Open Data als Katalysator für nachhaltige Entwicklung?

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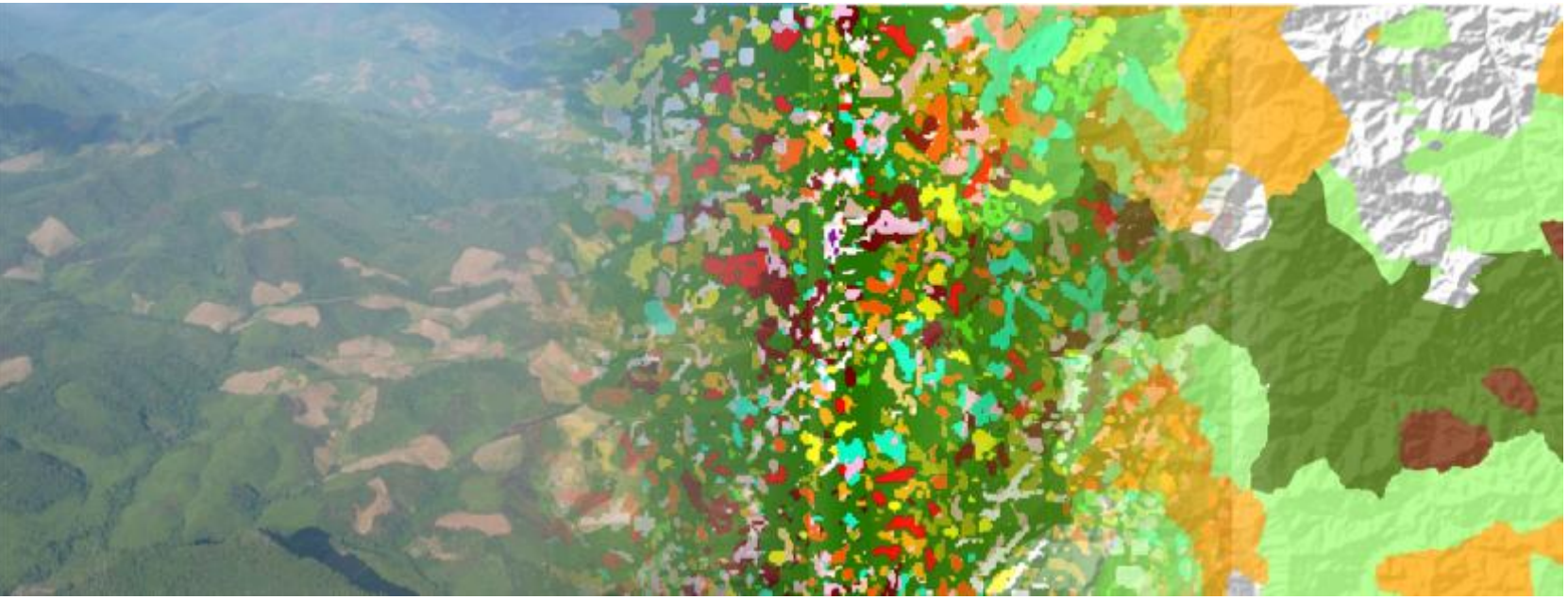
Beispiele angewandter Forschung in Südostasien



Vorlesung Open Data
Andreas Heinimann & Peter Messerli CDE & GIUB
18. April 2019

Übersicht:

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1. Einführung: Wissen für Nachhaltige Entwicklung
2. Wichtige Fragen auf dem Weg zu Open Data für NE
   Available? Adequate? Accessible? Enabling?
   Beispiele aus Laos und Myanmar
3. Entwicklungsansprüche transparent machen mittels crowd-sourcing
   Who – What – Where?

1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
THE GLOBAL GOALS
For Sustainable Development
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE AND JUSTICE STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS

BUT: issue of trade-offs

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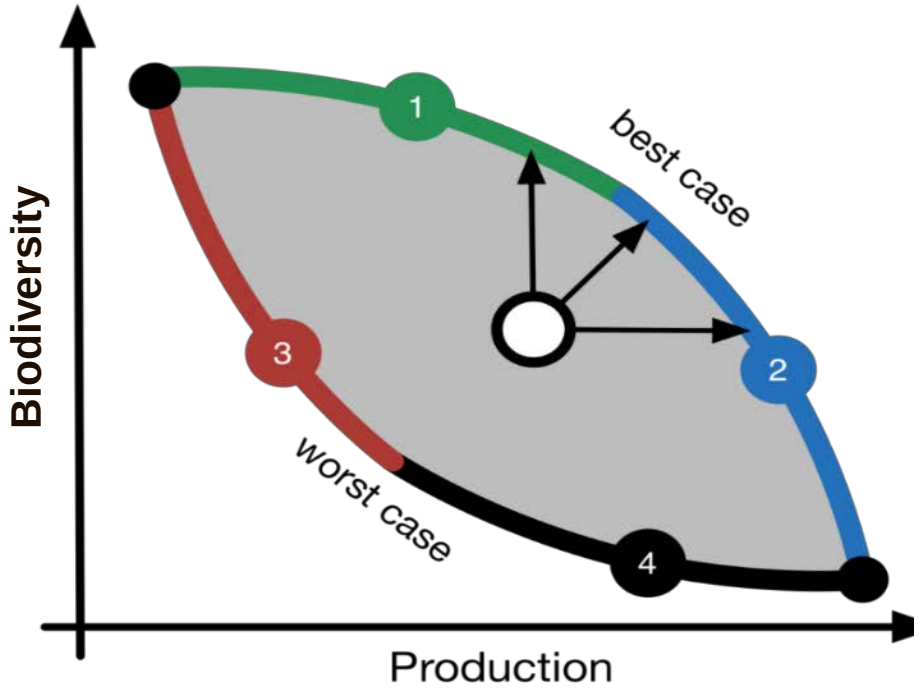
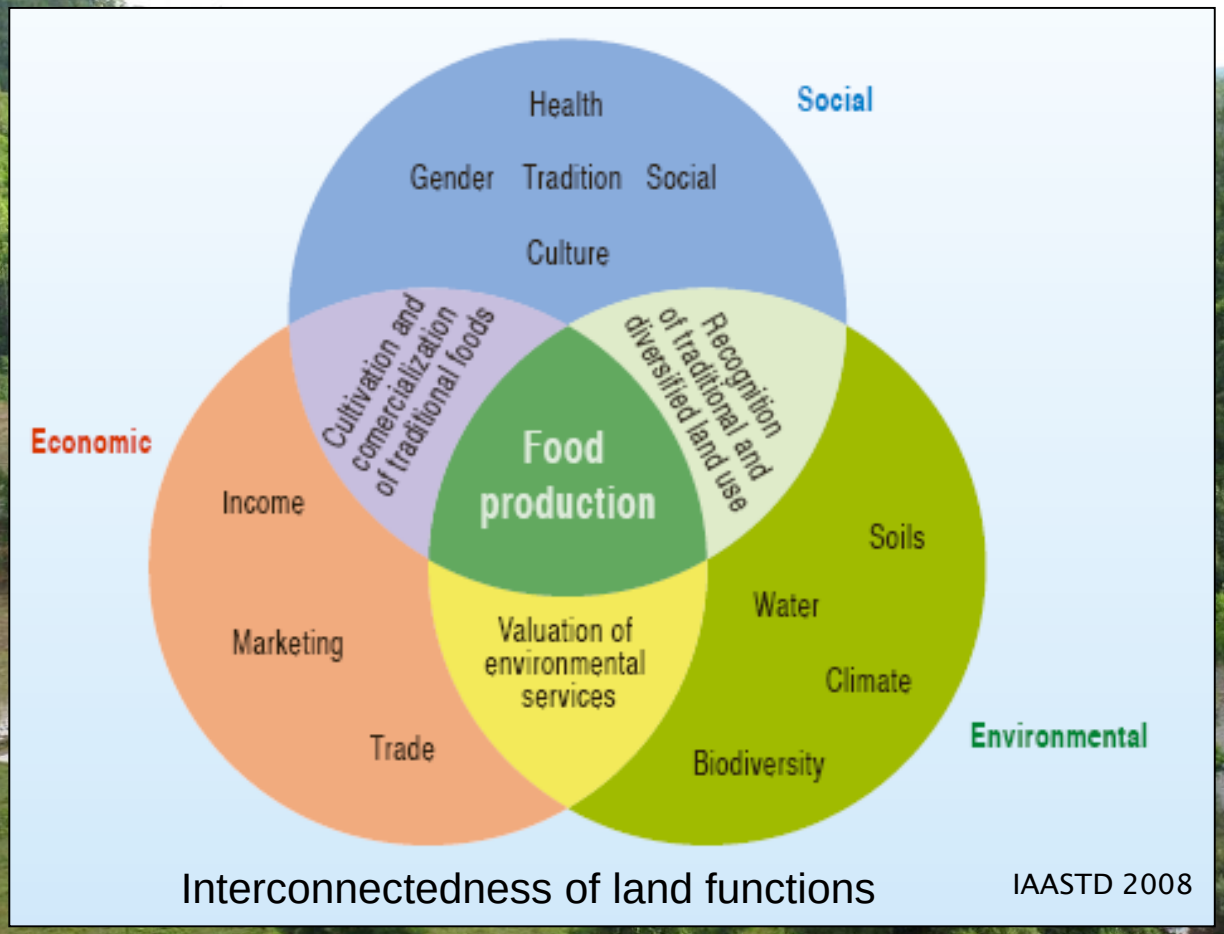


