

Climate mitigation in the least carbon emitting countries: What role for donors in Cambodia and Laos?



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Research project COOL

- **Commissioned by Ministry for Foreign Affairs of Finland to look at how synergies and trade-offs in climate change mitigation and development targets are combined in LDCs (Laos and Cambodia)**
- **Partners: Ministry of Environment, Cambodia; National University of Laos**
- **Contributors: Otto Bruun, Douangta Buaphavong, Hanna Kaisti, Kamilla Karhunmaa, Mira Käkönen, Jyrki Luukkanen, Sithong Thongmanivong, Try Thuon, Ponlok Tin, Visa Tuominen**
- **Research began in autumn of 2010 and finished at the end of 2011**
- **Dissemination of research results in Laos, Cambodia and Finland**

Integrating climate objectives into development assistance

- **The importance has been recognised: Development can no longer be thought of without reference to climate change**
 - **Strong grounds to argue: there should not be ODA that aggravates climate change (energy based on fossil fuels) or increases vulnerability of people to the impacts of climate change**
 - **Adaptation and poverty reduction can often have synergies (Klein et al 2005; Ayers and Huq 2009; Gupta 2009)**
- **Dilemma emerges when development finance is used for projects and initiatives that are principally mitigation-oriented (esp. in LDCs): highest emitters rarely are the poorest – does this mean there is a diversion of funds?**



Mitigation initiatives analysed:

CDM

Clean Development
Mechanism

VCM

Voluntary carbon
markets

REDD+

Reducing emissions
from deforestation
and forest degradation

EEP

Energy and
Environment
Partnership



Research questions of the project

- How are the four mitigation initiatives able to **produce sustainable development and pro-poor benefits** in LDC countries like Laos and Cambodia and how do the initiatives differ in this respect?
- What kind of role there is for ODA?
- What kind of **capacity building** activities would meaningfully support the mitigation initiatives and the fostering of multiple benefits?
- How does the commitment to **ownership** figure in the mitigation initiatives in Laos and Cambodia?



Focus of this presentation

- **How are the four mitigation initiatives able to produce *co-benefits*?**
- **Possible areas for ODA?**
- **Policy recommendations**





Research methods and materials: 4 case studies

	Interviews	Other materials	Time
CDM	14 key-informant interviews; 5 CDM project site visits; 6 focus group discussions in the projects sites	Project and policy documents (incl. PDPs, reports of the Cambodian CC department), feasibility studies),	May-June 2011
VCM	7 key-informant interviews	Offset certification databases; offset companies' portfolios; email correspondence with organisations	February-March 2011
REDD+	29 key-informant interviews; site visits	Policy briefings; presentations; newspaper articles	March-July 2011
EEP	12 key-informant interviews	Project documents	February-March 2011



Why Cambodia and Laos?

- **Both are LDC countries**
- **Both have been central stages for introducing, developing and piloting REDD+ approaches**
- **Cambodia has been a leading CDM country among LDCs**
- **Both are target countries of Finland's EEP Mekong programme**
- **VCM projects still few but new ones emerging**



Why is Finland relevant?

- **Finland has been forerunner in different climate change mitigation initiatives**
 - Among first countries in Prototype Carbon Fund (WB) and in piloting CDM and JI
 - In ODA: climate related aid relatively high since 2007
- **Like many other donors – more funds to mitigation than to adaptation: 49,9 % mitigation, 39,4% adaptation, 10,7 % forest-related in fast start finance (2010)**
- **Discussions on defining ‘new and additional’**



”New and additional” climate finance

- **Providing additional funds is grounded in normative commitment of developing countries’ right to develop**
- **Present in key climate policy documents: UNFCCC 1992 (Article 4); Kyoto Protocol (Article 11); Bali Action Plan (Decision 1); Copenhagen Accord (Add 1)**
- **Fast start finance pledges call for a balanced allocation between adaptation and mitigation + prioritizing adaptation for the LDCs**
- **Lack of an operational definition has resulted in Annex 1 countries unilaterally defining novelty and additionality**
- **E.g. Finland is achieving fast start finance commitments through a ”net increase of Finnish climate funding in 2010-12 compared to year 2009, which will be used as baseline”. All Finnish fast start finance is also counted as ODA**

