

**"International Workshop on Landslide Risk Assessment and
Management for ASEAN Member States"**

1-2 June 2017
Bangkok, Thailand



LANDSLIDE MITIGATION IN CCOP

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**Coordinating Committee for Geoscience
Programmes in East and Southeast Asia (CCOP)**

WHAT IS CCOP ?

CCOP: Coordinating Committee for Geoscience Programmes in East & Southeast Asia

CCOP

An Organization is made up of people.

VISION

Geosciences for a
sustainable future

MANDATE

Promote & coordinate
joint applied
geoscience
programmes for
sustainable
development in East &
Southeast Asia



**Coordinating Committee for Geoscience
Programmes in East and Southeast Asia (CCOP)**

Role of CCOP



CCOP plays an important capacity building role in geoscience program in East & Southeast Asia.

CCOP has an active networking and friendship built through years of cooperation among geoscience organizations.

CCOP is willing for cooperation with other countries & organization to hold capacity building programs/activities & sharing of information in geosciences.



STEERING COMMITTEE

- | | | |
|--------------|----------------------|---------------------|
| 1. Cambodia | 5. Republic of Korea | 10. The Philippines |
| 2. China | 6. Lao PDR | 11. Singapore |
| 3. Indonesia | 7. Malaysia | 12. Thailand |
| 4. Japan | 8. Myanmar | 13. Timor-Leste |
| | 9. Papua New Guinea | 14. Vietnam |

Member Countries (MC)

Cooperating Countries (CC)

Cooperating Organizations (CO)

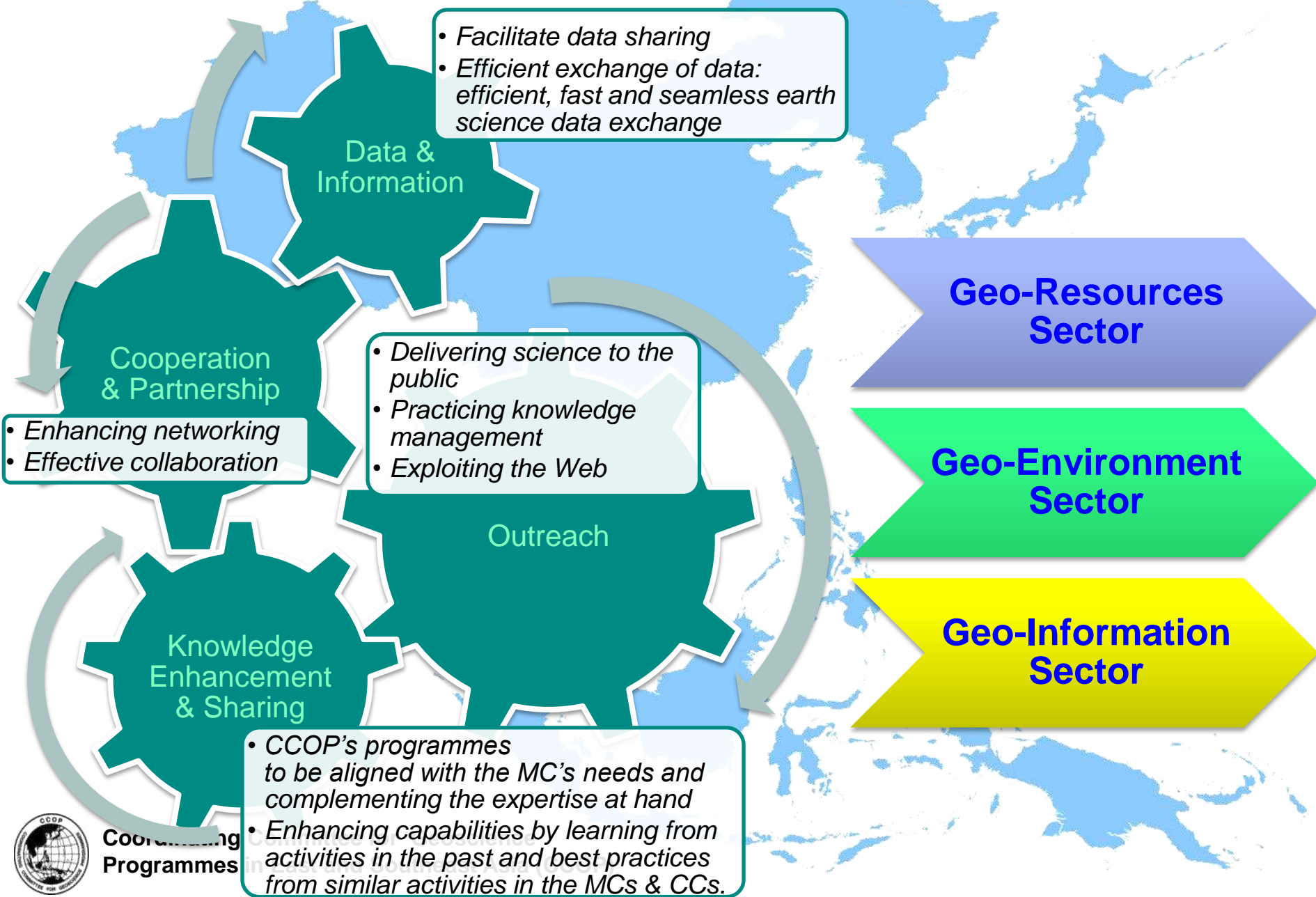
1. Australia
2. Belgium
3. Canada
4. Denmark
5. France
6. Germany
7. The Netherlands
8. Norway
9. Poland
10. Russian
11. Sweden
12. Switzerland
13. United Kingdom
14. United States of America

