

CALIBRE: European Commission Funded Asia-Link Project
"Cambodia and Lao Initiative for Building human Resources for the Environment"
Workshop 2 Manchester (UK) 15-19 Sept 2008 & Grenoble (France) 22-23 Sept 2008

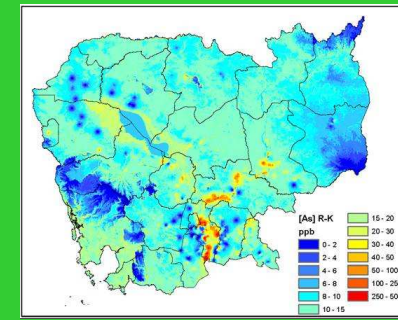
EU ASIA-LINK
CALIBRE

NUOL
(Lao PDR)

RUPP
(Cambodia)

UJF, Grenoble
(France)

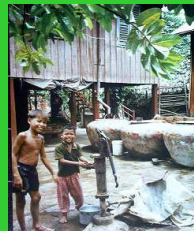
University of
Manchester
(United
Kingdom)



Welcome to Manchester

to all participants in the 2nd Workshop
of the EU ASIA-LINK CALIBRE Project

Room G.16
Williamson
Building



CALIBRE: European Commission Funded Asia-Link Project
“Cambodia and Lao Initiative for Building human Resources for the Environment”
Workshop 2 Manchester (UK) 15-19 Sept 2008 & Grenoble (France) 22-23 Sept 2008

EU ASIA-LINK
CALIBRE

NUOL
(Lao PDR)

RUPP
(Cambodia)

UJF, Grenoble
(France)

University of
Manchester
(United
Kingdom)



CALIBRE

Agenda & Purpose of 2nd Workshop

Manchester, UK & Grenoble, France

September 15th – 23rd 2008



CALIBRE: European Commission Funded Asia-Link Project
 “Cambodia and Lao Initiative for Building human Resources for the Environment”
 Workshop 2 Manchester (UK) 15-19 Sept 2008 & Grenoble (France) 22-23 Sept 2008

CALIBRE

EU ASIA-LINK
CALIBRE

NUOL
(Lao PDR)

RUPP
(Cambodia)

UJF, Grenoble
(France)

University of
Manchester
(United
Kingdom)

- Cambodia and Lao Initiative for Building human Resources for the Environment
- European Commission Funded Project
- EUR 689,108.00
– [approx. \$US 1 million]



- <http://www.calibre.manchester.ac.uk/>
- Also PBWIKI

Workshop 2

**EU ASIA-LINK
CALIBRE**

**NUOL
(Lao PDR)**

**RUPP
(Cambodia)**

**UJF, Grenoble
(France)**

**University of
Manchester
(United
Kingdom)**



- **Dates:**
 - September 15th-19th 2008 & September 22-23rd 2008
- **Location:**
 - Manchester, UK & Grenoble, France
- **Lead Organiser:**
 - David Polya (Manchester) & Lorenzo Spadini (UJF, Grenoble)
- **Participants**
 - Staff from CALIBRE Partners & Associates
 - Invited Speakers & Interested Parties

Purpose

- To facilitate exchange of knowledge and experience of methods for teaching environmental science/studies and for environmental data acquisition & analysis
- To further agreement of specifics of cooperative action management & development of implementation plan

**EU ASIA-LINK
CALIBRE**

**NUOL
(Lao PDR)**

**RUPP
(Cambodia)**

**UJF, Grenoble
(France)**

**University of
Manchester
(United
Kingdom)**



Protocols To Agree

**EU ASIA-LINK
CALIBRE**

**NUOL
(Lao PDR)**

**RUPP
(Cambodia)**

**UJF, Grenoble
(France)**

**University of
Manchester
(United
Kingdom)**

1. Agreeing actions /resolving differences
2. Monitoring – technical and financial
3. Selection principles for funded researchers
4. Selection principles for funded equipment
5. Terms of references for review activities
6. Linkages with other Asia-Link projects
7. Future funding to secure financial sustainability



CALIBRE: European Commission Funded Asia-Link Project
“Cambodia and Lao Initiative for Building human Resources for the Environment”
Workshop 2 Manchester (UK) 15-19 Sept 2008 & Grenoble (France) 22-23 Sept 2008

