SUZEEYAR 2016

MYANMAR SPATIAL DATA PLATFORM CONFERENCE

16 - 18 MAY 2016, NAY PYI TAW

SuZeeYar 2016 Conference Report

Summary and recommendations

Canada

MIMU

Myanmar Information Management Unit

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

Document citation information: The Myanmar Information Management Unit, 2016, *SuZeeYar 2016 Conference Report: Summary and Recommendations* *http://themimu.info/suzeeyar-conference*

Updated: 27 July 2016

Table of Contents

Acknowledgements

This conference was planned and led by the MIMU / Myanmar Information Management Unit with the financial support of the Government of Canada. All documentation shared at the conference is available through http://themimu.info/suzeeyar-conference.

We would like to acknowledge the support of OneMap Myanmar, including inputs to the conference planning, technical support for the workshop on Day 3, logistics support from the Forest Department (Myanmar) and financial support for regional and international guest from Laos and Switzerland.

Our special thanks to those who kindly contributed with facilitation, presentations and addresses at this event, namely:

- Ambassador Mark McDowell, Ambassador of Canada to the Union of the Republic of Myanmar
- Eric Loubier, Canadian Center for Mapping and Earth Observation (CCMEO)
- Denis Hache, Natural Resources Canada
- U Shwe Thein OneMap Myanmar/ Land Core Group
- Joan Bastide, OneMap Myanmar/CDE
- Dr Myat Su Mon, OneMap Myanmar/ Forest Department Myanmar
- Kyaw Naing Win, OneMap Myanmar/ CDE
- Thomas Hoesli, OneMap Myanmar/ CDE/ Canton of Luzern
- Dr Thatheva Saphangthong, Ministry of Agriculture and Forest Laos
- Nobuhiro Ishimaru, Centre for International Cooperation on Computerization (CICC) Japan on behalf of the Geospatial Information Authority of Japan (GSI)
- Wientian Kodchabudthada, Geo-Informatics and Space Technology Development Agency, Thailand
- U Thet Oo, Myanmar Survey Department
- U Sein Min, Myanmar Survey Department
- U Tin Aung Moe, Myanmar Peace Centre
- Prof Paul Cheung, National University of Singapore, previous head of the United Nations Statistics Division
- Dr Xiaoping Wang, World Bank Group
- Robyn Johnston, IWMI Myanmar

- Sudip Pradhan, ICIMOD
- Dr David Ganz, SERVIR Mekong
- Dr. Sukit Viseshsin, GIS Co., Thailand/ ESRI
- Thomas Chai Ching Siong, SAINS Geomatics
- Dr Has Baator, Asia Air Survey Myanmar
- Zaw Naing, Mandalay Technology Ltd.
- Dr Myint Myint Khaing, Remote Sensing Department, Mandalay Technology University
- Dr Htun Ko, Geography Department, University of Yangon
- Dr Thwe Kay Hlaing, Bago University
- Taryar Maung, Tanintharyi Watch, ALARM/Ecodev
- Dr Nirmal Bhagabati, WWF Myanmar
- Yan Naung Oak, Phandeeyar

Abbreviations

Abbreviation	Full text
CDE	Centre for Development and Environment, University of Bern, Switzerland
CICC	Centre for International Cooperation on Computerization, Japan
GIS	Geospatial Information Services
HIDA	The Overseas Human Resources and Industry Development Association, Japan
ICIMOD	International Centre for Integrated Mountain Development
IWMI	International Water Management Institute
LCG	Land Core Group
MIMU	Myanmar Information Management Unit
MNREC	Ministry of Natural Resources and Environmental Conservation (Myanmar)
MOE	Ministry of Education (Myanmar)
NEP	National Plan for Electrification Myanmar
NSDI	National Spatial Data Infrastructure
NSDS	National Strategy for the Development of Statistics
OMM	OneMap Myanmar
RS	Remote Sensing
SDI	Spatial Data Infrastructure
SERVIR Mekong	Collaboration between NASA and USAID. Acronym originally from Mesoamerican Regional Visualization and Monitoring System (in Spanish)

Executive Summary

The SuZeeYar conference was conceived and led by the MIMU/Myanmar Information Management Unit with support from the Government of Canada.

Conducted over May 16-18, 2016, this conference brought together 150 leading stakeholders and experts from within Myanmar, experts from the governments of Canada, Switzerland, Thailand, Laos and Japan, and non-governmental actors to explore existing and planned spatial data platforms and activities in Myanmar.

