

Prepared for:

Association of Southeast Asian Nations

Development of Implementation/Action Plans to Enhance Mobility of ASEAN Professionals on Surveying Services

FINAL REPORT: THE ROADMAP

29 January 2016

Prepared by Land Equity International



**Australian
Aid** 

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Program Phase II (AADCP II)

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TABLE OF ACRONYMS

AADCPII	Association of Southeast Asian Nations (ASEAN) – Australia Development Cooperation Program Phase II
AFAS	ASEAN Framework Agreement on Trade in Services
AFLAG	ASEAN Federation of Land Surveying and Geomatics
AMS	ASEAN Member States
ASEAN	Association of South East Asian Nations
ASEC	ASEAN Secretariat
ASWG	ASEAN Surveying Working Group
CCS	Coordinating Committee on Services of ASEAN
CPD	Continuous Professional Development
EU	The European Union
FIG	International Federation of Surveyors
FTA	Free Trade Agreement
GATS	General Agreement on Trade in Services of the WTO
MRA	Mutual Recognition Agreement
WTO	World Trade Organisation

MAP OF ASEAN MEMBER STATES

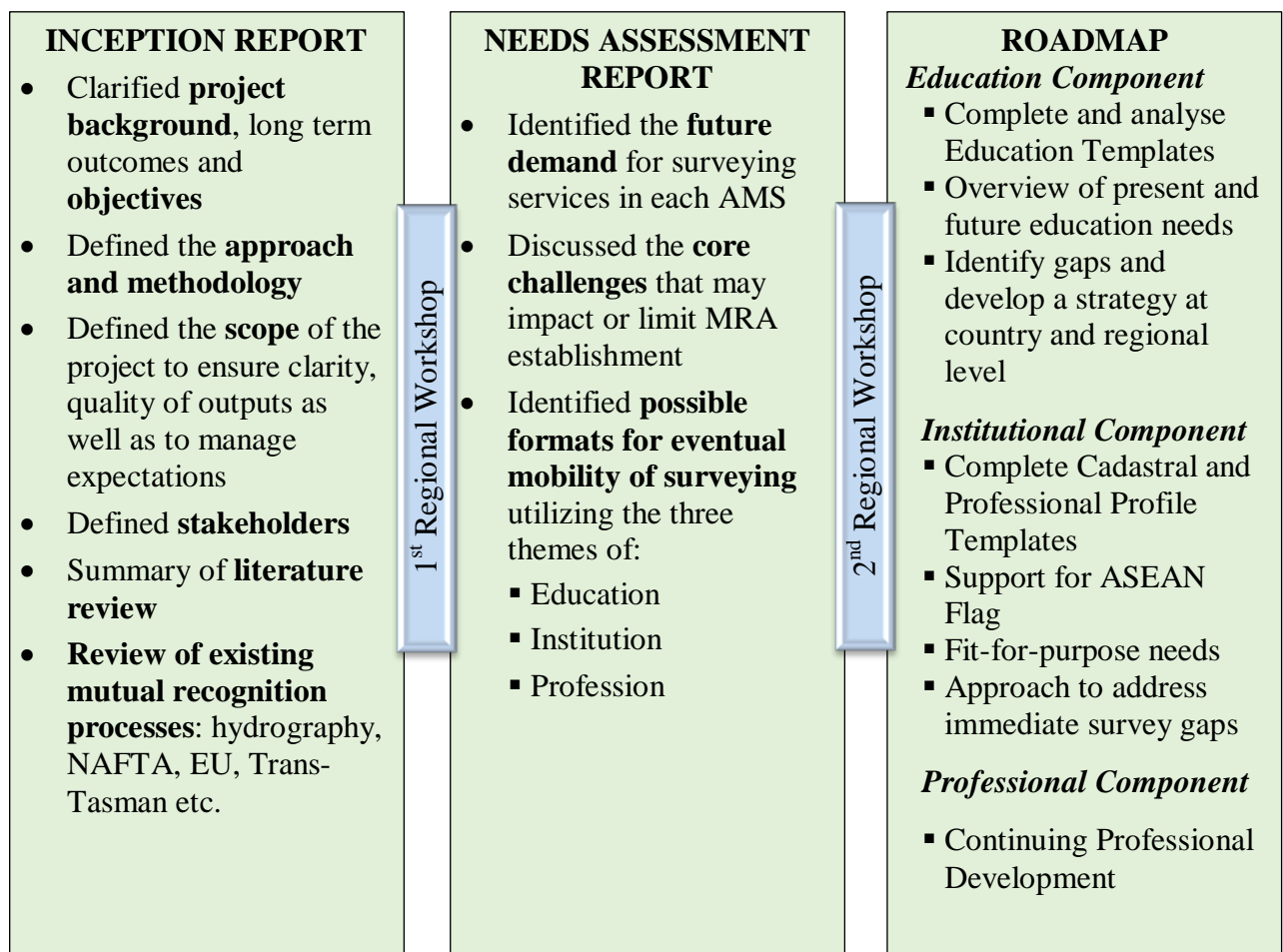


EXECUTIVE SUMMARY

Land Equity International (LEI) was contracted from May 2015 through to November 2015 to develop a roadmap to enhance the mobility of ASEAN Professionals on Surveying Services. This report represents the final report of the project, and has been prepared for the ASEAN Secretariat and ASEAN Surveying Working Group, comprising delegates from each of the ASEAN Member States. Funding for the project has been provided through the ASEAN-Australia Development Cooperation Program Phase II (AADCPH).

The context for this work is provided within the World Trade Organisation preconditions of mutual recognition: whilst mutual recognition – being the mobility of professionals without the need to ‘requalify’ across borders - may be considered an end goal, it is the preliminary steps (underpinned by mutual trust and mutual understanding) that promote an essential subset of goals such as information sharing and promoting equity, capacity and development across the region. These provide the basis for the prepared roadmap.

There were three core stages to developing the Roadmap, as identified in the Summary of Outputs below (also repeated as Figure 2). These culminated in the final Roadmap, represented pictorially overleaf.



IMPLEMENTATION OF MOBILITY OF SURVEYING SERVICES

A ROADMAP

Early-harvest: due end 2016

ALL TEMPLATES DRAFTED

- Cadastral
- Education
- Professional Profile



EDUCATION SECRETARIAT

Established
by Indonesia



DATA SHARING

All countries to
update; a website
established if
possible.



BILATERAL MUTUAL RECOGNITION

Piloted by
Malaysia,
Brunei and
Singapore



Mid-term: 2-3 years

REGIONAL ANALYSIS

undertaken by external
consultant on
EDUCATION and a FIT
FOR PURPOSE profession



JOINT BOARD MEETING

opened to
Philippines and
Indonesia;
eventually all



ASEAN FLAG VISITS

AFLAG
representatives
invited to help with
Professional
Association set-up

Supporting activities

REGIONAL CPD

CPD events
and
requirements
shared



TWINNING

Bilateral twinning
arrangements
established between
universities,
Professional
Associations and/or
Boards

INTER-REGIONAL LINKAGES

Foster and build on
proactive linkages with
Australasia as well as
UN-GGIM, FIG and
others

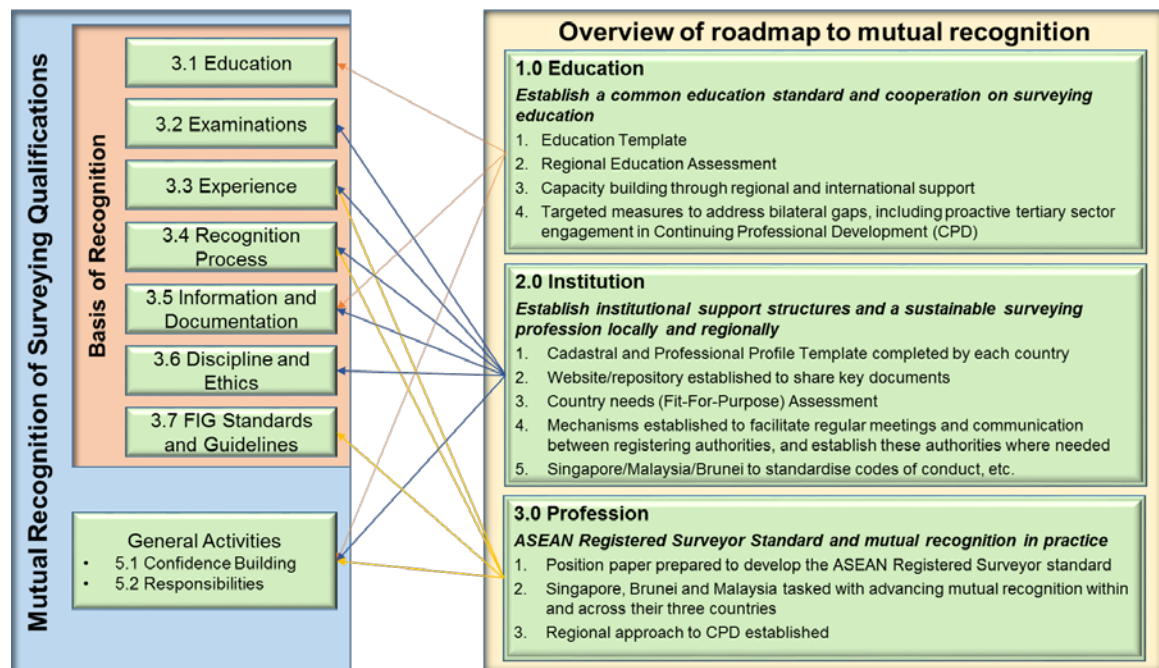
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This following overview maps key enabling activities of the Roadmap against the components of the Framework MRA which they support. The chart highlights that the Roadmap establishes an essential foundation from which to build mutual recognition, acknowledging that the sustainability of the surveying profession is hampered by the critical precursors to mutual recognition, including: equitable access to education, information sharing and the development of common standards.