Agenda

**EU ASIA-LINK
CALIBRE**

Monday 15th September 2008

N	Start	End	Duration	Room	Description of Activity	Presenter	Affiliation	
(La	10:00	10:30	00:30	W/G14	COFFEE & REGISTRATION			
R	10:30	10:40	00:10	W/G16	Welcome to Manchester	Ballentine	UNIMAN	UK
(Ca	10:40	11:00	00:20	W/G16	Introduction to Workshop & Overview of CALIBRE Project	Polya	UNIMAN	UK
UJF,	11:00	11:10	00:10	W/G16	Team Leader Report - RUPP	Barom	RUPP	Cambodia
(F	11:10	11:20	00:10	W/G16	Team Leader Report - NUOL	Bounvilay	NUOL	Lao PDR
Univ	11:20	11:25	00:05	W/G16	Team Leader Report - UJF	Spadini	UJF	France
Mar	11:25	11:30	00:05	W/G16	Team Leader Report - UNIMAN	Polya	UNIMAN	UK
(U	11:30	11:50	00:20	W/G16	Mapping Arsenic Hazard in Cambodia	Polya	UNIMAN	UK
Kir	11:50	12:10	00:20	W/G16	Genetic Controls on Susceptibility to Environmental Chemical Hazards: Arsenic	Banerjee	IICB	India
	11:50	12:20	00:30	W/G16	Environmental Priorities in Lao PDR & Cambodia	Cooke	UNN	UK
	12:20	13:00	00:40	W/G16	KEYNOTE: Environment, Development & Governance	Woodhouse	UNIMAN	UK
	13:00	14:00	01:00	W/G14	LUNCH			
	14:00	14:45	00:45	W/G16	KEYNOTE: GIS & Communicating Environmental Hazards to Communes	Shantz	RDIC	Cambodia
	14:45	15:30	00:45	W/G16	KEYNOTE: Arsenic in the Foodchain	Haris	DMU	UK
	15:30	16:00	00:30	W/G14	COFFEE			
	16:00	16:30	00:30	W/G16	Geochemical Analytical Facilities/Software @ UNIMAN (inc. tour)	Polya	UNIMAN	UK
	16:30	16:35	00:05	W/G16	Researcher Report: English Language Training at University of Manchester	Choumlamanay	NUOL	Lao PDR
	16:35	16:40	00:05	W/G16	Researcher Report: Getting to & Living in Manchester	Vondara	NUOL	Lao PDR
	16:40	16:45	00:05	W/G16	Researcher Report: Groundwater Arsenic Data from Lao PDR	Phawadee	NUOL	Lao PDR
	16:45	18:10	01:25	W/G16	CALIBRE - Communications & Eng/Fr/Lao/Khymer Language Exchange	Phiphakhavong (Chair)	NUOL	Lao PDR



CALIBRE: European Commission Funded Asia-Link Project
“Cambodia and Lao Initiative for Building human Resources for the Environment”
Workshop 2 Manchester (UK) 15-19 Sept 2008 & Grenoble (France) 22-23 Sept 2008

Tuesday 16th September 2008									
Start	End	Duration	Room	Description of Activity	Presenter	Affiliation			
10:00	10:30	00:30	W2.20	COFFEE & REGISTRATION					
10:30	13:30	03:00	W2.20	CALIBRE MANAGEMENT MEETING [Part 1]	ALL				
13:30	14:30	01:00	W2.20	LUNCH					
14:30	17:30	03:00	W2.20	Statistics Workshop - Sampling Strategies / Data Analysis	Ganguli	Calcutta	India		
Wednesday 17th September									
Start	End	Duration	Room	Description of Activity	Presenter	Affiliation			
09:00	10:00	01:00	Chem.	Graduate Research Conference - Registration					
10:00	10:40	00:40	Chem/51	Graduate Research Conference - Keynote Talk					
10:40	11:00	00:20	Chem	COFFEE					
11:00	13:00	02:00	Chem/51	Graduate Research Conference - Environmental Topics	[SEVERAL]				
13:00	14:00	01:00	W/G16	LUNCH					
14:00	16:00	02:00	W/G16	Academic Writing Workshop	Morley	UNIMAN	UK		
16:00	16:30	00:30	W/G16	COFFEE					
16:30	18:00	01:30	W/G16	CALIBRE MANAGEMENT MEETING [Part 2]	ALL				
Thursday 18th September									
Start	End	Duration	Room	Description of Activity	Presenter	Affiliation			
09:30	11:00	01:30	W/G16	Teaching Methods in Higher Education	Boran	UNIMAN	UK		
11:00	11:30	00:30	W/G16	COFFEE					
11:30	13:00	01:30	W/G16	Teaching Methods in Higher Education	Boran	UNIMAN	UK		
13:00	14:00	01:00	W/G16	LUNCH					
14:00	15:30	01:30	W/G16	Teaching Methods in Higher Education	Boran	UNIMAN	UK		
15:30	16:00	00:30	W/G16	COFFEE					
16:00	18:00	02:00	W/G16	Open Discussion of Teaching Development within CALIBRE Project	Dany (Chair)	RUPP	Cambodia		
Friday 19th September									
Start	End	Duration	Room	Description of Activity	Presenter	Affiliation			
09:30	11:00	01:30	W/G16	Social Science Research Methods - Quantitative	Jones	UNN	UK		
11:00	11:30	00:30	W/G16	COFFEE					
11:30	13:00	01:30	W/G16	Social Science Research Methods - Quantitative	Jones	UNN	UK		
13:00	14:00	01:00	W/G16	LUNCH					
14:00	15:30	01:30	W/G16	Social Science Research Methods - Qualitative & Participatory	Jones	UNN	UK		
15:30	16:00	00:30	W/G16	COFFEE					
16:00	18:00	02:00	W/G16	Open Discussion of Environmental Research Priorities	Barom (Chair)	RUPP	Cambodia		

CALIBRE: European Commission Funded Asia-Link Project
“Cambodia and Lao Initiative for Building human Resources for the Environment”
Workshop 2 Manchester (UK) 15-19 Sept 2008 & Grenoble (France) 22-23 Sept 2008