The conference was planned in consultation with OneMap Myanmar implementing partners Centre for Development and Environment, University of Bern in Switzerland and the Land Core Group.

SuZeeYar, in Myanmar, is a "*Place for coming together*" or "*Hub*". For this Spatial Data Platform Conference it refers to the exchange of data and integration of systems in spatial data platforms – and also importantly it captures the spirit of sharing information and coordination between different organizations and across departments of government necessary to support good spatial data infrastructure.

Through panel presentations, discussions and workshops the conference has consolidated key messages to support Myanmar's spatial data platform initiatives going forward. These recommendations are for all stakeholders including the Myanmar government, humanitarian and development agencies, and members of the private and academic sectors.

The development of spatial data infrastructure within government is an important foundation for spatial data platforms. New geospatial technologies and datasets are driving location-based integration frameworks. Cross-government initiatives are underway to improve, integrate and deliver spatial data including the OneMap and NSDI initiatives.

Many bright areas of opportunity, current needs and strategic directions were identified during the conference. These are detailed below.

Policy and standards

- Champions in government are needed with a clear message of the value of integrated spatial data and systems that make the data accessible for decision makers
- A formal policy should be developed to support spatial data infrastructure and a strategy to implement such policy over time
- Myanmar government departments should take a pragmatic approach to improve internal systems and find partners to advance short term data integration and standardization
- Spatial data standards including metadata are required early to support data cataloguing and data interoperability. These can usefully draw on international best practices and be tailored to Myanmar's needs
- Coordination is required with the National Strategy for the Development of Statistics (NSDS)

Partnerships

- There is a need to clarify roles of Ministry of Education (MOE) NSDI and Ministry of Natural Resources and Environmental Conservation (MNREC)
- The MOE NSDI project plans require further clarification, in particular to stakeholders outside of NSDI committee meetings
- OneMap Myanmar and interest from participants for improved collaboration Most NGOs and regional initiatives at the conference presented plans to work with and support aspects of the OneMap Myanmar initiative
- Regional initiatives such as SERVIR Mekong and ICIMOD are planning further work and engagement with local partners to support capacity building with geospatial data and tools
- Initiatives exist that focus on particular thematic data, such as Water Information System for Data Management (WISDM) or National Electrification Plan (NEP) project, who are willing to partner with cross-thematic initiatives

- Private partnerships add significant value to spatial data platform implementation, bringing in expertise and efficiencies. Support must be targeted, cost-effective, well-managed and embedded within partner organisations/government to be sustainable
- Crowdsourcing and community approaches provide strong opportunities to:
    - engage with citizens and civil society in the generation and verification of data
    - encourage bottom up approaches as a complement to government led initiatives
    - tap into the possibilities offered by the development of mobile application and the extension of the internet network coverage
    - empower citizens to become actors of change

Academic sector partnerships and potential

- Universities are expanding programs and very open to partnerships. This includes the creation of new Masters and Doctorate programs and partnerships such as the one between Mandalay Technology University and SERVIR Mekong
- The sector has a strong need for resources to deliver on objectives. For national systems, there is a large dividend investing in people, through training and internships to build targeted skills and deliver on research outcomes
- Academic sector has the potential to innovate with data research and systems and therefore be treated as long-term investment by stakeholders including private sector and larger initiatives

Capacity building across government

- Resources are needed for systems such as licenses, software and hardware within departments and for cross-government initiatives such as OneMap and NSDI
- Staff capacity building: government participants requested training and interest in developing new skills for modern systems
- Data processing support: assistance was requested with processes to improve data quality, integrate data or design to support interoperability, and data sharing

Data collection and provision with geospatial services and other architecture

- New systems architectures and technologies, including web, can facilitate innovative methods of data sharing
- Such systems allow greater control over management and accessibility of data for specified features and users of spatial data platforms

Communication and raising awareness

- Communication products and assessments are needed to highlight the value of integrated spatial data and spatial data infrastructure, the value of new products to Myanmar
- Communication and mechanisms to share knowledge across sectors, project status and explore opportunities for collaboration

Purpose of the document

This report provides a synthesis of the proceedings of SuZeeYar 2016 Myanmar Spatial Data Platform Conference including an overview of the presentations from the six Panel Sessions and the feedback from participants during the workshop on the final day.

This report has been produced to provide a summary as a resource to support participants from all sectors to better understand the current situation of spatial data system development in Myanmar. It draws on the discussions held in the conference and the inputs from presenters and participants to provide recommendations and opportunities for future work. Feedback from the participants from Myanmar in particular highlighted a number of areas where activities can be focused on current needs and how future work can address these needs.