To support continuity of this project and ensure a cohesive Roadmap vision a Workshop Statement was developed and endorsed as the conclusion of the Second Regional Workshop. All AMS agreed that:

- there is at present no limit to the mobility of surveying professionals between member states *except* for the purposes of cadastral surveying, where movement is limited.
- The core goal to implement an MRA can only be achieved by development and enhancement of a sustainable surveying profession across the region.
- A long term vision for mobility and mutual recognition agreements for professional ASEAN surveyors requires appropriate support for education, professional competencies and development of professional institutions.

Based on these agreements the following statement was developed in consultation with the participants towards the conclusion of the Second Regional Workshop (held on 19 and 20 October 2015) and was endorsed unanimously by all representatives present from the ASEAN Surveying Working Group. This statement is repeated in full below:

The objective of this project has been to develop an implementation strategy for the ASEAN Mutual Recognition Agreement for surveying with the result of improving the freer movement of surveying professionals across ASEAN.

While the mutual recognition agreement in ASEAN in surveying has not been implemented, it is evident that there is currently no limitation on the free movement of surveying professionals engaged in specific projects requiring engineering surveys, GIS and related activities, mapping, geodetic surveying and hydrographic surveying. However, without the MRA being implemented a surveyor from one ASEAN country could face difficulties in practicing surveying in another ASEAN country.

The one area where mobility is limited and MRA implementation difficult is in cadastral surveying related to land administration, property and land development. In undertaking cadastral surveys, surveyors act as agents of the state or on behalf of government, and are registered or licensed by the state to undertake these surveys. The fact that in ASEAN there are multiple legal systems, cultural differences and countries at different stages of development make mobility and mutual recognition of cadastral surveyors across all ASEAN member states still difficult.

However, “mutual recognition” is an enabler. The core goal to implement an MRA can only be achieved by enhancement of a sustainable surveying profession across all ASEAN member states that underpins country specific, regional and global progress and development.

This project has confirmed that a long term vision for mobility and mutual recognition agreements for professional ASEAN surveyors requires appropriate education, professional competencies and institutions. If these needs across AMS can be better understood, documented and enhanced then MRAs and mobility of surveyors will be enhanced.

As a result, the major outcome of this project is a Road Map with detailed activities and outcomes to better understand, document and enhance the education, professional competencies and institutions to ensure a robust and strong surveying profession that will meet the needs of all ASEAN member states for surveying services into the future.

The Second Regional Workshop Statement was a key outcome for this project, recognizing that whilst mutual recognition already exists to a large extent, there is a clear role for the rhetoric to act as an enabler for capacity development on surveying education and ensuring a sustainable profession in the region.

“This project has confirmed that a long term vision for mobility and mutual recognition agreements for professional ASEAN surveyors requires appropriate education, professional competencies and institutions. If these needs across AMS can be better understood, documented and enhanced then MRAs and mobility of surveyors will be enhanced.” – Second Regional Workshop Statement

During the preparation activities for the Roadmap a number of country specific issues were identified that will require a specific focus as the AMS progress the implementation

of the Roadmap and future mutual recognition activities. These issues are identified in detail in the Needs Assessment Report and summarized in the following table.

Activity	Identified Issue
Education	<p>A better understanding of the ‘fit-for-purpose’ needs of each country is required to ensure surveying technicians and graduates are equipped to address local needs.</p> <p>Review and evaluation of diploma and degree offerings are required, particularly in Cambodia, Laos, Myanmar and Vietnam, to ensure graduates meet local needs and are positioned to be able to move between AMS.</p>
Implementation of Professional Associations	Cambodia, Lao PDR and Myanmar have all specifically highlighted the need for support in establishing professional associations.
Surveying legislation, code of conduct, code of ethics	Cambodia, Lao PDR, Myanmar and Vietnam require support in developing legislation and mechanisms to support the management of professional surveyors.
Continuing Professional Development Programs	The importance of a robust Continuing Professional Development program was highlighted by all AMS. CPD requirements will need to be developed and support provided to those countries that do not have CPD programs operating.
Lack of Professional Surveyors	<p>Brunei has concerns with its aging surveying professionals.</p> <p>Cambodia, Lao PDR and Indonesia are unlikely to have sufficient graduate surveyors in the future if the land sector continues to receive political support and funding for land reform.</p>
Technology	In all countries, excluding Malaysia, Singapore and Brunei, there was a keen need for access to and capacity in new technology applications.

A key challenge moving forward will be the political will and capacity for the AMS to progress these activities as discussed during the stages of this project. Reporting to regular meetings and wider stakeholder groups will be essential to accountability. There is a clear role for this work to promote advocacy in the region for the ongoing and sustainable growth of the surveying profession in support of sustainable development.

1 DESCRIPTION AND ANALYSIS OF PROJECT OUTPUTS

1.1 Background to the Project

The current ASEAN Framework Arrangement for the Mutual Recognition of Surveying Qualifications (Framework Arrangement), signed by all ASEAN Member States on 19th November 2007, provides the framework and basis for Member States to negotiate bilateral and pluri-lateral Mutual Recognition Arrangements (MRAs). This Framework Arrangement approach is unique. Whilst other professions, such as Engineering, have been able to develop an ASEAN MRA (without the preliminary step of a Framework Arrangement), the unique situation of surveying, in particular the role of cadastral surveyors, has limited progress towards an ASEAN MRA on Surveying Services. The Framework Arrangement has not of itself enabled Member States to progress individual (bilateral) MRAs.

Land Equity International (LEI) was contracted from May 2015 through to November 2015 to address this gap, with the ultimate objective to develop a roadmap to enhance the mobility of ASEAN Professionals on Surveying Services. This report represents the final report of the project, and has been prepared for the ASEAN Secretariat and ASEAN Surveyors Working Group, comprising delegates from each of the ASEAN Member States. Funding for the project has been provided through the ASEAN-Australia Development Cooperation Program Phase II (AADCPPII).

1.2 Contextualizing Mutual Recognition

Whilst this particular project and the Roadmap is spearheaded by the WTO process and ASEAN, mobility and the global marketplace are just two aspects of mutual recognition. Mutual Recognition has a number of definitions depending on context, and these were explored in Workshop 1. Essentially these definitions concentrate on three core elements:

- Free movement of professionals (EU)
- Global marketplace for services (WTO)
- Global exchange of professional qualifications (FIG)

Underpinning all of these is a concept of mutual understanding, as a precursor to mutual trust and ultimately mutual recognition. Mutual recognition may relate to becoming a member of a professional association in a host country, setting up a company in a host country and is crucial in the context of an individual wanting to practice within a licensed area (such as cadastral survey) in a host country – but it specifically does not relate to the ability to ‘get a job’.

Critical to the profession of surveying is the exchange of not only services, but good practice and support for the sustainability of the profession. The preconditions of Mutual Recognition should be kept in mind, including:

- Degree-level entry to the profession in both countries;
- Appropriate regulation of the profession in the “host” country;
- A corresponding profession;
- An adaptation mechanism; and
- Willingness to trust the professionalism of migrants. (WTO, 1997)

Core elements of these pre-conditions then include:

- Equitable access to education;
- Accepted regulation mechanisms (eg. Survey boards or professional associations) present in each country, or regionally;
- A baseline standard against which assessment – and adaptation – can be made.

This provides the context to the work undertaken in this project: whilst mutual recognition – being the mobility of professionals without the need to ‘requalify’ across borders - may be considered an end goal, it is the preliminary steps (underpinned by mutual trust and mutual understanding) that promote an essential subset of goals such as information sharing and promoting equity, capacity and development across the region.

1.3 Project Activities

A number of strategic project activities support the objective of the project to develop and begin to implement a roadmap for action on surveying professional mobility. Activities have been aligned across three stages as outlined in Figure 1, being Inception, Needs Assessment and Roadmap Development. Documents prepared as part of the consultation and assessment process, include the Inception Report, In-Country Visit Reports, Needs Assessment Report and reports from the two Regional Workshops. These, resulting from the many discussions and inputs of the ASEAN Surveying Working Group and Consultant Expert Panel have enabled a clear and endorsed direction to be developed for the roadmap for action.