Agenda

**EU ASIA-LINK
CALIBRE**

NUOL

Monday 22nd September

Start	End	Duration	Room	Description of Activity	Presenter	Affiliation	
09:00	09:15	00:15	LGIT/M1	COFFEE			
09:15	10:15	01:00	LGIT/M1	LGIT Laboratory Visit	Spadini	UJF	France
10:15	12:00	01:45	LGIT/M1	Field equipment & facilities	Tisserand	UJF	France
12:00	14:00	02:00		LUNCH			
14:00	14:45	00:45	LGIT/M1	Lake sediment sampling & GIS mapping of pollutants	Nedjai	UJF	France
14:45	15:30	00:45	LGIT/M1	Sampling of mercury polluted sediments	Spadini	UJF	France
15:30	16:15	00:45	LGIT/M1	Mercury speciation in continental water	Guedron	Forel	Switzerland
16:15	17:00	00:45	LGIT/M1	Geophysical mapping of soil sub-surface structures	Garambois	UJF	France
17:00	17:15	00:15	LGIT/M1	Review of environmental laboratory equipment to be purchased by NUOL	Bounvilay (Chair)	NUOL	Laos
17:15	17:30	00:15	LGIT/M1	Review of environmental laboratory equipment to be purchased by RUPP	Dany (Chair)	RUPP	Cambodia
17:30	18:00	00:30	LGIT/M1	Review of researcher transfers from RUPP/NUOL to UNIMAN/UJF	Polya (Chair)	UNIMAN	UK

Tuesday 23rd September

Start	End	Duration	Room	Description of Activity	Presenter	Affiliation	
09:30	11:30	02:00	ESRF	Visit to ESRF (European Synchrotron Radiation Facility)			
11:30	12:00	00:30		Transfer from ESRF to Restaurant			
12:00	14:00	02:00		LUNCH (Restaurant l'Epicurien)			
14:00	14:30	00:30		Transfer from Restaurant to LGIT			
14:30	16:00	01:30	LGIT/M1	Exemplar Asian-French Collaborative Research Project	Vachaud	UJF	France
16:00	17:30	01:30	LGIT/M1	Air pollution surveys in Grenoble	TBA	UJF	France
				CLOSE			

Key Questions to Consider / Please Contribute More

**EU ASIA-LINK
CALIBRE**

**NUOL
(Lao PDR)**

**RUPP
(Cambodia)**

**UJF, Grenoble
(France)**

**University of
Manchester
(United
Kingdom)**

- What are the key environmental and environmental training priorities for Lao PDR and Cambodia ?
- How do select researchers/topics for study in the EU ?
- What is best timing for workshops ?
- How do we make the most of synergies with other Asia-Link (& other) projects ?
- How do go we about securing financial sustainability ?
- How best to we take advantage of the partiucular interests, skills and expertise of the various Partners & Associates ?



CALIBRE: European Commission Funded Asia-Link Project
“Cambodia and Lao Initiative for Building human Resources for the Environment”
Workshop 2 Manchester (UK) 15-19 Sept 2008 & Grenoble (France) 22-23 Sept 2008

EU ASIA-LINK
CALIBRE

NUOL
(Lao PDR)

RUPP
(Cambodia)

UJF, Grenoble
(France)

University of
Manchester
(United
Kingdom)



CALIBRE

an overview & introduction

David Polya

School of Earth, Atmospheric & Environmental Sciences

The University of Manchester

David.Polya@manchester.ac.uk



CALIBRE: European Commission Funded Asia-Link Project
“Cambodia and Lao Initiative for Building human Resources for the Environment”
Workshop 2 Manchester (UK) 15-19 Sept 2008 & Grenoble (France) 22-23 Sept 2008

**EU ASIA-LINK
CALIBRE**

**NUOL
(Lao PDR)**

**RUPP
(Cambodia)**

**UJF, Grenoble
(France)**

**University of
Manchester
(United
Kingdom)**

What is CALIBRE ?



CALIBRE: European Commission Funded Asia-Link Project
 “Cambodia and Lao Initiative for Building human Resources for the Environment”
 Workshop 2 Manchester (UK) 15-19 Sept 2008 & Grenoble (France) 22-23 Sept 2008

CALIBRE

EU ASIA-LINK
CALIBRE

NUOL
(Lao PDR)

RUPP
(Cambodia)

UJF, Grenoble
(France)

University of
Manchester
(United
Kingdom)

- Cambodia and Lao Initiative for Building human Resources for the Environment
- European Commission Funded Project
- EUR 689,108.00
– [approx. \$US 1 million]



- <http://www.calibre.manchester.ac.uk/>
- Also PBWIKI

Project Timescale

- Start date: 1 January 2008
- Duration: 3 years (36 months)
- End date: 31 December 2010

EU ASIA-LINK
CALIBRE

NUOL
(Lao PDR)

RUPP
(Cambodia)

UJF, Grenoble
(France)

University of
Manchester
(United
Kingdom)



The University of Manchester

MANCHESTER
1824



UNIVERSITE
JOSEPH FOURIER
SCIENCES, TECHNOLOGIE, MEDICINE



Budget

EU ASIA-LINK
CALIBRE

NUOL
(Lao PDR)

RUPP
(Cambodia)

UJF, Grenoble
(France)

University of
Manchester
(United
Kingdom)



- Total eligible cost of the action
 - EUR 689108
- Amount requested from the European Commission
 - EUR 619867
- % of the total eligible costs of the action
 - 89.95 %

Project Officer

EU ASIA-LINK
CALIBRE

NUOL
(Lao PDR)

RUPP
(Cambodia)

UJF, Grenoble
(France)

University of
Manchester
(United
Kingdom)



- Daniel Costa Llobet
 - First Secretary, Delegation of the European Commission to the Kingdom of Cambodia, St., No. 1, Phnom Penh
 - Daniel.costa@ec.europa.eu
 - Phone: + 855 23 220611/220612/216996
 - FAX + 855 23 216997

Partners

EU ASIA-LINK
CALIBRE

NUOL
(Lao PDR)

RUPP
(Cambodia)

UJF, Grenoble
(France)

University of
Manchester
(United
Kingdom)



- University of Manchester
– (UNIMAN, UK)
- National University of Lao
– (NUOL, Lao PDR)
- Royal University of Phnom Penh
– (RUPP, Cambodia)
- Universite Joseph Fourier, Grenoble
– (UJF, France)



