

Fredskorps Exchange Programme – Co-operation on GI between Norway, Vietnam and Lao

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Key words: Experience exchange, global friendship, partnership and NSDI.

SUMMARY

The Fredskorps (Voluntary Service) in Norway is an organisation with the role of assisting the Parliament in achieving its overall development objectives in development co-operation. The task of the Fredskorps is to promote contact and co-operation between individuals, organisations, companies and institutions in Norway and the South. Such contact shall be based on reciprocity, equality and solidarity. Thus, a partnership shall be based on, and conducted in the spirit of, mutual learning and acknowledgement, as well as shared aspirations and goals. The Fredskorps is intended to help strengthen the commitment of young people and assist them in becoming involved in efforts to create a fairer world in North and South alike. Participant postings are implemented through established Fredskorps partnerships, rather than through the Fredskorps itself.

The Norwegian Mapping Authority in co-operation with the Norwegian Association of Surveyors has made agreements with sister organisations and institutions in SR Vietnam and Lao PDR for an exchange programme for young surveyors. The co-ordinating partner in Vietnam is the Vietnam Association of Geodesy, Cartography and Remote Sensing (VGCR) which is also a FIG member. The main hosting partner is the Ministry of Natural Resource and Environment. Three Universities and a Remote Sensing Centre are among the host and recruitment partners. The partner in Lao PDR is the National Geographic Department.

The program started in 2002 and will last for four years. There will be about 18 exchange candidates each year participating in GI development and GI work within dedicated subjects at host organisations in the three countries.

The exchange program is based on a shared understanding of, and support for, the values, principles and methods set out in the statutes and framework document of Fredskorpset. The Partnership shall be based on, and conducted in, the spirit of equality and shared responsibility.

The programme has just recently started. We will present some more detailed information from each of the exchange candidates and their work at the FIG working week in Paris. The candidates will work in the SDI field in their respectively hosting country.

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1. INTRODUCTION

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Geographic information represents an infrastructure that is necessary in many aspects in the society as;

- Local and regional area planning and management
- Environment- and nature resource management
- Forestry, agriculture and fishery
- Property and Land management, cadastral issues,
- Telecommunication and electricity
- Road and rail road planning, construction and management, transportation
- Ambulance, police and secure management

The technologic development in this field is rapidly changing. Geographic Information Systems (GIS) is more available and used all over the world. It is important to develop global solutions and standards on how we organise, exchange and combine basic geographic information with thematic information. If we are successful in this we will contribute to better solutions, sustainable development and cost savings in many fields in the society.

The main objectives for this exchange programme are to;
Strengthen the relationship between sister organisations in the geomatic field
Create a good relationship and integration/team work for exchange candidates
Contribute to the international development in the geomatic field

Broaden the knowledge of best practice and value for society by use of geographic information.

The specific objectives for this exchange programme is to give young surveyors the opportunity to work together with colleges in another countries to exchange experiences and to contribute to the development of good solutions and value for society in the following fields;

Geodetic Network, reference framework and transformation

Differential GPS , navigation and positioning

Standardisation (ISO TC 211)

Remote Sensing - (forestry sector and environment monitoring)

Spatial Data Infrastructure, database management, database design, standardisation

Geographic Information Systems (GIS) Land IS, Environment IS) system design

Land management, land allocation, property register, cadastre

Hydrographic survey

Topographic mapping

Thematic mapping, applications

Internet distribution of geographic information

The program has recently started. The first five Norwegian candidates went to Vietnam in the end of December and with double New Year celebration both following the Roman calendar and the Lunar year calendar it is not so much to report from the work at the time this paper is written. We hope that nine Vietnamese candidates will arrive to Norway in March and we also hope that the exchange between Laos and Vietnam can be started in March. We will present some more detailed information from each of the exchange candidates and their work at the FIG working week in Paris. The candidates will work in the SDI field in their respectively hosting country.

2. PARTICIPANTS TASKS

The following list gives more information of which subjects each of the posts are dedicated to. The letters stands for:

Main subject b) More specific work subject for the position.

Participant 1 (From Norway to Lao PDR)

a) Geodecy

b) Geodetic Reference Framework, Determination of transformation parameters between two coordinate system (UTM on Everest 1830 and Gauss on Krassovsky spheroid).

The candidate will take part in the establishment and recalculation of the Lao Geodetic Network.