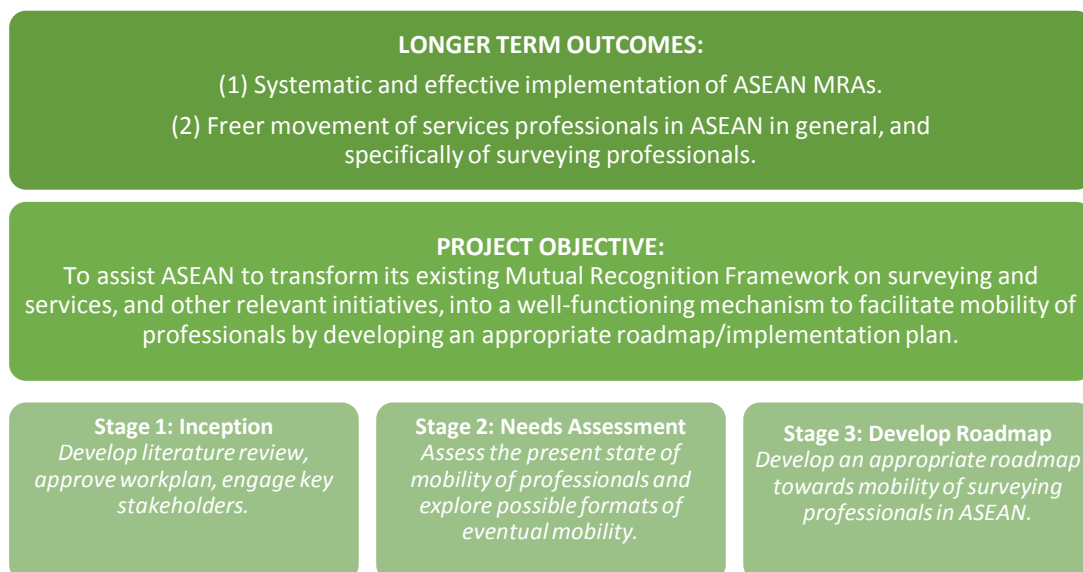


Figure 1: Project Objectives as outlined in the Inception Report

The Inception Report documented the project approach, workplan, literature review and identified key stakeholders for engagement. It was recognised that the currently agreed Mutual Recognition Arrangement (MRA) on surveying services provides only the framework and procedures for Member States to work together to further develop actual bilateral/plurilateral MRAs. As a result, it was important that the report outputs developed by LEI provide the core needs and aspects driving demand for mutual recognition, as well as options (including actions, stakeholders and timelines) for

progressing this agenda. It was identified that these would be developed through a core consultative approach through two workshops with the AMS representatives and the guidance of an Expert Panel, to ensure the sustainability of these options at the conclusion of the project. It was also recognised that the surveying profession has a number of unique issues – in contrast with other professions - that needed to be addressed in developing approaches that would facilitate the free-flow of surveying professionals in the region.

In-Country visits were undertaken to each of the AMS and provided an opportunity for the consultant to have face-to-face discussions with strategic players, in each of the AMS, associated with surveying activities. The key objectives for the in-country visits were;

- to assess the present state of mobility and regulatory regime in the AMS;
- collect relevant statistical information,
- gain an appreciation of the operation of institutional arrangements supporting the surveying profession; and
- to collect ideas of possible formats and interests of AMS on the eventual mobility of surveying in the AMS.

Draft reports from each of the in-country visits were circulated to each country for review and comment and the final in-country reports were included as part of the Interim Report.

The First Regional Workshop was held from 18 to 20 August 2015 in Bangkok, Thailand. The objectives of the workshop were to:

- Provide an assessment of present mobility
- Estimate likely future demand for surveying services in each of the AMS
- Identify core challenges of mutual recognition for surveying services
- Explore possible formats for eventual mobility of surveying services.

A clear need for comparative information was identified, building on the in-country visits and the country reports presented at this workshop. Three templates were identified as being required to facilitate the collection of comparative information, these being; (1) the Cadastral Template; (2) the Education Template; and (3) the Profession Profile Template.

Based on the above objectives the workshop identified the following key issues;

- The cadastral sector is the only sector in which the mobility of surveyors is restricted.
- There is likely to be significant demand for surveying services in each of the AMS over the long term.
- Core challenges for mutual recognition were largely addressed via two key approaches: *harmonisation* and *fit-for-purpose*.
- Possible formats for eventual mobility were explored in the context of actions that may best promote the profession regionally over the short-, mid- and long-term.

The Needs Assessment Report, prepared following the First Regional Workshop focused on the key issues and core challenges identified during the workshop. The

following core areas formed the basis for discussion and deliberation in the Needs Assessment Report.

1. Establishing a common standard and cooperation on **surveying education**
2. Models for establishing **survey boards and professional associations**
3. Establishing **standards to regulate** the survey profession

The Needs Assessment Report explored the key challenges, key activities to address the mobility issue and developed a goal and vision for each of the three core areas. It was proposed that these three core areas form the basis for discussion during the Second Regional Workshop and provide the structure for the roadmap.

The Second Regional Workshop was held on 19 and 20 October 2015 in Vientiane, Lao PDR. The Draft Roadmap was presented to the workshop participants in diagrammatic format (PowerPoint presentation) and formed the basis for ongoing discussions during the workshop. The PowerPoint highlighted the strong linkages between what was being proposed in the draft roadmap and the Mutual Recognition of Surveying Qualifications (MRA of 2007). It summarised the three core areas, the challenges that each core area will face and an overview of the approach.

The outputs from each of the key documents, the Inception Report, Needs Assessment Report and the Roadmap are summarized in Figure 2.

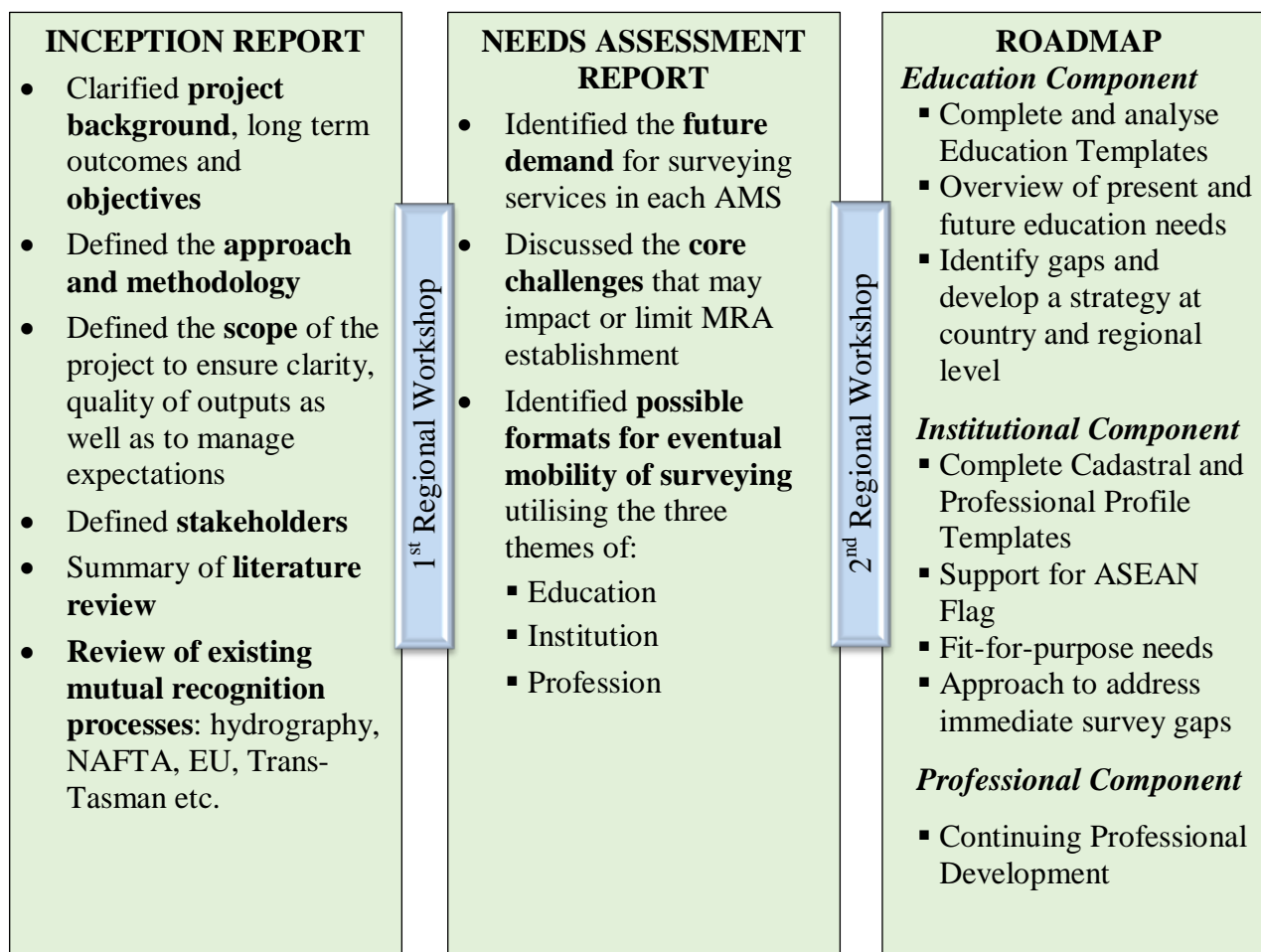


Figure 2: Summary of outputs against activities

1.4 Endorsed Statement from Second Regional Workshop

To support continuity of this project and ensure a cohesive roadmap vision a Workshop Statement was developed and endorsed as the conclusion of the Second Regional Workshop. All AMS agreed that:

- there is at present no limit to the mobility of surveying professionals between member states *except* for the purposes of cadastral surveying, where movement is limited.
- The core goal to implement an MRA can only be achieved by development and enhancement of a sustainable surveying profession across the region.
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The one area where mobility is limited and MRA implementation difficult is in cadastral surveying related to land administration, property and land development. In undertaking cadastral surveys, surveyors act as agents of the state or on behalf of government, and are registered or licensed by the state to undertake these surveys. The fact that in ASEAN there are multiple legal systems, cultural differences and countries at different stages of development make mobility and mutual recognition of cadastral surveyors across all ASEAN member states still difficult.

However, “mutual recognition” is an enabler. The core goal to implement an MRA can only be achieved by enhancement of a sustainable surveying profession across all ASEAN member states that underpins country specific, regional and global progress and development.

This project has confirmed that a long term vision for mobility and mutual recognition agreements for professional ASEAN surveyors requires appropriate education, professional competencies and institutions. If these needs across AMS can be better understood, documented and enhanced then MRAs and mobility of surveyors will be enhanced.

As a result, the major outcome of this project is a Road Map with detailed activities and outcomes to better understand, document and enhance the education, professional competencies and institutions to ensure a robust and strong surveying profession that will meet the needs of all ASEAN member states for surveying services into the future.

2 REVIEW OF WORKSHOP DISCUSSIONS AND PATHWAY TO OUTPUTS

Figure 3 shows the sequence of project activities, culminating in this report.

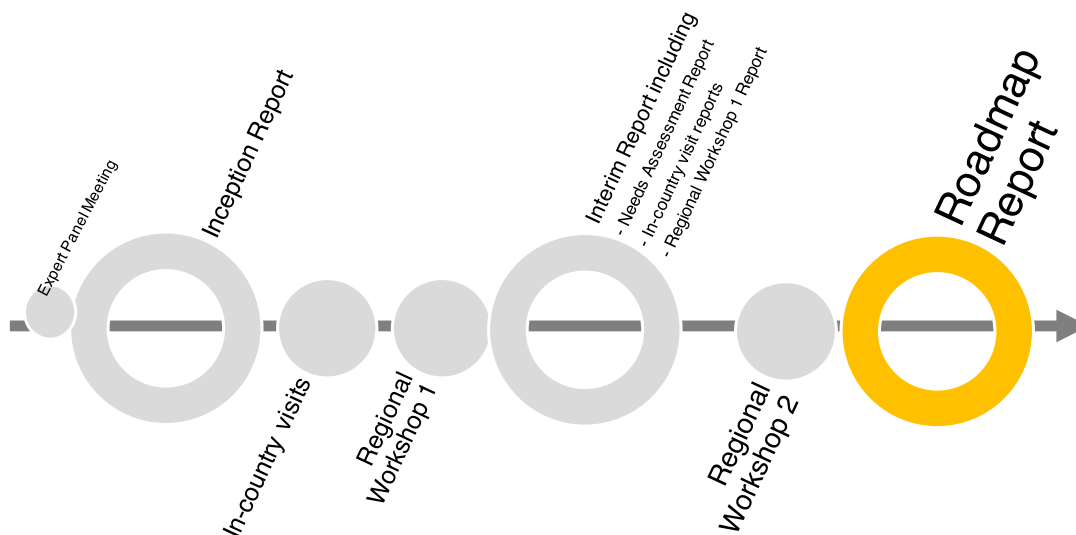


Figure 3: Project Activities

As shown in the Figure and as previously discussed, two workshops were held to achieve the aims of this project. The objectives of Regional Workshop 1 aligned with the objectives of the Needs Assessment Report, to:

- provide an assessment of present mobility;
- estimate likely future demand for surveying services in each of the AMS;
- identify core challenges of mutual recognition for surveying services; and
- explore possible formats for eventual mobility of surveying services.

The design of this workshop was specifically drawn from knowledge gained during the in-country visits and a core outcome was the adoption of the template approach to gather a baseline of comparable information that was otherwise missing. Under this approach all participants agreed to complete the Cadastral Template for their country, the Education Template (developed during the workshop) for their institutions and the Professional Profile Template for their sector. It was later decided that LEI would complete a first draft of the Professional Profile Template.

The Second Regional Workshop, held after the approval of the Interim and Needs Assessment Reports, had the objectives to review and discuss the draft roadmap, an overview of which is shown in Figure 4. This overview maps key enabling activities against the components of the Framework MRA which they support. The chart highlights that the roadmap establishes an essential foundation from which to build mutual

recognition, acknowledging that the sustainability of the surveying profession is hampered by the critical precursors to mutual recognition, including: equitable access to education, information sharing and the development of common standards.

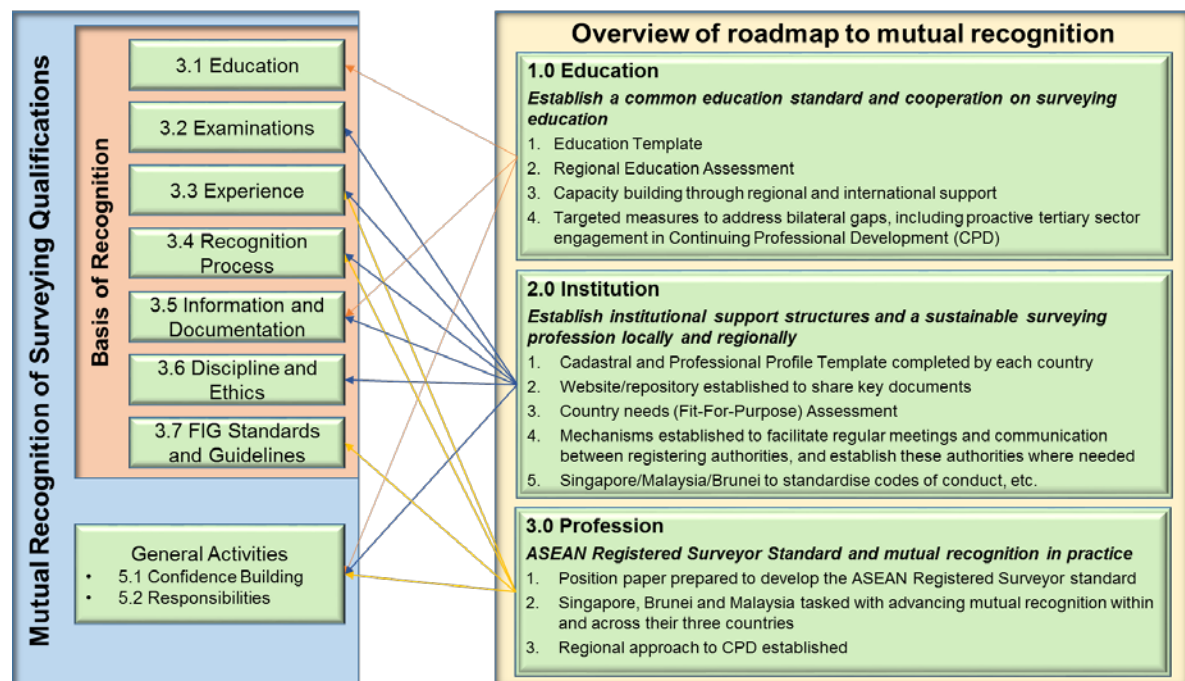


Figure 4: Overview of draft roadmap as presented during the Second Regional Workshop

The core outcome from this Second Regional Workshop was the Workshop Statement and individual Attendee Statements which clearly articulate the role of capacity development, harmonisation and fit-for-purposes approaches, as well as the uniqueness of surveying in the context of mutual recognition. Indonesia volunteered to set up an Education Secretariat to manage the Education Templates and to seek a strategic way forward on education pathways. Similarly, Indonesia and the Philippines agreed to proactively seek to establish a bilateral MRA, or partial-MRA. There was universal support for the concept of templates to achieve mutual understanding, benchmarking and self-improvement and a clear realisation that mutual recognition, in the WTO-sense, was some way off for cadastral surveying. There was a clear role for the roadmap to not only identify a pathway towards mutual recognition, but as an advocacy tool to present to decision-makers. A revised roadmap was drafted on this basis and is discussed in further detail in the following section.

