



ກະຊວງ ວິທະຍາສາດ ແລະ ເຕັກໂນໂລຊີ

Ministry of Science and Technology

ກວຕ

MOST

# Workshop on The Application of Global Navigation Satellite System

*12-16 December 2016, Kathmandu, Nepal*

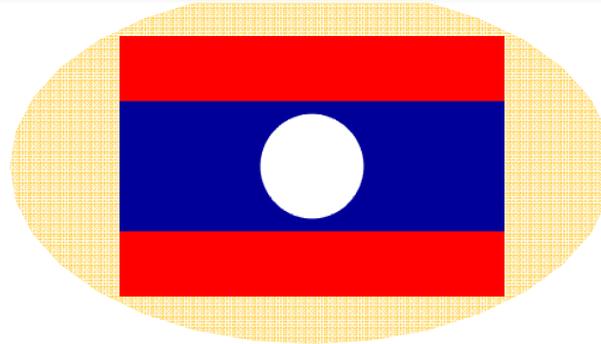
## Space Technology Development Information in Lao PDR

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## *Outline*

1. Country Background
2. STI Policies and Strategies
3. DTI's Activities
4. Strengths and Weakness
5. The Needs for TI Development in Lao PDR

# I. Country background



**Laos Population**  
6,49 million (2015)

**Land Area**  
236,800 sq. km<sup>2</sup>

**Laos  
GDP by Sector**  
Agriculture: 23,0%  
Industry: 32,42%  
Services: 37,87%

**Laos Labor  
Force**  
3.6 million

**Industrial Production  
growth rate**  
11 % (2013)

**Laos's GDP**  
GDP Growth rate 7,56%  
\$ 1,725 per capita GDP

# Country Snapshot

The Lao government vision is to establish Laos from the Land-Locked Country to the Land-Linked Nation. At the Moment, there are several routes to connect ASEAN to China by Thailand-Laos-China in the central is connecting Thailand-Laos-Vietnam.

The Market Access to ASEAN market (500 million inhabitants) and neighboring China Land-link initiative: East-West Economic Corridor with Special Economic Zone in Savannakhet acting as a trade and service center.

Easy regional access with regular direct flights to the major hubs of Bangkok, Hanoi, Kunming, Kuala Lumpur , Singapore, Korea and Japan.



# Why Laos?

## Comparative & Competitive Advantages

- Political stability
- High safety
- Low risk from natural disasters
- Low labor cost

(Minimum wage: \$110/month)

## Country of rich natural resources:

- Fertile land, Minerals, Water, and forest, giving development potential in agriculture, mining, and hydropower.



No.158<sup>th</sup> WTO member  
in 2013

ASEAN Economic  
Community 2015



## II. STI Policies and Strategies

### **The Main Function and Duties:**

- ❖ **Study of national policies and strategies,**
- ❖ **Formulate legislation,**
- ❖ **Promote research and development,**
- ❖ **Provide services,**

## II. STI Policies and Strategies (cont..)

- ❖ **Act as central body coordinating with line ministries at central and local level**
- ❖ **Promote transfer, application and creation of technology and innovation.**
- ❖ **Transfer technology management**

## **III. Department of Technology and Innovation(DTI) Activities**

**At the beginning establishment stage, DTI have been focused on:**

- Review and formulate role and mandates for divisions under DTI**
- Create road map of TI development(up to 2020)**
- Study and formulate legislation**
- Disseminate and raise awareness on TI**
- Collect TI information status**
- Promote the application of technology as a demonstration project for local community on rice productivity**

# Lao – China Science Innovation and cooperation Forum and Small Exhibition



# Lao – Russia Round Table Meeting on Technology Cooperation in the Future



# Lao – Thai Cooperation Project on Science and Technology Usage for Water Resource Management



# STEPI, APCTT and Lao DIT Cooperation on Innovation System of Lao PDR



# DIT Cooperation on Training Space Technology

- Jaxa, Japan Cooperation on Training ALOS – 2 Data Application
- BELS, The Workshop on Global Navigation Satellite System Technology
- UN-SPIDER, The Assessment and Application of the Space Technology Information
- GISTDA, Thailand, Rice crop monitoring system by using Space Technology Information
- CAST, China, Lancang-Mekong river space information cooperation center project