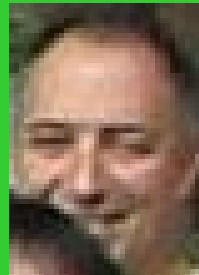
**EU ASIA-LINK
CALIBRE****NUOL
(Lao PDR)****RUPP
(Cambodia)****UJF, Grenoble
(France)****University of
Manchester
(United
Kingdom)**

CALIBRE: European Commission Funded Asia-Link Project
“Cambodia and Lao Initiative for Building human Resources for the Environment”
Workshop 2 Manchester (UK) 15-19 Sept 2008 & Grenoble (France) 22-23 Sept 2008

- Prof. Lammai Phiphakhavong (NUOL)
- Dr Bouthanh Bounvilay (NUOL)
- Dr David Polya (UNIMAN)



- Ms Khemngeun Pongmala (NUOL)
- Ms Nhotkeo Phawadee (NUOL)
- Ms Sengathit Choulamany (NUOL)
- Ms Vilayath Vongdara (NUOL)
- Prof Neth Barom (RUPP)
- Ms Dany Va (RUPP)
- Mr Kok Sothea (RUPP)
- Ms Chea Eliyan (RUPP)
- Professor Laurent Charlet (UJF)



- Dr Lorenzo Spadini (UJF)

Associates

**EU ASIA-LINK
CALIBRE**

**NUOL
(Lao PDR)**

**RUPP
(Cambodia)**

**UJF, Grenoble
(France)**

**University of
Manchester
(United
Kingdom)**

Action Contra la Faim (ACF) (France)

**Resource Development International –
Cambodia (RDIC) (Cambodia)**



Intellysis Limited (UK)

**Nepal Environment Research Centre (NERC)
(Nepal)**



Advisors

**EU ASIA-LINK
CALIBRE**

**NUOL
(Lao PDR)**

**RUPP
(Cambodia)**

**UJF, Grenoble
(France)**

**University of
Manchester
(United
Kingdom)**



- Non-contractual participants
- Advice on relevance of project to key stakeholders – government, NGOs, businesses, environmental professionals and students
- To be appointed **[ACTION]**

CALIBRE: European Commission Funded Asia-Link Project
“Cambodia and Lao Initiative for Building human Resources for the Environment”
Workshop 2 Manchester (UK) 15-19 Sept 2008 & Grenoble (France) 22-23 Sept 2008

University of Northumbria at Newcastle (UK)

EU ASIA-LINK
CALIBRE

NUOL
(Lao PDR)

RUPP
(Cambodia)

UJF, Grenoble
(France)

University of
Manchester
(United
Kingdom)

- Dr David Cooke
- Dr Samantha Jones
- Dr Andrew Collins



- Expertise in environmental disasters and impacts on economic development; organic geochemistry; social science
- Formalisation of active of involvement **[ACTION]**



Funds for Activities

**EU ASIA-LINK
CALIBRE**

**NUOL
(Lao PDR)**

**RUPP
(Cambodia)**

**UJF, Grenoble
(France)**

**University of
Manchester
(United
Kingdom)**

- Advanced training
 - 6 person-years of MSc/PhD training
 - 2 person-years of language training
- Workshops / Meetings
 - 5 (Cambodia, Lao, France, UK)
 - launch, field methods, training & data analysis, remediation methodologies, summary
- Laboratory and IT equipment
- Review of environmental priorities
- Management



Ongoing Programmes/Collaborations

EU ASIA-LINK
CALIBRE

NUOL
(Lao PDR)

RUPP
(Cambodia)

UJF, Grenoble
(France)

University of
Manchester
(United
Kingdom)

- **AquaTRAIN (Coordinator: Polya)**
 - Geogenic chemicals in groundwaters & soils
 - EC (2007-2010) / US\$ 4,000,000



- **PRAMA (Coordinator: Polya)**
 - Probabilistic Risk Assessment Modelling for Arsenic mitigation
 - UKIERI (2008-2010) / US \$ 230,000



- **Molecular ecology of arsenic (PI: Lloyd; Co-I Polya)**
 - NERC (2006-2009) / US\$ 700,000



Ongoing Programmes/Collaborations

EU ASIA-LINK
CALIBRE

NUOL
(Lao PDR)

RUPP
(Cambodia)

UJF, Grenoble
(France)

University of
Manchester
(United
Kingdom)