3 OUTPUTS: ROADMAP RECOMMENDATIONS

Figure 5 presents an overview of the Roadmap recommended by this project. The following sections then provide an overview of each of these activities. Firstly, the assessment of the present state of mobility, then an idea of the goal, being the form of future mobility, before highlighting early harvest and wider mechanisms to achieve mutual recognition.

IMPLEMENTATION OF MOBILITY OF SURVEYING SERVICES

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Figure 5: Roadmap Overview

3.1 ASSESSMENT OF PRESENT STATE OF MOBILITY AND REGIME OF SURVEYING PRACTICE IN ASEAN

As presented in the literature review of the Inception Report, Fukunaga (2015)¹ documents progress towards the 8 MRA's established so far, including surveying qualifications. The author importantly notes that, whilst the MRA processes for Architectural and Engineering Services have made steady progress, **the implementation of regional registration systems have not directly resulted in large-scale mobility of these professionals.** Fukunaga further notes that mutual recognition as established so far in the European Union and between Australia-New Zealand differ from the ASEAN MRA approach by facilitating the general movement of peoples (ie: without constraint by immigration regulations). In the review of progress, Fukunaga notes a number of important considerations relevant to this project and the preparation of the roadmap, including the need to identify best practice regulation, to improve the quality of professionals (in the spirit of the existing surveying services MRA), involve all stakeholders in a policy discussion, and to reduce where possible additional regulatory requirements. In short, there are a number of preliminary steps required to effect mutual recognition.

The Needs Assessment Report demonstrated that mobility of surveying services in ASEAN is presently possible, and is acted on to varying extents across the region. However, the sustainability of the surveying profession is significantly limited by the critical precursors to mutual recognition, including: equitable access to education, the timely sharing of information and the development of common standards.

Key points highlighted in the Needs Assessment Report that indicate the present status of mutual recognition are as follows:

- Mutual recognition is already *technically* operational
- Registration practices are typically open to non-nationals
- Many companies are already working internationally in the region
- National regulation is typically applied in the cadastral sector only
- Mutual recognition applies to private surveyors only.

It was clear from the in-country visit reports and regional workshops that the **need** for mutual recognition lies predominantly as an enabler for the development and sustainability of the profession, and particularly the necessary capacity building in the lesser developed states. The goals of mutual recognition thus include:

- sharing information,
- establishing aspirational standards as well as pathways to achieve these standards, and
- supporting the growth and sustainability of the surveying professional, surveying associations and surveying professionals in less developed ASEAN Member States.

¹ Fukunaga, Y. *Assessing the Progress of ASEAN MRAs on Professional Services* ERIA Discussion Paper Series March 2015, <http://www.eria.org/ERIA-DP-2015-21.pdf>

In particular:

- The limited regulation of non-cadastral surveying services means there is no immediate or pressing need for mutual recognition.
- The stricter government control of the cadastral sector in many states leaves no immediate demand for mutual recognition in cadastral surveying.

The existing Framework MRA that exists for surveying services provides an appropriate structure for countries to establish bilateral agreements for mutual recognition. The limiting factor to widespread bi- or pluri-lateral establishment of agreements is both the different levels of development that exist within the region, and the lack of understanding of existing commonalities in surveying systems. These differences necessitate the approach identified within the final roadmap, with equity and data sharing as key components of the pathway toward fit-for-purpose and sustainable surveying practices.

Limitations also remain in the communication and policy coordination among related government agencies, both within and between countries, and across ASEAN sector bodies that deal with cross-border flows of people, which further limit trade in surveying services within the region.

3.2 FORM OF FUTURE MOBILITY OF SURVEYING PROFESSIONALS IN ASEAN

The outcomes from the in-country visits and the First Regional Workshop provided three core themes around which activities to achieve mutual recognition were discussed and identified:

- **Education** – identifying common standards and cooperation on surveying education
- **Institution** – identifying models for the establishment and operation of survey boards and professional associations
- **Profession** –specific steps towards bilateral mutual recognition, potentially including certification

These themes reiterate the necessity of cooperation and standardisation of education, of professional associations and supporting professional structures and of supported data gathering initiatives for mutual recognition. Activities have been further grouped against short-term (early harvest), medium-term and longer term, as expanded upon in the following sections.

3.3 EARLY HARVEST OPPORTUNITIES AND WHAT NEEDS TO BE DONE

Given the relatively slow progress in the implementation of the MRA since 2007 it is important that there be action in relation to the implementation of activities identified in the Roadmap. In the Inception Report it was recognised that it was important that activities be identified that can be implemented quickly to enable positive outputs to be achieved. These were referred to as early harvest opportunities. The opportunity for the identification and implementation of early harvest activities was discussed during the Second Regional Workshop, with several countries specifically committing to support

selected activities. These activities are identified in Figure 5 and covered in more detail below.

Strategic early harvest opportunities are seen as those associated with the completion of the Cadastral Template, Education Template and the Professional Profile Template. All AMS agreed that these templates are essential inputs to the development and progression of the Roadmap activities.

Activities that have been identified as early harvest opportunities are:

- Completion of the **Cadastral Template** for each country
- Completion of the **Education Template** for all institutions and progression of an assessment of the data in the Education Templates with support from an Indonesian-led Education Secretariat
- Completion of the **Professional Profile Template** by all countries and assessment
- **ASEAN Education Secretariat** and initial **data sharing**
- **Pilot bi-lateral mutual recognition.**

A brief description of each of the early harvest opportunities along with actions, stakeholders and timing follow.

3.3.1 Cadastral Template

In 2003 support was provided through the Centre for SDIs and Land Administration and FIG "to develop an appropriate generic template for country profile analyses describing the status of cadastre and land administration, and the need for improvements, which will facilitate benchmarking and the development of performance indicators". During the First Regional Workshop it was acknowledged that the Cadastral Template provided an excellent framework to be used by all AMS to collate relevant survey information specifically in relation to cadastral surveying.

Some countries had previously completed the Cadastral Template but each country agreed to either update their existing Cadastral Template or to complete a Cadastral Template for their country. At the Second Regional Workshop many of the countries had still to complete their templates and it was agreed that all templates would be submitted to LEI as soon as possible. It is the intention that these templates be uploaded to the website cadastraltemplate.org and the ASEAN Surveying Working Group must take responsibility for ensuring that all templates are completed and uploaded to the website.

Actions: Each AMS to complete the Cadastral Template and the ASEAN Surveying Working Group to ensure the template from each AMS is uploaded

Stakeholders: All AMS to complete. The ASEAN Surveying Working Group is to take responsibility for future action in relation to the Cadastral Templates

Timing: All completed Cadastral Templates were to be submitted to LEI by the middle of November 2015. Countries requiring help to complete should seek support from other AMS in the first instance.

3.3.2 Education Template

Of the three core areas identified to progress mutual recognition surveying education was recognised as being a high priority. At the First Regional Workshop there was agreement that a mechanism is needed to promote interaction across the region on education, to ensure education is meeting the core needs of each country and to ultimately recommend minimum core competencies. Key aspects of support for surveying education included, access to education at university and diploma level, different approaches to education in the region, the profile and visibility of surveying, institutional roles as well as continued professional development.

At the workshop there was agreement that the completion of an Education Template for each tertiary institution that offers a surveying degree or diploma will provide a 'baseline' against which the differences between systems across the region can be identified. It was agreed that all AMS are to ensure that an **Education Template** is completed for each tertiary institutions in their jurisdiction offering a surveying certificate, surveying diploma, high diploma, degree or similar.

During the Second Regional Workshop, Indonesia agree to host, for one year, a secretariat to support the progression of education initiatives that are proposed through the Roadmap and also developed through the ASEAN Surveying Working Group.

Actions:

- All countries are to ensure that an Education Template is completed for each tertiary institutions in their jurisdiction offering a surveying certificate, surveying diploma, high diploma, degree or similar.
- The Indonesia representatives of the ASEAN Surveying Working Group will establish an Education Secretariat.
- All completed Education Templates are to be submitted to the Education Secretariat
- The Education Secretariat is to ensure that all Education Templates are submitted, to then undertake an assessment of each template and identify gaps and issues that may exist in any of the templates.
- The Education Secretariat is to undertake and initial analysis of the templates.
- The Education Secretariat is to report on a regular basis to the ASEAN Surveying Working Group.
- The Education Secretariat is to support the preparation of a TOR for a consultancy to undertake a regional education/fit-for-purpose assessment.

Stakeholders:

- Indonesia for the establishment of the Education Secretariat
- All tertiary institutions in the ASEAN region offering degree, diploma or certificate courses in surveying;
- ASEAN Surveying Working Group

Timing:

- All AMS to submit all education templates for their country to the Indonesian representative of the ASEAN Surveying Working Group by the end of December 2015.
- Indonesia to establish the Education Secretariat by the end of December 2015.

