

MIMU



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SEMINAR REPORT

Fostering Partnerships with Myanmar Universities involved in
Geospatial Sciences & Research

12-13 March 2019, Yangon, Myanmar

Myanmar Information Management Unit

Contact

Myanmar Information Management Unit (MIMU)
No.5, Kanbawza Street, Bahan Township, Yangon, MYANMAR.
Phone: +95 (9) 2545-03212
Email: info.mimu@undp.org
Website: www.themimu.info

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- Dr Nay Win Oo, Deputy Director General, Department of Higher Education, Ministry of Education
- Heather Mac Bride, First Secretary, Embassy of Canada to the Union of the Republic of Myanmar
- Shon Campbell, Manager, Myanmar Information Management Unit
- Dr Tom Loran, Manager Capacity Development, University of Twente, The Netherlands
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- Dr Nguyen Quoc Dinh, Head of Economic Geology and Geomatics Department, Vietnam Institute of Geology and Mineral Resources, Vietnam
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- Dr Sao Hone Pha, Director, Yangon Technological University
- Daw Thant Zin Maw, Staff Officer, Forest Department, Ministry of Natural Resources and Environmental Conservation
- Daw Nilar Soe, Deputy Director, Department of Rural Development, Ministry of Agriculture, Livestock and Irrigation
- Daw Mee Mee Thaw, WASH Officer, UNICEF
- U San Lwin Htwe, GIS and Remote Sensing Specialist, UNODC
- Catherine Lefebvre, Information Management Specialist, Myanmar Information Management Unit
- Daw Ei Ei Thein, Data Manager, Myanmar Information Management Unit
- U Zaw Win, GIS Associate, Myanmar Information Management Unit
- Daw Khin Thandar Tun, GIS Assistant, Myanmar Information Management Unit
- U Thet Zaw Tun, GIS Assistant, Myanmar Information Management Unit
- Sayed Faheem Eqbali, GIS Analyst, Myanmar Information Management Unit

Executive Summary

The Myanmar Information Management Unit / MIMU organized a 2-day Seminar on 12-13 March 2019 on “Fostering Partnerships with Myanmar Universities involved in Geospatial Sciences & Research”. This event was a follow-up to the MIMU Symposium organised in 2018 which had highlighted the need for Myanmar universities to strengthen their education and research capacities through new partnerships with the private sector, and to expand collaboration with national and international organizations. The objective of this year’s Seminar was to provide the academic sector involved in geospatial science and research an understanding of the range of possible partnerships strategies and tools, drawing on practical experience from Myanmar and other countries.

The event brought together 68 professionals from 15 Myanmar universities, 8 government departments, 5 private companies and 17 development organisations. Resource persons from 3 international universities in The Netherlands, Thailand and Vietnam also joined the Seminar to share relevant experience and lessons learned.

The Deputy Director General of the Department of Higher Education, U Nay Win Oo, opened the ceremony. The first day was dedicated to types of collaboration and lessons learned. The second day focused on steps to develop a partnership strategy.

Partnerships in line with the University Mission and Vision

Dr Loren from the University of Twente explained the importance of ensuring partnerships are in line with the vision and mission of the university. Any partnership must serve a purpose for the university as well as offer benefits for all parties involved. He highlighted that collaboration is costly and the returns only accrue in the medium to long run. In this light, strategic structural partnerships may offer more than shorter-term opportunistic ones. There are different types of partnerships in support of education, research and projects. In reality, partnerships are often a combination of these three.

First Step: Self-Assessment - the SWOT analysis

Undertaking a self-assessment such as the SWOT Analysis before going into a partnership can prove very useful. This tool helps to identify the added-value to collaboration (strengths) as well as limitations (weaknesses), and what external opportunities and threats may be advantages or obstacles to reach the goal. It also helps to identify where partnerships can be complementary. The SWOT on partnerships done in this Seminar showed that human resources, finance, administrative procedures, rules and regulations, communication are either strengths or weaknesses depending on the organisation. Networking and accessing new funding streams are common opportunities. Administrative procedures, staff turn-over and lack of trust are the biggest threats.

Key features of lessons learned

Based on experience of all the international speakers, sustainable international partnerships include clear objectives, complementary roles with benefit for both sides, transparent communication, trust and equality between partners, flexibility and long-term commitment.

Exercise to develop a partnership strategy

On day 2, the participants undertook a simulation exercise to develop a partnership strategy. Based on a theoretical scenario, they had to identify the objectives and type of partnerships for their university department, the potential partners, the resources to mobilize and analyse strengths and challenges. This exercise allowed participants to apply partnership principles in practice and reflect what was discussed during the previous day. During this exercise, the participants could also share their experience and get more inputs from the groups with a very pragmatic approach.

Practical tools: Agreements

Dr Gunasekara from AIT presented various types of agreements which may be used in partnerships. Many partnerships start with a **Memorandum of Understanding (MoU)** and can graduate to a **Memorandum of Agreement (MoA)** or contract. The terms MoU and MoA are often used interchangeably, however, an MoU suggests a lighter commitment than a MoA as it doesn’t carry legal weight. An MoA carries contract terms and conditions, often signed at department level. A **Letter**

of Intent (LOI) is lighter than an MoA or MoU and can be an initial step based on common interest to begin activities. *Donor driven agreements* are legal contracts. These often include an MoA and Terms of Reference of who will do what and when.

Practical tools: Networking

Dr Nguyen Quoc Dinh, Vietnam Institute of Geology and Mineral Resources (VIGMR) shared his experience and best practices to develop and maintain networking. Networking involves *sharing* what you are doing, *learning* what others are doing and finding *common interest*.

Building networks can be challenging due to limited funding, little access to information and different cultures of cooperation. It often starts with building personal relationships, during workshops and training courses. To expand your network, Dr Nguyen Quoc Dinh gave the following advice and examples of best practices: *disseminate your publications* - readers of your articles who share common interest will seek you out. *Share your knowledge and expertise* on technical online fora and offer to help via internet when you see an opportunity. Use *social networks* such as LinkedIn, Researchgate, and Facebook. *Participate in inter-governmental structures* such as CCOP, Geoparks and Sentinel Asia which offer possibilities to network with developed countries. *Networks* with universities, private sector exhibition and local embassies events can also open access to funding opportunities. Dr Nguyen Quoc Dinh shared links to calls for proposals, funding and training opportunities which could be helpful for the Seminar participants.

Practical tools: Analysis of potential collaboration

Dr Loren from the University of Twente briefly shared the workflow used in his faculty to analyse new potential partnerships which includes all the various departments and staff who will be involved in the technical aspects, the content of the partnership, the budget implications and legal issues. Dr Loren shared practical and useful documentations and guidelines on higher education cooperation, international strategic partnerships, Theory of Change, etc.

Current partnerships in Myanmar

Dr Sao Hone Pha presented the strategic partnership of Yangon Technological University (YTU) with JICA. This 5-year collaboration saw the establishment of a new Research Centre dedicated to Remote Sensing and GIS. It allowed YTU to get project experience, increase its profile and reputation, share expertise and create additional networks with new collaboration opportunities. This strategic partnership is coming to an end and they are looking into different options to further extend it.

From a broader perspective, many projects are being implemented in partnership with Government departments. They include different levels of technical capacity building and financial support depending on the partners. Daw Thant Zin Maw from Forest Department, Ministry of Natural Resources and Environmental Conservation and Daw Nilar Soe, Department of Rural Development, Ministry of Agriculture, Livestock and Irrigation presented the projects where collaboration with development partners brought added-value to their departments.

In considering different types of partnerships – for educational, research or project purposes, participating universities are encouraged to consider partnerships around strengthening curricula, competence assessment and standardisation to enable accreditation. The capacity needs of trainers, lecturers and academic institutions should be considered as much as GIS professionals and other disciplines requiring GIS skills (architects, engineers, urban planners, etc.).