”New and additional” climate finance and its importance for the LDCs

- **LDCs depend heavily on ODA for poverty alleviation**
- **LDCs are concerned that integrating mitigation objectives into ODA may imply a diversion of resources from one target group, country or region to another**
- **Mitigation has currently received more funds, even in the LDCs**
- **When funds are counted as ODA co-benefits need to be materialised and demonstrated**

”Annex 1 countries should provide funding to mitigation that is new and additional. They should not be allowed to recycle the same money as ODA and climate change assistance. This is highly challenging as there is yet no firm mechanisms to verify what is ODA and what is not. Especially as long as 0.7% GDP is not achieved”

- Interviewed Cambodian official

The role of ODA in the cases of our research

ODA has been used to support climate mitigation in two ways:

- 1) To directly support specific projects aimed at mitigating emissions**
- 2) To indirectly support the setting up of mitigation mechanisms (in the final instance funded without development cooperation funds)**

EEP

- All activities
- Represents a fully ODA funded programme that integrates development and mitigation targets

REDD+

- Capacity building
- Readiness preparation
- Technical activities
- Pilot projects
- OTHER TYPE OF FUNDS (carbon markets) STILL UNDER DISCUSSION

CDM

- More ODA independent than REDD+
- ODA has been relevant e.g. for building capacity of DNAs and in project development, info sharing and outreach
- Future importance in LDCs?

VCM

- Complementary funding to sale of VERs
- ODA has been used to initiate projects



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REDD+





REDD+ and multiple benefits

- **REDD+ rests on the realisation of multiple environmental and social benefits:**
 - **climate mitigation**
 - **climate adaptation**
 - **biodiversity**
 - **community**
- **Most current REDD+ activities have been ODA funded (capacity building, readiness preparation, technical activities, pilot projects)**
- **Several REDD+ related projects are currently linked to VCM**
- **In REDD+ negotiations, several questions remain, e.g. over final funding mechanism and distribution of benefits**



REDD+ findings

- Potential for multiple benefits but still many unclear issues e.g. how to address the main drivers of deforestation and problems in benefit sharing
- In Laos and Cambodia:
 - It is difficult for REDD+ to compete with e.g. rubber income in Laos → Investments in rubber of at least 400 000 ha
 - Blame for deforestation overly put on shifting cultivation
 - When addressing shifting cultivation e.g. in conservation areas → how to rightly mitigate livelihood losses?



Energy and Environment Partnership





Scope of the EEP study

- **Focus on the initiation of the program & First Call for Proposals.**
- **Situation different at the moment. 13 project up and running in mid-October 2011. Currently 32 projects.**



The role of ODA in the EEP Mekong

- **EEP now counted as climate finance**
- **ODA and climate finance not separated**

- **EEP problem analysis in Mekong:**
 - a) **Barriers to access to energy**
 - b) **Increasing amount of GHG emissions**



EEP findings

- **Dilemma of hitting two birds with one stone prevails**
- **When multiple benefits not reached diverts money from poverty reduction to mitigation**
- **Long-term predicatability and commitment from donors necessary**
- **Seems to fill a funding gap by providing 'small scale' funding**

EEP findings

- **Actual short term climate change mitigation is small**
- **Main results expected in the future**
- **(Fragmented approach) & short funding periods for projects -> impact?**
- **Financial feasibility of supported projects?**
- **Some cross-cutting issues overlooked**
- **Ownership over the program vs. ownership within the program**