3.3.3 Professional Profile Template

During the First Regional Workshop a core need for a “Professional Profile Template” was identified to ensure common reporting and terminology, as well as to stress the different needs of each country and responses required. This profile would provide a broad overview of the surveying profession as a whole, which would particularly underpin fit-for-purpose approaches. The template would also provide a better understanding of specific surveying issues in each country such as a shortage of surveyors, the numbers of practicing surveyors and an improved understanding of surveying activities undertaken in each country.

It was agreed that a **Professional Profile Template** would be prepared by LEI, who would populate information where it was available and then each AMS would review and edit the Professional Profile Template for their country.

Actions: Each AMS is to review and edit the Professional Profile Template provided by LEI and then to submit to the ASEAN Surveying Working Group.

Through the ASEAN Surveying Working Group an AMS will need to accept responsibility for coordinating this activity, for undertaking an assessment of the completed Professional Profile Templates, for the preparation of a summary report and for the uploading of the information to the website that will be prepared to assist with data sharing.

Stakeholders: AMS; ASEAN Surveying Working Group

Timing: Each AMS is to have their edited versions of the Professional Profile Template submitted to the ASEAN Surveying Working Group by the end of December 2015.

3.3.4 ASEAN Education Secretariat and initial data sharing

During the Second Regional Workshop, the representatives from Indonesia volunteered and were unanimously supported to establish an Education Secretariat. This Secretariat would have the purpose to collate and coordinate the establishment of the Education Template approach, initiate and report on the subsequent analysis, develop a website to display education templates and analysis results and to provide support to the process of bringing an external consultant in to provide a ‘fit-for-purpose’ regional assessment. Ultimately, it is suggested that the Education Secretariat and website developed are reviewed for possible adoption by ASEAN FLAG; the website could also be extended to support other data sharing initiatives.

For data sharing, a draft data sharing document template is attached at Attachment 1 for the purposes of providing links to existing data online, and for identifying documents that are already available as resources for sharing. Ultimately all datasets and documents should be available in one place online.

Information sharing has been identified as a strategic pillar in advancing the mutual recognition activities. A number of the AMS such as Laos, Cambodia and Myanmar have highlighted the need for access to information on legislation and regulations,

forming a survey board, forming a professional association, code of ethics etc. It was agreed that a website and other information sharing mechanisms be developed to facilitate the flow of information, in particular support to the less developed countries in the region. A website would enable the creation of a repository for sharing of key documents such as copies of the templates that are being completed by AMS, survey legislation, survey regulations, relevant examples of survey work instructions, details on surveying associations, such as copies of the constitution, membership rules, fees etc.

Actions: Indonesia has agreed to take the role in coordinating the development of a website that will enable information flow amongst AMS and also a repository for sharing key documents.

Stakeholders:

- Indonesia to establish an Education Secretariat and coordinate the development of a website.
- Each AMS to have responsibility for creating linkages or for uploading documentation from their respective country that will enable easy access to information and documents

Timing: Indonesia to have a website operational by 30 June 2016. Each AMS to have created linkages or uploaded information and documents by 30 September 2016. Indonesia should make a proposal regarding the ongoing sustainability of this website.

3.3.5 Pilot Bilateral Mutual Recognition

Singapore, Brunei and Malaysia (Malay Peninsular, Sabah and Sarawak) have survey boards and legislation relating to the registration of surveyors that are very similar in nature. It is believed that these 5 survey boards have the opportunity to demonstrate a practical example of mutual recognition. All countries through the Joint Survey Board meetings need to be more proactive in exploring ways in which the principles behind mutual recognition can be more readily embodied into the legislation and reciprocity arrangements between each of these countries and survey boards. The acceptance of mutual recognition amongst these countries that have operational survey boards is a fundamental activity if the ASEAN MRA for surveying qualifications is to be seriously endorsed.

Actions:

- Singapore, Malaysia and Brunei to take active steps towards mutual recognition.
- A preliminary report on progress and proposed activities in moving towards mutual recognition arrangements to be presented to the ASEAN Surveying Working Group.

Stakeholders: The Survey Boards of Singapore, Brunei, Malaysian Peninsular, Sabah and Sarawak

Timing: A preliminary report on progress and proposed activities to be presented to the ASEAN Surveying Working Group by June 2016.

3.4 ENABLING ENVIRONMENT FOR FUTURE MOBILITY: MID- AND LONG- TERM ACTIVITIES

In addition to the above early-harvest activities, the following mid to longer term activities will be essential to creating a sustainable enabling environment for the mobility of surveying services:

- Extended Joint Survey Board
- Regional Analysis
- ASEAN Flag Visits - Support in Establishing Professional Associations

These are discussed below.

3.4.1 Extend Joint Survey Board

A number of countries that have survey boards, namely Singapore, Brunei and Malaysia (Peninsular Malaysia, Sabah and Sarawak) meet on an annual basis for a Joint Surveyors Board meeting. It was agreed that the survey board structure as well as the process of registering cadastral surveying in the Philippines is similar to those countries who participate in the Joint Survey Board meetings and therefore there may be advantages in the Philippines and also Indonesia to also participate in the Joint Survey Board meetings.

In addition, the remaining AMS are all seeking to either establish a board or professional association with regulatory function. As and when these bodies are created, support should be provided by the other AMS, and ultimately a body to facilitate meeting of all representatives should be established. This body could simply be the extended Joint Survey Board, or it may be something else.

Actions: The Professional Regulatory Board of Geodetic Engineering (PRBGE) of the Philippines make a written application to the Joint Survey Boards requesting approval for observer status at the next Joint Survey Boards meeting and Indonesia to give consideration to possible involvement

Stakeholders: The Professional Regulatory Board of Geodetic Engineering (PRBGE); Joint Survey Board

Timing: The Professional Regulatory Board of Geodetic Engineering (PRBGE) to make a submission by the end of December 2015, resulting in an extended meeting during 2016.

3.4.2 Regional Analysis - External Consultancy for Education and Fit-for-Purpose approaches

Indonesia has kindly agreed to support the establishment of an Education Secretariat to assist with the progression of the information gathered from the Education Templates. The information provided in the Education Templates will be invaluable in providing base information necessary to support an assessment of education standards. However, establishing a baseline is not enough in itself – a strong analysis of the profession in each country, gained via in-country visits and review of the three templates will be required to develop a long-term, sustainable fit-for-purpose strategy for the profession within each country and across the region. Due to the work required it will be necessary for an external consultancy to be contracted to enable a detailed assessment of the education templates to be undertaken as well as developing the fit-for-purpose approach for the

surveying profession. Suggested TOR for this consultancy include: to identify and address national and regional educational gaps; provide direction for distance learning; address academic mentoring and academic exchanges, identify fit-for-purposes approaches for surveying education; conduct in-country visits to identified countries to address any deficiencies in information. It is proposed that the focus of this consultancy, in the first instance, be Myanmar, Cambodia, Laos and Vietnam.

Actions: The ASEAN Surveying Working Group to prepare a TOR for the contracting of an external consultancy based on reports from the Education Secretariat (Indonesia). The ASEAN Surveying Working Group to also source funding for the consultancy

Stakeholders:

- ASEAN Surveying Working Group

Timing: TOR to be prepared and agreed upon by November 2016.

3.4.3 ASEAN Flag Visits - Support in Establishing Professional Associations

Myanmar, Cambodia and Laos each recognise the importance of providing recognition for the surveying profession in their countries and acknowledged the importance of establishing a professional association for surveyors. However, in doing so each country agreed that they would need support in being able to establish their respective association. It was proposed that AFLAG, being the regional professional association would be in the best position to provide support to each of the countries. To enable AFLAG to provide this support it will be necessary for funding arrangements to be developed or for the activities to be combined with a specific conference or workshop such as a UN-GGIM-AP meeting.

Actions: The ASEAN Surveying Working Group to

- request support from AFLAG to support the establish of professional associations in Myanmar, Cambodia and Laos.
- identify funding opportunities.
- Reach out to UN-GGIM-AP to seek opportunities with this body

Stakeholders:

- The surveying professionals in Myanmar, Cambodia and Laos
- AFLAG

Timing: Agreement between AFLAG and the ASEAN Surveying Working Group to be developed by March 2016.

3.5 MECHANISMS FOR COORDINATION AND INTRA-REGIONAL COOPERATION

For each of the above activities core stakeholders and key responsibilities are outlined, but additional and coordinated efforts for cooperation may be required. Two core example supporting activities have further been identified in this regard:

3.5.1 Regional Continuing Professional Development

Continuing Professional Development (CPD) underpins the concept of the profession – the availability and uptake of quality CPD opportunities provide the basis for professional competency and recognition. A regional CPD program supports mutual recognition efforts and would be relatively easy to implement with the support of the AMS that have already implemented comprehensive CPD requirements and programs.

Actions: Countries with well-established CPD programs share guidelines for discussion by the ASEAN Surveyors Working Group. A phased plan of implementation is to be identified and agreed upon. A CPD sub-committee may be required to guide, assess and implement and the external consultant undertaking the Regional Analysis could provide further guidance.

