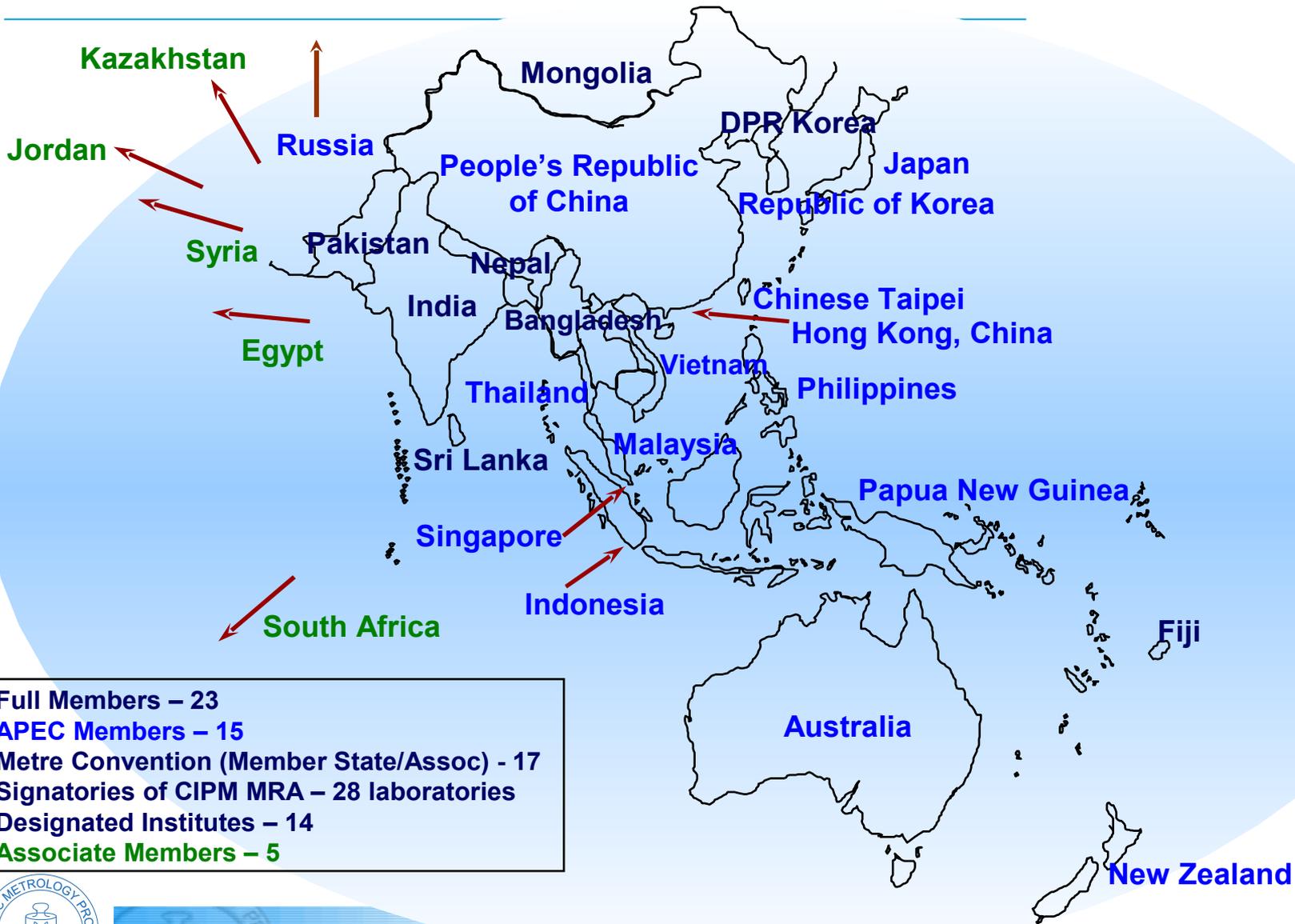
MRA Success Stories

APMP GA 2009



Dr. Woogab Lee, Executive Secretary of APMP

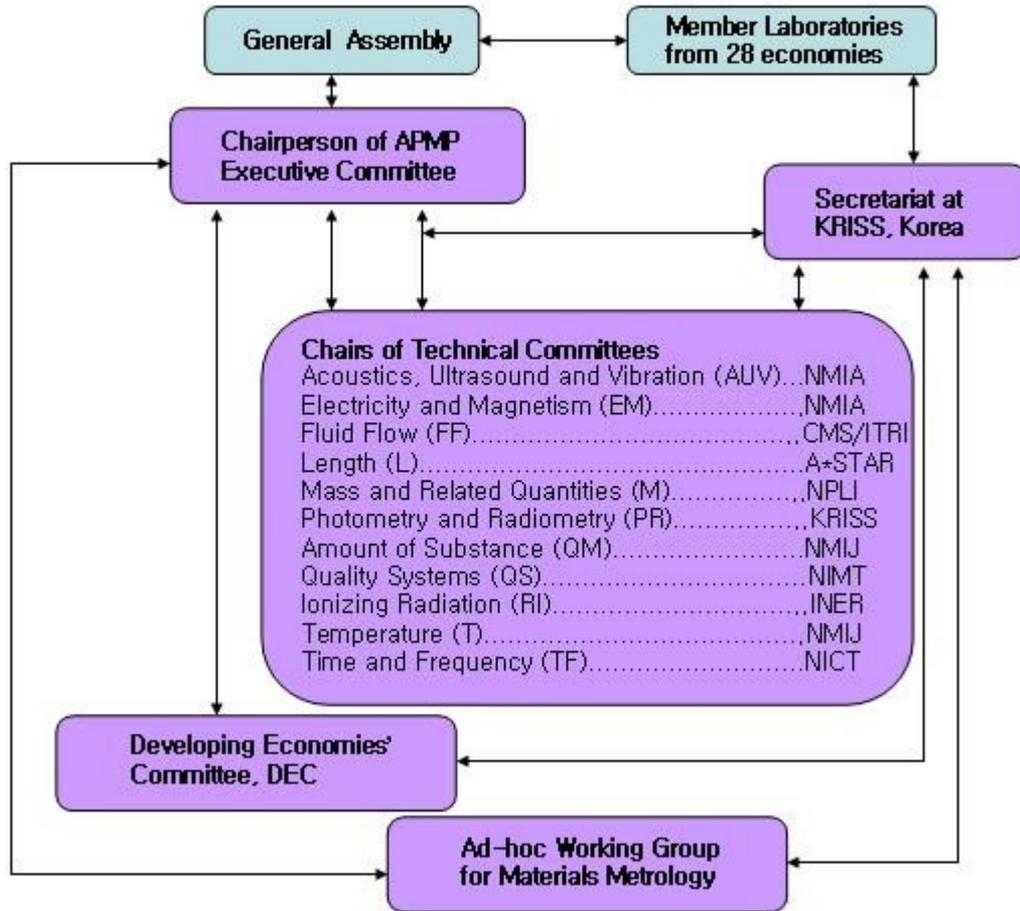
Members of APMP, 2009



- Full Members – 23
- APEC Members – 15
- Metre Convention (Member State/Assoc) - 17
- Signatories of CIPM MRA – 28 laboratories
- Designated Institutes – 14
- Associate Members – 5



APMP Organisation



APMP Chairperson
Dr. Kwang Hwa Chung

APMP Secretariat :
Dr. Woogab Lee

Korea Research Institute
of Standards and
Science
(KRISS)



APMP 2008 General Assembly and Related Meetings

30 Oct – 8 Nov 2008



- **General Assembly (GA)**
- **Executive Committee (EC) Meeting**
- **Technical Committee (TC) Meetings**
- **Developing Economies Committee (DEC) Meeting**
- **Symposium**
- **Laboratory Visits**
- **Satellite Meetings**
 - Asia-Pacific Workshop on Time and Frequency (ATF 2008)
 - 4th Asia-Pacific Symposium on Pressure & Vacuum 2008 (PVS)
 - Scientific Meeting on Calibration, Instrumentation and Metrology (PPI-KIM)
 - Workshop on Metrology in Chemistry for Industrial Competitiveness & High Quality of Life
 - TCQM/DEC Workshop on Metrology in Chemistry



APMP Executive Committee:



- Dr. Kwang Hwa Chung (KRISS, Korea), Chairperson of APMP
- Dr. Vikram Kumar (NPLI, India), Chair of DEC
- Dr. Husein Akil (KIM-LIPI, Indonesia), Advisor to MRA
- Dr. Yoshio Hino (NMIJ, Japan), Liason between EC and TC chairs
- Dr. Yu Yadong (NIM, China), Chair of Award Advisory Committee
- Dr. Chua Sze Wey (A-STAR, Singapore), Treasurer of APMP
- Dr. Jia-Ruey Duann (CMS/ITRI, Chinese Taipei), Liason between EC and TC chairs
- Dr. Angela Samuel (NMIA, Australia), Advisor of APEC SCSC SRBs and DEC

APMP 2008 GA Highlights (I)

- New members: HSA (Health Sciences Authority) in the field of Chemistry designated by NMC/ASTAR, Singapore; OAP (Office of Atoms for Peace) in the field of Ionizing Radiation, designated by NIMT, Thailand
- GA approved VNIIM from Russia as a full member of APMP.