Voluntary Carbon Markets VCM





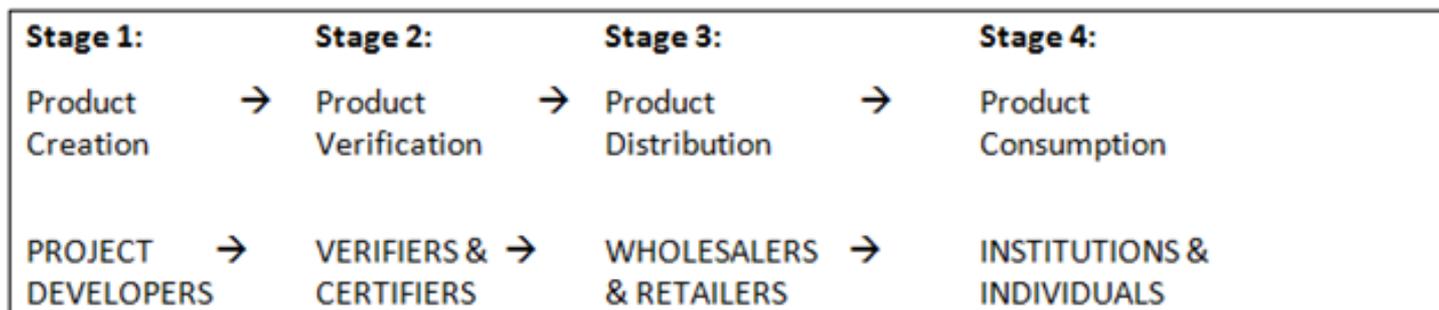
Co-benefits and energy-related VCM

- Voluntary Carbon Markets refer to project-based reductions of emissions and VCM has been developed outside Kyoto Process
- VCM is not directly linked to ODA
- However, many ODA funded small scale RE projects want to get additional funding to upscale or continue projects by selling carbon offsets in VCM
- Companies, institutions, individuals buy offsets to voluntarily reduce their carbon offprint
- Offset projects have to be appealing to buyers
- Projects are advertised with co-benefits (climate + health impacts, reduced deforestation, savings for hh, new job opportunities...)



Co-benefits and energy-related VCM

- Project developers in Laos and Cambodia are interested in VCM but so far only 2 RE energy projects in Cambodia get income selling carbon credits in VCM
 - Improved cook stoves program (GERES)
 - Domestic biodigester program (SNV)
- Certification process is long, expensive and consultant-driven
- The income is unpredictable – “risk funding”
- The few successful projects can really create co-benefits but have to be well designed and monitored
- However, the benefits do not necessarily reach the poorest (e.g. biogas project for better-off farmers and improved cook stoves only for cities)





Clean Development Mechanism (CDM)





Cambodia an interesting case because (together with Uganda) hosts the highest amount of CDM projects amongst the LDCs

5 registered projects:

- Only the cement heat project has issued CERs
- Angkor rice husk close to issuance
- W2E is the newest project and has advanced rapidly
- TTY practically terminated at least partly due to cassava market problems
- Samrong Thom experiencing some drawbacks with the monitoring process

CDM PROJECTS IN CAMBODIA

Title	Type	Annual emission reduction ktCO2e/yr	Credit start to 2012 ktCO2e	Issuance delay (months)	Project Participants	Credit buyer
Angkor Bio Cogen Rice Husk Power Project (ABC) (attached to a rice mill)	Biomass energy	52	293	54,2	Angkor Bio Co LTD. Mitsubishi UFJ Securities	Japan (Mitsubishi UFJ Securities)
TTY Cambodia Biogas Project (attached to a cassava starch factory)	Methane avoidance waste water	50	217	37,5	TTY Agricultural Plant Development IMEX Co Ltd Carbon Bridge Pte Ltd	n.a.
Methane fired power generation plant in Samrong Thom Animal Husbandry, Cambodia+C15 , (attached to a pig farm)	Methane avoidance, manure	5,6	23	34,5	Samrong Thom Animal Husbandry	Japan (Mitsubishi UFJ Securities)
Kampot Cement Waste Heat Power Generation Project (KCC-WHG) (attached to a cement factory)	EE own generation, cement heat	17	61	23,3	Kampot Cement Company Co. Ltd.	Denmark (Nordjysk Elhandel)
W2E Siang Phong Biogas Project Cambodia (attached to a cassava starch factory)	Methane avoidance, waste water	27	42	4,1	W2E Siang Phong Ltd	n.a.