Stakeholders:

- AMS
- ASEAN Surveying Working Group to identify/nominate one or more representatives to be responsible for progressing this

Timing: CPD sub-committee or representative nominated by June 2016; CPD proposal by end 2016.

3.5.2 Twinning

The need for the adoption of common standards and increased cooperation in relation to education has been a strong theme during all discussions relation to mutual recognition. It is recognised that the standards of tertiary education delivered for diplomas and degrees in surveying differ significantly from country to country and even within countries and therefore it is of some importance that avenues are investigated that will enable tertiary institutions to not only improve their delivery of subject material but also to ensure that their surveying faculties and lecturers are up with the current technology and survey methodologies. There are a number of activities that can be undertaken by surveying faculties, and which should be encouraged, including academic exchanges, improved communication between tertiary institutions, fostering closer relationships with the surveying profession including government and private sector and to develop twinning arrangements between universities in other AMS or even outside the region.

It is widely accepted that twinning agreements between tertiary institutions provide a positive approach to assist with the exchange of ideas, development of new subject material and curriculum and to increase professional knowledge. Given the importance being placed on the education of professional surveyors as part of the development of mutual recognition, twinning arrangements between tertiary institutions is an approach that the ASEAN Surveying Working Group must encourage.

Actions: The ASEAN Surveying Working Group to adopt a proactive approach towards encourage the development of twinning arrangements between tertiary institutions, and specifically surveying faculties, within the ASEAN region.

Stakeholders:

- ASEAN Surveying Working Group

- ASEAN Surveying Working Group to identify/nominate one or more representatives to be responsible for progressing this

Timing: Responsible representatives nominated by June 2016; Twinning proposal by end 2016 with progress reports thereafter.

3.6 LOOKING BEYOND: FUTURE INTER-REGIONAL AND GLOBAL MOBILITY FOR ASEAN SURVEYING PROFESSIONALS

Inter-regional linkages will be essential to ongoing capacity development and growth of the profession in the region. Strong links across Australasia are already evidenced by recognition of degree programs (especially in Australia and New Zealand), the growth of regional bodies such as the Royal Institute of Chartered Surveyors (RICS) and the role of China and Australia in ASEAN FLAG and the South East Asian Survey Congress (SEASC). Such linkages can be further strengthened by reaching out to professional associations and boards in the region for further data sharing materials, hosting visits, promoting and identifying twinning opportunities etc. Such initiatives will be particularly enabled by engaging alumni of universities in such countries.

In addition, international bodies such as the International Federation of Surveyors have a significant body of knowledge that can be drawn upon to assist the AMS yet to develop professional associations and looking to build upon their existing land administration and land governance procedures. Some of these are documented in Attachment 1. The FIG Working Week to be held in Hanoi, Vietnam in 2019 should be seen as a key date, by which the activities in this document should be well and truly completed and progressed, and an opportunity for further sharing internationally. It will particularly facilitate learning and sharing with regions such as the European Union.

Regarding the opportunities of future inter-regional and global mobility, these should be seen in the same light as the opportunities within ASEAN – for surveying services in all streams except cadastral surveying, mutual recognition is in principle already available in the majority of countries worldwide. This is because very few countries regulate non-cadastral surveying services. Ongoing capacity development in the region will strengthen the ability of AMS surveyors to compete globally, and will strengthen the recognition of the ability of these surveyors to compete in the global market. Further advocacy and outreach will be required, particularly by ASEAN and ASEAN FLAG representatives, to continue to engage with professional organisations and representatives internationally to ensure this recognition.

3.7 THE ASEAN REGISTERED SURVEYOR STANDARD

During the First Regional Workshop the vision of an ASEAN Registered Surveyor was proposed and seen as a mechanism that could best facilitate information sharing, regional collaboration and harmonisation of regional standards and codes. At the present time there is no specific mechanism, from an administrative perspective, available to the surveying profession in the AMS that provides a clear linkage to support the implementation of the Mutual Recognition Agreement. There was general consensus that an ASEAN Registered Surveyor pathway is needed, and that this would support the aims of harmonisation across education and professional registration. There was additional consensus that this should NOT include cadastral specialisation.

The core aim of the “ASEAN Registered Surveyor” would be to provide a fundamental standard of professional qualifications and knowledge to facilitate the recognition of international surveying professionals, subject to local requirements. That is, it is recommended that the standard of the ASEAN Registered Surveyor is utilised as the foundation for the existing Framework MRA, such that countries and individual professionals are best enabled to identify the steps required to meet registration requirements in another country.

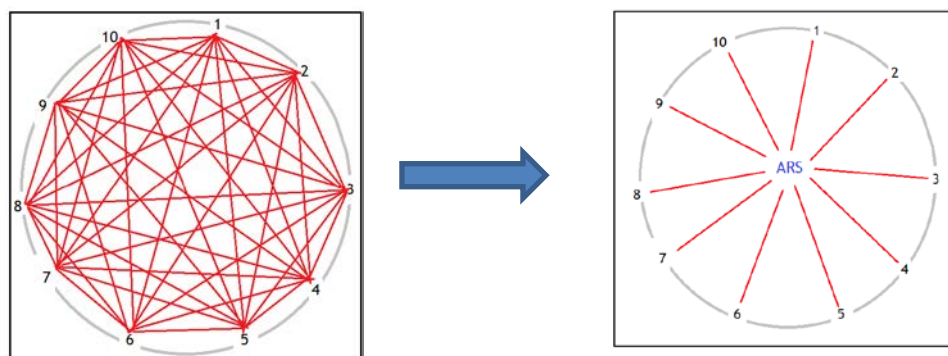


Figure 6: The existing Framework MRA process requires each country to undertake multiple negotiations bilaterally – and has not yet been implemented, in part for this reason. The ASEAN Registered Surveyor (ARS) standard would better enable mutual recognition without the immediate need for a (costly) oversight body.

Of course, the clear decision to *not include cadastral/land surveying* is relevant here – and to a large extent, without the inclusion of cadastral/land surveying, there is no need for mutual recognition. That is, many (but not all) countries do not require registration for non-cadastral related activities. Despite this, the above approach is still relevant – it provides a foundation for individual professionals, and country authorities as necessary, to easily and clearly identify the necessary knowledge or experience gaps (such as local laws) needed to work in that country. A proposed approach to the development of an “ASEAN Registered Surveyor” is detailed in the Needs Assessment Report.

It is accepted that there will need to be much more discussion in relation to the concept and the approach to be adopted in developing the ASEAN Registered Surveyor standard – and potentially future avenues for certification. In relation to the timeframe of the Roadmap, the development of the ASEAN Registered Surveyor standard is seen as a long term vision, but one which provides an overall goal for the implementation of mutual recognition within ASEAN countries.

4 PAST AND POTENTIAL FUTURE CHALLENGES AND MITIGATIONS

The fundamental challenge limiting the implementation of an MRA between ASEAN member states is the different levels of development that exist across the region. These developmental differences emphasise the need for equitable approaches, whereby mutual recognition is a pathway toward fit-for-purpose and sustainable surveying practices, not itself an end goal. Core challenges have been identified previously (eg. in the Inception Report) to include: the regulatory environment of surveying, the definition of surveying services, as well as specific to the country contexts, including the different levels of development between the countries, education systems, and the legislation pertaining to

work permits and migration. Limitations also remain in the communication and policy coordination among related government agencies, both within and between countries, and across ASEAN sector bodies that deal with cross-border flows of people, which further limit trade in surveying services within the region.

The current status of the surveying profession in each of the ASEAN Member States has been briefly addressed in the Handbook. Based on the information in the Handbook as well as the literature review it is clear that all AMSs have in place structures for the management of surveying activities through education systems, legislation or specific government requirement and instructions. However, the level of regulation and complexity, as well as the management of the system implemented, varies significantly between Member States.

The implementation of surveying legislation is typically aligned with the need for regulation or licensing of professional surveyors in order to protect the integrity of the cadastral system. We see this approach being adopted in a number of AMSs: such as in Singapore, Malaysia, Brunei, Indonesia, Thailand and the Philippines in relation to cadastral surveying. In Indonesia there is also a requirement for the accreditation of surveyors where they are involved in implementing government projects.

The Surveying Handbook emphasizes the ‘surveying streams’ approach, by focusing on the cadastral surveying elements of each of the AMS with limited discussion of other surveying streams. In general, the handbook reinforces some key considerations, including:

- The differing role of government and private sector, with cadastral surveying services provided solely by government in some countries, whilst predominantly by the private sector in others. This has a significant implication for mutual recognition.
- The number of professional associations and licensing authorities, sometimes multiple per country.
- The varying support for continuing professional development.
- Variations across legislative approaches to regulation
- Varying education requirements from state to state

5 LESSONS LEARNED

There are a number of lessons that have been learnt from this project that should be considered in moving forward, particularly in light of:

- progress made on the Framework Mutual Recognition of Surveying Qualifications (Framework Arrangement) since 2007
- the information gathered and discussions during the preparation of the roadmap
- the experience of LEI in supporting the development of surveying activities in numerous countries, including many of the AMS.