Summary of proceedings

The conference was presented in a series of Panel Sessions:

- Panel Session 1 – National spatial data platform implementations from other countries
- Panel Session 2 – Policy, legislation and standards: international examples and lessons
- Panel Session 3 – Ongoing projects in Myanmar: Future spatial data platforms
- Panel Session 4 – Private sector support for National Spatial Data Platforms
- Panel Session 5 – Academic sector support for National Spatial Data Platforms
- Panel Session 6 – Community and NGOs' role in spatial data verification and validation
- Workshop session: questions, needs and future activities

The following text summaries major points from the Panel Sessions including discussion. The summary groups Session 1 and Session 2: which focus on National Platforms, NSDI and related government initiatives from abroad including policy and standards with input from Myanmar; Session 3 and Session 6: which covers projects underway in Myanmar, including OneMap, those at a regional scale and also NGO and other community based projects; and Session 4 and Session 5: which cover two key stakeholder groups role in Spatial Data Platforms, the private and academic sector.

The main points from the Panel Sessions are discussed further in the final section of this report, *Recommendations*.

National Spatial Data Infrastructure from abroad and policy challenges (Session 1 and Session 2)

National systems of NSDI and related spatial data platforms were presented from Canada, Switzerland, Thailand, Japan and Laos. They showed that:

-
- The systems evolve over time to reach their optimal arrangements, with policy and system improvements that span many years and even decades. It is an ongoing process of improvement and fine-tuning in collaboration with the many government and non-government partners which requires systems and infrastructure to adapt as new technology creates new opportunities
- Governance approaches to developing spatial data infrastructure can be driven by either top-down or bottom-up approaches or a combination of these. The Laos Decide platform was distinct as a system driven by a bottom-up approach that was then adopted by government
- Government led spatial data platforms generate valuable datasets and act as decision tools for planning in government and other sectors
- Government systems can successfully provide different levels of access to different users. It is common in early stages of development for spatial data platforms provide access to government only. Increasing adoption of “Open Government” principles in nations e.g. Canada and community access to new web technologies e.g. Google Maps, are drivers for spatial data platforms to allow more open access to data for all users

This session included discussion on how to approach spatial data policy in Myanmar and how to obtain the endorsement of policy makers. Actions proposed for Myanmar stakeholders to address this included:

- Focus on the value proposition for decision makers, e.g. how will this help respond to disaster and save more lives, how will this improve efficiency and better decision making, how much new investment will be possible?
- Start with the question “Is it worth it?”. This can be answered positively and the value can be quantified as suggested by the example of a study from Canada which showed billions of dollars of economic value to their national economy

(http://www.nrcan.gc.ca/earth-sciences/geomatics/canadas-spatial-data-infrastructure/cgdi-initiatives/canadian-geomatics). The United Kingdom, New Zealand and others governments have also done similar assessments and have come to the same conclusions

Whilst waiting for the policy implementation process within government, the focus should be on working with those who are interested to collaborate. This entails:

- A step by step, organization by organization approach to share data amongst those willing to work together, to innovate and demonstrate new possibilities.
- This demonstration of value will attract new supporters and grow the coalition. Over time it will be instructive for policy makers and support the adoption of new policies.
- It is important to have advocates for the new changes, and building relationship with advocates is important. Such advocates can explain the value proposition to others, with examples to demonstrate the concepts, and can become a "champion" for the changes

The adoption of Spatial Data Standards is a key step to be taken by government:

- Recognising that Myanmar should start early with such standards and can learn from the implementations of other nations and existing national systems, including lessons learned from both successes and failures. Initiatives such as OMM and NSDI are great opportunities to deliver such standards
- The concept of interoperability allows systems to work well together to exchange data – it requires sharing metadata effectively for such system processes. Data can be harmonized in some ways, but it is difficult to reach agreement in all areas for one "common model". It is important to allow for differences in datasets and support interoperability through common processes to document and understand the differences (data modelling)
- An early priority is to catalogue datasets using metadata standards

The National Strategy for the Development of Statistics (NSDS) is underway as a mechanism to connect statistics across government. As spatial data is a key integrating framework there is strong requirement to ensure standards and policies are consistent and complimentary across activities.

New systems architectures and technologies including web-based platforms with cloud processing and data services can facilitate innovative methods of data sharing while allowing data providers to maintain control and custodianship over their data. This means that data does not need to be centralized to support integration.

