



## Networking, Competence and Capacity Building FK Norway Exchange program

Network in Geomatics  
Norway – Laos – Vietnam  
including  
south – south  
Exchange  
Laos and Vietnam

*Kari Strande, Norwegian Mapping and Cadastre Authority  
Trinh Anh Co, Vietnam Association for Geodesy, Cartography and Remote Sensing  
Kongkham Sourigna, Lao National Geographic Department*



## Exchange Program Network in Geomatics

Background  
Program and objectives  
Partners  
Participants  
Output  
Challenges  
Link to development



## FK-Norway

Restructured in 1999

Before – Teaching to help

Now – Working by learn

Partnership – exchange

Promote contact – network – cooperation

Commitment of young people for a fairer world in  
North and South alike



## Background

1994 Vietnam meeting with GDLA

1996 Vietnam Feasibility Study on Seabed Topo Mapping

Laos 2000 Feasibility Study on Spatial Data Strategy

Support for conference participation FIG

How to include the young surveyors in the development

New Fredskorps model

2001 Visit from Vietnam and Laos to Norway

## Chào ban



### Network in Geomatics

Statens kartverk- Norge  
VGCR og MNRE - Vietnam  
NGD - Laos,



Laos

National Geographic  
Department (NGD)

Exchanging people

Norway

Norwegian Mapping and  
Cadastre Authority  
Norwegian Institute for Air Research  
Blom Geomatics  
Fugro Survey  
Ugland IT Group

Vietnam

Ministry of Nature Resource and  
Environment (MONRE)  
Vietnam Association of Geodesy  
Cartography and Remote Sensing  
(VGCR)  
University of Geology and Mining



## Exchange Program Network in Geomatics

### PARTNERS

Ministry of Nature Resource and Environment, MoNRE, Vietnam  
Vietnam Association of Geodesy Cartography and Remote Sensing,  
VGCR Vietnam  
National Geographic Department, Laos  
Statens kartverk, SK, Norway  
(Norwegian Mapping and Cadastre Authority)  
Norwegian Association of Surveyors, NJKF, Norway



### Great interest and additional partners through the program

- UNEP- GRID Arendal
- Blom Norkart Mapping
- Ugland IT Group
- Geodata Norway
- Fugro Survey Norway
- Norwegian Institute for Air Research
- Vietnam Research Institute of Land Administration (VIRILA)
- Cartographic Publishing House (CPH)
- Centre of Information and Documentation Archives (CIREN)
- Aerial Photo Topography Company (APTC)
- Cadastre Engineering Survey Company ( CESC )
- Import Export and Consultancy Company for survey and mapping ( IMECOSUM )
- Centre for Remote Sensing and Geomatics (VTGEO)
- University of Agriculture, Land Management department (UoA)
- The Hanoi University of Mining and Geology, Geodesy and Land administration
- Ho Chi Minh City University of Technology, Department of Geomatics Engineering
- National University of Hanoi, University of Science



## Overall objectives

- Strengthen the relationship between sister organisations in the Geomatic field**
- Contribute to the international development in the geomatic field**
- Broaden the knowledge of best practice and value for society by use of Geographic Information and GI tools**



## Expected outputs

- Extended capacity**
- Improved technology and methods within partner organisations**
- Institutional strengthening**
- Improved cooperation across institutions and country borders**
- Strengthened network between partners and participants**
- Improved network for international standardisation**
- Increased knowledge about standardisation**
- Awareness of GI as a tool for sustainable development**
- New projects initiated**

## Extensive value for the society

Within :

- Municipal administration
- Transport
- Shipping and Fishery
- Agriculture and Forestry
- Telecommunications and Energy
- Defence
- Emergency management
- Imagery
- Environmental and Area resource management
- Property management
- Education
- Media
- Leisure
- Map production,

only to mention some examples



## Give young surveyors the opportunity to exchange experience in the Geomatic field

- Geodetic network, dGPS and positioning
- Standardisation
- Remote sensing
- SDI- database management,
- Hydrographic Survey
- Topographic and Thematic Mapping
- Land management, Cadastre
- Internet distribution
- Air Pollution
- Spatial planning





