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Governance - Risk - Compliance

Lao PDR – FlexiCadastre into South East Asia!

Carolyn Holness

FlexiCadastre User Conference, Cape Town
February 7th – February 8th, 2014

spatial dimension

Project overview

To create a fully functioning Mineral Cadastre Management System (MCSC)

for

Government of Lao PDR

Project overview

- Local Partners

  - Mekong Consultants: Chorn Nak and Ian Thomas
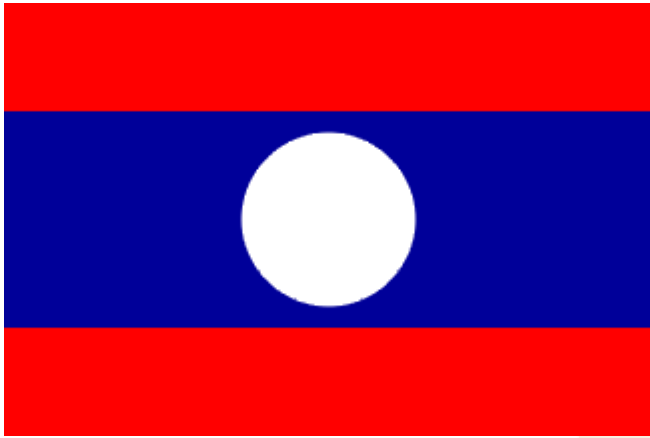

  - Geomatics Company Limited: Soulixay Inthasone

Where is Laos?

Where is Laos?

Vientiane

Vientiane

Vientiane

Vientiane

Vientiane

Vientiane

Who is our client?

- Department of Geology and Minerals (DGM) in the Ministry of Natural Resources and Environment (MONRE)

    - Responsible for Reconnaissance, Prospecting Licenses, Exploration Licenses and Pre-Feasibility Study phase
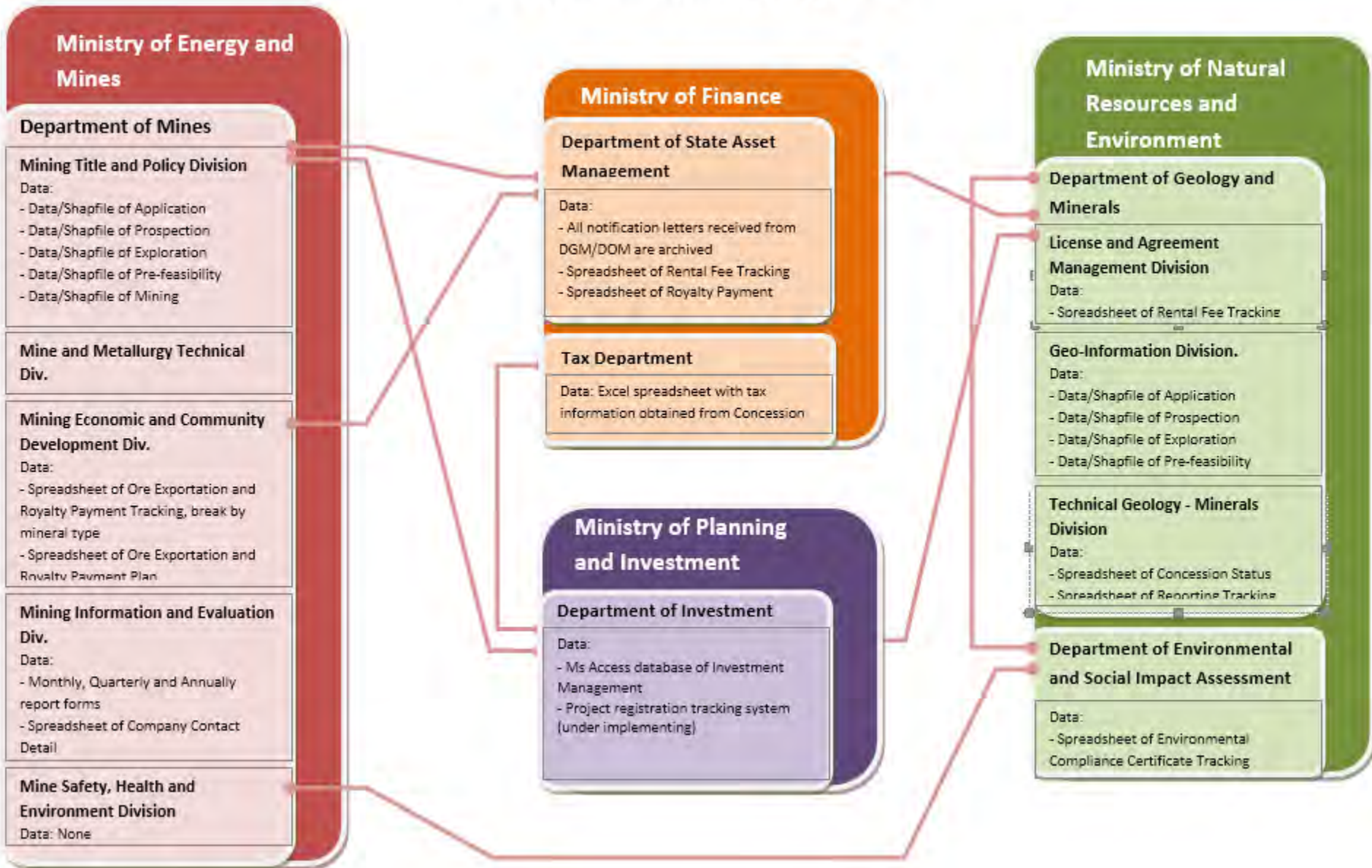
Who is our client?