The ASEAN Surveying Working Group: The MRA activities are developed and progressed through the ASEAN Surveying Working Group. This working group meets two or three times a year and whilst organizational representation may stay the same, individual representation often differs from meeting to meeting. This creates difficulties in ensuring continuity and the progression of working group initiatives at the same time

as isolating many stakeholders. Past lessons have highlighted the difficulties in progressing timely initiatives through the ASEAN Surveying Working Group structure. The roadmap will be difficult and time consuming for the ASEAN Surveying Working Group to implement. Successful implementation of the roadmap activities will require a different operational structure and greater ownership beyond this group.

AMS Collaboration: The ASEAN Surveying Working Group is unable to provide all of the support necessary to ensure the ongoing development of the surveying profession in the AMS. There is a need for closer collaboration between the AMS in relation to the activities required to build the surveying profession within ASEAN. Lessons learnt from other projects undertaken in the region highlight that such collaboration will require direction and support. Given the ASEAN Surveying Working Group's potential limited access to funds it is important that those AMS that have mature surveying professions and associations provide support to those countries wishing to develop their surveying profession and associations.

Funding Requirements: A number of initiatives proposed in the road map will require external funding. Without external funding it will be difficult to progress these initiatives. Past experience has highlight the difficulties that can be faced in obtaining funding for activities. The ASEAN Surveying Working Group will need to adopt a proactive role in sourcing funding and to ensure that the implementation of the MRA progresses.

Implementation of New Concepts: A number of concepts that have been discussed in relation to mutual recognition and also during the project activities that are either new or may not be clearly understood by a number of countries. For example, the concept of survey boards and why they have been implemented in some countries – the expert panel to this project has questioned the need for all countries to establish survey boards. Approaches adopted in relation to professional recognition will naturally differ from country to country, as a result of context, culture and approaches to surveying activities. Lessons learnt during the implementation of land administration projects, specifically in southeast Asia, highlight that it is a mistake to assume that the understanding of concepts are universally understood or interpreted in the same manner. It is important that representatives continue to reach out and be active internationally (such as with the FIG) to promote an understanding of emerging concepts, such as Fit-for-Purpose. Further advocacy will be required to better establish the needs of each country individually, and the region as a whole. It should be recognized that no true and strong implementation of mutual recognition for surveying services has been implemented and for ASEAN to achieve this, long term strategies and ongoing support will be required over an extended period of time.

6 CORE CHALLENGES THAT MAY IMPACT OR OTHERWISE LIMIT MRA ESTABLISHMENT

The ASEAN Framework Arrangement for the Mutual Recognition of Surveying Qualifications is the penultimate document for providing the direction for the development of mutual recognition arrangements amongst AMS. The currently agreed Mutual Recognition Arrangement (MRA) on surveying services provides the framework and procedures only, for Member States to work together to further develop actual bilateral and plurilateral MRAs.

The core long term aim of this project is to increase the flow of trade in surveying services. This increased flow of trade is to enable the systematic and effective implementation of the existing ASEAN Framework Arrangement for the Mutual Recognition of Surveying Qualifications to effect cross-border facilitation of the movement of surveying professionals. The project will culminate with the development of a Roadmap, providing a series of recommendations for implementation.

In considering the roadmap, it is important to review the agreed long term outcomes for the project as well as the project objectives. The long term outcomes are stated as:

- (1) Systematic and effective implementation of ASEAN MRAs.
- (2) 'Freer movement of services professionals in ASEAN in general, and specifically of surveying professionals.

It is important to note that the overall implementation of the ASEAN MRAs is seen as a long term initiative. In other words, there is no immediate or quick solution envisaged and implementation needs to be undertaken in a systematic, effective and coordinated manner. It is important that this long term outcome is kept in mind as the roadmap activities are considered.

More specifically the project objective is stated as: *To assist ASEAN to transform its existing Mutual Recognition Framework on surveying services as well as other relevant initiatives into a well-functioning mechanism to facilitate mobility of professionals by developing the appropriate roadmap/implementation plan.*

Core elements of the roadmap presented include data sharing and capacity development. These activities will require a concerted effort by all to implement effectively – including especially the completion of the templates. Similarly, the Framework Agreement provides the necessary structure for those countries with progressive surveying professions to move forward on mutual recognition – concerted effort towards implementing a bilateral agreement as per this Framework between these countries is required.

6.1 COUNTRY SPECIFIC CHALLENGERS

During the preparation activities for the Roadmap a number of country specific issues were identified that will require a specific focus as the AMS progress the implementation of the Roadmap and future mutual recognition activities. These issues are identified in detail in the Needs Assessment Report but are provide as a summary in the following table.

Activity	Identified Issue
Education	<p>A better understanding of the 'fit-for-purpose' needs of each country is required to ensure surveying technicians and graduates are equipped to address local needs.</p> <p>Review and evaluation of diploma and degree offerings are required, particularly in Cambodia, Laos, Myanmar and Vietnam, to ensure graduates meet local needs and are positioned to be able to move between AMS.</p>

Implementation of Professional Associations	Cambodia, Lao PDR and Myanmar have all specifically highlighted the need for support in establishing professional associations.
Surveying legislation, code of conduct, code of ethics	Cambodia, Lao PDR, Myanmar and Vietnam require support in developing legislation and mechanisms to support the management of professional surveyors.
Continuing Professional Development Programs	The importance of a robust Continuing Professional Development program was highlighted by all AMS. CPD requirements will need to be developed and support provided to those countries that do not have CPD programs operating.
Lack of Professional Surveyors	Brunei has concerns with its aging surveying professionals. Cambodia, Lao PDR and Indonesia are unlikely to have sufficient graduate surveyors in the future if the land sector continues to receive political support and funding for land reform.
Technology	In all countries, excluding Malaysia, Singapore and Brunei, there was a keen need for access to and capacity in new technology applications.

Table 1: Summary of country specific issues

7 CONCLUSIONS AND TOPICS FOR REVIEW

This report provides the Roadmap and conclusions drawn from the project. Figure 5 on page 9 presents the pictorial overview of the roadmap, with the following core activities:

Early Harvest:

- Completion of the **Cadastral Template** for each country
- Completion of the **Education Template** for all institutions and progression of an assessment of the data in the Education Templates with support from an Indonesian-led Education Secretariat
- Completion of the **Professional Profile Template** by all countries and assessment
- **ASEAN Education Secretariat** and initial **data sharing**
- **Pilot bi-lateral mutual recognition.**

Mid- and Long-term

- **Extended Joint Survey Board**, to include Philippines and Indonesia in the first instance
- **Regional Analysis** of Education needs and Fit-for-Purpose profession
- **ASEAN Flag Visits** to support the establishment of professional associations in those countries yet to do so
- **Regional Continuing Professional Development**

- **Twinning** of university institutions and even professional associations or government bodies to support capacity development and a shared understanding.

These activities have intentionally been kept simple to implement, with acknowledgement by all workshop attendees that the core needs for the region are data sharing and capacity development.

A longer term objective for mutual recognition is the development and adoption of an **ASEAN Registered Surveyor Standard**. The progression towards the adoption of the standard can progress as mid and long term objectives are implemented making the development of the standard more achievable.

The roadmap, whilst presenting the culmination of this project, is not itself the end goal. Education, capacity development and awareness all underpin mutual recognition which will in turn promote the mobility of surveying services. But without a sustainable surveying profession in the region, there will be no need for mobility.

The ASEAN Surveying Working Group are asked to confirm this report and proceed with the activities highlighted.

ATTACHMENT 1: TEMPLATE FOR SHARING KEY LINKS

To be completed by ASEAN Surveying Working Group Representatives with information from their countries. Ultimately to be available on a webpage.

Key Documents Available online	
ASEAN Member States	
Brunei	EG. Key legislation online and in English Ministry webpages Professional Association website Board website
Cambodia	
Indonesia	
Lao PDR	
Malaysia	
Myanmar	
Philippines	
Singapore	
Thailand	
Vietnam	
Other organisations	
AFLAG	www.aseanflag.org
FIG	All FIG publications: http://www.fig.net/resources/publications/figpub/index.asp FIG Guide to Constituting Professional Associations 1998: http://www.fig.net/resources/publications/figpub/pub16/figpub16.asp FIG Statement of Ethical Principles and Model Code of Professional Conduct http://www.fig.net/resources/publications/figpub/pub17/figpub17.asp
UN-GGIM	www.ggim.un.org

ATTACHMENT 2: LIST OF REPORTS

During the preparation of the Roadmap a number of reports were prepared. These are summarised in the following table.

No.	Date	Report
1	5 June 2015	Inception Report
2	11 June 2015	In-Country Visit Briefing Report
3	August 2015	First Regional Workshop Report
4	23 September 2015	Needs Assessment Report
5	October 2015	Second Regional Workshop Report
6	30 November 2015	Draft - Final Report: The Roadmap
7	29 January 2016	Final Report: The Roadmap