Current projects: Myanmar government, NGOs including Myanmar and regional based projects (Session 3 and Session 6)

There are many activities underway open to new collaborations and data sharing. OneMap Myanmar project (MNREC, with CDE and LCG implementing partners) was the largest, broadest Myanmar focus spatial data project presented. The NSDI project also in the Myanmar government (MOE with HIDA/CICC support) was discussed but not presented.

The OneMap project, despite the name referring to a single map, will be composed with a series of products and tools, providing cohesive ecosystem of land information resources to support decision-making. This will engage both with government and non-government actors with different tools targeting user needs. Most of the NGOs and regional initiatives included plans to work with and support aspects of the OneMap initiative in their presentations.

Regionally based initiatives presented were: SERVIR Mekong which covers the lower Mekong delta countries (Thailand, Laos, Cambodia, Vietnam and Myanmar); the International Centre for Integrated Mountain Development (ICIMOD) which focuses on the Himalaya region including Myanmar; and OpenDevelopment Myanmar which is a branch of the regional initiative, OpenDevelopment Mekong. Each initiative is looking to expand and improve their Myanmar spatial data products and tools and is keen to engage with government and other partners. They have spatial data products and deployed with a track record of useful application development in other countries.

NGOs are currently producing or starting to produce high value data to support decision making. Examples include WWF with the Natural Capital program mapping forests and related carbon across Myanmar, Ecodev-ALARM with the Natural Resources Watch program – mapping forest change and mining developments and IWMI with the Myanmar Water Information System for Data Management. Common issues for such NGO programs include:

- Access to official data has been restricted
- Consistency problems exist across different sources

- Partnerships are critical: spending time to work with stakeholders is essential to getting the data right, understanding sensitivities and building trust
- In the absence of available data by authorities, open access data and methodologies are valuable inputs e.g. global remote sensed (RS) imagery and analysis for assessing forest cover loss

Some of these initiatives, such as the ALARM-Ecodev Tanintharyi Natural Resources Watch Platform project, include a focus on crowdsourced data. This approach is an effective and valuable way to get data and validate data. It requires:

- Work with stakeholders – advocacy to explain the value and strengthen understanding of any potential risks
- Support to understand the data – is the story of the data accurately represented?
- Monitoring of the ground situation and validation
- A design to complement other data analyses and gather community feedback, for example to verify data on mining areas identified through remote sensing analysis
- Processes and system design that ensure the security of the contributors of the data

Development of tools by local NGOs is a technical challenge, especially the step of application development for organisations with limited IT capacity. One opportunity to resolve this is through programs where IT community can provide innovative solutions to community problems. For example, Phandeeyar is an organization that engages with the Myanmar IT community and hosts events such as hackathons to develop innovative applications that meet user needs. Such events are sponsored with prizes and recognition for the IT companies that participate and the solutions can be adopted by NGOs.

Private sector and Academic sector support (Session 4 and Session 5)

The private sector has an important role in the development of Spatial Data Platforms in that it brings expertise and efficiencies. The extent of private sector involvement will depend on the project, however the government always needs to be responsible for some areas including standards development, supervising contractor quality control and managing deliverables.

The presentation from ESRI Thailand highlighted recent changes in the geospatial industry and new opportunities which are now available. A particular development has been the fundamental evolution of the term GIS from Geospatial Information Systems to Geospatial *Information Services*. This paradigm shift is a function of web based technologies, new applications that consume geospatial services and interactive systems in which users produce data. This architectural shift has important implications for the development of national data platforms and related spatial data infrastructure including:

- Greater control of the process of data access including restrictions,
- Distributed systems are used where data custodians can maintain greater oversight of data whilst still delivering data to support a common spatial data platform for user access, and
- Cloud and server hosting which makes the deployment and maintenance of systems easier

With regard to the academic sector, there are significant opportunities for collaboration. This includes collaboration with cross-government initiatives such as OneMap but also more established collaboration with the government, NGOs and private sector.

The investment in academic sector capacity building presents mutual benefits, including:

- Training and internships which provide skills to university graduates and benefit the university with applied research and industry expertise
- Which means a better trained workforce for the government, private sector and other organisations

- The development of research and innovative solutions that can be adopted by government and private sector

Presentations also highlighted that universities in Myanmar face serious resource constraints with limited access to data, tools and training. The push to expand and develop universities has left many key staff overstretched. Support to strengthen capacity should be targeted so that it minimises the extra burden in the short term on such staff.