And

- Department of Mines (DOM) in the Ministry of Energy and Mines (MEM)
    - Responsible for Detailed Feasibility phase and Mining Licenses
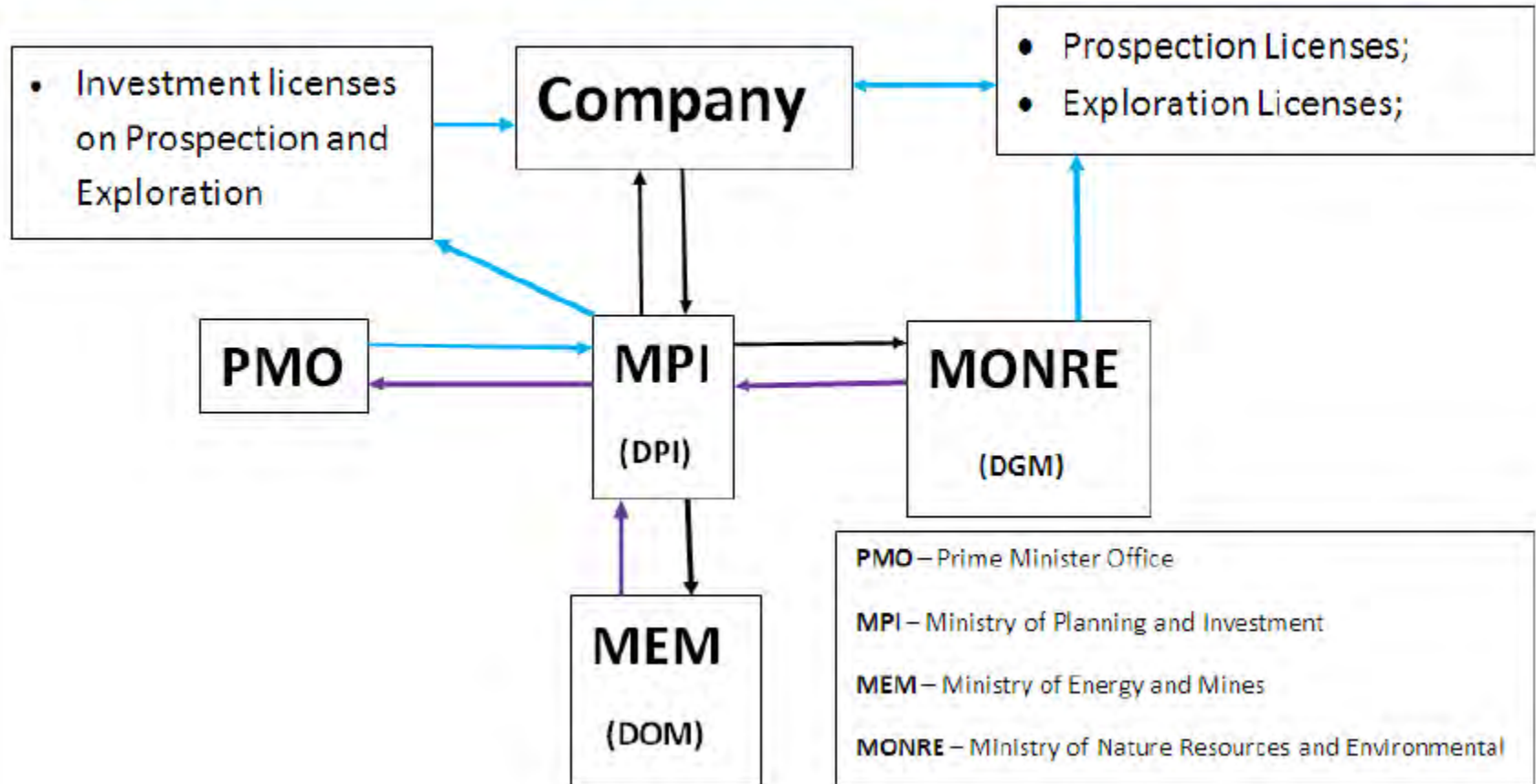
Other Ministries

- Also other ministries involved in the license issuing and monitoring:

- Ministry of Planning and Investment
  - Responsible for negotiating and approving Concession and Mining Agreements with companies, needed before the company can apply for any licenses

- Ministry Finance
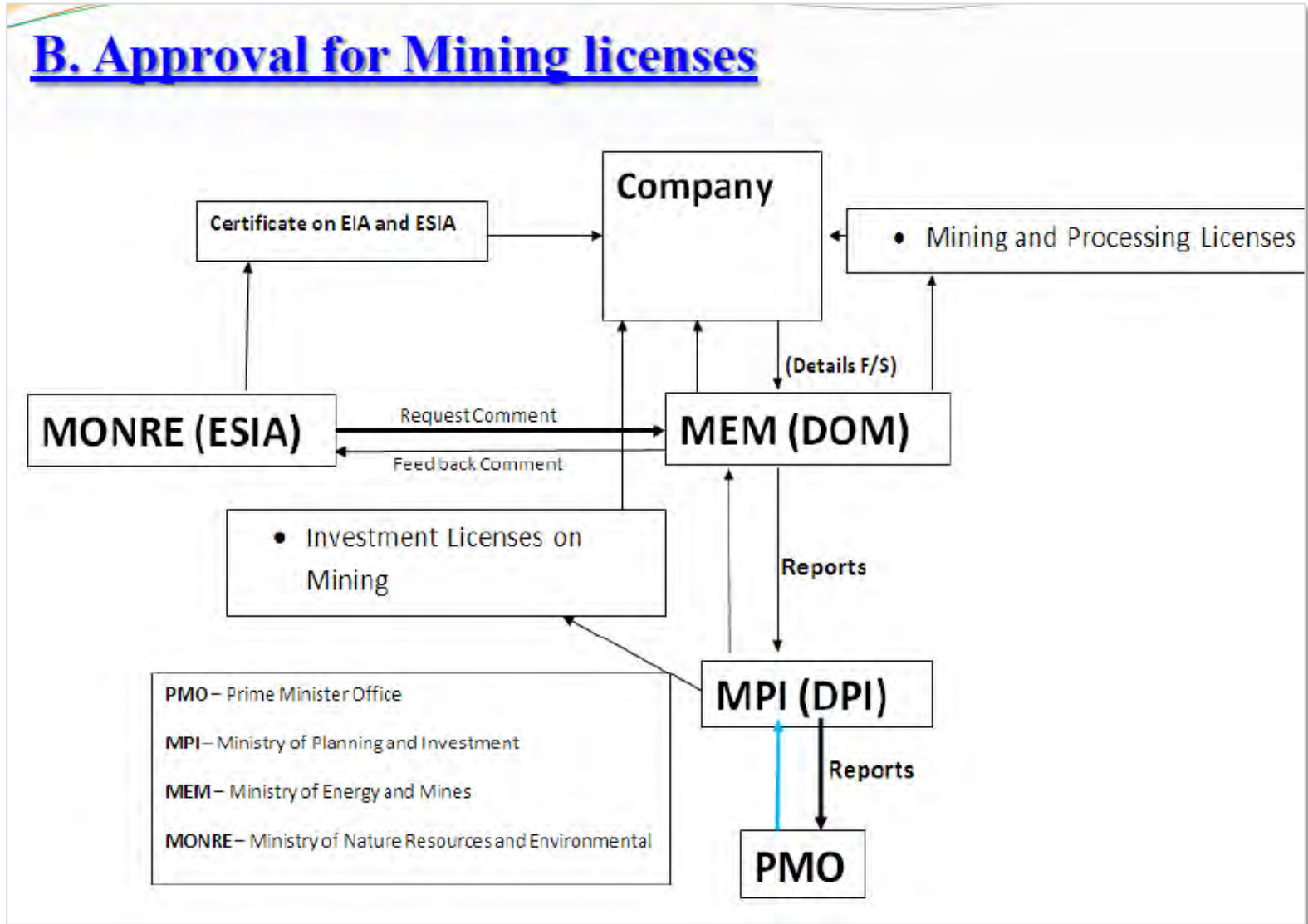 - Responsible for rental fee and royalty payments as well as tax collection

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Organizational Diagram

Ministry of Energy and Mines

Department of Mines

Mining Title and Policy Division
Data:
- Data/Shapfile of Application
- Data/Shapfile of Prospection
- Data/Shapfile of Exploration
- Data/Shapfile of Pre-feasibility
- Data/Shapfile of Mining

Mine and Metallurgy Technical Div.