- 18 PARTICIPANTS 1. phase 2002 - 2004**
- 9 PARTICIPANTS 2. Phase 2005 – 2006**
- 10 PARTICIPANTS 3. phase 2007 - 2008**
- 1 PARTICIPANT Senior Program 2007 - 2009**
- 10 PARTICIPANTS 4. Phase 2008 - 2009**



### Participants to Vietnam and Laos

- Education material for GPS surveying and control network
- Knowledge about Cadastre surveying and registry in a village for user certificates
- Articles for Dia Chin about Land Administration in Norway
- Compendium and lectures on GPS/GNSS systems for use at University
- Participating in work with satellite imagery and field trips for ChATSEA
- Learning about Remote Sensing and PCI-Geomatica
- Land Titling project - digitising land parcels for DoL
- Create metadata for the Mekong GIS data
- Map production 1:25.000 Bolikhamxai
- Digital Elevation Model and contour lines - Northern Lao
- Population maps Saravan Province for UNDP
- GIS Database 12 seamless layers for Lao
- Various maps on demand
- General Support within GIS, ArcGIS, ArcINfo, Adobe

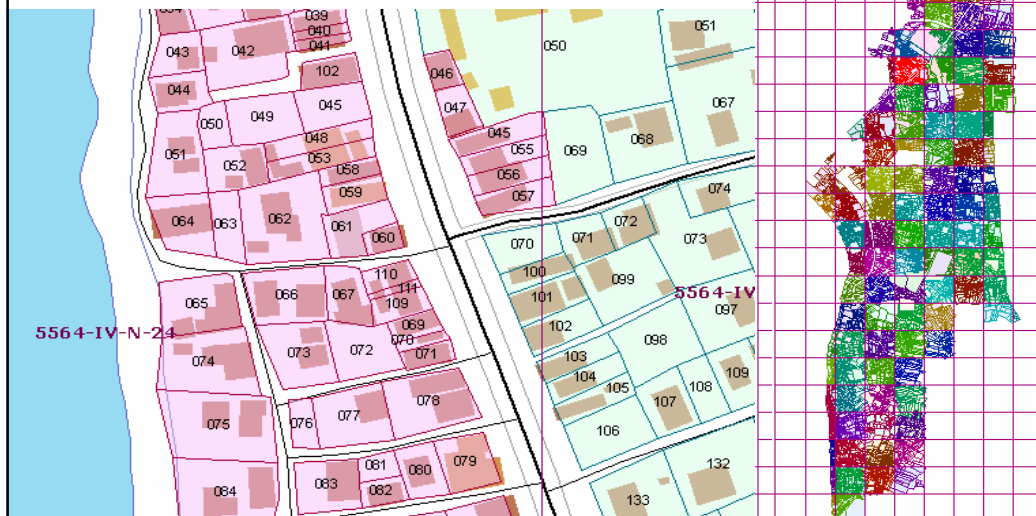


### Participants to Vietnam working task and output.

- Mapping (DFA construction) 3 provinces in North
- Ortophotoproduction
- Global and province map on Internet
- Specifications and standardisation
- Remote sensing - research
- ASTER project Ca Mau
- Vietnam Rice Monitoring Project
- Mekong Delta - Scientific study on accuracy of Radar data
- Project coaching
- Cadastral information
- Teaching English
- Geodetic network transformation