Seppelt et al., 2016 Bioscience

Nachhaltige Landnutzung



Interconnectedness of land functions

IAASTD 2008

Sustainable land use ← **Goal oriented and equitable decision making** ← **Navigating trade-offs (sectors and scale)** ← **Knowledge**

Herausforderungen für Daten- und Wissensproduktion (1/2)

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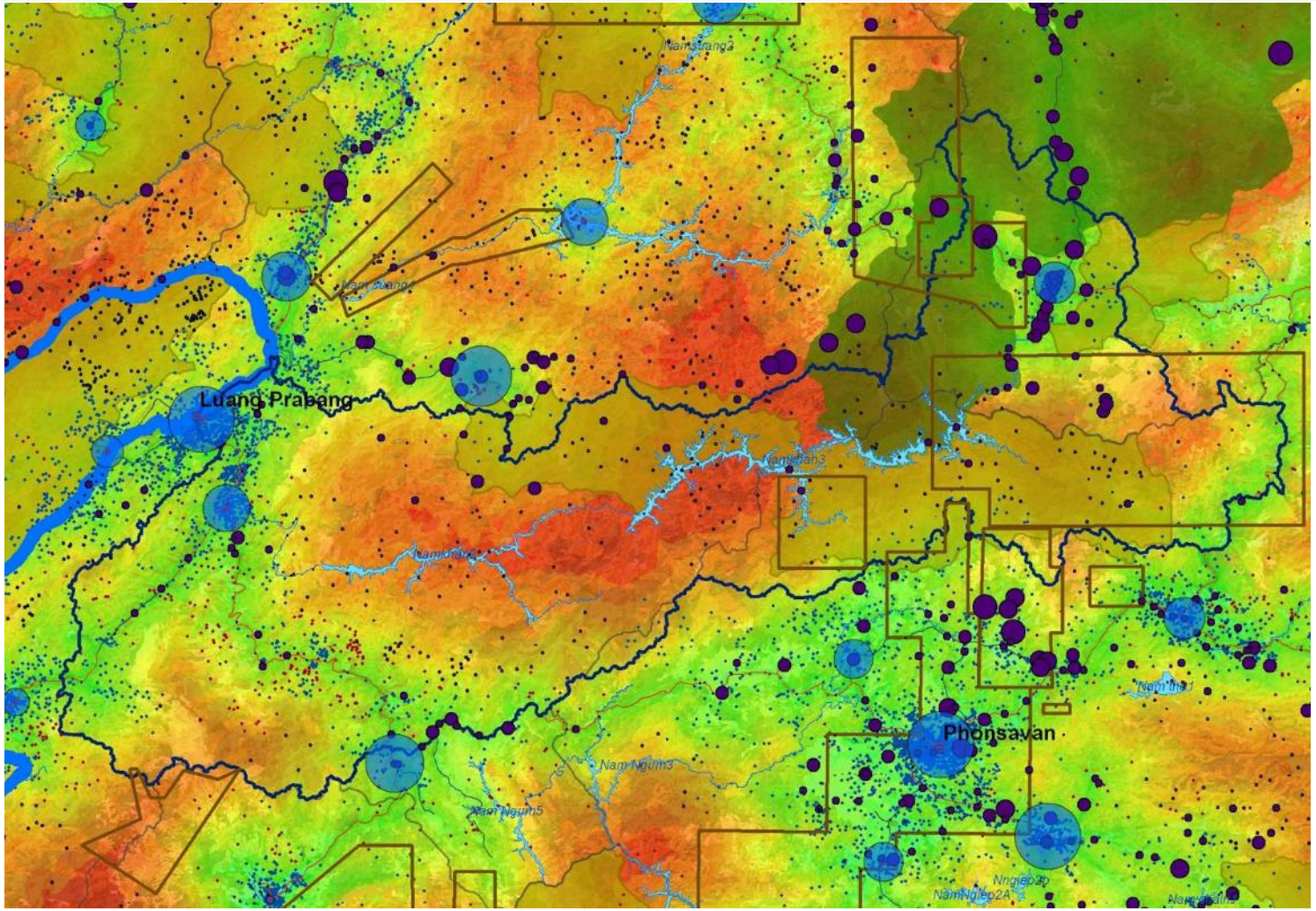