Mining Economic and Community Development Div.
Data:
- Spreadsheet of Ore Exportation and Royalty Payment Tracking, break by mineral type
- Spreadsheet of Ore Exportation and Royalty Payment Plan

Mining Information and Evaluation Div.
Data:
- Monthly, Quarterly and Annually report forms
- Spreadsheet of Company Contact Detail

Mine Safety, Health and Environment Division
Data: None

Ministry of Finance

Department of State Asset Management

Data:
- All notification letters received from DGM/DOM are archived
- Spreadsheet of Rental Fee Tracking
- Spreadsheet of Royalty Payment

Tax Department

Data: Excel spreadsheet with tax information obtained from Concession

Ministry of Planning and Investment

Department of Investment

Data:
- Ms Access database of Investment Management
- Project registration tracking system (under implementing)

Ministry of Natural Resources and Environment

Department of Geology and Minerals

License and Agreement Management Division
Data:
- Soreadsheet of Rental Fee Tracking

Geo-Information Division.
Data:
- Data/Shapfile of Application
- Data/Shapfile of Prospection
- Data/Shapfile of Exploration
- Data/Shapfile of Pre-feasibility

Technical Geology - Minerals Division
Data:
- Spreadsheet of Concession Status
- Soreadsheet of Reporting Tracking

Department of Environmental and Social Impact Assessment

Data:
- Spreadsheet of Environmental Compliance Certificate Tracking

Overview: License Approval Process

A. Approval procedure for prospection and exploration licenses

- Investment licenses on Prospection and Exploration

Company

- Prospection Licenses;
- Exploration Licenses;

PMO

MPI (DPI)

MONRE (DGM)

MEM (DOM)

PMO – Prime Minister Office

MPI – Ministry of Planning and Investment

MEM – Ministry of Energy and Mines

MONRE – Ministry of Nature Resources and Environmental

Overview: License Approval Process

B. Approval for Mining licenses

Company

Certificate on EIA and ESIA

• Mining and Processing Licenses

(Details F/S)

MONRE (ESIA) — Request Comment → MEM (DOM)
MONRE (ESIA) ← Feed back Comment — MEM (DOM)

• Investment Licenses on Mining

Reports

PMO – Prime Minister Office

MPI – Ministry of Planning and Investment

MEM – Ministry of Energy and Mines

MONRE – Ministry of Nature Resources and Environmental

MPI (DPI)

Reports

PMO

Challenges – Organisational Structure

- Very recent re-structuring

- Department of Geology and Minerals (DGM) moved out of Ministry of Energy and Mines to the newly created Ministry of Natural Resources and Environment

- Located in different buildings, in different parts of town

- Temporary offices for DGM with no internet

- Communication and data sharing between departments is difficult

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Challenges – Organisational Structure

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Challenges – Data

- No single data repository

- Separate shapefiles kept by the Geo-Information division at DGM (for PL, EL, FS) and DOM (ML)

- Sharing of data by copying onto external devices

- Geo-Information division not always informed when ground is relinquished

- Geo-Information division prints concession maps for sale to public

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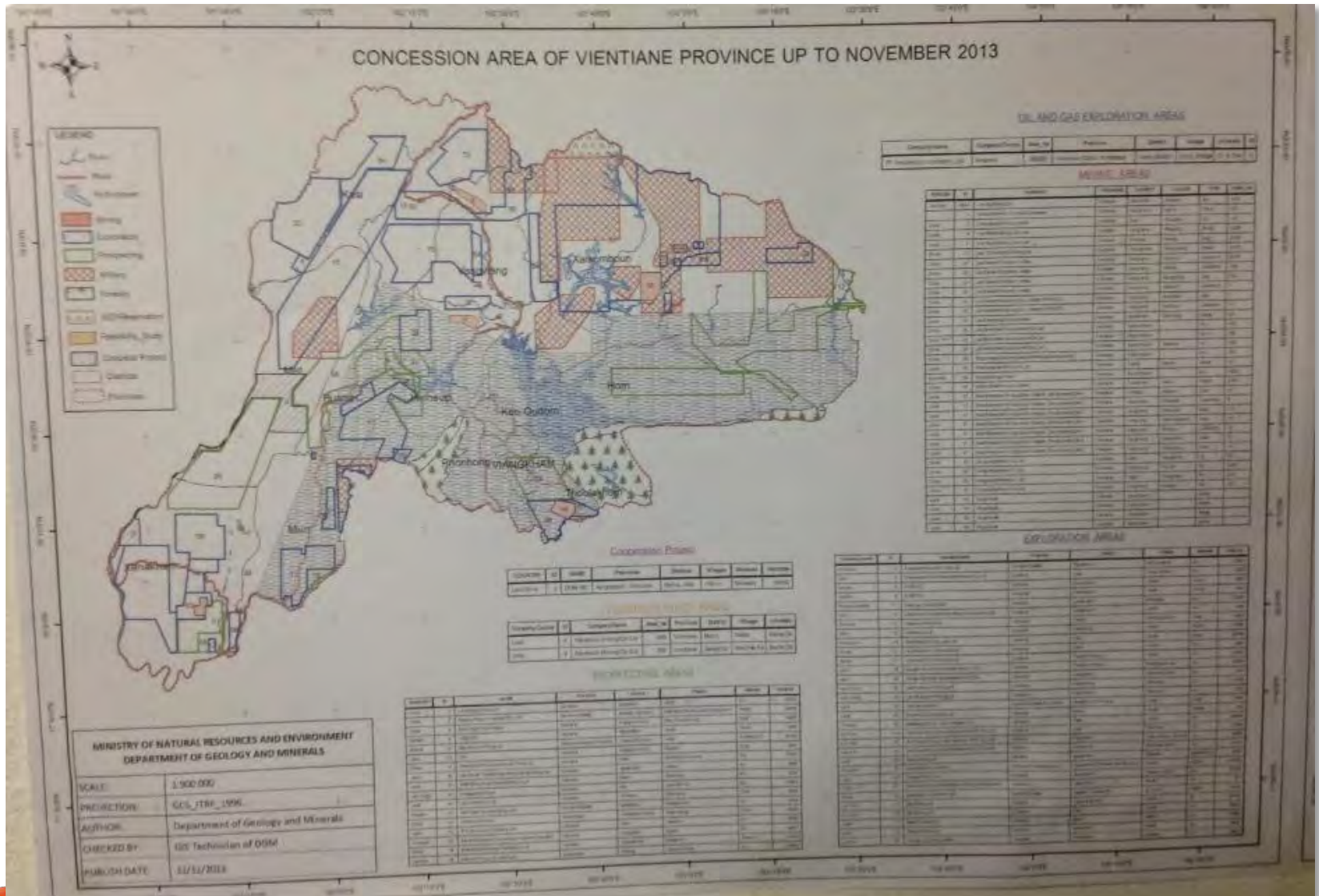
Challenges – Data