	ABC rice mill	Samrong Thom pig farm	Kampot Cement heat project	W2E Siang Phong biogas project
Local environmental benefits	NO	YES: Improved water quality and prevention of odours.	NO + Negative impacts from the factory itself	YES: Improved water quality and prevention of odours
Social benefits	Promises in PDD to electrify near-by villages not materialised	Promises in PDD to electrify near-by villages not materialised. + Worries about the workers' rights	NO promised social benefits in PDD	NO promised social benefits in PDD
Economic benefits	Benefits one of the largest ricemills in the country	Benefits the biggest pig producer in the country	Benefits the biggest cement factory in the country	Benefits the cassava factory that is among the biggest cassava producers in the country
in terms of employment	LIMITED	LIMITED	LIMITED	LIMITED
Technology transfer	First time applied for Cambodia but not easily replicated. Technical trainings for local workers not materialized.	First time for Cambodia but not easily replicated	First time applied for Cambodia but currently the only large cement factory in the country.	First time applied in Cambodia Possibilities for replication exist.



SD benefits of CDM projects in Cambodia

- **So far only the country's largest actors in their respective industrial sectors + trans/multinational companies have been able to develop CDM projects**
- **Several projects promised more than actually delivered in terms of SD benefits for the host communities**
- **The projects developed in closer relation to DNA seemed to have more concrete local benefits**
 - The projects developed by big international companies seemed to have more questionable sustainability benefits, even some negative impacts
- **The DNA officials should have more tools and resources to follow up & monitor SD benefits**
- **Key question similar to many LDCs with difficulties attracting investments: how to guarantee bargaining power over the approval conditions and rigorous screening of projects?**



ODA and CDM

- **ODA as an element of leveling the playing field? And a tool for enhancing co-benefits and steering CDM towards a more pro-poor pathway? → ‘A hesitant yes’**
- **An area for ODA-related capacity building could lie in the environmental and social regulation & SD monitoring of CDM projects**
- **To ensure wider ownership the capacity building projects could consider targeting civil society participation (in addition to govt & private sector)**
- **Dilemmas in CDM-related ODA:**
 - How to assure that finance is not diverted e.g. from efforts to reach MDGs? (The support for CDM not well justified if can not tackle with the right obstacles for co-benefits)
 - How to deal with potentially problematic self-interests of donors
1) technology exportation 2) out-sourcing of emission reductions?



Main findings

- **SD and pro-poor benefits from the analysed initiatives thus far modest, but EEP seemed to work better than the others in combining poverty reduction elements to climate mitigation**
- **Win-win challenge especially in CDM**
 - Dilemma of un-matching target groups in mitigation and poverty reduction: poorest groups emit the least
 - In VCM the story matters more than credit maximisation
- **Even if ODA can somewhat strengthen the co-benefit potential of CDM – still inherent contradiction prevails**
(CDM is about maximisation of CERs but poorest segments of society simply have very limited supply of emissions reductions)

Conclusions 1/2

- **Mitigating emissions in the least developed countries can be problematic:**
 - **LDCs have nominal emissions, limited emissions reduction potential (cf. logic of market mechanisms)**
 - **At the same time important to support LDCs in building sustainable energy pathways and avoiding carbon-intensive "lock-ins" in development pathways**



Conclusions 2/2

- **Aid seems to be better spent if it is directly channelled to e.g. enhancement of rural energy provision with sustainable renewable energy**
- **Should there be a separation of climate finance and climate-ODA? (cf. Bruggink 2012)**
 - 1) Climate finance → solving problems related to rising affluence: mitigation, economic growth (truly new and additional)
 - 2) Climate ODA → solving problems related to persistent poverty: sustainable energy access, adaptation, resilience
- **LDC support and ownership: for mere implementation or also for setting the mitigation agenda?**



Policy recommendations for donors

- **In integrating climate change mitigation and development cooperation, donors should:**
 - **Support low-carbon development pathways**
 - **Prioritise pro-poor and sustainable development benefits in climate ODA**
 - **Use ODA to support more programmatic approaches**
 - **Support institutional frameworks and capacities for delivering pro-poor and sustainable development benefits (e.g. EIA, SIA)**

Policy recommendations for donors

- **Regarding ownership:**
 - **Prerequisite for ownership is that mechanisms are need-based**
 - **Move from country ownership to democratic ownership (especially when projects affect access to resources)**
 - **Integration of local communities is essential for equitable and transparent benefit-sharing**