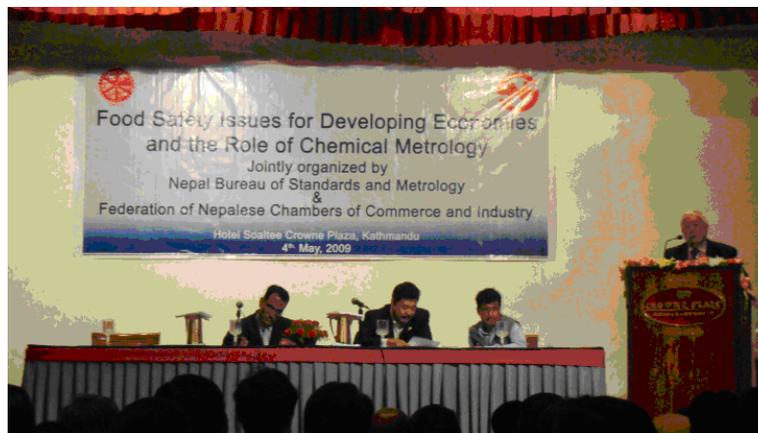


APMP 2008 GA Highlights (II)

- APMP ad-hoc WGMM provides the contact point with BIPM in recognizing the importance of global consistency of Materials Metrology activities, and noting the MoU between BIPM and VAMAS,
- Engage with APLAC on the conduct of APLAC's PT programs to facilitate the provision by APMP of traceable reference values to those programs. APMP may also consider the linking of their formal comparison processes to relevant APLAC PT programs
- APMP will cooperate with the BIPM in the field of Nanometrology. APMP will provide the BIPM with APMP's opinions and information on the priorities for national and international activities when requested by the BIPM.



EC/TCC/DEC meetings in Kathmandu (May)



- **EC Workshop : To increase efficiency of APMP functions**
- **EC : to review of APMP work plan**

- **EC/TCC : TC chair's report on CMC and KC issues**
- **DEC : to plan DEC/TC workshop**

- **TCQM Workshop and TCQS Workshop**



EC Workshop Objectives

- Need to regularly review progress against APMP mission & objectives, esp. given:
 - **changes in EC composition,**
 - **global issues - energy, climate change, food safety, health, etc**

Key Focus Issues

- Increase efficiency & effectiveness of APMP activities / restructure APMP meetings

Scientific collaboration initiatives / greater degree of collaboration on research in metrology



Major EC Workshop Responses

TC Meetings

- Leave as responsibility of TC (?) OR
- Provide guidelines : e.g., to include strategic and technical discussions

NMI Directors' Meeting

- Replaces Director's report at GA
- Possible issues:
 - To report on interactions with national standards and conformance bodies
 - NMI development plans, special initiatives, strategic plans



EC meeting in Kathmandu (May)

- **APMP Membership review (RCChem : new member application)**
- **MoU review**

- **APMP Awards program**
- **EC membership review (Two members terminating)**

- **Review of 2009 workplan**
- **Budget 2009**



TCC meeting in Kathmandu

- **Report on the 22nd JCRB meeting**
- **Report on APEC SCSC 2009 meeting**

- **Preparation of APMP GA 2009**
- **TC Chairs reports**

- **Discussion on the EC Workshop**



DEC meeting in Kathmandu (May)

- DEC Budget 2009
- BIPM Report

- PTB Project report
- DEN reports

- ----- Workshops -----
- DEC/TCQM Workshop
- DEC/TCQS Workshop



NIM : Role of metrology in tainted milk incident

- In September of 2008, the tainted milk incident in China attracted close *attention* of the government and consumers.
- The reliability of melamine detection technique and the accuracy of measurement results became the key to the quality control of dairy. Testing laboratories were all challenged by the task of providing traceable methods for sample treatment.
- Farmers were refused by milk processing enterprises to purchase. Consequently, a disposal of up to 100,000 tons of fresh milk was poured away everyday in China, leading to a direct lost of around 50 million Yuan.