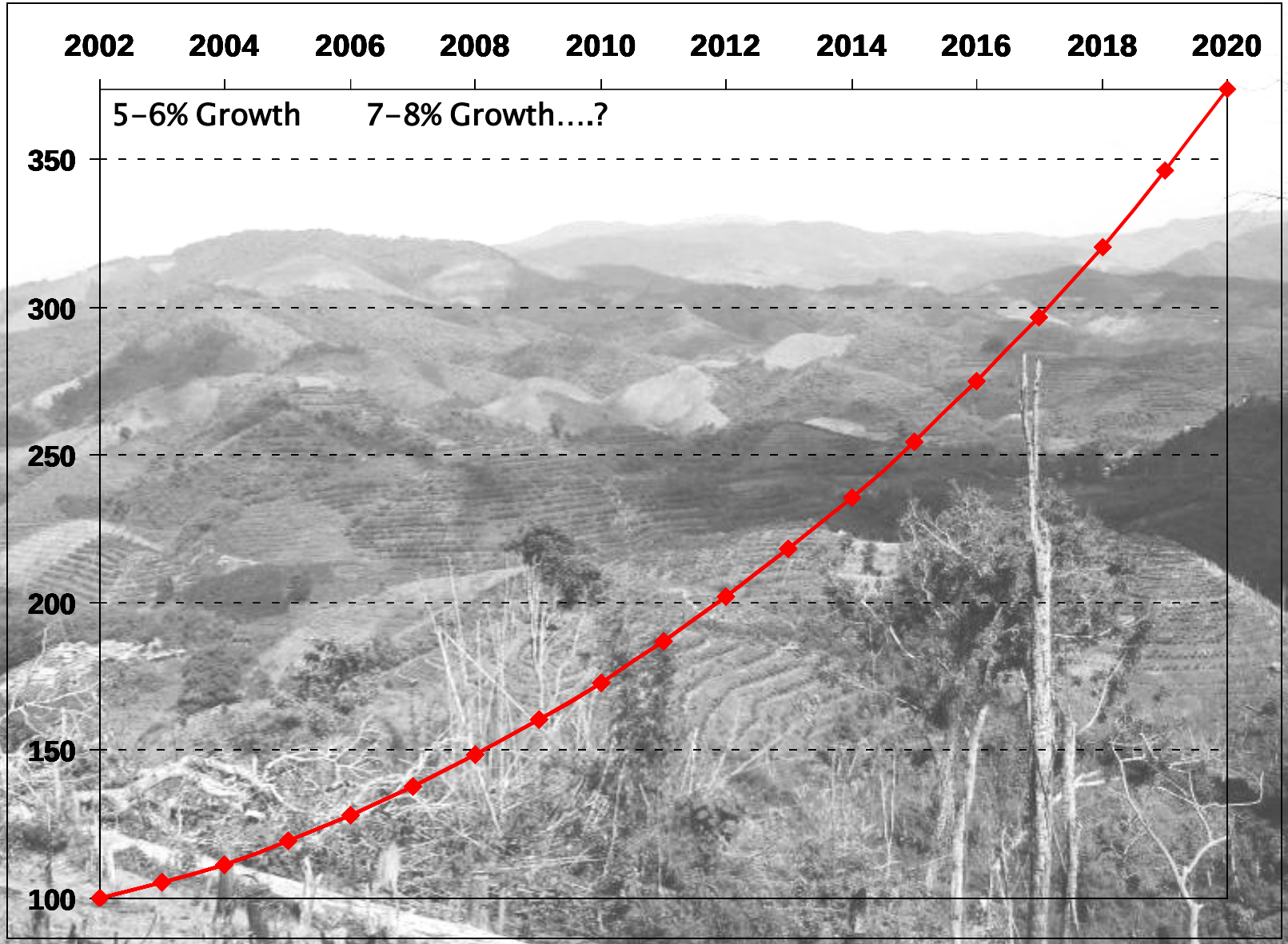


Herausforderungen für Daten- und Wissensproduktion (2/2)



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Armutsbekämpfung und Umwelt: Zielkonflikt oder Synergie?

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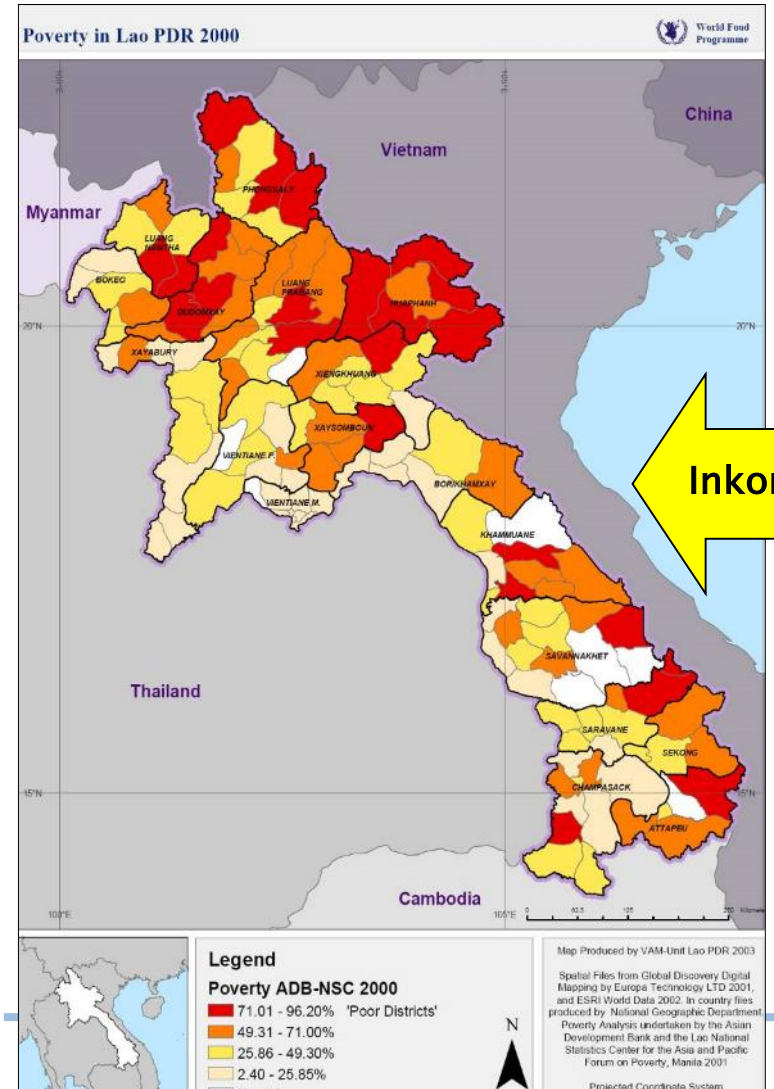
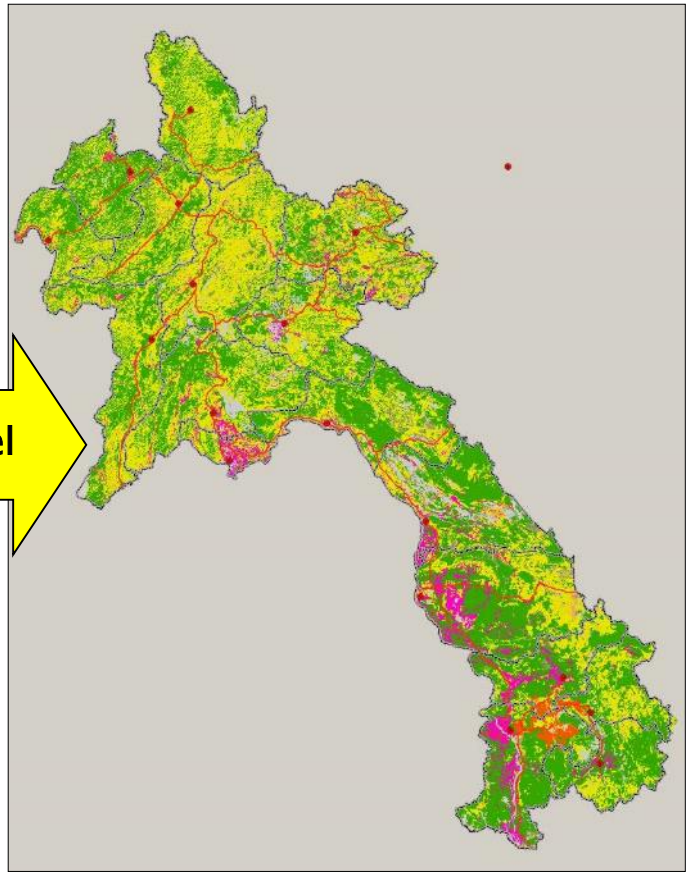