Challenges – Data

- Many other spreadsheets kept separate to the GIS data with key license information e.g. expiry dates, rental fees

- Data in spreadsheets and shapefiles does not always match up

ບັນຊີບໍ່ວິສັດວິງທືນດ້ານບໍ່ແຮ່ ໃນໄລຍະຊອກຄົ້ນ-ສ່າຫຼວດ-ສ້າງບົດອີພາກເບື້ອງຕົ້ນ

ລຳດັບ ບໍ່ວິສັດ	ລຳດັບກິດ ຈະການ	ຊື່ບໍ່ວິສັດ	ປະເພດຫ້າງປີ 2012-2013	ເບີໂທະລະສັບ	ປະເພດວິ ຊາທະກິດ	ກິດຈະການ	ຊະນິດແຮ່	ເນື້ອທີ່ສຳປະທານ ເຮັກຕາ	ບ້ານ	ທີ່ຕັ້ງເຂດສຳປະທານ ເມືອງ	ແຂວງ	ນັບແຕ່ວັນທີ່	ອັນຫມົດ ອາຍຸສັນຍາ	ຕໍ່ສັນຍາ ຮອດວັນທີ່	ໃບອະນຸຍາດຫມົດອາຍຸ ແຕ່ວັນທີ່	ຮອດວັນທີ່	ຄ່າເຊົາ
		ແຂວງຜົ້ງສາລີ															
1	1	ພັດທະນາພະວົງຕູນ ຮ່ວມໃຈ ຈຳກັດ (CCOCO	F	55468484	ຈປ ຈີນ	ຊອກຄົ້ນ	ຖ່ານຫີນ	7,200	ສະຫວ່າງ	ບອດອ	ຜົ້ງສາລີ	19/4/2012	18/4/2018		19/4/2012	18/4/2014	8,000
2	2	ສະໄຕຕານຮື່ອ ມາຍນິ່ງ ຈຳກັດ	ໂຄງການໃໝ່	55512015	ລາວ	ຊອກຄົ້ນ	ແຮຄຳ, ທອງ	30,000		ຂວາ	ຜົ້ງສາລີ	22/4/2013	21/4/2019		22/4/2013	21/4/2015	
3	3	SADEC MINING CO., LTD	ໂຄງການໃໝ່		ອື່ນໆໂດຍເຊ	ຊອກຄົ້ນ	ຖ່ານຫີນ	30,000	ທົ່ງຈາງຟ້າງ	ບອດອ	ຜົ້ງສາລີ	30/4/2013	29/4/2019		30/4/2013	29/4/2015	5,000
4	4	ກວາງຊີບານນິ່ງ ຈິງຄຳ ບແຮ່ ລາວ ຈຳກັດ	ໂຄງການໃໝ່	22002808	ຈປ ຈີນ	ຊອກຄົ້ນ	ຖ່ານຫີນ	11,800	ທຸຈາງຟ້າງ	ບອດອ	ຜົ້ງສາລີ	8/7/2013	07-Jul-19		8/7/2013	7/7/2015	5,000
		ແຂວງຫຼວງນ້ຳທາ															
5	5	ອານັນຕາ ລາວ ຈຳກັດ	A			ກາບາດາ	ຊອກຄົ້ນ	ແຮ່ທອງ	17,000		ວອງ	ຫຼວງນ້ຳທາ	20/6/2008	19/6/2013	ກາວັ້ງຍະເບີບຕໍ່ອາຍຸສັນຍ			5,000
6	6	SanYan Mining Co., Ltd	B	56662216	ຈປ ຈີນ	ຊອກຄົ້ນ	ແຮ່ທອງ	33,600		ຫຼວງນ້ຳທາ-ອຸດົມໄຊ	ຫຼວງນ້ຳທາ	16/12/2011	15/12/2017		16/12/2011	15/12/2013	10,000
7	7	ແຮອເຈັກ ມາຍນິ່ງ ຈຳກັດ	ໂຄງການໃໝ່	55547844	ລາວ	ຊອກຄົ້ນ	ຖ່ານຫີນ	100	ນາເຕີພ	ຫຼວງນ້ຳທາ	ຫຼວງນ້ຳທາ	29/3/2013	28/3/2019		29/3/2013	28/3/2015	1,000
		ແຂວງອຸດົມໄຊ															
		ແຂວງໄຊຍະບຸລີ															
8	8	ເຕິ່ຽງານ ລາວ ມາຍນິ່ງ ຈຳກັດ	B+	23393634	ຈປ ຈີນ	ຊອກຄົ້ນ	ຊືນ-ສ້າງທະຣ	4,365	ບຸ່ງເວະ	ເມື່ອ	ບໍ່ແທ້ວ	31/10/2012	30/10/2016		8/3/2013	7/3/2014	10,000
	9					ຊອກຄົ້ນ	ເຫ້ຼກ-ຊືນ,	10,228							31/10/2012	30/10/2013	
		ແຂວງໄຊຍະບຸລີ															
9	10	ລາວຍຸນນາວ ມາຍນິ່ງ ຈຳກັດ	B+	021 312859	ຈປ ຈີນ	ຊອກຄົ້ນ	ແຮ່ທອງ	42,600	ບາດອກໄມ້	ແຕ່ງຫ້າວ	ໄຊຍະບຸລີ	18/1/2011	17/1/2017		18/1/2013	17/1/2014	5,000