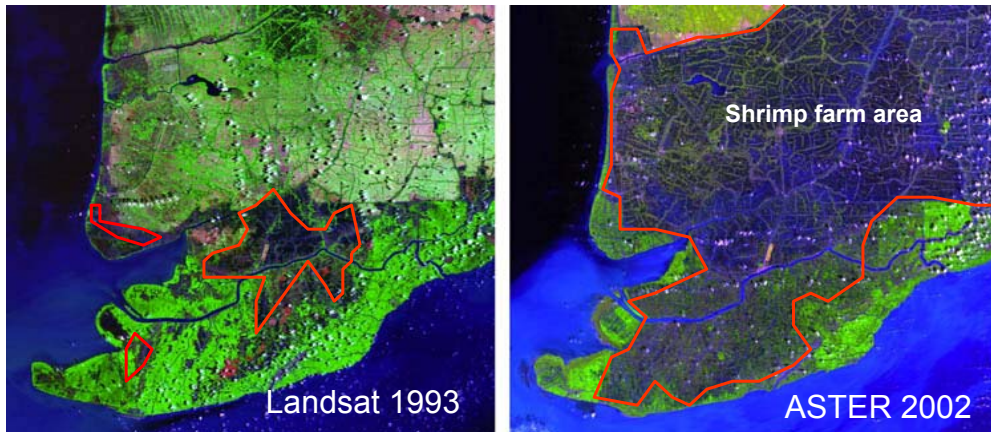


### DoL, Land titling project





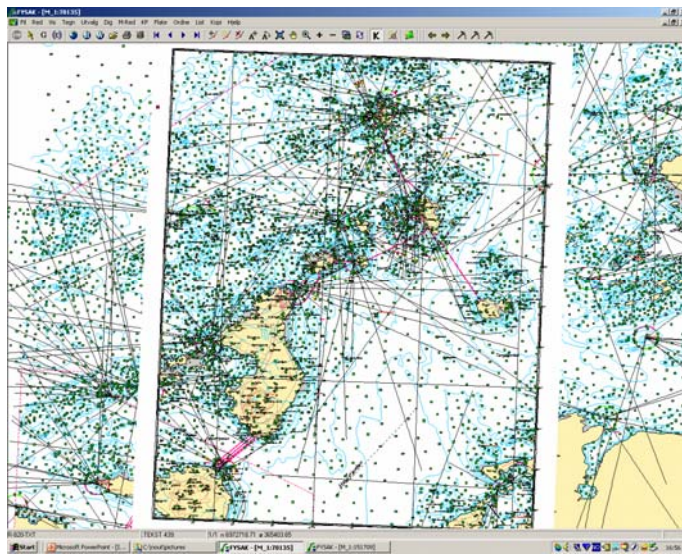
## Landuse change



In 1993, only 10% of Ca Mau was shrimp farms, today almost 55% is used to farm tiger prawns.



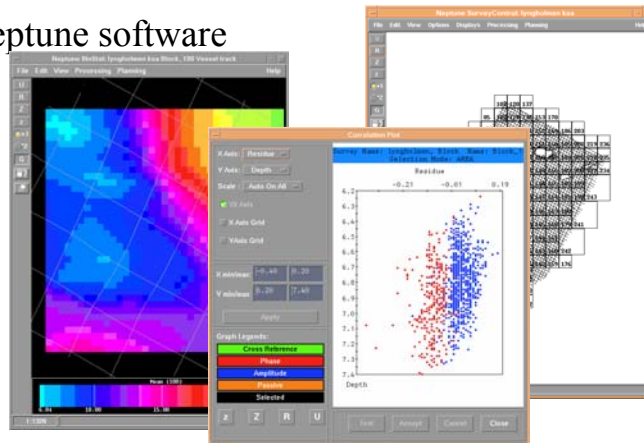
Editing boat  
sport maps.  
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FYSAK)