Workshop session on questions, needs and future activities

The conference held a workshop on the third day following the Panel Sessions with presentations and discussion involving government and non-government stakeholders as well as the international experts. The workshop reviewed the content of the Panel Sessions, with participants identifying outstanding questions. This was followed by further group work to review these questions – analysing the needs and potential directions for future activities.

The table below summarises key questions raised by participants and the future directions identified. These outputs and activities are discussed further in the final section of this report, *Recommendations*.

Question Category *Question/issue*	**Legal/ Policy implementation**	**Information resources required**	**Improved collaboration**	**Support and government buy in from high level**	**Training and resources**	**Advanced GIS methodology and tools**
OneMap and NSDI						
How do they link?/ How to move forward with two projects?		X	X			
NSDI policy	X	X				
Mandate for NSDI	X			X		
Standards						
Projection/datum					X	
What kind of standards – global standards that can be adopted?		X			X	X
MIMU Pcode system?		X				
metadata					X	X

Question Category *Question/issue*	**Legal/ Policy implementation**	**Information resources required**	**Improved collaboration**	**Support and government buy in from high level**	**Training and resources**	**Advanced GIS methodology and tools**
Partners in SDI initiatives						
How to support departments			X		X	
Concerns about data sharing	X	X			X	
Capacity building plan			X		X	
Academic sector – how to participate?			X			
Data (collection)						
How will data be collected?		X				
How will data be available?		X				
Strategy						
Use of data	X			X	X	
Security of data/ownership		X		X		X
Data sharing		X		X	X	X
Work plan and sustainability of NSDI			X		X	
Support to academics	X	X		X	X	X
Restricted data level						
Intermediate solutions before standards			X		X	
Architecture						
Advantages of different solutions		X			X	X

Question Category *Question/issue*	**Legal/ Policy implementation**	**Information resources required**	**Improved collaboration**	**Support and government buy in from high level**	**Training and resources**	**Advanced GIS methodology and tools**
GIS to decision support/interface to data					X	X
Capacity Building						
Lack of resources					X	
Data conversion to digital					X	X
sustainability			X			
Raising Awareness						
How to make the public aware of activities		X		X		
Communicating Value to key supporters		X		X		

Recommendations

The SuZeeYar conference, through panel presentations, discussions and workshops, consolidated key messages to support Myanmar's spatial data platform initiatives going forward. These recommendations are for all stakeholders including the Myanmar government, non-governmental actors, the academic and private sectors.

The development of spatial data infrastructure, especially standards, policy and data improvements, within government is an important foundation for spatial data platforms. New geospatial technologies and datasets are driving location-based integration frameworks. Cross-government initiatives are underway to improve, integrate and deliver spatial data including the OneMap and NSDI initiatives.

Further, each government department or organisation with spatial data resources requires the systems, processes and resources to manage their own spatial data – namely an internal Spatial Data Infrastructure – while also collaborating on centralized systems of spatial data standards. For example, the Survey Department is currently in the process of drafting a Survey Law, which intends to regulate the surveying activities and the use of surveying data in Myanmar. Since today user access is very restricted, and will cover fundamental datasets required across all government and non-government spatial data activities, this could be an opportunity to consider increased access to users for spatial data in Myanmar.

The conference highlighted that, in approaching policy, champions are required to advocate for the improvement of policies and resources that support integrated spatial data and platform activities. These champions require need strong message of the value of integrated spatial data infrastructure – clear messages with the benefits in financial and non-financial (e.g. lives saved or improved) terms to the nation as well as demonstrations of the potential system that can be displayed to make the discussion less on abstract notions and more visually compelling.

The government is receptive and eager for development. With resources constraints at a number of levels, capacity building needs were clearly articulated by participants from government. This is especially the case with training, provision of software, licenses and hardware for departmental systems.

A key part of the capacity building also starts with improved knowledge and understanding of data sharing arrangements. This includes new innovative technologies such as web services, distributed system architectures and other approaches that allow for data hosting by data custodians and data sharing on a more advanced, integrated level. As such systems allow more refined data management that support custodianship by responsible departments, policies must also reflect these technical possibilities. How other countries address this nexus between policy and new technology can be used inform the options for government in Myanmar.

These policies will take time to develop and will remain an area of focus. However, this should not mean that system development remains in waiting. As was seen by a number of international examples, successful policy and implementation often begin with a “coalition of the willing” approach. That is, departments and other willing partners can act to show prototypes and make progress on internal or cross department goals through innovative solutions that can then be later adopted and revised by broader government strategies and project implementations.