Inkompatibel

Forest Cover 2002



Source: MAF, 2002

Sozio-öknomischer Atlas von Laos

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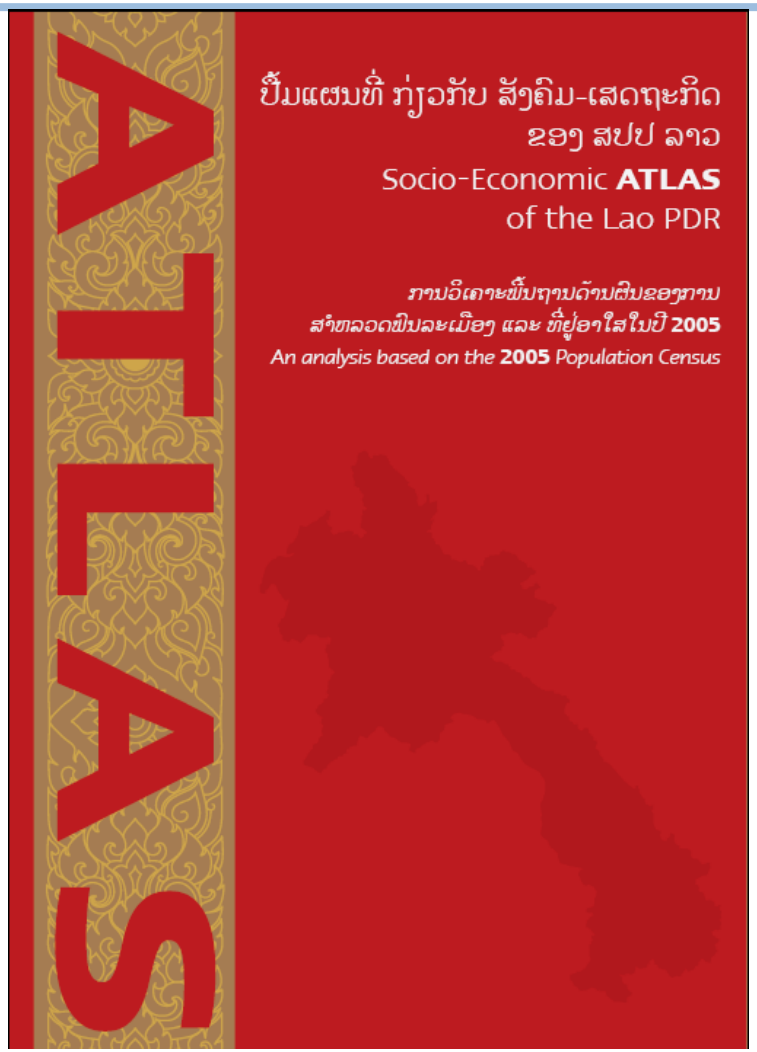