10	11	ໂດມິນຽນ ຝຶ່ງຫຍືງ ນີຫຼີ່ວາຍ ຈຳກັດ	B+	55518668	ວິໄລຈະໂງເວດ	ຊອກຄົ້ນ	ທອງ-ເຫ້ຼກ	48,820		ພຽງ-ປາກລາຍ	ໄຊຍະບຸລີ	6/1/2012	5/1/2018		6/1/2012	5/1/2014	10,000
11	12	ອອດໂດວິໝຸນ ບໍ່ແຮ່ (ລາວ) ຈຳກັດ	B+	22214232	ຈີນຣ່າງກ້າງ	ຊອກຄົ້ນ	ທອງ-ເຫ້ຼກ	19,400	ປາກວາຍ-ທົ່ງມືໄຊ-ພຽງ		ໄຊຍະບຸລີ	3/11/2011	2/11/2017		3/11/2011	2/11/2013	10,000
	13							13,000									
12	14	ເຫ້ິບປາວວດີ ມາຍນິ່ງ ລາວ ຈຳກັດ	B	55658585	ຈປ ຈີນ	ຊອກຄົ້ນ	ແຮ່ທອງ	38,600	ບຸງໃຫຍ່	ໄຊຍະບຸລີ	ໄຊຍະບຸລີ	19/1/2012	18/1/2018		19/1/2012	18/1/2014	5,000
13	15	ພີເຮ່ສແຊວ ບໍ່ແຮ່ ຈຳກັດ	B	22345678	ລາວ	ຊອກຄົ້ນ	ແຮ່ທອງ	18,000	ບ້ານ	ບໍ່ແຕນ	ໄຊຍະບຸລີ	13/6/2012	12/6/2018		6/13/2012	6/12/2014	5,000
14	16	ມ່ວະທ້ອ ເຍບຊຸນ ບໍ່ແຮ່ ຈຳກັດ	B+	55937772	ຈປ ຈີນ	ຊອກຄົ້ນ	ແຮຄຳ, ທອງ	6,000	ໂກກະທວັ້ງ	ປາກວາຍ	ໄຊຍະບຸລີ	7/6/2012	6/6/2018		7/6/2012	6/6/2014	5,000

Challenges – Data

- ➢ Lots of data clean-up
- ➢ Checking of physical documents for correct and up-to-date information

Challenges – Regulations

- Mining Law and Regulations are not very detailed

- Terms of a license (e.g. rental fees, license periods) are determined by the Concession/Mining Agreement negotiated between a company and MPI

- This means that each license can have different rates & terms making it more difficult to model in FlexiCadastre

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- Lao (or Laotion) which uses Lao script

ນີ້ແມ່ນສິ່ງທິສບບລາວບິ່ງຄົຂຽນໄວ້ຍູ່ໃນອັກສອນລາວ

Challenges – The Language

- Almost all documentation (official documents, letters, spreadsheets) is in Lao

Challenges – The Language

- Many of the key people we need to communicate with and the soon-to-be-users do not speak any or much English

Challenges – The Language

- While we have successfully implemented FlexiCadastre for many non-English speaking clients (Portugese, Spanish, French), the difference here is that no-one at Spatial Dimension speaks Lao and it is impossible to even guess at the meaning of words!