Participant 2 (From Vietnam to Lao PDR)

a) Land Management

b) Land Titling, Land allocation, Parcel surveying, Users certificate etc.

The candidate will take part in the work of establishing user certificates and surveying land parcels in Lao PDR, assisted by use of GI

Participant 3 (From Lao to Vietnam)

a) Land Management

b) Land Titling, Land allocation, Parcel surveying, Users certificate etc.

The candidate will take part in the work of establishing user certificates and surveying land parcels in Vietnam, assisted by use of GIS

Participant 4 (From Norway to Vietnam)

a) Geodesy

b) Differential GPS

The candidate will take part in the survey and in the development of using dGPS in mapping and positioning

Participant 5 (From Norway to Vietnam)

a) Spatial Data Infrastructure

b) Database management, applications, standardisation

The candidate will take part in the scientific work by the insitute and in assisting in teaching in the above mentioned items

Participant 6 (From Norway to Vietnam)

a) Land Mapping

b) Topographic and Thematic Mapping

The candidate will take part in the topographic and thematic mapping field by use of modern aerial photogrammetry methods

Participant 7 (From Norway to Vietnam)

a) Spatial Data Infrastructure

b) Database management, GIS, Standardisation

The candidate will take part in the system design, development and updating of the GI databases to help management and distribution work on the geographic information.

Participant 8 (from Norway to Vietnam)

a) Remote Sensing

b) Environment Monitoring, Flood and Forestry mapping and analysis

The candidate will take part in the research and development within remote sensing in an international environment. Especially task will be in environmental monitoring

Participant 9 (from Norway to Vietnam)

a) Land Management

b) Cadastral, Land titling, Valuating

The candidate will take part in the Cadastre establishment, parcel surveying and registration.

Participant 10 (From Vietnam to Norway)

a) Spatial Data Infrastructure

b) Database management, Internet applications, international standardisation

The candidate will take part in programming, development and updating of internet applications based on Geographic Information. The work will be based on JAVA , XML, XSL, XSLT and HTML

Participant 11 (From Vietnam to Norway)

a) Spatial Data Infrastructure

b) Database management, Internet applications, international standardisation

The candidate will take part in programming, development and updating of internet applications based on Geographic Information. The work will be based on JAVA , XML, XSL, XSLT and HTML

Participant 12 (From Vietnam to Norway)

a) Remote Sensing

b) Environment, Agriculture, Forestry mapping and analysis

The candidate will take part in the Environment Units work with databases for nature conservation areas and wilderness areas, land cover mapping, map updating, mapping and monitoring of river deltas and coastal areas, GIS – analysis of environmental information, Internet presentations, satellite data archiving, processing and classification of satellite data.

Participant 13 (From Vietnam to Norway)

a) GIS - Internet

b) Internet - GIS – Environment information

The candidate will take part in the UNEP – GRID –Arendals activities with facilitating web information on Geographic related information. The work will be international related including presentation work on Status of Environment for cities, countries and regions. The work will be based on JAVA programming and ESRI systems

Participant 14 (From Vietnam to Norway)

a) Thematic mapping

b) Distribution products, CD-ROM, Internet applications

The candidate will work with various integrated distribution products as components to internet applications and mobile services. The work will be based on JAVA programming and ESRI systems

Participant 15 (From Vietnam to Norway, SK)

a) Mapping, Cartography

b) Topographic and Thematic Mapping, product design, (standardisation)

The candidate will work with various Thematic Mapping product such as atlases, tourist products, road maps and combined products for CD ROM. ESRI systems will be used.

Participant 16 (From Vietnam to Norway)

a) Geodesy

b) Differential GPS, geodetic network, geodetic reference framework

The candidate will take part in the field work on establishing and updating the geodetic network. Further work will be on calculating and transformation and also some part within the differential GPS testing and management.

Participant 17 (From Vietnam to Norway)

a) Geodesy

b) Differential GPS, geodetic network, geodetic reference framework

The candidate will take part in the field work on establishing and updating the geodetic network. Further work will be on calculating and transformation and also some part within the differential GPS testing and management.