1. Introduction

1.1. Background and Objectives

On 24-25 May 2018 the Myanmar Information Management Unit / MIMU organized a two-day Symposium on “Building capacities for evolving geospatial needs in Myanmar”. The event gathered 27 Myanmar universities teaching GIS courses, 3 international universities, in addition to government departments, private companies and development organizations. The Symposium highlighted the need for Myanmar universities to adapt curricula to the new scientific arena, strengthen their knowledge of emerging new technologies through research, adopt practical methods of teaching and strengthen academic standards. This has opened opportunities for new partnerships with private sector and expansion of collaboration with national and international organizations (for more details see the full report at <http://themimu.info/mimu-symposium>).

On March 12-13 2019, to foster innovative collaboration with the Myanmar academic sector, MIMU organized a Seminar to reflect on international partnerships and their relevance to Myanmar. Prominent universities in the field of GIS and Remote Sensing from Myanmar and abroad, government bodies, research institutes and international organizations were invited to reflect on their experiences and lessons learnt.

The objective of this Seminar was to provide the academic sector involved in Geospatial sciences and research in Myanmar with an understanding of the range of possible partnerships, lessons learned from abroad and practical tools for the development of new collaborations.

1.2. Structure of the Seminar

The first day outlined the frame and variety of partnerships, with examples from other countries’ experience of constructive collaborations with academic actors.

Morning session: **Collaboration types and partners**

- What kind of partnerships scopes and types of agreements can be developed?
- What are the Strengths, Weaknesses, Opportunities and Threats to set up partnerships with Myanmar universities?

Afternoon session: **Lessons learned - what works and what doesn’t?**

- What are the potential benefits of a partnership? What are the difficulties?
- How can partnerships develop new funding streams?
- Can partnerships rethink the role and strengthen capacity of the research university?

The second day focused on the practical establishment of partnerships.

Morning session: simulation exercise to **build up a partnership strategy**

Afternoon session: **Practical tools** and Myanmar experiences

Practical tools:

- Models of agreements
- Tools to identify potential partners and networking
- Tools to analyse new partnerships initiatives

Examples of successful partnerships in Myanmar:

Presentations from Yangon Technological University, Forestry Department (MONREC) and Department of Rural Development (MOALI).

1.3. Participants

The Seminar brought together 68 persons from academic, government, private and development sectors. Among them:

- 30 representatives from 15 Myanmar universities involved in GIS/RS courses
- 3 representatives from 3 international universities
- 9 representatives from 8 Government Departments
- 5 representatives from the Private Sector
- 21 representatives from the Development Sector (International Organizations, NGOs, United Nations agencies and Donors).

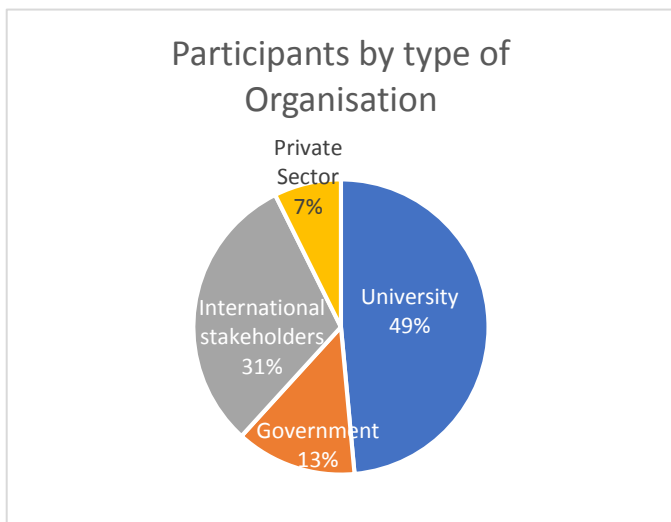


Figure 1. Distribution of the participants per type of organization

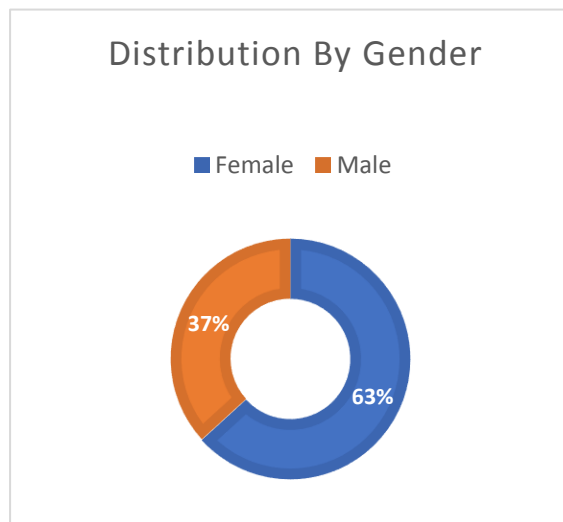


Figure 2. Distribution of the participants by gender

63% of the participants in this Seminar were female.



1.4. Welcome and Opening Remarks

Dr Nay Win Oo, Deputy Director General, Department of Higher Education of the Ministry of Education, provided the opening address, noting that this Seminar is a follow-up to the MIMU Symposium on Building Capacities for Evolving Geospatial Needs in Myanmar in 2018. The objective is to provide the academic sector involved in geospatial science and research with an understanding of the range of possible partnerships drawing on practical experience from Myanmar and other countries.

The National Education Law 2014-15 seeks to support the creation of an international standard of learning in Myanmar with upgraded quality of teaching, learning and research with higher priority to innovation, research and development initiatives. The Ministry of Education will support higher education institutions to undertake research and development, particularly in the areas of Information Management and Communication Technologies. A Higher Education Research and Innovation Fund is being established under an appointed subcommittee within the Myanmar's Rectors' committee. All higher education institutions will be eligible to apply for this fund.

Collaboration can be with different partners: collaboration between universities and industry will be valuable for skills development, avoiding duplication and stimulating private investment in research and development. Universities can also work closely with public institutions and with the development sector. This Seminar provides the opportunity to sit together and think about how we can collaborate more effectively in order to reach Myanmar's national development objectives, drawing on experience from both inside and outside of the country. Dr Nay Win Oo thanked the organizers and honorable international speakers for this opportunity and wished the participants a productive Seminar.

Ms. Heather McBride, First Secretary of the Canadian Embassy, noted the importance of geospatial data for relevant and timely information which can enable stakeholders to work together to help vulnerable people in Myanmar and to achieve the goal of inclusive and sustainable development. The two-day Symposium organized by MIMU with Canada's support in 2018 highlighted the need for Myanmar Universities to adapt curricula to the new scientific arena, to strengthen their knowledge of emerging new technologies through research, to adopt practical methods of teaching and to strengthen academic standards. To achieve these, collaboration and networking will be essential.

This Seminar is an opportunity to explore ways for innovative collaboration and partnerships that can support capacity building and research in the field of geospatial sciences for Myanmar universities. There is no one model to adopt; instead we need to explore opportunities, learn from others' experience from within and outside of Myanmar, and to network to take advantages of partnership possibilities. The group here at this Seminar is diverse and each participant brings valuable knowledge in the form of experience, lessons and suggestions. Ms McBride encouraged participants to use these two days to share their thoughts and to explore new approaches to moving forward on developing innovative and effective partnerships that can build the capacity of the academic sector to contribute still more to Myanmar's progress.

Ms. Shon Campbell, Manager of the Myanmar Information Management Unit noted the wide experience brought together in the Seminar with 68 representatives of 15 universities, 8 government departments and over 20 organizations and donors from across private and development sectors gathered together in the seminar. This is also the opportunity to benefit from one another's expertise and experience, including that of the five international speakers from Twente University from The Netherlands, the Asian Institute of Technology, UNOSAT in Thailand, the Vietnam Institute for Geosciences and Mineral Resources and the Hanoi University of Mining and Geology.

2. Day 1

2.1. Overview of Types of Partnerships

Presentation: Dr Tom Loran, University of Twente, The Netherlands

➤ What is driving a partnership?

Does the partnership fit in and serve a purpose? Will it offer something for the university or only the partner? There are many examples why there is no reason to get into a partnership, so it is important to consider the above points carefully.

The Vision and Mission of the university are the basis for any kind of cooperation and partnership as these set out the medium and long-term goals. Strategic, longer term partnerships with knowledgeable institutions based on the vision and mission allow more structural development and long-term collaboration.

- Ensure the partnership will serve a purpose for the university.
- Partnerships should bring benefits for both sides.
- Any partnerships should be relevant to the university's Vision and Mission.