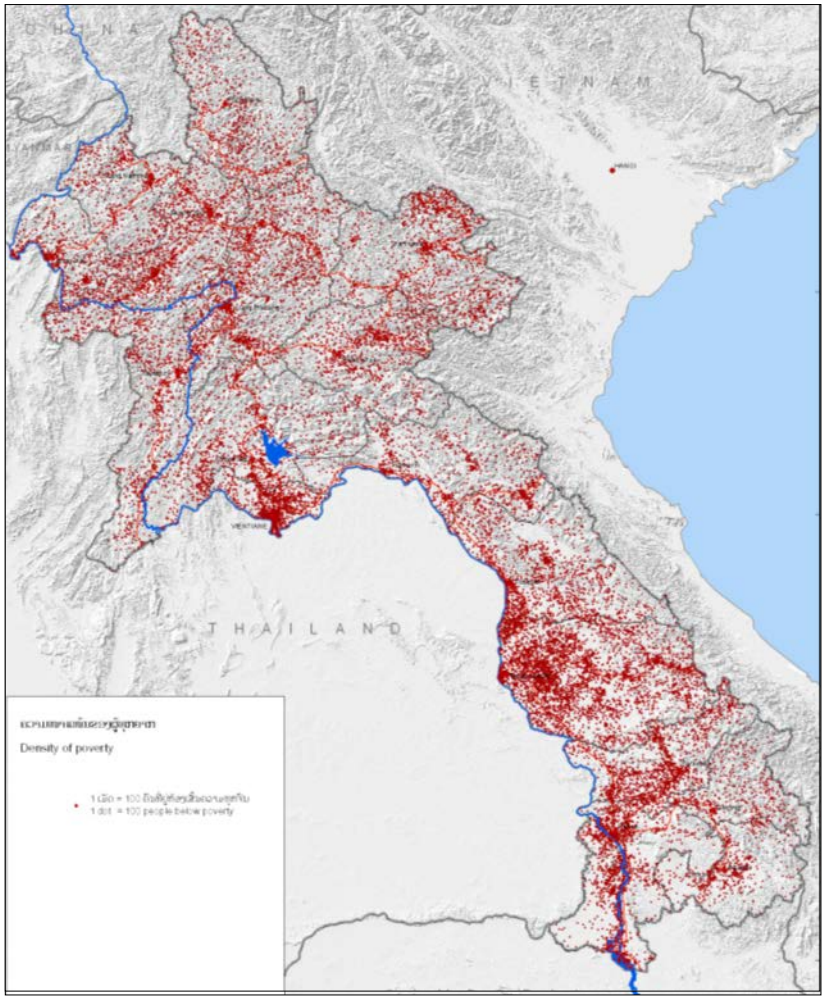

www.laoatlas.net

Räumliche Muster des Umwelt-Armut Nexus

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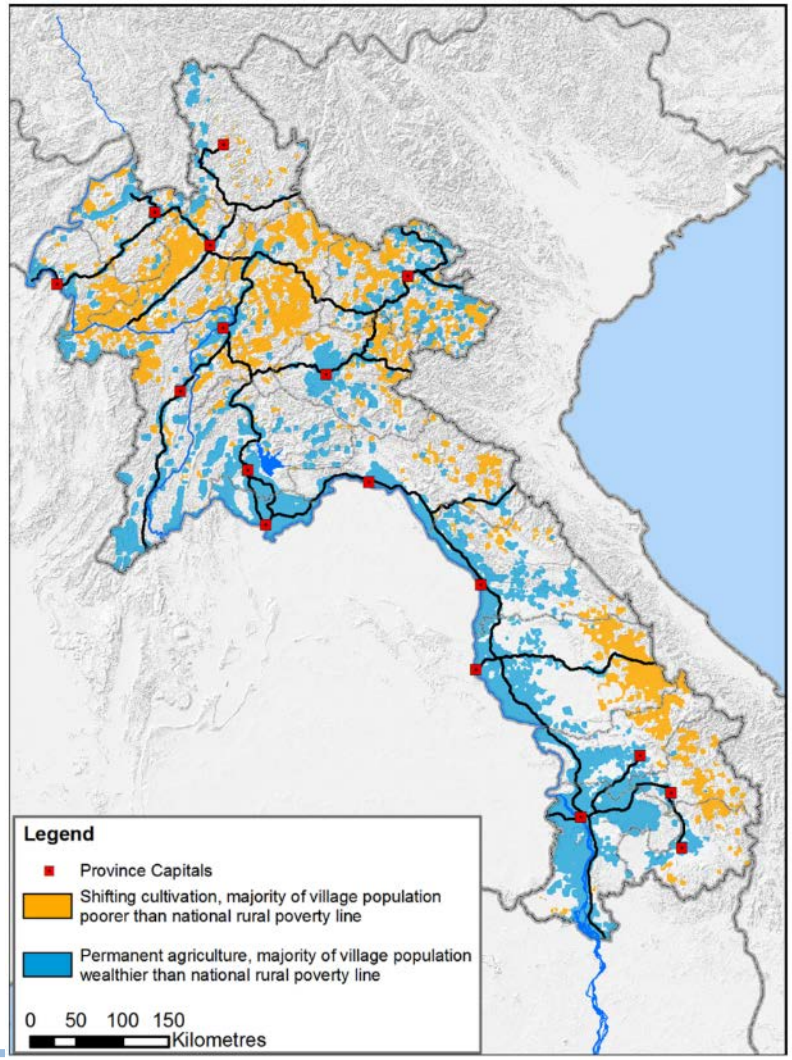
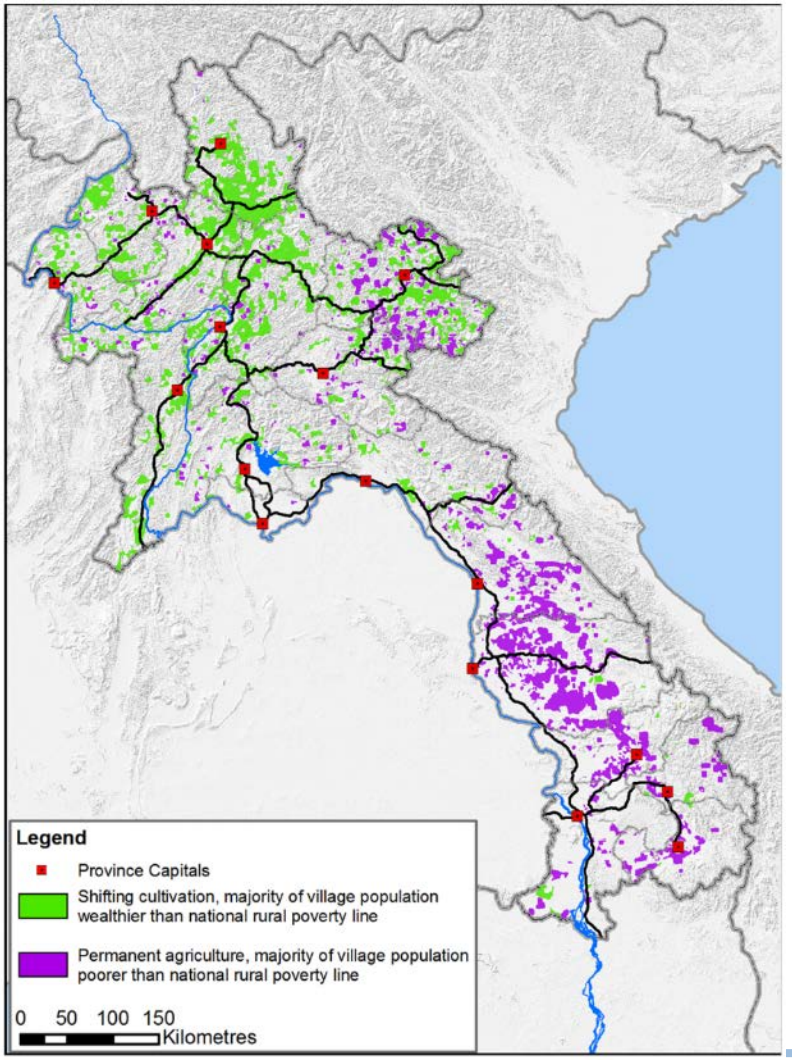
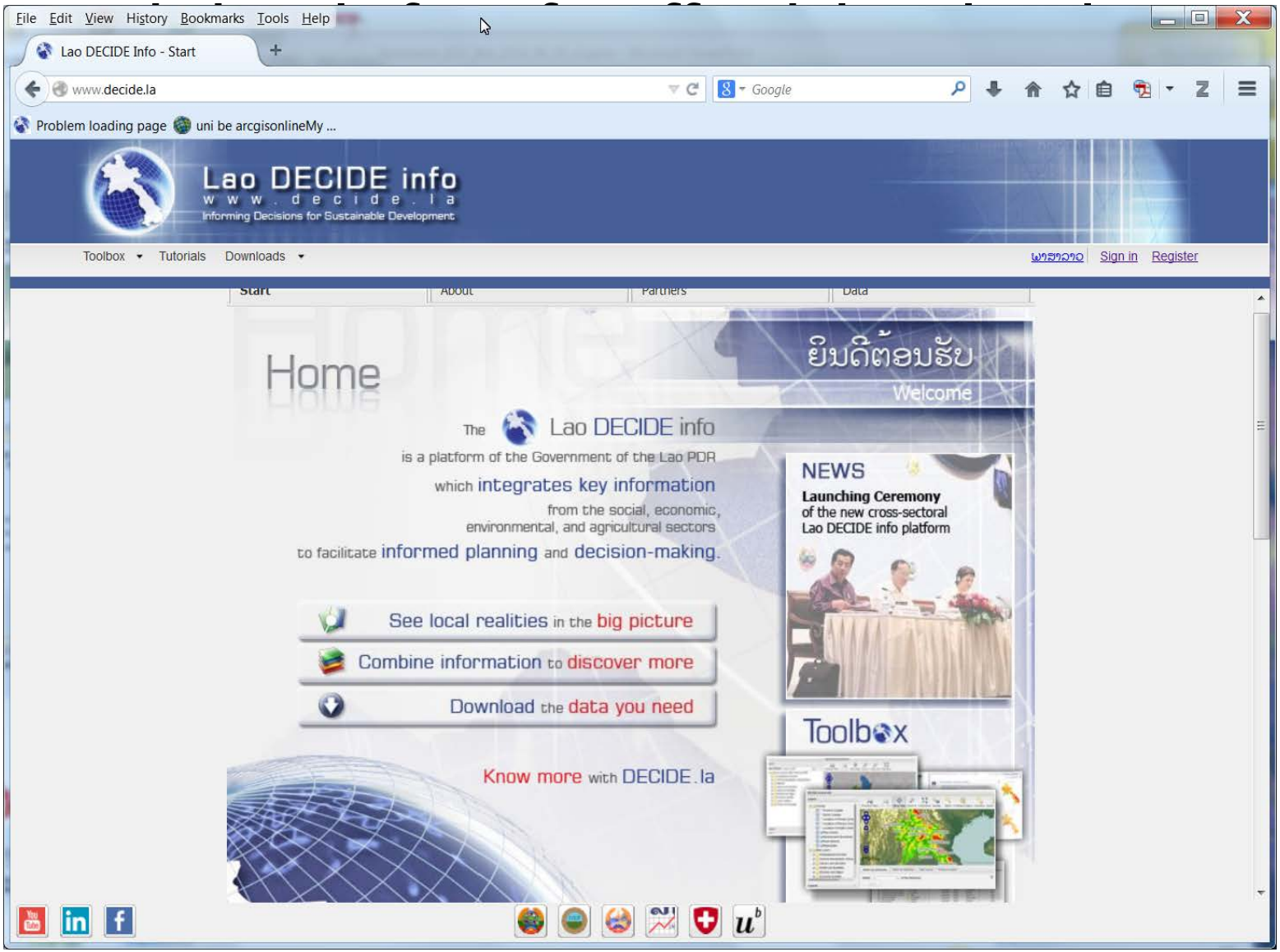