1. ASCOPE
2. CIFEG
3. CPC
4. EUROGEOSURVEYS
5. GETECH
6. IOC
7. IOMAC
8. IUGS
9. PETRAD
10. UKM
11. UN-ESCAP
12. UNEP
13. UNESCO
14. THE WORLD BANK
15. SOPAC



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What CCOP is doing now ?



Indonesia

RAPID MOVEMENT OF LANDSLIDE AT BANJARNEGARA, CENTRAL JAVA, Indonesia



4 January 2006,
142 peoples died
More than 100 houses destroyed

Land Use



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Indonesia



**Rapid Movement Landslide
Induced by Earthquake and rain
29 September 2009;
244 peoples dead**



Earthquake

Malaysia

Highland Towers,
11.12.1993
48 fatalities



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Land Use

Malaysia

Keningau,
26.12.1996
302 fatalities

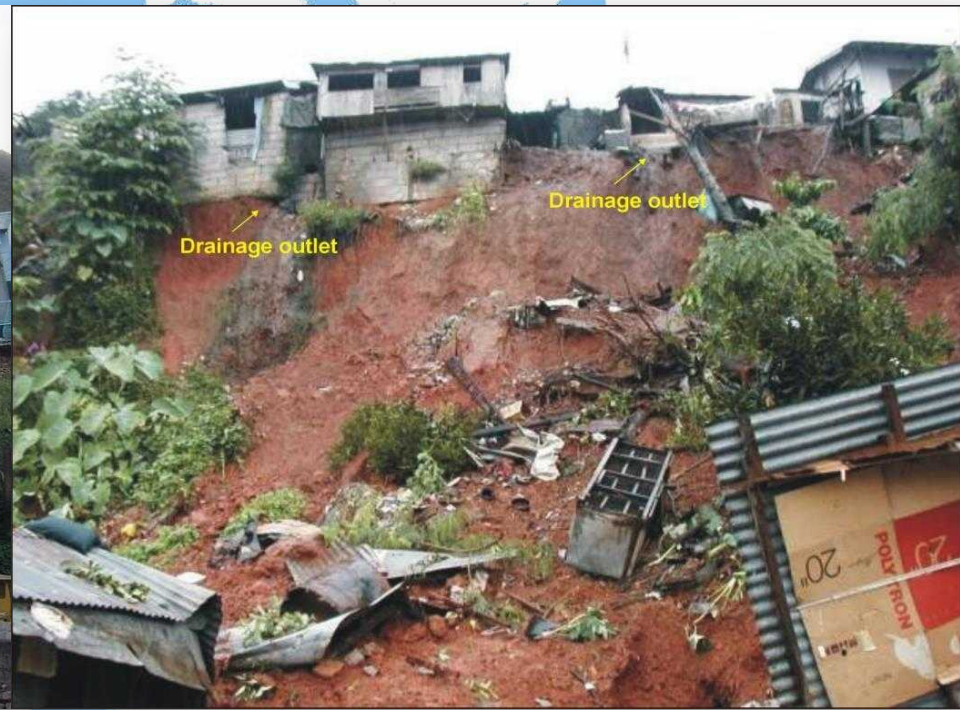


Land Use



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Philippines



Overloading



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Philippines



Baguio City (2009)



Itogon, Benguet (2008)

Overloading



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Vietnam



Landslide hazard happened on 14/9/2004 in Sùng Hoảng village, Phìn Ngan commune, Bát Xát district, Lào Cai province. **24 people deaths**

Agriculture



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Vietnam



Landslide occurred Yên Thắng village, Thắng Quân commune, Yên Sơn district, Tuyên Quang province on the early morning in 26/7/2012 .

Landslide killed 2 people and destroyed a house.