Partnership in support of Education, Research and Project

Dr Loren explained that there are different types of partnerships, each with their own purpose. Given their mandate, universities generally enter into three types partnerships; these relate to support to **education**, to **research** and to **projects**. In reality partnerships are often a combination of these three.

Partnerships supporting education: Partnerships often start with a focus on strengthening quality of education and training to improve the competencies of both staff and students. It aims to improve and enrich educational programmes, change and adapt teaching methodologies, develop curriculum, set up double degree programmes (Masters level) or training capacity with academic institution or private sector.

Partnerships supporting research aim to strengthen research profile, carry out joint research and joint PhD programs.

Partnerships supporting projects can be undertaken to respond to calls for proposals. It can be public-private partnerships involving government agencies and private sector. It can also be a profiling of expertise and provision of consultancy services.

Building Partnerships over time

Partnerships develop over time and it is important to build relationships with the potential partner. There are several stages in building these relationships:

- Exploring opportunities for potential long-term partnerships through individual contacts.
- Mutual exchange: formalize collaboration in students and staff exchange, build personal networks within your university with the partner across a range of people and possibly different departments.
- Consolidating: start joint education programmes and projects which will have strategic benefits for both sides and considering carefully about these benefits and the exit strategy.
- Priority initiatives: mutual identification and investment of strategic programmes, high priority strategic partnerships.
- Full partnership: activities are integrated in the systems and structures are in place.

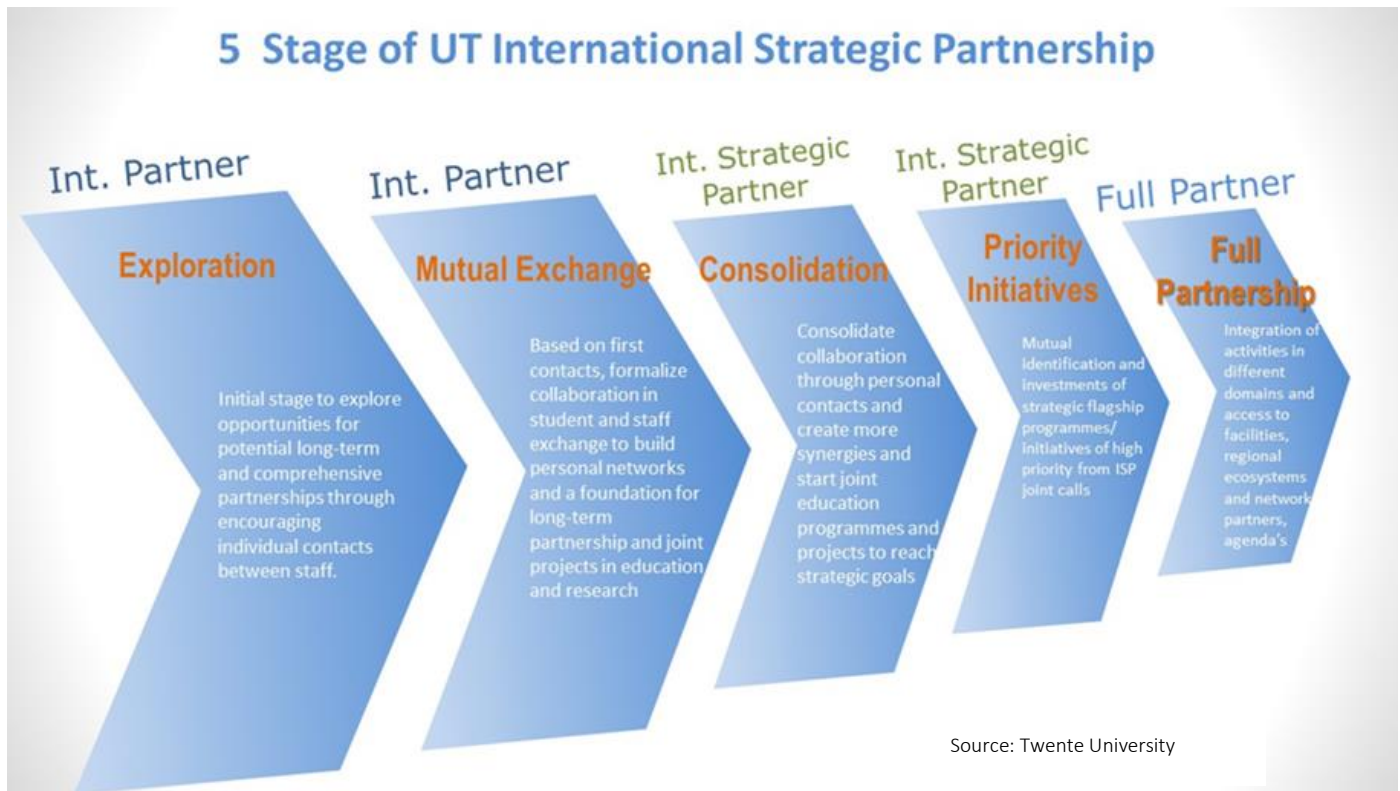


Figure 3 – Stage of University of Twente International Strategic Partnership

It is important **to be clear and transparent** on what you and the partner want and need from the partnership at an early stage to avoid any confusion or misunderstanding.

Institutional and Legal requirements

There are no international legal requirements, but you will need to follow rules and regulations that govern cooperation and partnerships for your institution. Twente University for example has a Policy on International Strategic Partnerships, Rules and regulations for developing Double Degree programs and for accreditation of educational programs, and on Research accreditation.

In summary, important criteria in considering partnerships are:

- Ensure it fits within your own university's mandate (vision and mission), and adds value and benefit to what you are trying to achieve as an institution.
- Ensure there is mutual trust and transparency so both parties can work together, can be clear on what they want and will provide, and will commit what they have agreed.
- Getting into partnerships costs resources – money and time – so it is important to consider carefully how the resources will be used.
- Longer term partnerships are preferred. While they take longer to establish, they also have better return on investment with long-lasting benefits.
- Be sure to refer to the institutional and legal requirements of your institution.

2.2. Current partnerships

To identify the current ongoing partnerships of the attendees, the participants were asked to fill up a matrix according to their organization type (i.e. university, government, private sector, international organization) and type of partnerships, i.e. in the areas of 1) support of education 2) research 3) projects and 4) any other type. The participants were requested to mark an (X) in front of each of those four partnership types on papers available on their table. The matrix below shows the results of the exercise.

	Education (curriculum, ToT, student exchange, teaching method, etc.)	Research (joint research, joint PhD, innovation, etc.)	Project (Consultancy and others)	Other	Total
University	6	6	6		18
Government	3	2	5	1	11
Private Sector	2	2	4	2	10
Internat. Org	3	4	5	2	14
Total	14	14	20	5	

Figure 4 – Types of ongoing partnerships amongst the participants

As in the above table, the exercise showed all the types of organisations represented conduct similar types of partnerships. Projects have logically the highest the number of collaborations. Interestingly, research and education have equal number of partnerships which shows there is potential for more collaborations and synergies among different organisations.

2.3. SWOT Analysis

Strength, Weakness, Opportunity and Threat (SWOT) analysis technique is a useful tool for decision-making and strategic planning. Once the objectives are set, the SWOT helps to identify the internal and external factors that are favorable and unfavorable to achieving those objectives.

The SWOT is defined as follows:

Strengths: characteristics that give an advantage to the project

Weaknesses: characteristics that place the project at a disadvantage










































Opportunities: elements in the environment that the project could exploit to its advantage

Threats: elements in the environment that could cause trouble for the project

Internal factors — the *strengths* and *weaknesses* are internal to the organization

External factors — the *opportunities* and *threats* are external to the organization

The participants undertook the SWOT analysis in groups, with the objective to find a partner for their organization. The results by type of organizations are summarized in the following page.