License

ໃບອະນຸຍາດ

Derechos

Permis

Licença

Challenges – The Language

➢ Google as recently added Lao to its translation services which helps a lots

Translating Lao
Thursday, September 13, 2012 | 1:03 PM

Today, we are adding Lao to Google Translate, making it our 65th supported language. We are excited to bring Lao content to users around the world, and to help Lao speakers access more of the world's web content in other languages.

• But not always that accurate especially trying to translate company names

English Spanish French Lao - detected ▼   ⇆   English Spanish Arabic ▼   **Translate**

ເຫັເບປາວຕີ້ ມາຍນິ໋ງ ລາວ ຈໍາກັດ   ×   Los Angeles County is usually limited to the amount actually

English Spanish French Lao - detected ▼   ⇆   English Spanish Arabic ▼   **Translate**

ດິເອຮສບີ ມາຍນິ໋ງ ຈໍາກັດ   ×   Find an abundance cluster hosting packages
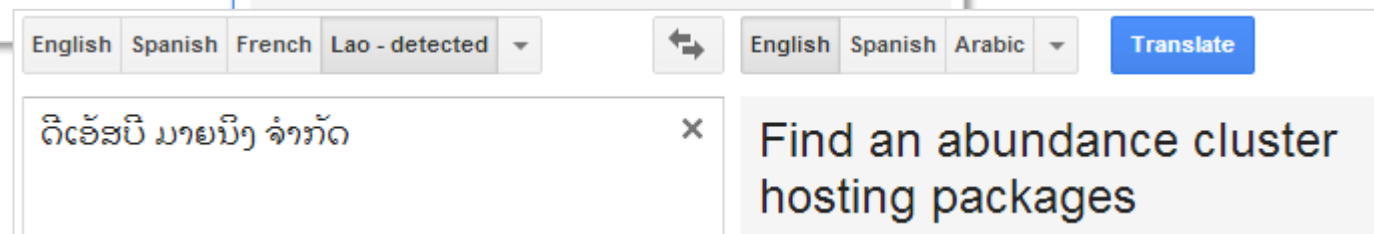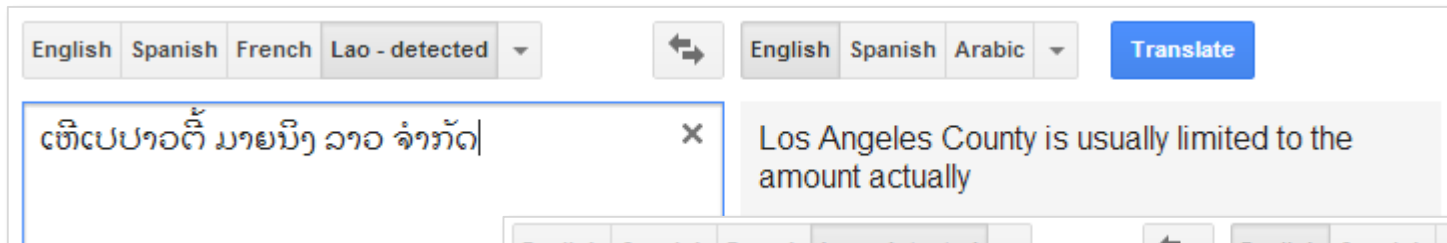
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Challenges – The Language

➢ Local partner (Chorn Nak) who can read, write and speak English and Lao

- Translate in meetings & workshops

- Translate documents, reports, data sources

- Translate FlexiCadastre interface into Lao

- Set up all templates reports

- Write all user manuals in Lao

- Train the users

Challenges – Lao script

- FlexiCadastre did not support Unicode i.e. anything other than Latin characters

➢ Unicode now supported

Positives

- Clients cooperative and willing to share information
- Clients eager to improve their systems and processes
- Currently there is a moratorium (until 2015) for acceptance of new applications – government using this time to review licenses
- No current/legacy system in places so no user expectations
- Government initiative to improve information management in all government sectors – good timing for FlexiCadastre implementation

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The Solution - FlexiCadastre

- Single database and spatial dataset which all departments can access
- Well defined processes and procedures
- Improved tools for monitoring and compliance

➢ Improve investor confidence
➢ Greater revenue collection for government
➢ More efficient working environment