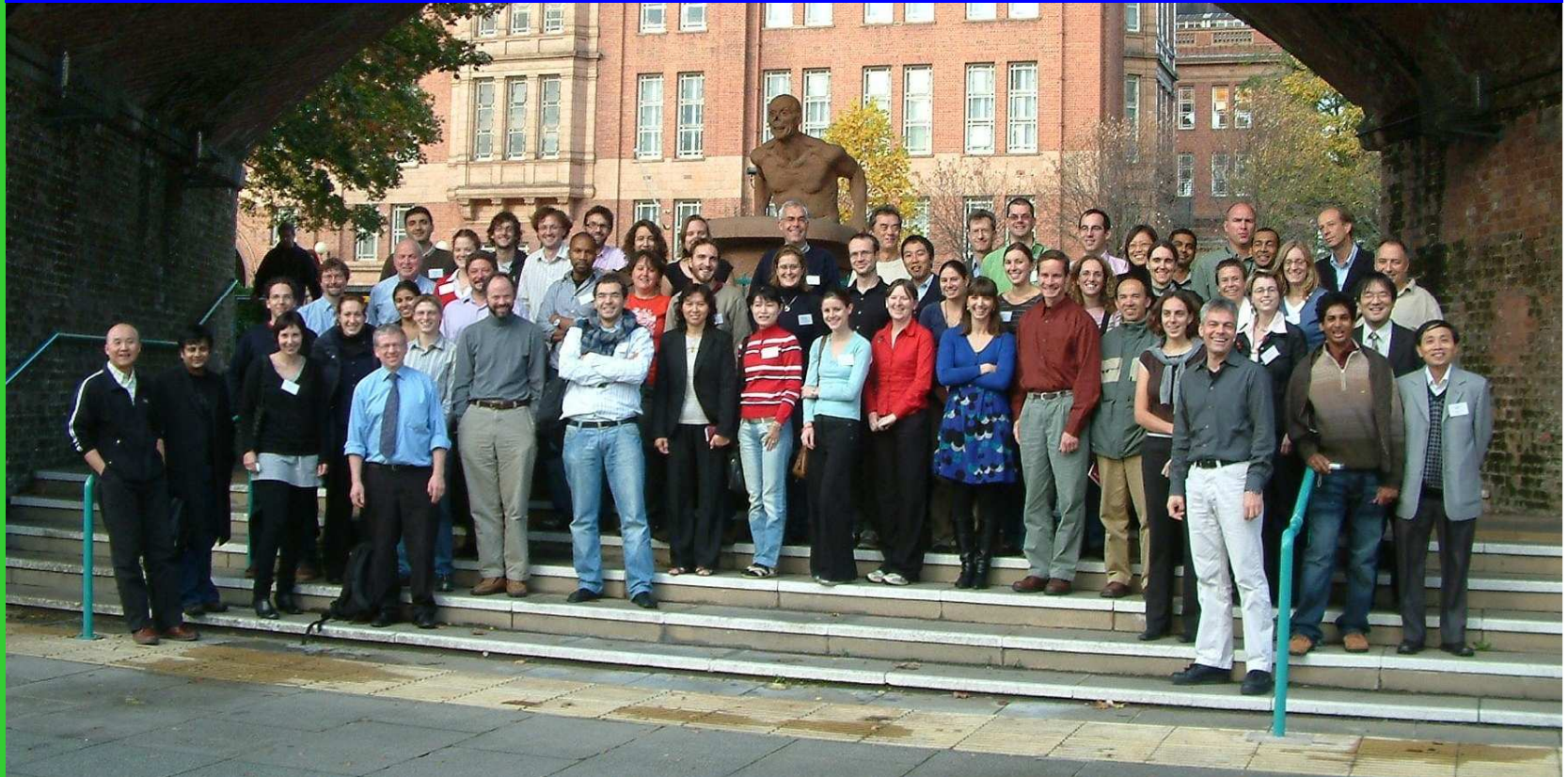


- **BRIDGE:** Building Human Resources in the Development of Academic Programmes in Sustainable Geo-system Engineering and Exploration
 - [Partners include: NUOL]
- **CITYBLUES:** Practical Implementation of Ecological and Engineering Principles in Integrated Storm Management
 - [Partners include: NUOL & RUPP]

CALIBRE: European Commission Funded Asia-Link Project
“Cambodia and Lao Initiative for Building human Resources for the Environment”
Workshop 2 Manchester (UK) 15-19 Sept 2008 & Grenoble (France) 22-23 Sept 2008

**EU ASIA-LINK
CALIBRE
NUOL
(Lao PDR)
RUPP
(Cambodia)
UJF, Grenoble
(France)
University of
Manchester
(United
Kingdom)**

EA WAG (Switzerland) /Manchester (UK) Joint Workshop on Arsenic in Groundwaters in South-East Asia: with emphasis on Cambodia & Vietnam, Manchester, October 29-30 2007



CALIBRE: European Commission Funded Asia-Link Project
“Cambodia and Lao Initiative for Building human Resources for the Environment”
Workshop 2 Manchester (UK) 15-19 Sept 2008 & Grenoble (France) 22-23 Sept 2008

**EU ASIA-LINK
CALIBRE**

**NUOL
(Lao PDR)**

**RUPP
(Cambodia)**

**UJF, Grenoble
(France)**

**University of
Manchester
(United
Kingdom)**

Background / Context



Environment and Sustainable Development Needs & Challenges

**EU ASIA-LINK
CALIBRE**

**NUOL
(Lao PDR)**

**RUPP
(Cambodia)**

**UJF, Grenoble
(France)**

**University of
Manchester
(United
Kingdom)**



- Cambodia Country Strategy Paper (CSP) 2004-2006
- EC-Cambodia National Indicative Programme (NIP) 2005-2006
- Interim CEP (Country Environment Profile)
- Lao CSP 2002-2006
- EC-Lao NIP 2002-2004
- Asian Development Bank CSP 2002
- ADB “Environments in Transition”
- National Environment Action Plan (NEAP, 1997)
- Socio-Economic Development Requirements
- State of the Environment report (SER, 2003)

**EU ASIA-LINK
CALIBRE**

**NUOL
(Lao PDR)**

**RUPP
(Cambodia)**

**UJF, Grenoble
(France)**

**University of
Manchester
(United
Kingdom)**



CALIBRE: European Commission Funded Asia-Link Project
“Cambodia and Lao Initiative for Building human Resources for the Environment”
Workshop 2 Manchester (UK) 15-19 Sept 2008 & Grenoble (France) 22-23 Sept 2008

Environmental and Sustainable Development Needs & Challenges

- Global climate change
- Pesticide use
- Deforestation
- Flooding
- Water quality
- Water resources
- Soil degradation
- Agricultural productivity e.g. rice