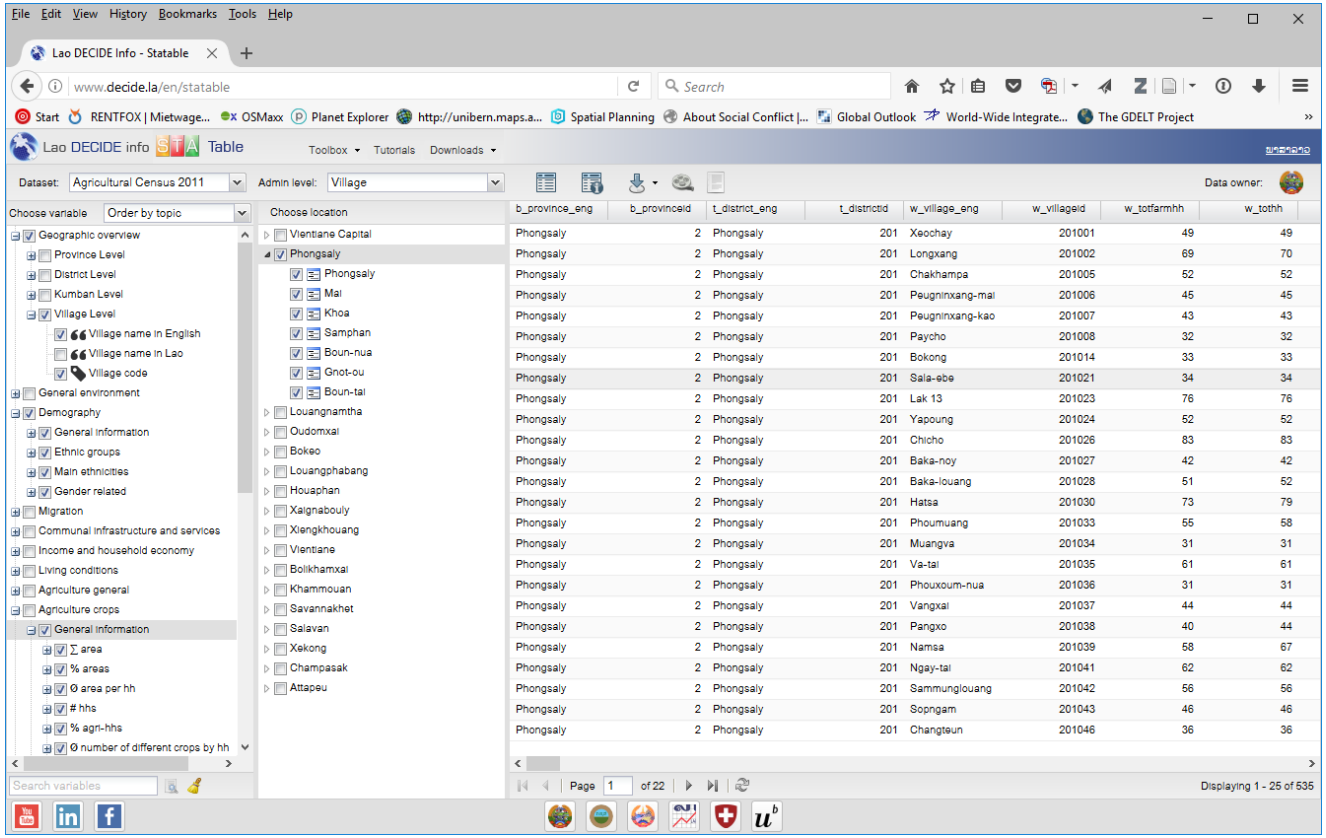
Messerli et al., 2015

www.decide.la



Background of DECIDE – making information available

- View
- Analyze
- Download
- Interpret



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In agricultural and natural resources based economies, land puts many, and often competing, interests at stake