Strengths	Weaknesses
 Human resources - staff capacities, technical knowhow, alumni from abroad	 Human Resources capacities, turnover and brain drain
 Existing networks, partnerships and customers	 Heavy administrative procedures
 Finance, support from donors, foreign organisations	 Restriction on data sharing and exchange
 Interest and motivation	 Finance
 Reputation	 Communication Barrier
 Good funding for R&D	 Staff Motivation
 Syllabus, curriculum and teaching equipment	 Limited equipment
 Policy - National Strategic plan, Govt support	 Mismatch in cultural values
	 Limited connectivity in rural areas
	 Lack of clear rules and regulations
Opportunities	Threats
 Networking	 Heavy administrative procedures, Policy, Rules and regulation and Legal Network
 New funding streams	 Staff turnover
 Hands-on training opportunities with companies	 Issues in Trust / Data Protection / Data misuse
 Attract research projects from industry	 Communication and language barrier
 Graduates from universities can contribute skills and knowledge to farmers	 Limited Financial support
 Training in new technologies, courses in unexplored subjects	 Limited project duration and sustainability
 High demand for students and teacher	 Loss of commiment and incentive
 Collaboration with other sectors	 Brain drain of teachers to private university and industry
 Law allowing new partnerships	 Technological gap
 Community involvement	 Reputational damage
 Open data and data standards	 Change in Client priorities
 Recognition and Awareness	

 University
  Public Sector
  Private Sector
  National and International Organisation

Figure 5. Results of the SWOT analysis

There are common positive aspects and limitations for all organisations. Brain drain, staff turn-over, heavy administrative procedures, restrictions on data sharing are commonly identified as weaknesses. Some of these could be mitigated by identified opportunities such as networking, new funding streams (donor investments in Higher Education, research and innovation), new research areas, community development, open data and data standards.

Excessive bureaucracy, restrictions on how researchers interact with firms or with other actors, unclear policy and legal framework are the main obstacles. Brain drain, restriction on data sharing are other important challenges to partnerships. These issues can be balanced by existing strengths of other organisations such as staff capacities and motivation, existing networks, and funding sources.

The SWOT exercise is a self-assessment tool that can be undertaken before initiating a partnership. It helps to identify your added-value to collaboration (strengths) as well as your limitations (weaknesses), and where partnerships can be complementary. It also helps to identify what external opportunities and threat may be an advantage or an obstacle to reach your goal.

2.4. Lessons learned

2.4.1. Lessons Learned from Hanoi National University, Vietnam

Presentation: *Dr Nguyen Quoc Phi*, Hanoi University of Mining and Geology (HUMG)

Vietnam's National Programs on Science and Technology include a focus on space and regional development. In the past the main emphasis has been on classic map creation, cartographic products and visualization for research activities in geoscience. It has been less focused on developing new technology, approaches or methodology. A National strategy on research and application of space technology was put forward in 2006, and they have also focused on updating and re-constructing the approach to capacity building with a new curriculum, syllabus and education system. Support has also been provided by some international donors, notably Erasmus+, Norpart (Norway), Society of Petroleum Engineering (SPE), Rosneft Vietnam BV.

New curriculum development

It was necessary to develop new curricula due to the huge developments in geoinformatics and remote sensing science, the changing perception of how these can be used in research and development of new applications, the changing job market for graduates and opportunities for regional and international integration.

The new curricula develop domains within geoinformatics as well as possible combinations and methods across all subjects to solve a given problem. To do this they highlight an interdisciplinary character of geoinformatics science – this requires cooperation with other departments focusing on the physical side (hydrology, geomorphology, geography etc.) and social/ regional side (urban studies, land use/ landcover, regionalization, etc.).

The new curricula also focus on bringing the benefit of space technologies to the Educational Sector at very early stages (in primary schools).

Curricula are now updated annually to consider new developments and opportunities. The different types of degree programmes offered include the Bachelor, MSc and PhD in Cartography, Remote Sensing and GIS, and MSc and PhD in Natural Resources and the Environment.

Changing governance and autonomy of universities

A new Higher Education Law will come into force in Vietnam in mid-2019 and some universities will become fully autonomous. However, there are not yet guidelines on the management of finances and human resources under this new arrangement. Changes in the policy of university admissions has also brought a reduction in the number of students and in the number of teachers. As a result, 40% of the teaching staff are now external to the university.

There have also been a number of opportunities. These include new education programmes opened by the university on natural resources and environmental management; changes in teaching methods (introducing distance learning and reducing the timeframe for some degrees); new funding streams, especially from industry (mining and oil companies) as well as mapping and environmental agencies.

The need to find additional capacity to address the loss of experienced teachers to industry and the private universities has brought in external staff with different experience to deliver the courses, and partnerships have been developed with international universities for student exchange, internship, curriculum development, joint research and PhDs. Cooperation with the private sector has also extended to short courses training and institutional partnerships (research projects, training of trainers, etc.).

Different types of Partnerships with international universities

Dr Nguyen Quoc Phi presented different types of partnerships they have established with other institutions:

- **Exchange:** An agreement with a partner institution that involves direct exchange of students to and from the partner institution. Participants enroll as exchange students at the partner university but pay their tuition at their home university for that term. This type of partnership is ideal as it creates a stronger relationship between the two institutions and promotes a deep cultural immersion for students.

- **Faculty-Level:** in this type of agreement, mobility of students is limited to the specified faculty or department at HUMG and at the partner institution. It includes partnerships with NTNU (Norway), Geosciences University (China), Moscow State Mining University (Russia), etc.
- **Study:** A study partnership is an agreement between two institutions that allows the direct study and enrolment of the university students at the partner institution. The program is similar to exchange programs in duration, independence, and academics, but does not bring international students to the university. It includes partnerships with the University of St. John, Chien Hsin Science and Technology University (Taiwan).
- **Hands-on training courses:** Design short courses/training courses for staffs of partner companies/groups. HUMG sends lecturers to develop research projects according to industrial activity requirements (mapping of mining operations, mineral exploitation and extraction activities, natural resources management). These partnerships have been established with the Corporation Natural Resources and Environment of Vietnam, Vietnam National Coal - Mineral Industries Group (VINACOMIN), Vietnam Oil and Gas Group (PetroVietnam).
- **Research projects:** Partnerships with institutional bodies to develop common projects on survey of natural resources, mapping for land administration, hazard and risk assessment. It includes partnerships with government departments.

Sources of funds for partnerships

The sources of funds are mainly from Government and Industry sector.

State budget: Main source of budget for institutional partnership, develop common research projects with national institutes. Provinces are also an important source of funding.

Industrial donors: Training, equipment. Bring industrial partners to HUMG's Management Committee.

International donors: Erasmus+ Mineral, ESSENCE (energy); Norpart (Norway); Rosneft Vietnam B.V.; Training Course on Landslide Investigations and Hazards Mitigation attract funds from Integrated Research on Disaster Risk (IRD).

Consortium: with industrial partners and other universities, ex. PSU (Thailand) and UUM (Malaysia) on disaster and environmental management (3 main tracks: Environmental Technology and Management, Disaster Prevention and Mitigation, ICT Utilization to Support Disaster and Environmental Management).

Partnerships - Lessons learned

From the various partnerships, Dr Nguyen Phoc Phi shared the following lessons learned:

- It is important to understand **partners' motivations and objectives** as well as their **language**
- **Both sides** must benefit from the partnerships
- Build **trust**, personal relationship is important
- Develop **clear agreements**
- Be **flexible**
- View partnerships as a **mindset**
- **Learn** from partners
- You must **share value**
- Share and **learn from failures**
- **Open channels** for international donors and inter-governmental organisations

- Annual update of curricula with the help of international universities and industry.
- Changes in teaching methods, introducing distance learning and reducing the timeframe for some degrees.
- Development of several funding sources with industries and international donors.
- Autonomy of university in July 2019 may have lessons for Myanmar in the near future.

2.4.2. Lessons Learned from AIT, Thailand

Presentation: *Dr Kavinda Gunasekara*, University of Asian Institute of Technology (AIT), Thailand

AIT offers various Masters, Doctoral, Diploma and Certificate programmes as well as non-degree continuing education courses for practicing professionals. It also includes outreach centres which bring research capacity to real applications through partnerships with different companies. Expertise extends to remote sensing and GIS, disaster management, environment and training. New areas of work coming up include projects, research and innovation, humanitarian activities, training and capacity building.