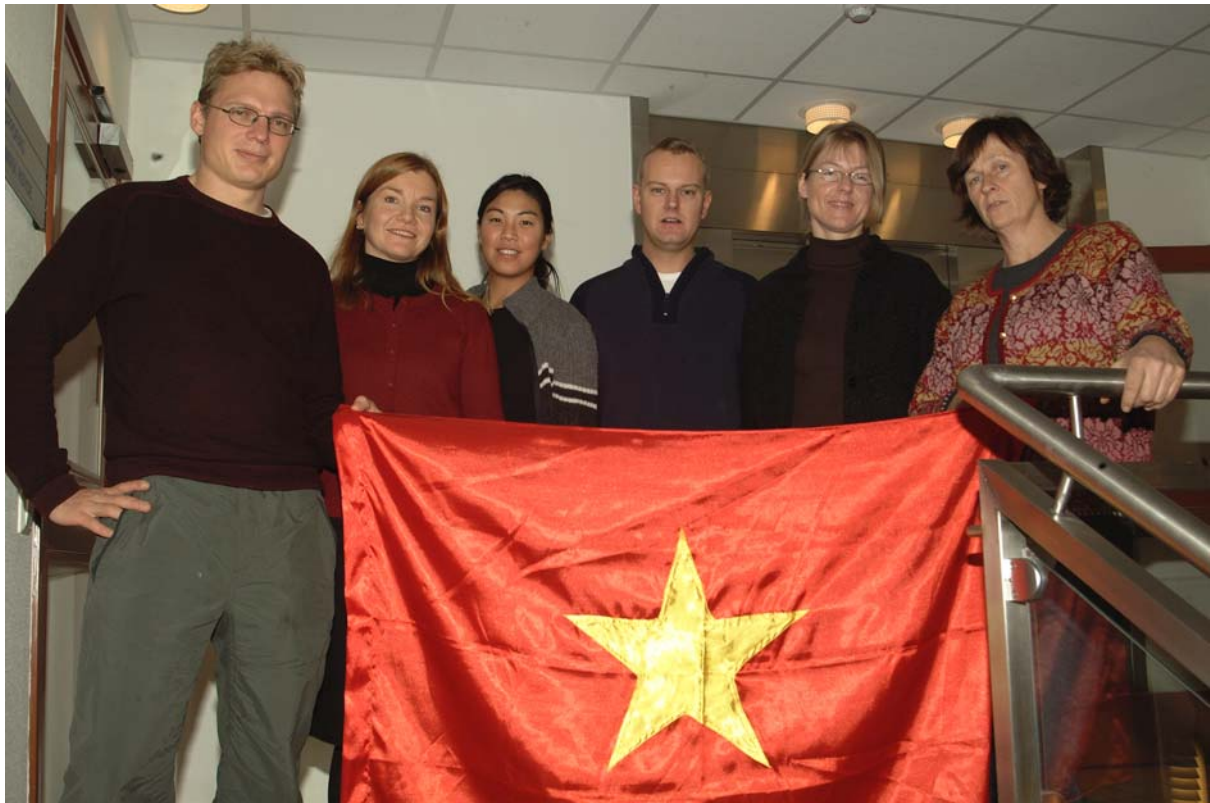
Participant 18 (From Vietnam to Norway, SK)

a) Spatial Data Infrastructure

b) Database management and integration, Large scale databases, Thematic databases

The candidate will work with large scale databases and updating using ESRI and Norwegian software. Norwegian software will be translated to English. The work is based on a co-production between several governmental authorities, municipalities and utilities.

The participants to the positions 4, 5, 6, 8 and 9 arrived to Vietnam 17. December 2002 and at the FIG working week we will present some of their experiences both from a Fredskorps and from a professional surveyors perspective. So far they are very satisfied with the Vietnamese hospitality and friendship. We hope that nine Vietnamese participants going to Norway and the participants exchanging between Laos and Vietnam will be present in at their respectively hosts at the time of the FIG working week.