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NEED TO INTEGRATE DATA FROM DIFFERENT SOURCES AND TO BUILD TRUST

Level of trust between different groups remains low

→ One data source only is not enough

Project goal and objectives

The overarching goal of the project is:

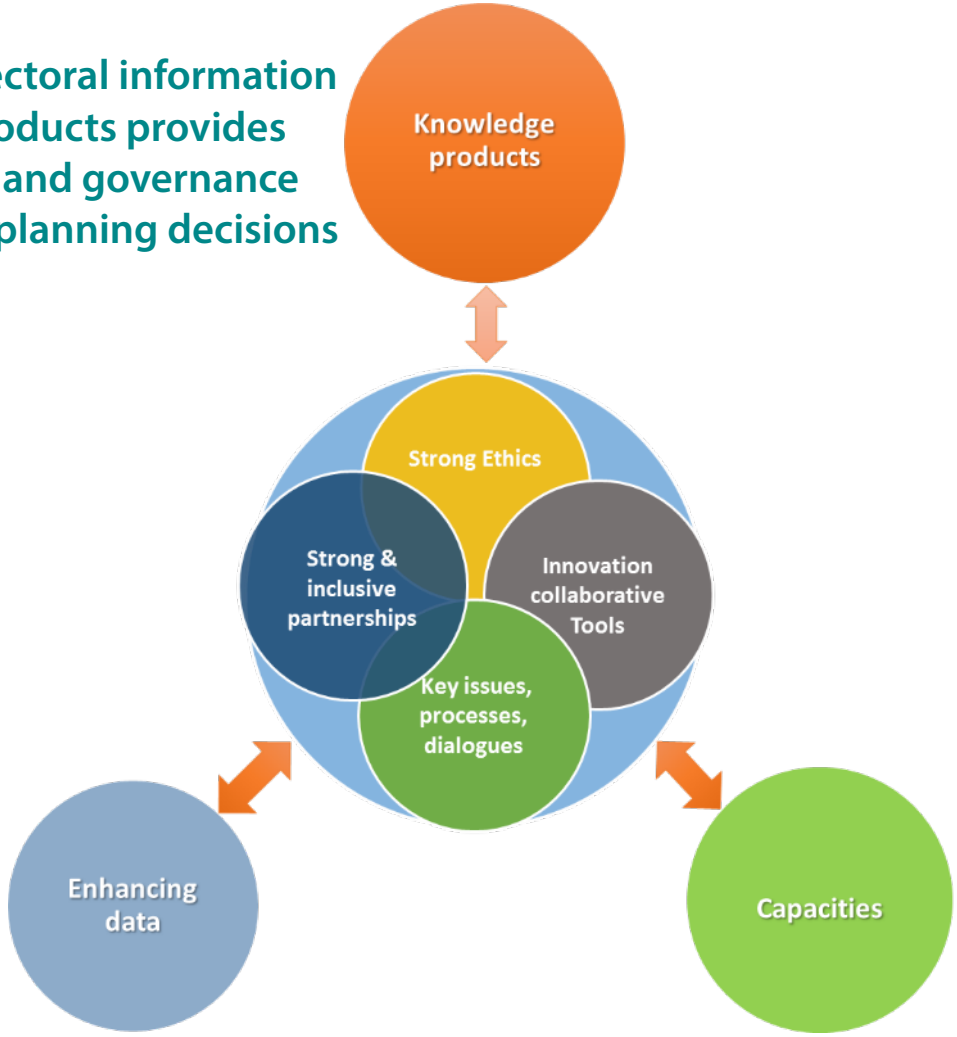
to contribute to the democratization of data related to land that enables government, citizens and the private sector to jointly make sustainable resource management decisions

The specific project objective is:

An ***open-access spatial data platform on land-related information*** *functions as an effective basis for transparent analysis of accurate data and* ***accountable land governance and development planning by government and citizens.***

Project strategy

Analysis of inter-sectoral information and knowledge products provides clear evidence for land governance and development planning decisions



The quality, accuracy, cross-sectoral integration, public availability and utility of key spatial datasets has improved

Capacity for generating, verifying, and analysing information has improved, including the means to ensure participation of local communities and non-government stakeholders in data verification

From OneMap to OneMapS: An constellation of interlinked tools, modules, platforms and processes

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Beyond data: leveraging interactive web technologies to put data at work

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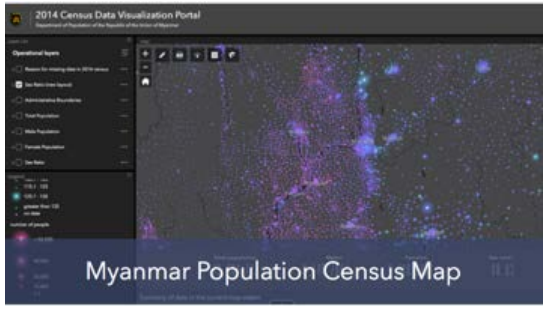
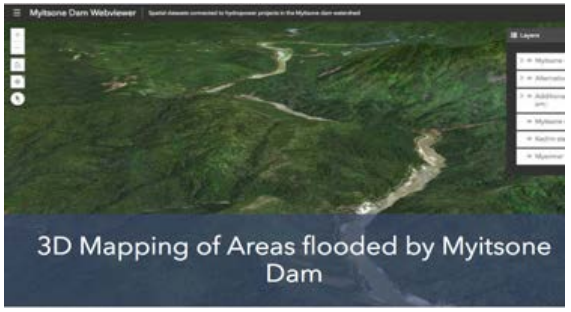
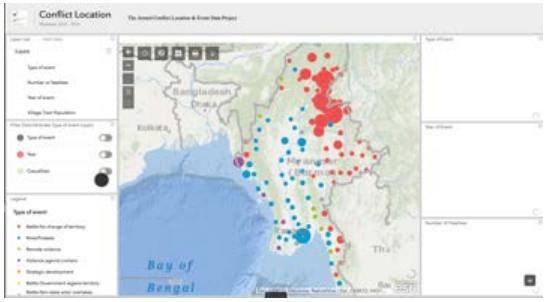