# Major Disasters in Lao PDR

Great Impacts on Sustainable Development

Fire (Forest and Urban)



Drought



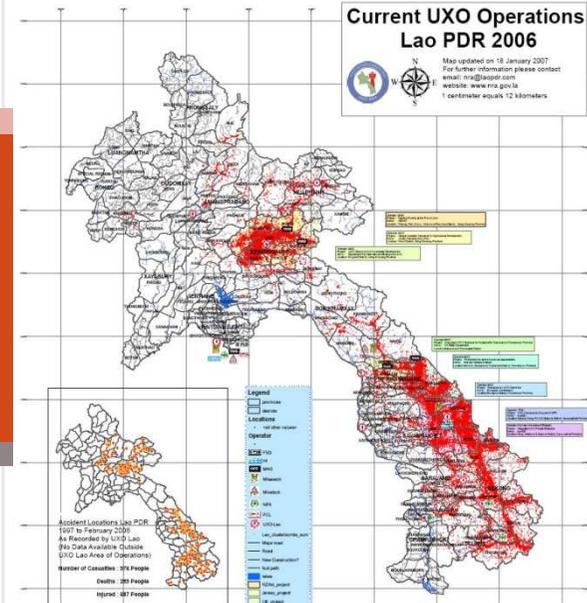
Flood



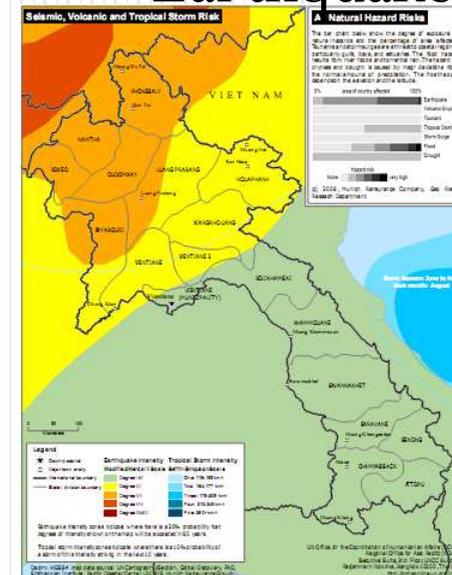
Storm



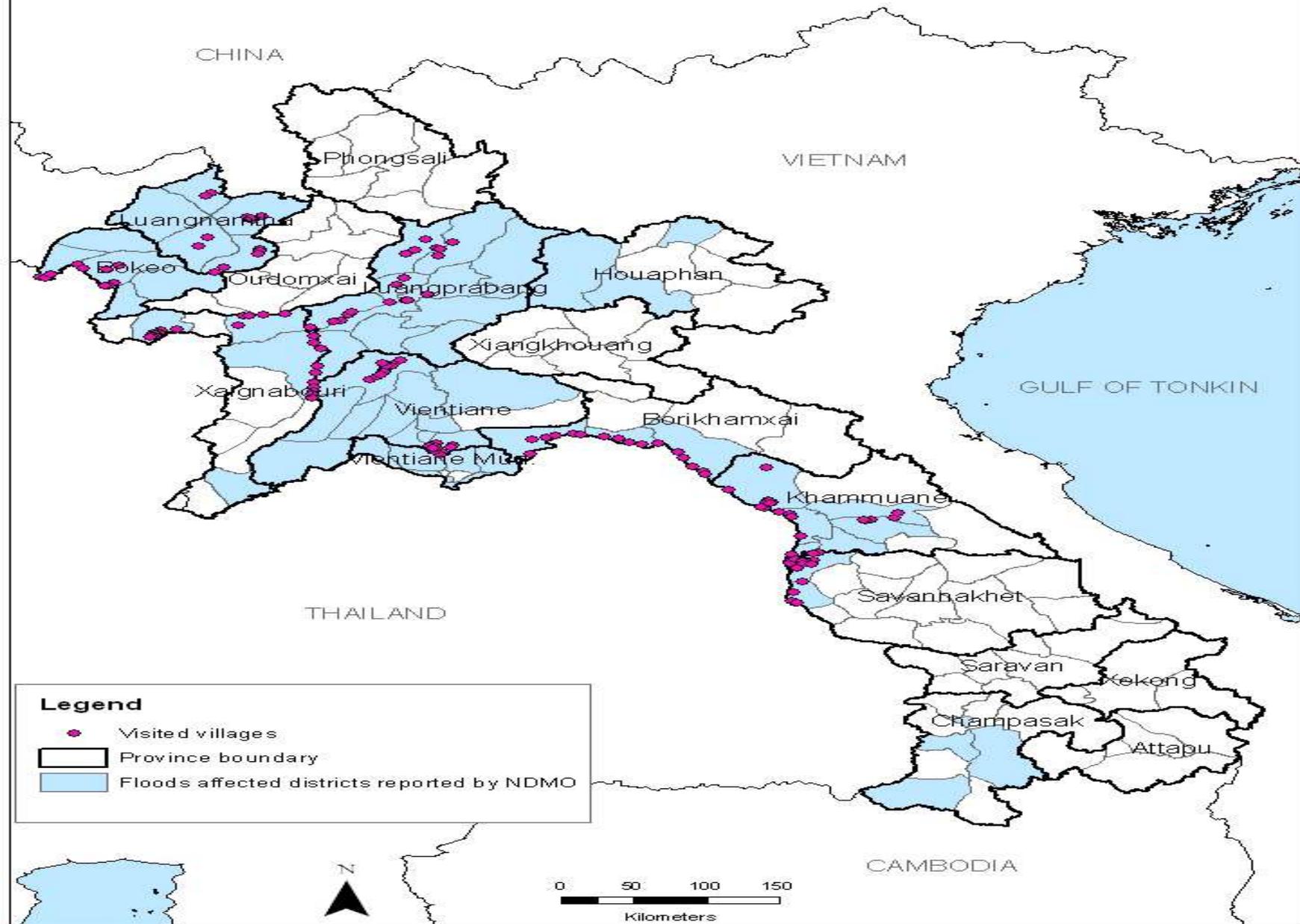
## UXO



## Earthquake



# Floods affected districts and visited villages





# Coordinator in Space Applications for Disaster Management



## **IV. Strengths and Weaknesses**

### **Strengths:**

- ❑ Country has direction, policies and national economic-social plan for short, medium, and long term development and some regulations and laws concerning the management and promotion of STI;**
- ❑ Lao PDR has science and technology organizations at both central and local level;**
- ❑ Many sectors have carried out and reached some achievement of activities concerning the management and promotion of STI.**

## **Strengths and Weaknesses (cont.)**

### **Weaknesses:**

- ❑ Institutions response for the management and promotion of science, technology are limited in the aspects of experiences, skills and resources to undertake their tasks including external cooperation;**
- ❑ There are absence of specific regulations and legislations on the management and promotion of STI**
- ❑ Coordination mechanism among sectors including public and private (business units) at both national and local level is not well established and acted;**
- ❑ Research activities have been carried out, but not met fully to the demand of society as well as the industrial development;**

## **Strengths and Weaknesses (cont.)**

- ❑ Most of modern technologies using in the country are imported;**
- ❑ Financial sources to support the implementation of science, technology and innovation activities are limited;**
- ❑ Public awareness on science, technology and innovation is limited;**
- ❑ Linkages between universities/research institutes and business units (industry) are still weak.**

## V. The Needs for TI Development of Laos

- **Policy and strategy and master plan for TI development**
- **Formulate Law on Technology Transfer, Law on High Technology and Law on Innovation and related regulations,**
- **Survey the Needs of TI**
- **Establishment of TI Statistic Data System**
- **Promotion and Application of Innovation for SMEs**

## The Needs for TI Development of Laos (cont.)

- ❑ **Promotion of Research and Development**
- ❑ **The National Innovation Excellent Awards and Tech-Market (TECHMART)**
- ❑ **Establishment of Technology and Innovation Services Center**
- ❑ **Formulation of Curriculum on Technology and Innovation**
- ❑ **Awareness on Technology and Innovation**
- ❑ **Set up Demonstration of Technology Transfer Project/center**

*Thank you for your  
kind attention*