Population Changes

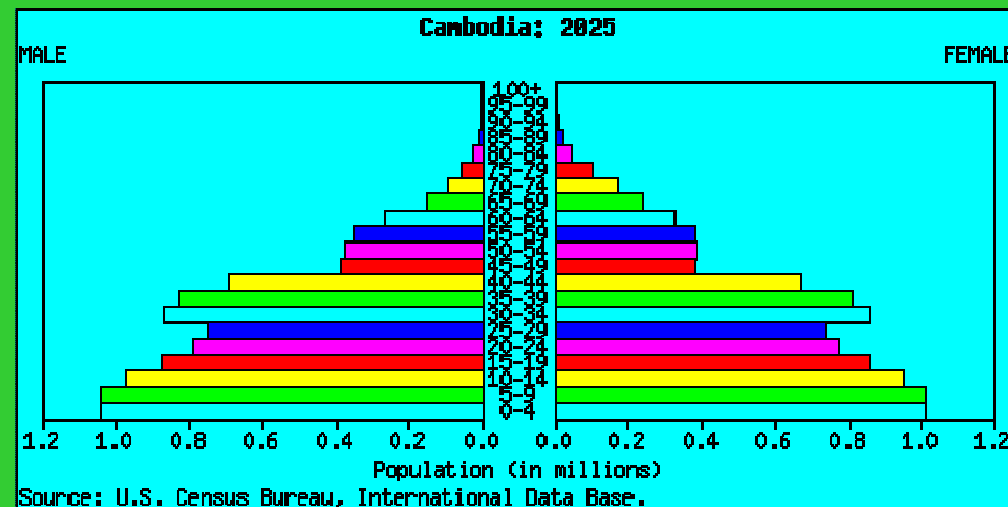
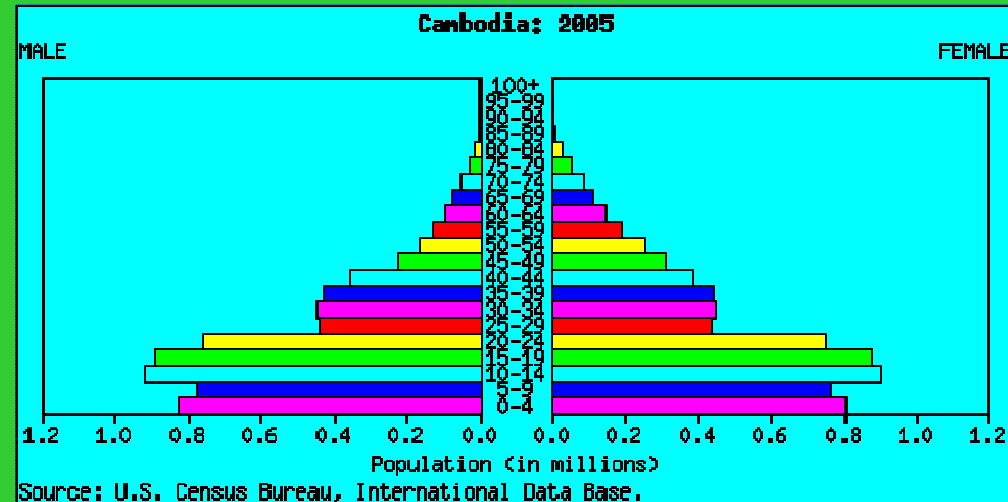
EU ASIA-LINK
 CALIBRE

NUOL
 (Lao PDR)

RUPP
 (Cambodia)

UJF, Grenoble
 (France)

University of
 Manchester
 (United
 Kingdom)



**EU ASIA-LINK
CALIBRE**

**NUOL
(Lao PDR)**

**RUPP
(Cambodia)**

**UJF, Grenoble
(France)**

**University of
Manchester
(United
Kingdom)**

Land Use

Mekong River Basin



Legend

- Major Cities
- Roads
 - Highway
 - Main Road
 - Other roads
 - Railroad
- District boundary
- Country boundary

Land cover

- Forest
- Mangrove
- Plantations
- Other
- Inundated mosaic
- Grassland
- Bamboo
- Wood- and shrubland
- Agricultural land
- Barren land
- Rocks
- Urban or built-over area
- Inland water
- Wetland
- No data
- Ocean
- Basin boundary



Datum: INDIAN60
Projection: UTM48

EU ASIA-LINK
CALIBRE
NUOL
(Lao PDR)
RUPP
(Cambodia)
UJF, Grenoble
(France)
University of
Manchester
(United
Kingdom)

Flood Risk Areas Mekong River Basin



Legend

- Stations (triangle symbol)
- Major Cities (red dot symbol)
- Roads
 - Highway (thick red line)
 - Main Road (red line)
 - Other roads (thin red line)
 - Railroad (black line with cross-ticks)
- Country boundary (dashed line)
- District boundary (dotted line)
- Flood risk area (light blue fill)
- Basin boundary (black outline)
- Urban area (hatched fill)
- Permanent water body (blue fill)
- Not flooded (green fill)



Datum: INDIAN60 Projection: UTM48

CALIBRE: European Commission Funded Asia-Link Project
“Cambodia and Lao Initiative for Building human Resources for the Environment”
Workshop 2 Manchester (UK) 15-19 Sept 2008 & Grenoble (France) 22-23 Sept 2008