To survive in a very competitive environment, universities need innovation, internationalization, enterprises, entrepreneurship and stakeholders and support.

Today universities are facing several challenges including:

Managing disruptive technologies: to be competitive, AIT needs to take on board new technologies such as drones, Artificial Intelligence and algorithms, development of cloud-based platforms, etc.

Maintaining staff: young researchers tend to leave for higher studies or better salary scales. AIT seeks to engage staff into academic programmes, research and conference opportunities.

Making appropriate investments: partnerships cost money and resources so one needs to ensure it is a worthwhile investment. To do so, it identifies carefully research and applications of geospatial sciences, develops prototypes and applications, seeks appropriate clients, shows the potential integration and scale up application.

Diversifying funding sources: AIT maintains diverse funding streams, including from calls for proposals (project-based, consultancies), government projects, research grants and from their own network.

Examples of different approaches

Dr Gunasekara shared additional insights from his own experience on possible approaches:

- University professors assess the feasibility of development projects, students then do the work. It allows them to interact with consulting companies and get future job opportunities after graduation. There are several opportunities for Japanese funding to Asian countries to engage in research and capacity building projects related to geospatial sciences. Such an approach can be easily implemented in national universities.

- In Japan, universities apply for projects from private companies and government departments with the whole income being added to the Laboratory pool fund. Graduate students, during thesis year, can carry out two research pieces; one on consultancy project and other one on a continuing research topic.

- In India, with a World Bank-funded project, students are sent to AIT to graduate programs provided the students continue the research topics identified by the Indian govt and continue for 5 years. The supervisor contributes to the research project in the context of academic program and allocates sufficient funding for field work and data collection.

- To survive in a very competitive environment, you need innovation, internationalization, enterprises, entrepreneurship and stakeholders and support
- Diversify funding sources: projects from calls-for-proposals, government funded project, research grants, and within your own network
- Partnerships are costly. So invest wisely

2.4.3. Lessons Learned from ITC, Twente University, The Netherlands

Presentation: *Dr Tom Loran*, ITC, University of Twente, The Netherlands

Partnerships often start small. When they go well they gradually expand over time, combining education and research naturally. For example, it evolves from short courses to certificate to diploma to degree programme.

Good practices

Key features of sustainable international partnerships include:

- Good **knowledge of your partners**. Start small and get to know each other well and gradually develop academic partnership.
- **Clear objectives with benefit for all** parties involved
- **Clear communication** and frequent meetings especially in the beginning
- **Long-term** commitment. Collaboration is costly, and the returns only accrue in the medium to long run
- **Flexibility** and understanding
- **Equality** without dominance of one party
- **Trust** between partners
- **Diversify funding sources**, avoid dependence on a single source of funding. If the donor focus changes, the scholarships may quickly reduce and make your programme very vulnerable.
- Work out **technical and logistical support**, clear tasks and responsibilities.
- **Exit strategy/** End Scenario

Challenges to international partnerships

The **academic systems between countries** have different legislation, credits, qualification criteria, etc. In Europe the Bologna tools harmonize credit and grade transfer within the European universities so that study in another country can be recognized in the home country. Developing a similar process in Asia that leads to mutual recognition across international degrees would greatly facilitate international partnerships.

Some developing countries are facing **problematic research environments**: availability of data, accessibility to scientific information, access to internet and library, limited freedom of sharing data can be a serious limitation to research cooperation, especially at Master and PhD levels.

In some countries, **legislation, rules and regulations** cannot permit double degree programmes. For example, a given national accreditation board may not accept that a Faculty of geography and a department of geomatics engineering have similar programmes.

Considerations before setting up a partnership

To set up and manage partnerships, many components of the institution must be involved (management, admission, library, finance, administration, etc.). Recognising that it takes time to look for funds, write proposals, allocate funds and manage project, ensure staff has enough dedicated time. It is important to also develop an exit strategy prior to starting the partnership. Institutions enter into most partnerships with the assumption that everything will go well, but they need to also consider possible conditions under which cooperation will need to stop and what would happen in that case. For example, if partnering is around provision of education and the partner quality is not high enough, it could result in loss of accreditation.

2.4.4. Lessons Learned from UNOSAT, Asia and Pacific Region

Presentation: *Youjin Choe*, Consultant, UNITAR – UNOSAT, Thailand

UNOSAT activities and partnerships

UNOSAT is an operational programme of the United Nations Institute for Training and Research (UNITAR). Its main activities are training and capacity development on geospatial information technology and providing analysis and research based on satellite imagery derived products.

UNOSAT has four main types of partners: government, academic, inter-government organisations and the private sector. It provides to Member States with relevant information, and complement governments' own research, training and capacity development activities. It supports academia with capacity-building and development needs and opportunity to share knowledge in training and research. It also builds up new collaborations with academic networks in other regions. It supports development of synergies within Inter-governmental organisations, sharing best practice in how to deliver training, capture and retain knowledge. With private sector, it promotes social responsibility policies and sustainable development. Its partnership activities extend from data sharing to project collaboration.

Community of Practice

Online Communities of Practice (CoP) are set up by training alumni to promote exchange among the trainees and for UNOSAT to provide technical support. The national level communities of practice will also be linked with other countries across the ASEAN region to open new and larger communities of practice.

Lessons learned in partnership

- **Self-assessment** is needed prior to starting a partnership to be sure to fully understand own strengths and weaknesses. The SWOT analysis is a very useful tool to understand what you can and cannot do and what you can do better through partnerships. It also helps brainstorming on the potential roles you and other partners can take in partnerships.
- **Complementary role**
- Must **benefit for both sides**
- **Trust your partner**
- **Not all partnerships are the same** – there are different levels of engagement and different approaches with different partners
- **Golden time for partnerships** – be reactive and respond quickly to show interest and motivation to your partner
- **Transparency** - be clear on what you are seeking and what the partners can get from the partnership
- **Avoid duplication** – as much as possible try to have information on the existing projects and initiatives before starting any partnerships
- **Limit turnover rate** – Partnerships depending on a highly motivated person risk delays and difficulties when that particular person leaves.
- **Data/information sensitivity** – not all knowledge/data can be shared

2.4.5. Discussion

Gender studies: It was mentioned that AIT has three main schools, now there are many graduates in Myanmar who studied Gender at AIT, under which school is the Gender studies?

Answer: AIT gender studies are run through the School of Environment, Resources and Development, Faculty of Gender and Development Studies.

AIT Vietnam: What is the relationship between AIT Thailand and AIT Vietnam?

Answer: AIT has many centres, the first centre outside Thailand is AIT Vietnam. There is an academic partnership between the two AITs.

Demand and supply of technical staff and student: It was noted by the presenter from Vietnam that not many people nowadays choose to study technical subjects. Is there a demand and supply problem in Vietnam?

Answer: for many years now, Vietnamese young people go abroad to work. There are even recruitment centres in high schools. This has reduced the number of students who choose to go to university and from those even a smaller number apply to technical universities such as geosciences. There is also an economic aspect; Vietnam's economy is at a booming stage and salaries are much higher in other sectors compared to technical sectors like geosciences. There are disruptive means of earning a good living for aspiring students, such as working at telecommunications manufacturing companies.

University tuition fee: In Vietnam following the recent changes in law that gives more autonomy for universities, is it expected that the tuition fees will increase?

Answer: for a public university, there is a threshold that the government has set therefore it is not possible to increase fees more than the established ceiling. After relaxation of the education laws, the tuition fees at private universities are still very low compared to all neighboring countries. Private university tuition fees in Vietnam are often up to five times higher than public universities. Future increase in tuition fee can become a new challenge too for further decrease in technical university student admissions. In Sri Lanka, education up to undergraduate level is free. The government has also made lots of effort into making education sector very favorable. Even those abroad are moving back to work in universities in Sri Lanka.

Selection criteria: What are the criteria for selection of students in Vietnam?

Answer: Vietnam has a national exam which includes 2 criteria: graduation from high school and the scores from the most relevant subjects.

Evaluating partnerships: How are you evaluating your partnerships?

Answer: two of the speakers noted that their partnerships were evaluated by the outputs. Dr Loren noted the importance of setting up a clear approach to monitoring partnerships, giving the example of the double degree programmes in which education is provided by a partner university and it remains critical to evaluate the quality of the partner's capacity to be able to meet the accreditation requirements.

