SECTION 1 – Organisation and structure for metrology

Organisation Structures

Directorate of Metrology is a government institution which has responsibility in legal metrology activities in Indonesia. Its structure is under the Directorate General of Consumer Protection and Trade Compliance, Ministry of Trade of the Republic of Indonesia. The main roles of Directorate of Metrology are in preparing guidelines, norms, standards, procedures and in the field of legal metrology.

In conducting legal metrological services such as verification and in-service inspection, Directorate of Metrology is supported by local verification offices at regency/city level which is under local government.

Legislative Frameworks

The activity of legal metrology in Indonesia is based on, as following:
- Act 2/1981 on Legal Metrology
- Act 23/2014 on Local Government
- Technical regulations under Ministerial Decree, as following:
• Minister of Trade Decree No. 31/2011 on pre-packaged products;
• Minister of Trade Decree No. 69/2014 on Metrological Resource Management;
• Minister of Trade Decree No. 53/2016 on Permit for producing domestic measuring instruments;
• Minister of Trade Decree No. 78/2016 on Legal Metrology Unit;
• Minister of Trade Decree No. 26/2017 on Metrological Supervision;
• Minister of Trade Decree No. 74/2012 on Imported Measuring Instruments as amended by Minister of Trade Decree No. 23/2018 on Imported Measuring Instrument;
• Minister of Trade Decree No. 67/2018 on Measuring instruments subject to mandatory of re/verification;
• Minister of Trade Decree No. 68/2018 on Initial Verification and Subsequent verification.
• Etc.

International arrangements and engagement

Indonesia through Directorate of Metrology is a member of Regional and International Organizations/Fora, as following:
- Member state of Organization Internationale de Metrologie Legale (OIML)
- Full member of Asia Pacific Legal Metrology Forum (APLMF)
- Member of Working Group 3 on Legal Metrology of ASEAN Consultative Committee for Standard and Quality

Indonesia also engages with bilateral cooperation in the field of Metrology, as following:
- Timor Leste under South-South Cooperation and Triangulation
- Memorandum of Understanding between Indonesia Economic and Trade Office (IETO) and Taipei Economic and Trade Office (TETO).

Indonesia also actively involves in training course both as trainers/host and participant as following activities:

a. Trainers
   - Technical Assistance on Inspection for NAWI and Fuel Dispenser in Dili, Timor Leste
   - Technical Assistance on Pre-packaged Products in Dili, Timor Leste
   - Technical Assistance on Laboratory Management System in Legal Metrology in Bandung, Indonesia

b. Participants
- Training Course on Water Meters (MEDEA) in Malaysia (2019).

SECTION 2 – Key activities of 2018/19

Legal metrology activities at regency/city region
Since 2014, regarding to Act No. 23/2014 on Local Government, legal metrology activities are done by local government at regency/city level. The changing legal metrological structure has impacted to the establishment of local verification offices (LVO) at regency/city, which has a total 508 regencies/cities. Currently, there are 248 local governments who has established local verification office and has performed verification activities.

South-South Cooperation and Triangulation in the field of Legal Metrology
Cooperation between Indonesia and Timor Leste under the South-South Cooperation and Triangulation is one of successful effort from Indonesia to assist Timor Leste in developing the metrological infrastructure throughout capacity building. South-South Cooperation and Triangulation is a complimentary scheme underpinning North-South Cooperation, which put Middle Income Countries (MICs) as a vocal point in a new perspective architecture of aid for development effectiveness.

Key activities of South-South Cooperation and Triangulation done in 2019, as following:
- Technical Assistance on Inspection forNAWI and Fuel Dispenser in Dili, Timor Leste
- Technical Assistance on Pre-packaged Products in Dili, Timor Leste
- Technical Assistance on Laboratory Management System in Legal Metrology in Bandung, Indonesia

Working with industry
Directorate of Metrology is actively working with industry in order to develop metrological network and also system such that metrological activities done by Directotrate of Metrology provide benefit for industrial. The priority areas of industry are such as argriculture, food and beverage, water meter, energy, and also halal industry.

Protecting consumers

Metrological Inspection
Directorate of Metrology is rapidly conducting inspection especially for fuel dispenser at 58 gas stations in 17 districts. The number of measuring instruments tested is 12,273 unit of nozzles. The law enforcement is also conducted as following action of inspection.