Policy recommendations for donors

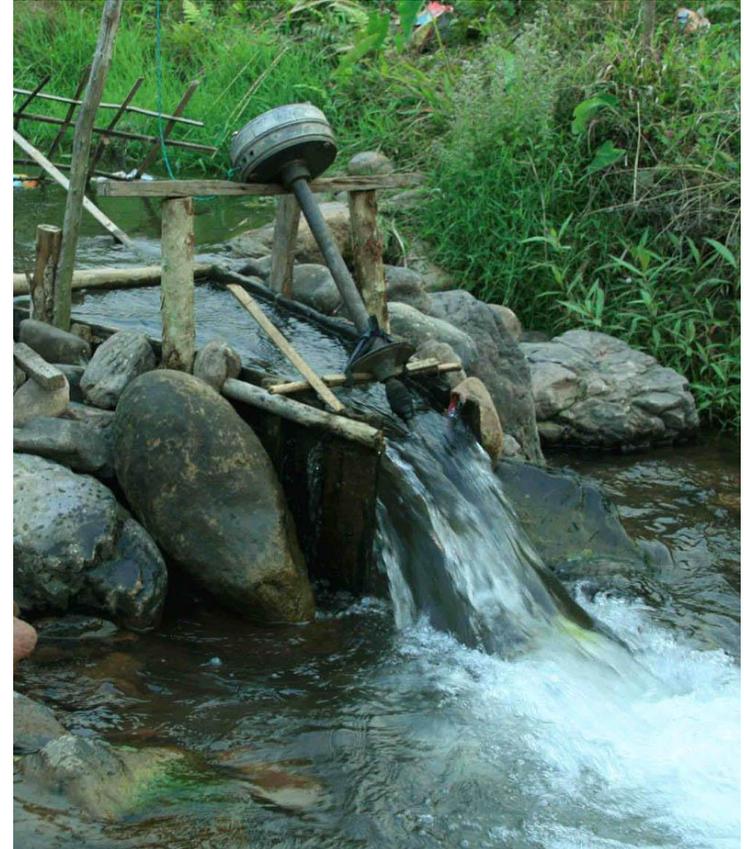
- **In capacity building:**
 - **Support capacities in least developed countries for agenda setting in climate policy, not only for implementation**
 - **Support capacity of civil society, local communities, academia, etc.**
 - **Support North – South – South cooperation**
 - **Strengthen capacity for regulatory framework building, impact assessment (SIA, EIA) and Free, Prior and Informed Consent (FPIC)**





Policy recommendations for donors

- **In climate finance:**
 - **Scale up climate finance during 2013-2019 to reach 100 billion USD**
 - **Prioritize adaptation in the Least Developed Countries**
 - **Strive for an ambitious international common definition of 'new and additional'**





Thank you!

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Interlinkages between Energy and Livelihoods

ENERGY FOR ALL
Access to sustainable energy for all

FREPLA
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LEGITIMATE
Legitimacy and Effectiveness in Global Environmental Governance

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REEPRO
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ICHLAOS
Institutional Partnership for Sustainable Energy Future in Laos

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Institutional Partnership for Sustainable Energy Future in Cambodia

Finland Futures Research Centre is conducting energy and climate research and designing and implementing capacity-building in the Mekong region in Southeast Asia. The Mekong region gets its name from the Mekong River which winds its way through Yunnan province in China, Vietnam, Thailand, Myanmar, Lao PDR and Cambodia.

The Mekong region has high biological and cultural diversity, and the areas vary in terms of economic development and political systems. What is common to the Mekong countries is that the energy demand is rapidly increasing due for example to industrialisation, urbanisation and rural electrification programmes.

Energy choices made in the developing countries today have long-ranging consequences, both in terms of investment and impact on the global climate. Energy is in numerous ways linked to the efforts in reducing poverty, improving human welfare and raising living standards but the energy solutions have long term impacts on environment, economy and society. The urgent question, therefore, is what type of energy supply and transmission infrastructure should be promoted. Therefore, securing access to safe, clean and sustainable energy is one of the greatest challenges of the near future.

The aim of Finland Futures Research Centre is to promote the transition to sustainable energy in the Mekong region through collaboration and networking, research and capacity-building. Sustainable energy refers to renewable energy that is also socially and economically viable in the long run.

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