The Solution – Web Portal
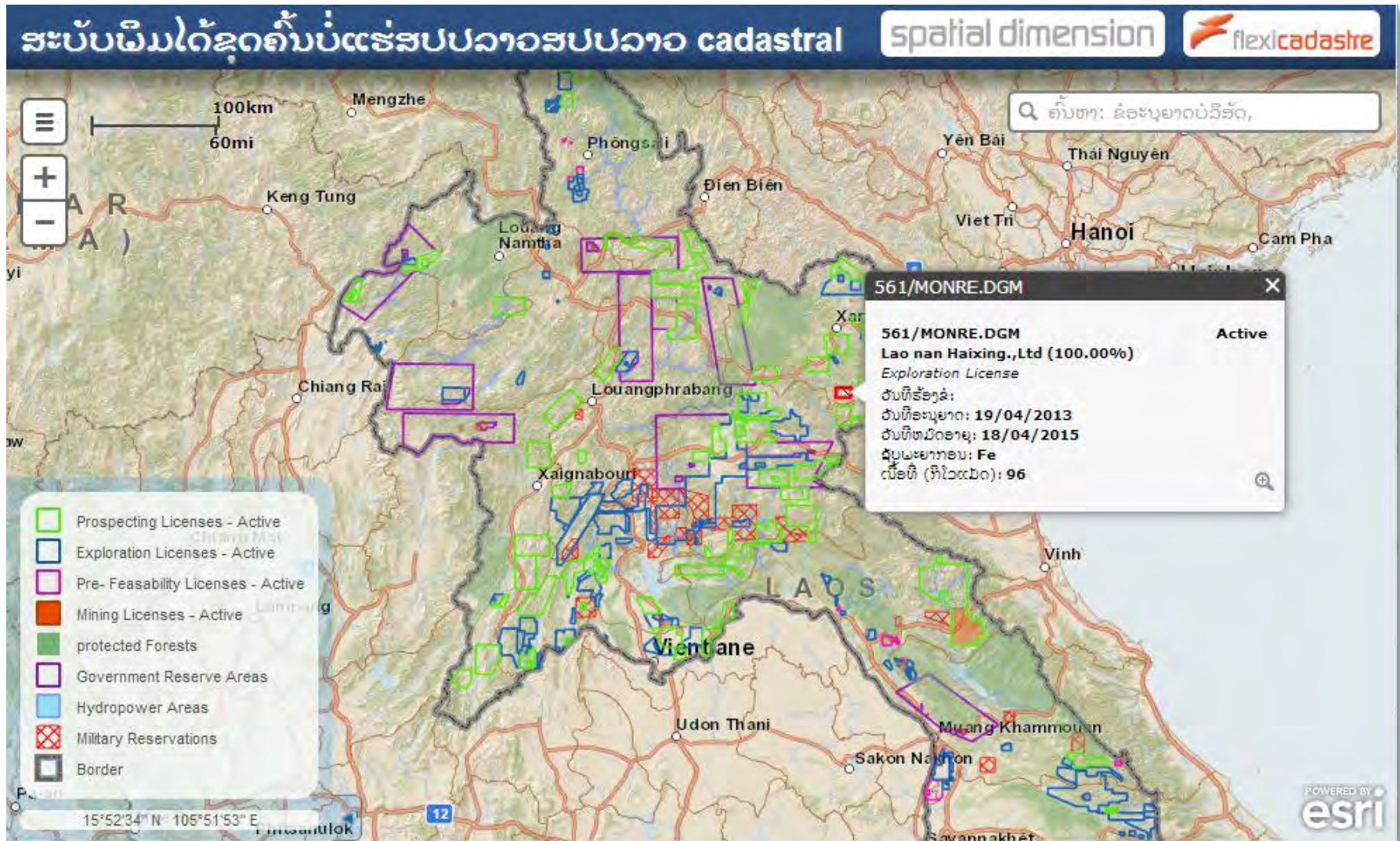
Project Timeline

1. Inception Phase (2 month duration)

2. Configuration Phase (4 months)

3. Training Phase (throughout the project with a 1 month intense training phase)

4. Go-Live Phase (2 month duration)

5. Post Go-Live Support Phase (6 month duration)

WORK SCHEDULE		Incep		Config				Train	Go-Live		Post Go-Live Support					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 Phase 1 - Inception	WP-1															
2 Phase 2 - Configuration	WP-2															
3 Phase 3 - Training	WP-2															
4 Phase 4 - Go-Live	WP-2															
5 Phase 5 - Post Go-Live Support	WP-2															
6 Post Project Support & Training	n/a															

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Inception Phase

- Meetings with all stakeholders

- Understanding organizational structure, roles and responsibilities

- Understanding the current processes for license issuing and management

- Review of all data sources, documents, reports

Next steps

- Finalising workflow designs and data model

- System configuration

- Data cleanup and capture

- Complete translation of FlexiCadastre to Lao

- And lots more …

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The End

Thank-you!