**EU ASIA-LINK
CALIBRE**

**NUOL
(Lao PDR)**

**RUPP
(Cambodia)**

**UJF, Grenoble
(France)**

**University of
Manchester
(United
Kingdom)**

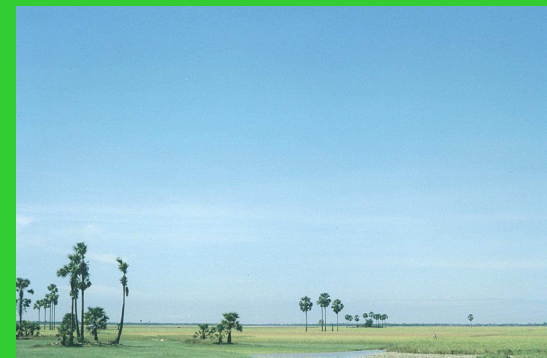
Fisheries



Biodiversity



Agriculture



CALIBRE: European Commission Funded Asia-Link Project
“Cambodia and Lao Initiative for Building human Resources for the Environment”
Workshop 2 Manchester (UK) 15-19 Sept 2008 & Grenoble (France) 22-23 Sept 2008

Arsenic in Cambodian Groundwaters

**EU ASIA-LINK
CALIBRE**

**NUOL
(Lao PDR)**

**RUPP
(Cambodia)**

**UJF, Grenoble
(France)**

**University of
Manchester
(United
Kingdom)**



Quantifying Human Health Risks from Chemicals in the Environment

- the source of the chemicals (nature and distribution, both now and in the future, of the chemical in environment),
- exposure routes (e.g. drinking water, eating food, inhaling airborne particles, washing); and
- human responses to exposure (and these may be strongly dependent upon genetic and dietary and other cultural factors).

EU ASIA-LINK
CALIBRE

NUOL
(Lao PDR)

RUPP
(Cambodia)

UJF, Grenoble
(France)

University of
Manchester
(United
Kingdom)



Development Priorities

EU ASIA-LINK
CALIBRE

NUOL
(Lao PDR)

RUPP
(Cambodia)

UJF, Grenoble
(France)

University of
Manchester
(United
Kingdom)

- Links between poverty alleviation and the environment
- Importance of local communities’ skills to manage natural resources
- Institutional capacity building
- Integrated approach to environmental planning

•Source: Socio-Economic Requirements and Proposals (Royal Government of Cambodia ,2000)



Priority Areas

**EU ASIA-LINK
CALIBRE**

**NUOL
(Lao PDR)**

**RUPP
(Cambodia)**

**UJF, Grenoble
(France)**

**University of
Manchester
(United
Kingdom)**



- Environment & Development Planning
 - Routine environmental monitoring, EIA monitoring, development of procedures & checking compliance
- Developing institutional capacity
- Environmental education
 - Increased awareness & capacity building
 - Incorporation of environmental education into schools, teaching training, RUPP & general public awareness

EU ASIA-LINK
CALIBRE

NUOL
(Lao PDR)

RUPP
(Cambodia)

UJF, Grenoble
(France)

University of
Manchester
(United
Kingdom)



CALIBRE: European Commission Funded Asia-Link Project
“Cambodia and Lao Initiative for Building human Resources for the Environment”
Workshop 2 Manchester (UK) 15-19 Sept 2008 & Grenoble (France) 22-23 Sept 2008

Demand for Environmental Science Trained Professionals

- Government commitment to various international agreements
 - Implementation of legislation
 - Consideration, drafting and development of further environmental legislation
- Demand for environmental science trained professionals

Overall Objective

**EU ASIA-LINK
CALIBRE**

**NUOL
(Lao PDR)**

**RUPP
(Cambodia)**

**UJF, Grenoble
(France)**

**University of
Manchester
(United
Kingdom)**

To empower Cambodian and Lao PDR
environmental professionals
... to protect the environment and
... minimise environment risks to human
health in Cambodia and Lao PDR
... within the framework of sustainable
development



Specific Objectives

- Human Resource Development
 - To develop research & training expertise
 - Including in self-learning, e-learning and funding acquisition skills
 - of (in Cambodia and Lao PDR):
 - present & future environmental teaching staff
 - other environmental professionals

EU ASIA-LINK
CALIBRE

NUOL
(Lao PDR)

RUPP
(Cambodia)

UJF, Grenoble
(France)

University of
Manchester
(United
Kingdom)



Target Groups

**EU ASIA-LINK
CALIBRE**

**NUOL
(Lao PDR)**

**RUPP
(Cambodia)**

**UJF, Grenoble
(France)**

**University of
Manchester
(United
Kingdom)**

1. RUPP & NUOL academic personnel with research and teaching responsibilities in environmental science/studies
2. Other practising environmental professionals (e.g. with NGOs, government organisations, other educational institutions) in Cambodia and Lao PDR



Final Beneficiaries

EU ASIA-LINK
CALIBRE

NUOL
(Lao PDR)

RUPP
(Cambodia)

UJF, Grenoble
(France)

University of
Manchester
(United
Kingdom)

- Cambodian and Lao PDR population as a whole but, in particular, high risk groups
 - (e.g. pregnant mothers & young children in areas with high arsenic in groundwaters)
- Present and future Cambodian and Lao PDR environmental professionals



Estimated Results

**EU ASIA-LINK
CALIBRE**

**NUOL
(Lao PDR)**

**RUPP
(Cambodia)**

**UJF, Grenoble
(France)**

**University of
Manchester
(United
Kingdom)**

- 6 person-years of MSc/PhD level research and teaching training
- CPD for 10s of environmental professionals
- environmental curricula : more rapid development
- first national award of PhDs
- national training of 10s of environmental professionals actively inputting advice to local, regional and national governments concerned with environmental protection in the context of substantive and necessary economic development