Standards and data harmonisation is at an early phase of development. It was noted that Myanmar is in a prime position to draw on international experience to avoid the failings experienced by other countries with their standardisation and gain from the lessons learned. OMM initiative in partnership with MIMU and the NSDI initiative are great opportunities to develop such Myanmar specific standards.

Technical questions were posed on standards such as datum and projection. This points to the need for further capacity support and demonstrations to assist with training on conversion

between reference systems, in particular on large scale and volume of data as is handled by government.

Concurrently, the National Strategy for the Development of Statistics (NSDS) and the related Statistics Law are being implemented. This is an approach to harmonize statistics data across government and improve data access and systems integration that parallels the concepts in spatial data infrastructure projects such as OneMap and NSDI. It is essential that these initiatives share standards, coordinate policy development and system design to meet data interoperability requirements that are common across initiatives. This will optimise how decision makers can access data across the Myanmar government and increase the possibilities of new information products.

The OneMap project, despite the name referring to a single map, will be composed with a series of products and tools, providing cohesive ecosystem for land information resources. This will engage both government and non-government actors with different tools targeting user needs. There were important clarifications on the nature of the project, and differences with the MOE NSDI project with support from HIDA/CICC (Japan) that is also underway. These clarifications only were available from the OneMap project and it would be valuable to have formal explanations on the NSDI project from the project sponsor and supporters. Specifically, the conference participants expressed further need in understanding the NSDI project in the context of OneMap – exploring how the projects can work coherently and deliver on complementary goals in a coordinated way is an important follow up activity.

The academic sector is a very significant and key partner for spatial data system development and implementation. They have researchers and students with current projects and potential for further projects to investigate data and new approaches to resolve data development, processing, harmonization and systems. They have identified significant resource constraints including licenses for software and hardware. Also, building human resource capacity in strategic ways that raise the skills of the whole team, including management and students, and that do not focus on just a few key staff. Also, training on advanced approaches, support with development curriculum and strengthening mechanisms for sharing best practice were identified

as important goals in the short term. With the push to expand and develop, it is important to recognise that many key staff in universities are overstretched. This capacity support should be targeted so that it minimises the extra burden in the short term on such staff. OneMap has planned further collaboration with the academic sector.

The private sector should be included in part of the equation. They bring experience, more advanced and best practice approaches and efficiencies to the development of national spatial data platforms. Support from the private sector must be targeted, cost-effective, well-managed and embedded within partner organisations/government to be sustainable. It was expressed that oversight bodies are a government function that required time and experience to develop.

NGOs and CSOs have great potential to support the government with their spatial data platform projects. This is both in terms of data collection to provide new information resources and support with the development of platform system and approaches that could be adopted by government. The international projects such as SERVIR Mekong, ICIMOD, IWMI and WWF are developing datasets and platforms that offer very new data products from new innovative remote sensing and other methodologies that offer new insight with advanced tools and science. ALARM-Ecodev is exploring local community engagement and crowdsourced information, as is Open Development Myanmar. The Integrated River Basin and National Electrification Plans are developing integrated cross sector datasets that have great potential value. There are challenges however there are also many potential benefits of such approaches.

These non-government data sources can add great value to government initiatives. The inclusive ecosystem approach of OneMap for example, with engagement of non-government sector, provides pathways for non-government data production to complement the work of government departments on spatial datasets.

As the number of projects and initiatives continues to increase in Myanmar this is a critical point for improved coordination. Such forums as the SuZeeYar conference are required to support ongoing engagement and information sharing between stakeholders. Existing geospatial

information sharing groups, such as the GIS Working Group hosted by MIMU, and other activities should be strengthened, broadened and given greater membership. Large initiatives such as OMM and NSDI which bridge sectors and stakeholder groups should provide forums and facilitate coordination between stakeholders, giving timely information of their project plans to support improved planning – to maximise the value of project contributions and minimise duplication across activities.

References

For presentation and conference overview material, please see:
http://themimu.info/suzeeyar-conference

Other organization and initiative references can be found here:

- MIMU http://themimu.info/
- OneMap https://cdeweb4.unibe.ch/Pages/News/149/OneMap-Myanmar-New-CDE-project-launched.aspx
- Servir Mekong https://www.servirglobal.net/Regions/Mekong
- NSDS: http://www.unsiap.or.jp/programmes/ms_materials/ms12/T2_Recent%20Statistical%20Development_MMR.pdf