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High Terrain

Thailand



Doi Mae Salong, Chiang Rai Province

06/10/2010



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Creeping

Thailand

Uttaradit in 2006



Single Crop



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Thailand



BEFORE



AFTER

Slope Stability



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Community-based Geohazard/ Landslide Mitigation



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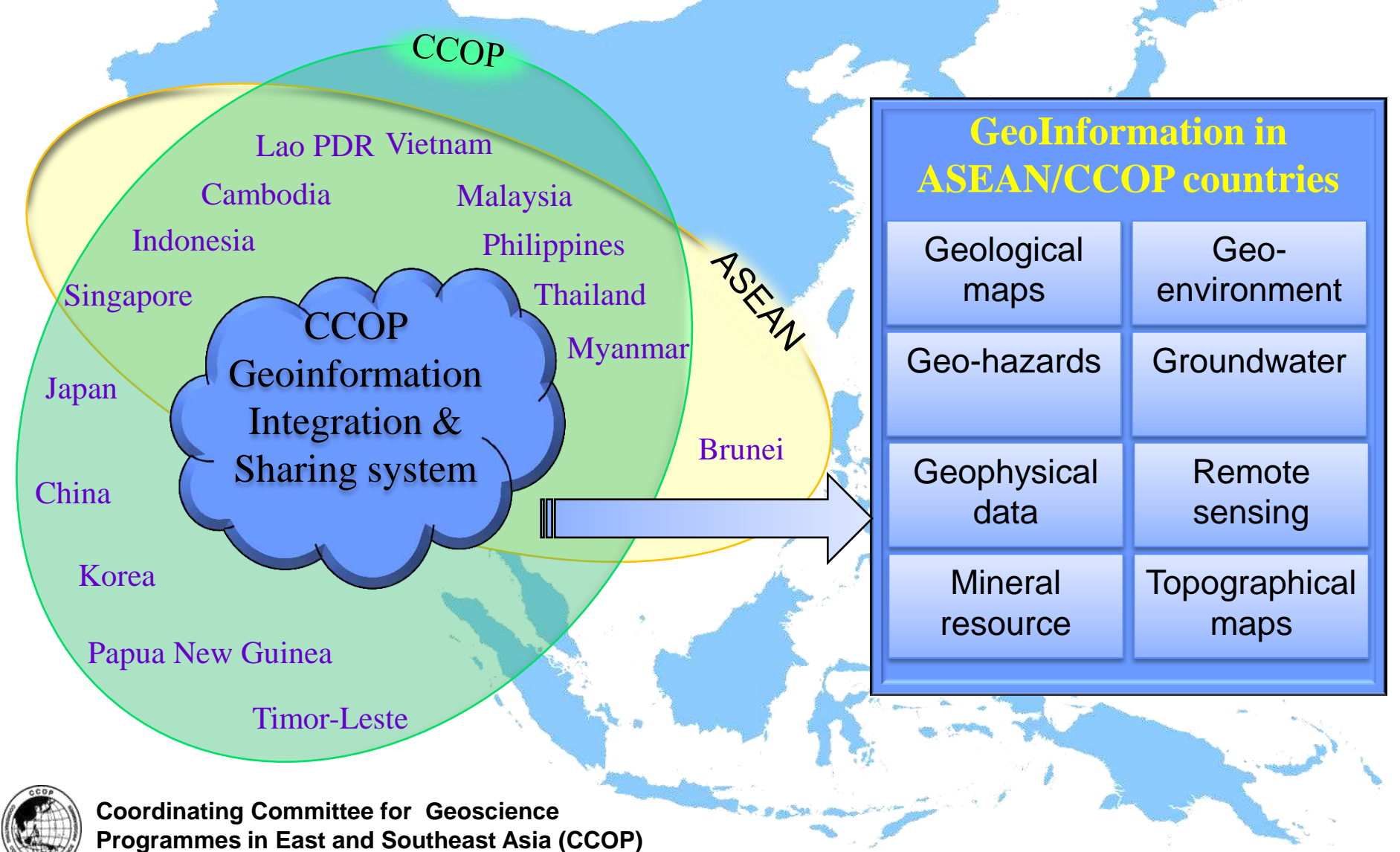
CCOP-VIGMR-DMR training course on Community-based Landslide Mitigation Ha Noi – Yen Bai, Vietnam 19-20 November 2013



**Monitoring Station of landslide & Climate
in Bac Kan Province**



Develop a new **geoinformation integration and sharing system** using international standards and free and open-source software among ASEAN/CCOP countries



Work Plan

2015

Kick-off

2016

1st WS

2017

2nd WS

2018

3rd WS

2019

4th WS

2020

5th WS

Grand design

System design

Selection of geoscience data

System development and data upload

Operation manual

Capacity building (Training Course, Web services formulation team)

Interaction with other major systems

Prepare a own server in each country

Preliminary Open

Official Open



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GSI Project Kick-off Meeting



Sep. 1-2, 2015, Bangkok, Thailand



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