Certified measurer at traditional market
In order to help inspector in checking the weighing scale used at traditional market, and in educating trader and consumer, certified measurers at traditional market are establish. Certified measurers are persons working at traditional market who has given a task from local government to identify and inspect in a regular basis all measuring instruments used for trade in the traditional market where they are placed. Certified measurers are enrolled after they meet the qualification of basic competence in handling non-automatic weighing instruments (NAWI). NAWI is the most measuring instruments used for trade in traditional market. They are given a
formal training program which involves both theoretical aspect of NAWI and practical activities on checking NAWI at basic level.

The creation of certified measurer is a collaborative activity between legal metrology institutions and community (e.g. traditional market management) that will provide attractive activities insight and tools for collaboration; identify opportunities for partnership, meet community and consumer closely, and be part of the community around pathways to impact. The creation of certified measurer is also an exciting opportunity for metrology practitioners across legal metrology institution to show their development and build a collective vision on how legal metrology authorities can best collaborate with community to create value for better metrological practice and to reach the purpose in ensuring the measuring instruments used for trade and giving consumer protections.

**City/Municipals with fair in measurement**
The award is given to Cities/Municipals which can show their performance in providing fair in measurement within region at least for measuring instruments used in trade are meet requirement.

### SECTION 3 – Future focus

**New initiatives planned (next 1-2 years)**

**De-Regulation**
The government of Indonesia will do changes to some regulations relating to legal metrology. Suggested to harmonize the regulations in Indonesia with international recommendations. Need to align with existing regulations such as Act No. 23/2014 on Local Government. Some of these regulations also consider to be revised such as relation with human resource requirement, training for verification officer and inspectors, information technology, and others.

**Registered Verification Offices and development of e-learning**
The current situation of legal verification officers in Indonesia has reach 1044 persons. This number will continuously increase in the next 1-2 years. Therefore, there is a necessary effort to address the issue as following:
- How to control and to evaluate the performance
- How to increase their capability while there is an inadequate training facility.

In aiming to control the performance of the legal metrology officers distributed in all local verification offices, the concept of certification of verification officers is an option. Some APLMF members have implemented this scheme. It is opportunity for Indonesia to learn from those members.

The second plan is to develop the online training modules. Those materials will be upload in the website and served as self-learning materials. So that it can be used as an alternative learning process, in additional to the conventional learning process in the Indonesia Metrological Training Center. The APLMF Training modules posted in APLMF website can be used as a model to be translate into Bahasa for local used.

**Legal Metrology Branding**
Traditionally, legal metrology authorities’ performance measures have been based on upon the ability to provide an efficient response to ensure the fair trade in measurement. A result, the focus
of the activities has been on the verification and surveillance of measuring instruments. In effect, the regular verification and surveillance of measuring instruments has provided both the need and justification for maintaining and increasing personnel and equipment to support effectively when legal metrological control is performed. This approach gives disadvantages not only in taking a long timespan but also high cost. Therefore, there is a need to have an alternative approach to increase the performance in providing consumer protection.

Increasing the public awareness of legal metrology can be a solution. In fact, very little attention and few resources have been allocated to dealing with the causes of law breaking or addressing community awareness. Therefore, in the next 1-2 years, Directorate of Metrology is planning to promote legal metrology to public, as following:
- Consumer Education to primary students.
- Metrology Park.
- Metrology Outdoor Event.
- International Conference and Metrology Expo.

**Implementation to OIML Certification System**
To support the local manufacturer, Directorate of Metrology will implement the OIML Certification System on following categories:
- OIML R137 – Gas Meter
- OIML R76 – Non-Automatic Weighing Instruments
- OIML R49 – Water Meter

Therefore, the training course conducted by APLMF in the field of type evaluation and approval is necessarily needed to underpin in improvement the ability of human resources.

**Emerging issues – challenges and opportunities**

The challenge of conducting legal metrology control system such as verification and inspection is how to develop a common understanding of the risk of legal metrology across the nation and the resources that are required to meet the risk to an acceptable level, how to deliver a set of complex and interesting challenges for consumer protection sector. Such that education and campaign for public awareness are necessary considered for Directorate of Metrology to promote legal metrology to stakeholders.