Data sensitivity, privacy and intellectual property considerations - How to avoid misuse of data provided for partnerships?

Answer: It is important to have guidelines and policies on data privacy and data sensitivity. Where these are not available, take a more conservative approach with different categories of products for different users.

Within the EU there are newly adopted privacy recommendations where any data that can be traced back to individuals cannot be published or released. Considerations of copyright and intellectual property rights are also very important to consider in advance of any partnership. There are many good examples of how to address this but make sure to consider where the information comes from, who can access it, where and how it will be stored.

3. Day 2

3.1. Simulation exercise

The participants undertook a simulation exercise to go through the process of building up a partnership strategy and put into practice the elements discussed on day 1. Because of time limitations, they were given the result of a SWOT analysis, the overall strategic objectives of the university and the objectives of their department. Though the scenario was theoretical, they had to answer questions by referring to their own experience. Scenario is in Annex 2. Below is a summary of the exercise.

Question 1: Objectives

- a. Given the objectives of the Department, what types of partnerships do you need to develop?

Education is the main focus for all groups: enhance curriculum development, teaching methods and capacity development.

- b. What for (expected results)?

Expected results are: changing teaching methods, updated curriculum, integrated research and education, joint degree and innovation, new funding stream.

- c. How would you prioritize them over the 5-year plan?

The groups found this question difficult to answer. They would need more information to prioritize the objectives.

Question 2: Partners

Depending on the type of partnerships that would best fit with your Department's objectives, who could be your strategic partners? Why? Please refer to the Potential partners and suggest real partners you could work with in this context

The participants could propose a wide range of partners, based on their experience and current networks:

To share technologies, develop curricula, improve research, identify scholarship, fellowship and other research funding: **National universities** (such as Yangon TU, Mandalay TU, Dagon University, University of Mandalay) and **International universities** (ITC, Pukyung university, Kyoto university, KMUTT, AIT, Guwanati, Panchkula, Delhi university) and UNESCO.

To search funding, increase experience and technical capacity: **inter-governmental and international organisations** (MIMU, EU, JICA, JASTIP, ADPC, ADB, WB, UNOSAT, TIDE).

To access technology application, tools, financial support and job opportunities: the **private sector** (Mandalay Technology, TERRA Myanmar, SUNTAC).

To secure budget and opportunity for ToT, for official support and permission: the **government** (MCDC, YCDC, Forestry Dept, Survey Dept).

Question 3: Resources

What are the human and material resources your Department needs to mobilize within the University to:

- search for potential partners: Heads of department, researchers, professors, international relations office when it exists
- engage in negotiations with selected partners: Rector office, hire a national consultant
- come to a formal, mutually binding, agreement: legal team, finance dept, Rector office
- implement and manage the partnership: technical team, finance, laboratory

Question 4: Strengths and challenges

a) What are the main strengths/ added-value your Department and Shwe University can bring to your partners?
Strong base of motivated students, good reputation in-country, good knowledge of field data collection, experience of international partnerships, alumni network.

b) What are the biggest challenges that will need to be overcome?
Heavy and lengthy administrative procedures, lack of clear rules and regulations are common challenges. Universities may lack of financial, human resources and capabilities to manage research projects. Accreditation system and quality control may not be up to standards. Difficulties in negotiating a collaboration include among others lack of information and difficulties finding contact persons.

c) What solutions would you suggest in order to achieve your Department's Partnership objective?
Change procedures to get permissions and develop policy, establish an internal structure in charge of partnership management, high level commitment from both parties, increase exchange with external actors (meetings, workshops, etc.), and develop accreditation (ISO standard certification) would help to mitigate the above-mentioned challenges as well as strengthen and structure the partnerships.

The facilitator reminded that there may be **conflicting priorities and values between partners**. It is important to focus on institutional values as opposed to individual executives' values. The caveat is that the partnership can't only be about money. Universities first goal is for education and training. Industry is to make profit, with a focus on fast commercial results. Successful university-industry collaboration should support the mission of each partner. Any effort in conflict with the mission of either partner will ultimately fail.

- Be clear on your objectives and expected results.
- This will help to target the right partners.
- Be aware of the resources you will need to mobilise within your organization.
- Challenges: be careful of conflicting priorities and values between partners.



3.2. Practical tools

3.2.1. Agreements and Contracts

Presentation: Dr Kavinda Gunasekara, AIT, Thailand

The terms MoU and MoA are often used interchangeably. However, an MoU suggests a lighter commitment than a MoA. Many partnerships start with a Memorandum of Understanding (MoU) and can graduate to a Memorandum of Agreement (MoA) or contract once the partnership is better established.

The Memorandum of Understanding (MoU) is like a contract, but it is not legally binding. It sets out opportunities for collaboration and positive academic engagement between universities.

Memorandum of Agreement (MoA) is like an MoU but may be more specific on the relationship and what you plan to do. An MoA is a good way to start off a formal, recognised partnership. It is often a statement of cooperation or understanding in which case there is no legal implication. However an MoA carries contract terms and conditions in which case it carries the same legal weight as a contract. An MoA may have multiple signatories as for example in the case of consortia.

On top of the MoU content, an MoA would include the objectives and activities of the project as well as the responsibilities of each partner.

Example of the content of a MoU and MoA between AIT and a partner

MoU	MoA
Introduction of parties	Introduction of parties
Article i: purpose	Article i: objectives
Article ii: scope	Article ii: activities [with details]
Article iii: duration, termination, and amendment	Article iii: responsibilities of AIT
Article iv: special provisions	Article iv: responsibilities of partner
Article v: contact persons (details)	[new articles may be inserted as required]
Signed for and on behalf of:	Article ...: duration, termination, and amendment
	Article: special provisions
	Article v: contact persons (details)
	Signed for and on behalf of:
	Annexes: as appropriate: [e.g. AIT admission requirements;
	AIT study costs; AIT fields of study; Partner study areas;
	Partner research areas; etc.]

Letter of Intent – LOI

MoA and MoU are heavy processes that take long time to establish. As an initial step, partners may decide to sign an LOI, based on common interest.

Donor driven agreements are legal contracts which usually include financial arrangements. Each donor, UNDP and World Bank for example, may use different formats. These often include an MoA and Terms of Reference of who will do what and when. It is very important to read the Terms and Conditions and understand your obligations. This means ensuring it has been legally reviewed and be sure to pay attention to publication and intellectual property rights.

References:

- http://erco.ait.ac.th/erco-services/mou-moa-definitions-templates-and-processing/MoU_Template.doc
- http://erco.ait.ac.th/erco-services/mou-moa-definitions-templates-and-processing/MoA_Template.doc
- <http://www.sussex.ac.uk/studentrecruitment/internationaloffice/partnerships/mou>
- <http://www.zendergroup.org/docs/moamou.pdf>

3.2.2. Tools to identify partners and develop networking

Presentation: Dr Nguyen Quoc Dinh, Vietnam Institute of Geology and Mineral Resources (VIGMR)

VIGMR has close scientific relationships with international organisations as well as exchange with universities on scientific research and training. It conducts research related projects especially on natural disasters but also on natural environment, geo-environment, conservation, and mineral resources. It maintains relationships with government, industry and academic sectors.

Establishing and expanding your networks

Networking involves *sharing* what you are doing, *learning* what others are doing, finding *common interest*.

Building networks can be challenging due to limited funding, reduced access to information and different cultures of cooperation.

There are different ways to establish networks, meet more people and learn about more opportunities. These include joining *conferences, workshop and training courses*. Take an active role and get involved. Truly participating allows you to get to know people, find common interest and build strong, enduring relationships. Always think of the long-term relationships. *Disseminate your publications*. Readers of your articles who share common interest will seek you out. Find and approach people who work in the same field. *Share your knowledge and expertise* on technical online fora and offer to help via internet when you see an opportunity. Use *social networks* such as LinkedIn, Researchgate, and Facebook. Just updating your status keeps your contacts aware of what's happening. Express thanks, congratulations and wishes when needed. This is a great way to show the members of your network that you care.