Ugla IT Group



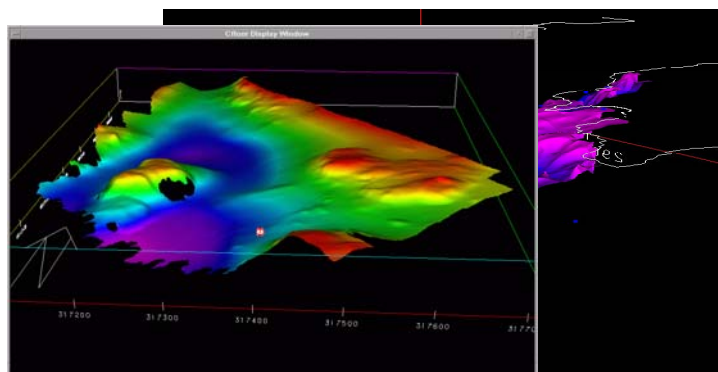
- Neptune software



*The Norwegian Hydrographic Service*



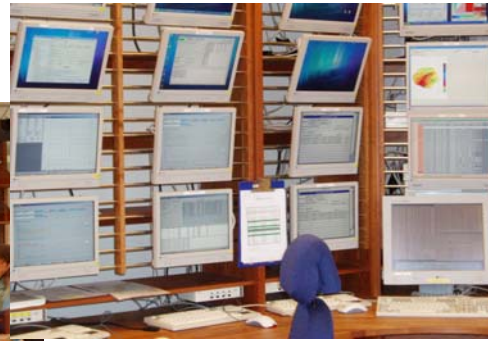
- CFloor System software



*The Norwegian Hydrographic Service*



## Monitoring in GPS control center



*Geodesy Division*





## **PARTICIPANTS: WHAT WE HAVE GOT**

- Project progress
- New technologies
- New working methods
- Working experiences
- Communications
- Social awareness
- Travel



## **OTHER OUTCOME**

- Strengthened partnership
- New friends, new ties
- Professional development and working experiences
- Network with GI organisations
- Social experiences and awareness
- Improved English and some have learned new language





### **MICHIT TAVONG**

Professional achievements: Basic experience within field survey GPS, land use planning, and new software,

Social network achievements: great culture and many new friends

NGD achievements: Completion of projects, New technology and experience, strengthened cooperation between NGD and Virila. Building confidence, communication link together.

Virila achievements: Completion of projects. Building confidence, staff get experience in working with foreigner, communication link between the counties.



The impact of Michits work was basic experience within field survey GPS, land use planning, learned new software, learned about great culture, met many people. He also report about production, capacity and cultural output both for host partner and home partner and about strengthening of the cooperation between NGD and Virila. He conclude that

*“From my opinion, the program should be continued. This program is very essential for Lao PDR as well as participant can get many useful experience by working in other countries.”*



*Dang Thanh Tung*



*Dang Thanh Tung from Vietnam*

**Professional Work:**

Topomap both analogue and digital, DTM and orthophoto image of location for Hydropower Namtheun3. Calculation of plant, surface and volume of location. He has trained NGD staff in AutoCad and also assisted with Tecos and Laos colleague to use Erdar Imaginer 8.5 software for establishment of topomap by digital photogrammetry.

Preparation, plans and field survey of GPS control points for

Socially achievements; " Could not have been better. I have had a year that has changed me become self confidence and I will never forget."





## FK Senior

2007 – 2009

12 man months during a three year period

Assist the bridging participants and hosts

Assist the partners in project specification

Look for synergy between FK program and other projects

Assist networking with donor organisations

Assist standardisation project



## Success criteria

Partnership

Partners equally involved and motivated

Motivated participants

Motivated host organisations

Preparedness

Patience

Trust

Flexibility





## In Stockholm we have four participants

Tran Bach Nam, spatial planning, Trondheim Municipality

Lien, cartographer, Uglund IT Group

Lan, cartographer, NMCA

Daeng Phanpheng, surveyor, Blom Geomatic

## Our Partners

Dr Dang Hung Vo, President VGCR

Tran Bach Giang, Director Survey and Mapping Department, MoNRE

Trinh Anh Co, Secretary General VGCR

Kongkham Sourigna, Deputy Director, National Geographic  
Department, Lao PDR