NIM : Role of metrology in tainted milk incident

- NIM provided the testing laboratories with more than 2000 units of reference materials. An on-site detection method was developed for dairy industry and effectively mitigated the heavy detection burden in milk collecting stations.
-
- NIM successfully played her role as an NMI and made the importance of metrology manifested in product quality protection. NIM gives this credit to efforts of capacity-building under the framework of CIPM MRA in the last ten years.
- This event also brought the government a further understanding of metrology importance and international mutual recognition. The MOST designated NIM as a national evaluation center for detection techniques.



KRISS : DSME saved up to \$10 M owing to CIPM MRA

- **DSME, ship-building company in Korea, received an order from BP, the British energy giant, to construct an offshore plant in 2002. BP requested all 130 instruments be traceable to the NIST.**
- **It would have incurred additional cost of \$ 1 million to DSME for having its instruments calibrated abroad and acquiring substitute equipment to replace existing ones for the period of calibration. What was worse, the amount of penalty DSME would incur if the project is not completed until the deadline was \$10 million.**



KRISS : DSME saved up to \$10 M owing to CIPM MRA

- In search for ways to minimize the loss, DSME discovered that KRISS and NIST are both signatories to the CIPM-MRA. Since DSME, accredited by the KOLAS which is a member of APLAC and ILAC-MRA, has always maintained standards traceability to KRISS.
- NIST confirmed that as far as DSME is keeping traceability to KRISS, there would not be a problem in calibration.
- Finally DSME could save up to \$10 million, finishing the project in time.



SIRIM : The Malaysian experience

- **NML SIRIM joined the MRA in October 2001. NML has listed CMCs in 8 measurement areas.**
- **The signing of the MRA provided impetus for Malaysian to accelerate the development of measurement infra. Existing facilities were upgraded, new laboratories were constructed in 2004 and a new block for chemistry has been under construction.**
- **To harmonize the various activities in national measurement infra, the National Measurement System Act has been enforced, making NML the national custodian of weights and measures.**



SIRIM : The Malaysian experience

- **Upon signing the MRA, NML went ahead to formalize implementing the quality system, resulting in getting accreditation from a national accreditation body. NML accreditation benefited the national accreditation system by fostering better interaction and understanding between NML and the accreditation body.**
- **The MRA also benefited NML through networking with other NMIs such as KRISS, NMIA and NMIJ whereby NML staff have the opportunity to share knowledge and experiences with their peers during the Peer Review.**



A*STAR : Comprehensive aircraft maintenance

- In early 2008, one of the Singapore aerospace companies launched its new multi-million dollar engine test facility that was designed to test the next generation commercial and military engines.
- In September 2008, the company was audited by an FAA auditor from the US. When going through the documentation, the auditor asked about the traceability of their pressure gauge calibration.



A*STAR : Comprehensive aircraft maintenance

- The company contacted the NMC A*STAR and BIPM to verify that NMC's calibration certificates are equivalent to the ones issued by NIST. The BIPM expressed that both NIST and NMC are recognized under the CIPM MRA. The FAA auditor accepted the explanation and cleared the audit.
- In Singapore, about 60 accredited calibration laboratories and 190 private testing laboratories benefit from the CIPM MRA – in terms of tangible cost savings, unnecessary delays and transportation risks in having to send instruments overseas for calibration.
- For more cases, please visit “www.apmpweb.org”



25th General Assembly and Related Meetings Kuala Lumpur - MALAYSIA

13 - 18 December 2009



Asia Pacific Metrology Programme



Meeting Venue: Kuala Lumpur Convention Centre



13 – 18 DECEMBER, 2009



Asia Pacific Metrology Programme



Visit to NML-SIRIM

Visit to Nuclear Malaysia



APMP GA 2009 and related meetings

	Sun, 13	Mon, 14	Tue, 15	Wed, 16	Thu, 17	Fri, 18
Morning	EC I/TCC	TC I	TCII/DECII	Symposium	GA I	GA II
Lunch			EC/TCC	Lab Tour		
Afternoon	DEC I					ECII
Dinner	Vacant	TC/DEC Dinner	EC Dinner	Symposium Dinner	GA Dinner	Vacant



THANK YOU
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**See you in Kuala Lumpur
December 2009**