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APPENDIX

Attached some more information of the partners from Norway, Vietnam and Laos in the exchange program

APPENDIX

PARTNERS

Norwegian partners;

Statens kartverk (SK) (Norwegian Mapping Authority)

SK is a governmental agency with the task to develop and operate the national geographic infrastructure in

Norway. The infrastructure comprises;

- a national geodetic network at high precision and with international interconnection
- accurate satellite positioning services to ensure safe maritime, land and air navigation
- data series of geographic information, nautical charts and land maps
- the National Geographic Information Centre (NGIS) a repository and distribution service
- standards for maps and geographic information

Role; facilitating partner in Norway, main contact to Fredskorpset, Program co-ordination, management and information, primary host and recruitment - internal and external

Field of interests; Standardisation, Geodesy, Geodetic network, differential GPS, Remote sensing, Spatial Data Infrastructure, Cadastre/Land titling - Land and property Management, Area analysis, Hydrography

Norges Jordskifte kandidatforening (NJKF) Norwegian Association of Surveyors

NJKF is a non governmental organisation activating in the field of geomatics with personal memberships by professional chartered surveyors and candidates in land management and land allocation.

Role; associate partner; information - publications, members , work shop and seminar facilitator

Fields of interests; Geomatics, land management and land allocation

UNEP- GRID Arendal (GRID)

GRID is a UNEP (UN Environment Program) node, responsible for environmental reporting concerning the Nordic, Arctic and Antarctic region. GRID has a close co-operation with SK environment unit in Arendal in the Geomatic field.

Role; Host partner

Field of interest; GIS analysis and presentation, web presentations concerning environment issues.

Lao PDR partner:

National Geographic Department of Lao PDR (NGD)

NGD is the responsible governmental institution working with Surveying and Mapping in Lao PDR.

NGD is a department by the Prime Ministers office and is responsible for the Geodetic network, surveying and mapping, land titling and the national geographic infrastructure.

Role; Host for exchange candidates and recruitment of exchange candidates
Field of interest; Geodesy, geodetic network, .GIS , establishment of Spatial data infrastructure (SDI),

Vietnam partners;

Vietnam Association of Geodesy, Cartography and Remote Sensing (VGCR)

VGCR is a non governmental organisation activating in the field of geomatics. Its goal is gathering and animating all people who are working in the field of geomatics for helping each others to improve their professional knowledge and experiences.

Role; facilitating partner in Vietnam, main contact to SK and program co-ordination in Vietnam.

Network; Possible host organisations, Universities, GDLA, Provinces

Recruitment; organisations, individuals

Ministry of Natural Resources and Environment (MoNRE)

MoNRE will be the main responsible partner from Vietnam in collaboration with VGCR

MoNRE is a sister organisation to the Norwegian Mapping Authority (NMA) and has the same governmental responsibilities as NMA. In addition MoNRE also has the responsibility on Land Administration in Vietnam.. Six of its units wish to participate in the exchange program;

a. Vietnam Research Institute of Land Administration (VIRILA)

Role; Host for exchange candidates and recruitment of exchange candidates

Field of interest; Geodesy/dGPS, Database (LIS, EIS, GIS), Thematic mapping

b. Cartographic Publishing House (CPH)

Role; Host for exchange candidates and recruitment of exchange candidates

Field of interest; Mapping, Standardisation, Database- GIS

c. Centre of Information and Documentation Archives of Land Administration (CIDALA)

Role; Host for exchange candidates and recruitment of exchange candidates

Field of interest; GI-Database design, GIS applications, GI-IT network

d. Aerial Photo Topography Company (APTC)

Role: Host for exchange candidates and recruitment of exchange candidates

Field of interest: mapping, GPS

e. Cadastre Engineering Survey Company (CESC)

Role: Host for exchange candidates and recruitment of exchange candidates

Field of interest: cadastral, Land management , geodesy/GPS, database

f. Import Export and Consultancy service Company for survey and mapping (IMECOSUM)

Role: host for exchange candidates and recruitment of exchange candidates

Field of interest: Database, GPS/dGPS, Land management, Land titling

Centre for Remote Sensing and Geomatics (VTGEO)

Role; Host for exchange candidates and recruitment of exchange candidates
Field of interest; Remote sensing - Modelling, Environment Monitoring

University of Agriculture, Land Management department (UoA)

Role; Host for exchange candidates and recruitment of exchange candidates
Field of interest; Remote sensing -forestry, agriculture, Land management

The Hanoi University of Mining and Geology, faculty of Geodesy and Land administration

Role: Host for exchange candidates and recruitment of exchange candidates
Field of interest: Geodesy/GPS, mapping, Land management

Ho Chi Minh city University of Technology, Department of Geomatics Engineering

Role: Host for exchange candidates and recruitment of exchange candidates
Field of interest: Database/GPS, survey/GPS, Remote sensing