Networks through inter-governmental structures such as CCOP, Geoparks, Sentinel Asia offer possibilities to network with developed countries. Networks with universities, private sector exhibition and local embassies events can also open access to funding opportunities.

Sources of funding

Diversify the sources of funding as much as possible. Those can come from:

- National agencies (most important): network with the people in the agencies, well informed when new calls come.
- International agencies: World Bank, ADB, European Union (newsletter)
- Bilateral Development Agencies: Enabel, VLIR-UOS (Belgium), ADF (France), DAAD, BMBF (Germany), JSPS (Japan), UKRI (UK), MOST (Taiwan), ITEC (India)
- Inter-governmental organisations (CCOP, Geoparks, Sentinel Asia): funding for workshop, training

Watching calls-for-proposals - Websites links

World Bank: <http://projects.worldbank.org/procurement/procurementsearch?lang=en>

Asian Development Bank : <https://www.adb.org/projects/tenders/type/invitation-bids-1521>

UNDP: <http://procurement-notice.undp.org/>

UK Research and Innovation: <https://www.ukri.org/>

Enabel, VLIR-UOS : <https://www.vliruos.be/en/home/1>

CCOP: <http://ccop.or.th/> (training course)

3.2.3. Tools to analyse an initiative

Presentation: Dr Tom Loran, University of Twente, The Netherlands

Analysis of the initiative

Before going into any initiative and project, ITC undertakes an *Identification of the initiative*. This analysis includes all the various departments and staff who will be involved in a potential partnership. It looks at the contents of the proposal or agreement and the costs. It considers also the legal issues and the departments of the university that need to be involved. Once fully analysed and approved, it is approved by the Dean as the only person able to agree the commitment of resources.

- **Ensure support structure is in place** – to work on the proposals, ensure everything that needs to be budgeted is included, and that it is all agreed at a higher level for submission in time.
- **Integrate provisions for Monitoring and Evaluation** – to ensure the right people and a plan are in place to check progress of the initiative at the right moments.

3.3. Discussion

Managing cultural considerations: especially important in considering what a win-win situation will be. Dr Dinh noted that where there will not be a win-win situation, he would recommend terminating the partnership and not spending a lot more time on it. Dr Loren shared experience from Indonesia where much of the negotiation is done outside of the formal meeting. It is important to consider when it is time to stop investing energy in a partnership that is not working.

Moving from MoU to MoA: MoU is more an umbrella agreement with principles of how to work together. Many organisations can be part of the same agreement, MoU or MoA. There is no need to terminate MoU to move to MoA.

Student selection criteria:

Masters' students are selected by ITC based on clear selection criteria developed by each faculty – these are fixed and publicly available. These include having a relevant background (qualification) for the study being applied and a good capacity in English (completed language test).

PhD candidates are done by application. The process is free and the prospective student must give an indication of the projected focus to enable the University to decide who will be the most appropriate supervisor. This can be done at any time in the year and the supervisor will work with the possible student on the application. The first 6 months of the PhD focus on developing the proposal. This must pass a university panel to continue to the PhD.

Exchange students – this is a new area for ITC and requires a letter describing why the exchange will be useful. It is very likely to relate also to strategic partnerships.

Scholarship opportunities with ITC – there is no scholarship programme per se now in ITC but there is the Orange Knowledge programme for certain countries including Myanmar. This includes tailor-made training and individual scholarships. The new document outlining the opportunities for Myanmar has just been released and another call will be issued later in the year.

3.4. Partnerships in Myanmar

3.4.1. Partnerships of Yangon Technological University (YTU)

Presentation: Dr Sao Hone Pha, Yangon Technological University

YTU's mission includes academic support, research development and developing a comprehensive disaster resilience system and collaboration platform in Myanmar. YTU offers a variety of courses at certificate, undergraduate, postgraduate and PhD levels.

On 30th October 2018, YTU launched its Remote Sensing and Geographic Information Systems Research Centre. The Centre is supported by Japan under a JICA Project titled "Development of a Comprehensive Disaster Resilience System and Collaboration Platform in Myanmar". The Centre has a 5-year MoU, since 2015, for collaboration with the University of Tokyo and JICA as well as partnership with post-disaster assessments with Myanmar Engineering Society and inter-governmental organisation such as the Centre for Space Science and Technology Education in Asia and the Pacific (CSSTEAP).

Partnerships have helped YTU to establish a centre dedicated to Remote Sensing and GIS, get project experience, increase their profile, share expertise and create new networks which can then lead to new networking opportunities and partnerships.

Challenges in the partnerships include finding adequate human resources, transfers of qualified teaching staff, curriculum development, some cultural differences between Japan and Myanmar and timeframe.

3.4.2. Partnerships of Department of Forestry

Presentation: Daw Thant Zin Maw, Department of Forestry

Environmental sector includes 5 sectors, including the Forest Department. Collaboration with international organisations and donors includes a focus on biodiversity conservation, wetland management, plant and seed conservation, water resource management, law enforcement, timber certification, and capacity building with scholarships to a number of countries in the region.

Various projects are being implemented around forest management in partnership. They include different levels of technical, capacity building and financial support depending on the partner.

Benefits from projects have included advisory inputs to consultations, capacity building for the National Forest Information Management Systems and the forest geospatial database.

Although forest department implement many projects, the challenges remain, including capacity building, need for technical assistance, budget constraints, assistance with institutional strengthening and human resources.

Areas to work on include strengthening collaboration and cooperation for Earth Observation and Geospatial Applications. Currently there are formal and technical issues in geospatial management. The department also has many opportunities to learn lessons from other national and international communities. Finally, it is necessary to accelerate the implementation of best practices in geospatial information management approaches.

3.4.3. Partnerships of Department of Rural Development (DRD)

Presentation: Daw Nilar Soe, Department of Rural Development

The Department of Rural Development (DRD) focuses on the development of infrastructure, livelihoods and capacity and this is implemented through the Rural Development Framework.

DRD has a number of project-focused partnerships with international organisations and donors such as World Bank, ADB, JICA, and UNICEF. Some of these include government budget contributions. GIS is essential for the work of DRD. It is used for planning, to avoid overlapping of project areas, to collect more data on project progress and to monitor and evaluate the outcomes of activities. Since 2001, the Department of Rural Development has been using GIS to assess village level data.



4. Conclusion

This Seminar broadened the participants' knowledge and understanding on the types of partners and partnerships, on the importance of setting up partnerships strategy that brings benefits grounded in the Vision and Mission of the university.

Key features for sustainable international partnerships include clear objectives, complementary roles with benefit for both sides, transparent communication, trust and equality between partners, flexibility, long-term commitment and diversified sources of funding. Each of the international speakers from academic institutions also noted the need to stop partnerships that are not beneficial. It is therefore important to monitor partnerships and think of an exit strategy at the initial phase.

In considering different types of partnerships – for educational, research or project purposes, participating universities are encouraged to consider partnerships around strengthening curricula, competence assessment and standardisation to enable accreditation. The capacity needs of trainers, lecturers and academic institutions should be considered as much as GIS professionals and other disciplines requiring GIS skills (architects, engineers, urban planners, etc.).

Based on the evaluation conducted at the end of the Seminar, participants found the event very useful (see figure 6). 98% of the participants plan to use in their work the information they gathered in this Seminar (figure 7).