Main Activities (1 of 4)

- review, exchange & dissemination of ideas
 - particularly through:
 - workshops
 - networking
 - publications,
 - regarding key environmental priorities and professional training priorities and
 - proactively seeking co-financing beyond the timeframe of the action

EU ASIA-LINK
CALIBRE
NUOL
(Lao PDR)
RUPP
(Cambodia)
UJF, Grenoble
(France)
University of
Manchester
(United
Kingdom)



Main Activities (2 of 4)

- Installation of video-conferencing facilities
 - at Partner universities
 - in Cambodia and Lao PDR
- Establishment of an action website

EU ASIA-LINK
CALIBRE

NUOL
(Lao PDR)

RUPP
(Cambodia)

UJF, Grenoble
(France)

University of
Manchester
(United
Kingdom)



Main Activities (3 of 4)

- Advanced training
 - for Cambodia and Lao PDR
 - environmental professionals
 - 6 to 12 months secondments / research training in EU Partner universities
 - designed to be utilisable as credits for the completion of PhD programmes beyond the timeframe of the action

EU ASIA-LINK
CALIBRE

NUOL
(Lao PDR)

RUPP
(Cambodia)

UJF, Grenoble
(France)

University of
Manchester
(United
Kingdom)



Main Activities (4 of 4)

**EU ASIA-LINK
CALIBRE**

**NUOL
(Lao PDR)**

**RUPP
(Cambodia)**

**UJF, Grenoble
(France)**

**University of
Manchester
(United
Kingdom)**

- Short course and workshops
 - Design and delivery
 - relevant to the training needs of
 - Cambodian and Lao environmental professionals



**EU ASIA-LINK CALIBRE
LAUNCH/KICK-OFF MEETING
PHNOM PENH MAY 2008**



Logo Design

EU ASIA-LINK
CALIBRE
NUOL
(Lao PDR)
RUPP
(Cambodia)
UJF, Grenoble
(France)
University of
Manchester
(United
Kingdom)



“C”: Cambodia

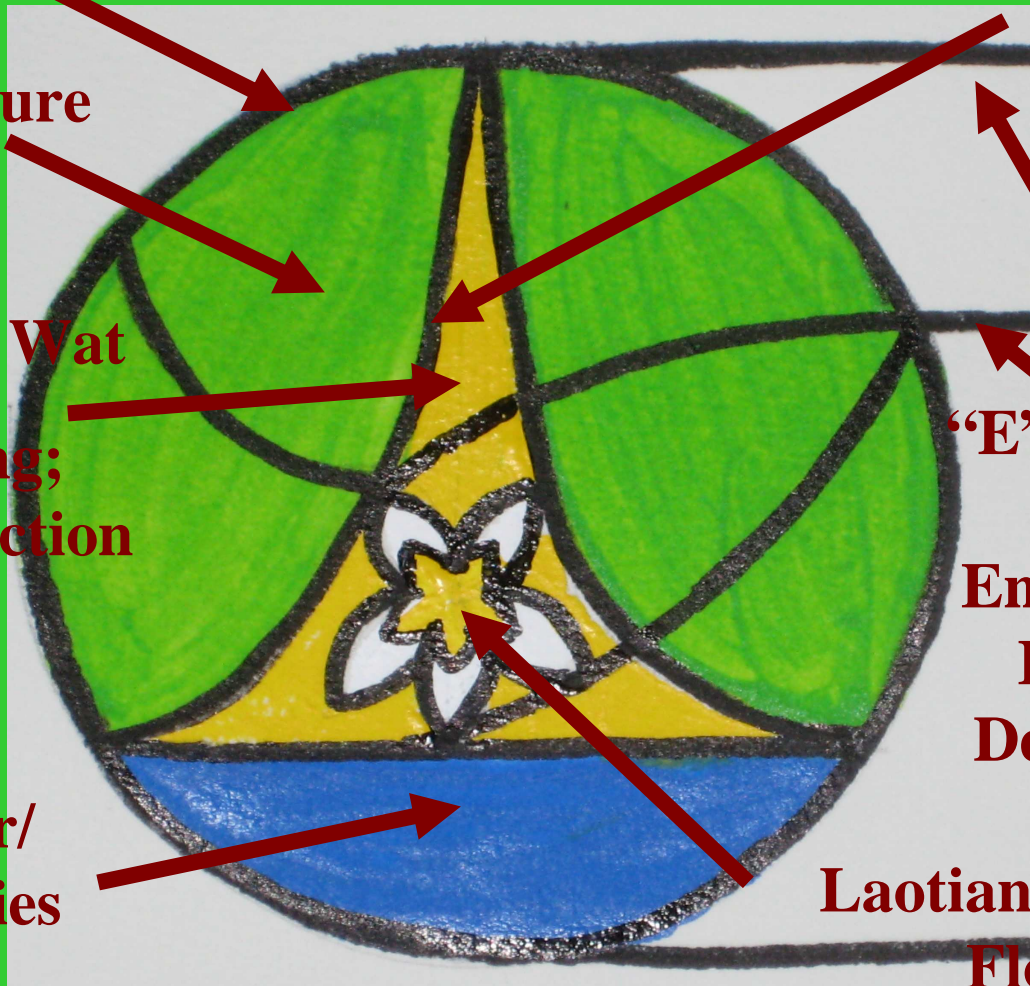
“L”: Lao PDR

Agriculture

Angkor Wat

Mining;
Construction

Water/
Fisheries



“E”: European
Union;
Environment;
Economic
Development

Laotian: Champa
Flower