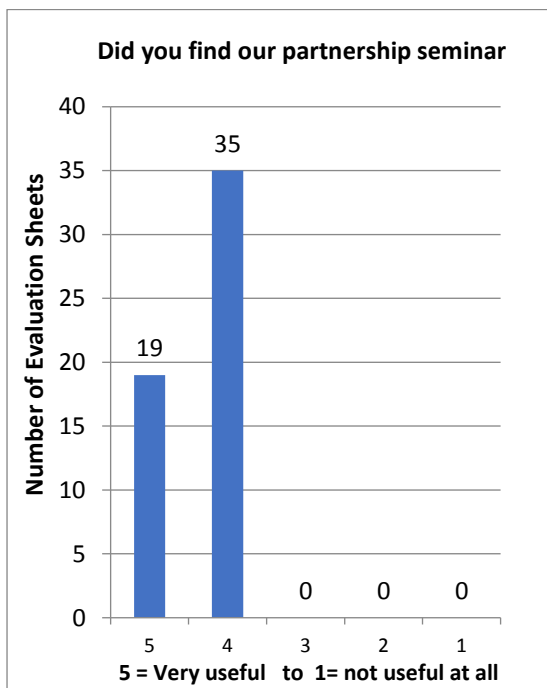


Figure 6 – Evaluation of the Seminar

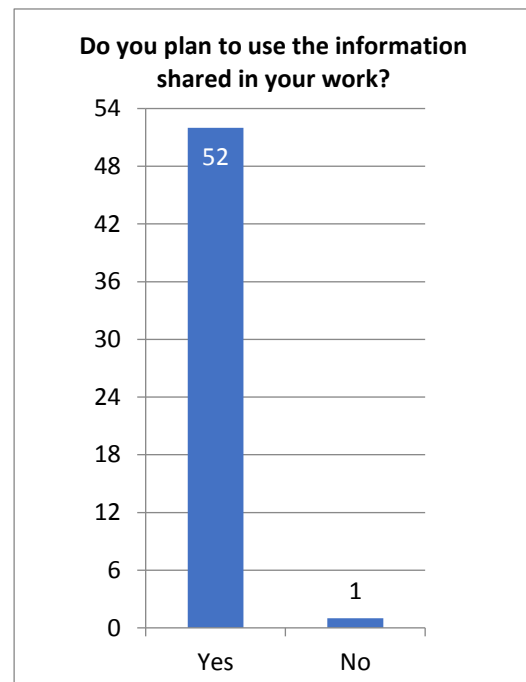


Figure 7 – Usefulness of the Seminar

The group exercises were by far the most appreciated sessions (figure 8). The Practical tools were perceived as very interesting. They can be directly used. The first presentation on partnerships overview is also in the top 5, due to the quality of the presentation and clarity on partnerships types and scopes.

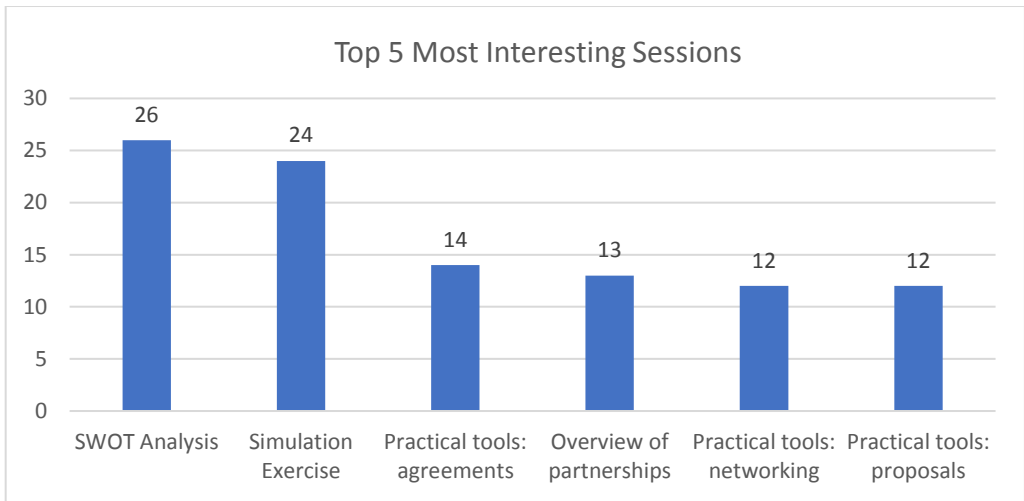


Figure 8 – Top 5 Most interesting sessions of the Seminar



Annex 1: Agenda

Agenda

DAY 1

Time	
8:30-9:00	Registration
9:00-9:30	Welcome and Opening Remarks Group photo
09:30-10:00	COFFEE BREAK
10:00 – 10:30	Presentation: Overview of types of partnerships, scopes and agreements <i>Dr. Tom Loran, ITC, University of Twente, The Netherlands</i>
10:30 – 10:45	Questions & Answers
10:45 – 12:30	Working groups: SWOT Analysis on partnerships
12:30 – 13:30	LUNCH
13:30 – 14:00	Presentation: Lessons Learned from Vietnam <i>Dr. Nguyen Quoc Phi, Hanoi National University & Dr. Nguyen Quoc Dinh, VIGMR, Vietnam</i>
14:00 – 14:30	Presentation: Lessons Learned from Thailand <i>Dr. Kavinda Gunasekara, University of Asian Institute of Technology, Thailand</i>
14:30- 15:00	Questions & Answers
15:00 – 15:30	COFFEE BREAK
15:30 – 16:00	Presentation: Lessons Learned from The Netherlands <i>Dr. Tom Loran, ITC, University of Twente, The Netherlands</i>
16:00 – 16:30	Presentation: Lessons Learned from Asia Region <i>Youjin Choe, Consultant, UNITAR – UNOSAT, Thailand</i>
16:30 – 17:00	Questions & Answers
17:00 – 17:15	Wrap-up

Agenda

DAY 2

Time	
8:30 - 9:00	Registration
9:00 - 9:15	Summary of Day 1
9:15 – 10:00	Working Groups: Simulation exercise
10:00 – 10:30	COFFEE BREAK
10:30 – 12:30	Working Groups: Simulation exercise
12:30 – 13:30	LUNCH
13:30 – 14:30	Presentations: Practical tools <ul style="list-style-type: none">• Examples of agreements, <i>Dr. Kavinda Gunasekara, AIT, Thailand</i>• Tools to identify partners and develop networking, <i>Dr. Nguyen Quoc Dinh, VIGMR</i>• Tools to develop proposals, <i>Dr. Tom Loran, University of Twente, The Netherlands</i>
14:30 – 15 :00	COFFEE BREAK
15:00– 15:15	Presentations: Partnerships of Yangon Technological University <i>Dr. Sao Hone Pha, Yangon Technological University</i>
15:15 – 16:00	Presentations: Partnerships of Government Departments <i>Daw Thant Zin Maw, Department of Forestry</i> <i>Daw Nilar Soe, Department of Rural Development</i>
16:00 – 16:30	Wrap-up and closing

Annex 2: Simulation exercise scenario

This is a theoretical scenario developed for the seminar on day 2. To be done in working group

1. Scenario

You are heading the Department of Geospatial Sciences of the Shwe University. Your department provides courses at B.A., M.A, PhD levels on GIS, GNSS and Remote Sensing technologies.

Based on your assessment your department has from the following strengths:

- Strong base of students
- Good reputation in-country
- Good relationships with the municipality
- Support of the government departments
- Good knowledge of field data collection
- Strong network with various disciplines across the University: engineering, geology, agriculture, computer science
- International partnerships with foreign universities for Students exchange at PhD level

It is also suffering from the following weaknesses:

- The linkage between education, research and business is not developed
- Your teachers lack exposure to advanced technologies
- Teaching methods are mainly theoretical
- Curricula contents address outdated scientific arena
- Curricula are not linked with competencies needed in the market
- Equipment and material in the GIS laboratory are limited
- Accreditation system and quality control are not up to standards

You identified opportunities to face the above challenges:

- More international organisations and private companies are tendering consultancy projects
- Project funds are available among inter-governmental organisations and international universities for ToT trainings and as well as short-term courses
- Free platforms offer access to several resourceful networks and free online courses

And threats that could hamper your strengths:

- Competition among disciplines and among universities to get funds/ projects
- Brain drain of teachers to international organisations and the private sector
- Exponential speed of technological evolution in AI, VGE, difficult to catch up
- Any university regulations that might lead to excessive restrictions on how researchers interact with communities

To address these issues, the Rector of your university defined the overall strategic orientations for the next 5 years:

- Reinforcing scientific and advanced training capabilities for teachers
- Improving educational and training ability
- Supporting financial costs through science-based projects

Your Department objectives for the next five years will be:

- Develop new funding streams through project-based collaborations
- Strengthen and refresh teachers' scientific knowledge through ToT and research-based partnerships
- Adapt new curricula to address the evolving market needs
- Adopt practical methods of teaching
- Adapt competency-based assessments



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