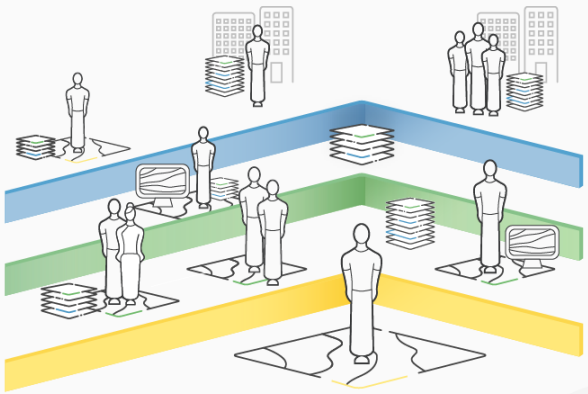
Pre-release: https://www.onemapmyanmar.info/?2046539585

Connecting Individuals, Organisations and Communities

Leveraging cutting-edge technology to improve consistency, integration and availability of maps and spatial data

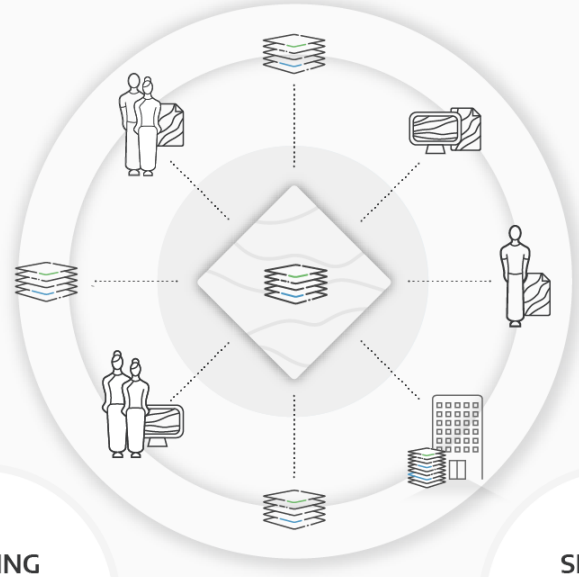
01.

INDIVIDUALS



02.

ORGANISATIONS



03.

NETWORKS OF ORGANISATIONS

Distributed GIS Systems of systems

BREAKING DOWN BARRIERS

SHARING GEOGRAPHIC KNOWLEDGE

Beispiel Anwendung: Oil palm mapping

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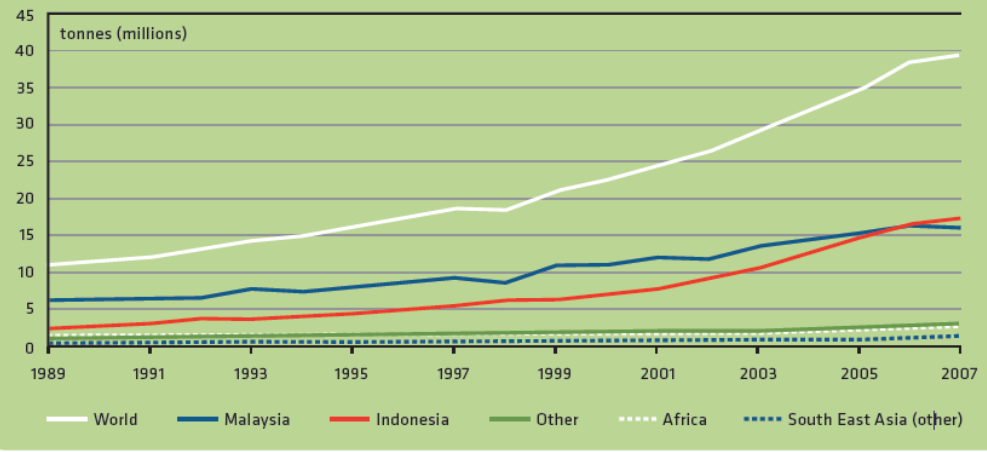
Fig. 2.2 World Palm Oil Production 1989-2007



Note: Rest of the World contains all other countries except as individual listed, including other South East Asian countries
Source: FAO 2010.

Beispiel Oil Plam Ausdehnung Süd Myanmar: Google Timelaps

Beispiel: Räumliche inkonsistente Planung (Onemap ArcGIS Webapp)

Example of activities: The case of palm oil in the southern region of Tanintharyi

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Enabling an evidence-informed multi-stakeholder environment to address complex land issues

The case of Palm Oil in Tanintharyi

"Tanintharyi Regional Oil Palm Assessment Action Planning Workshop"
15-16th Aug. 2017
City Hall,Dawei

Compiling contract information from different sources/agencies

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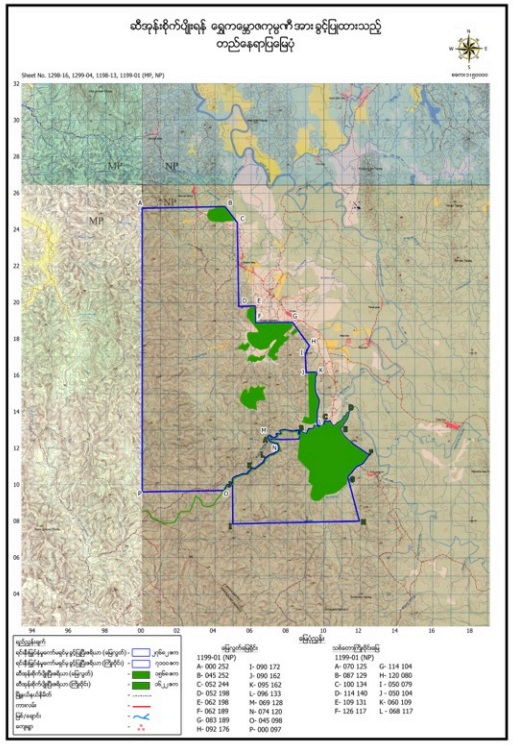

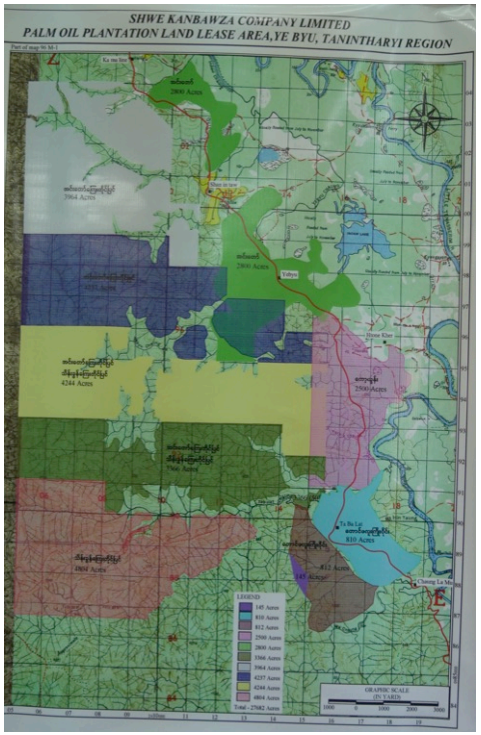

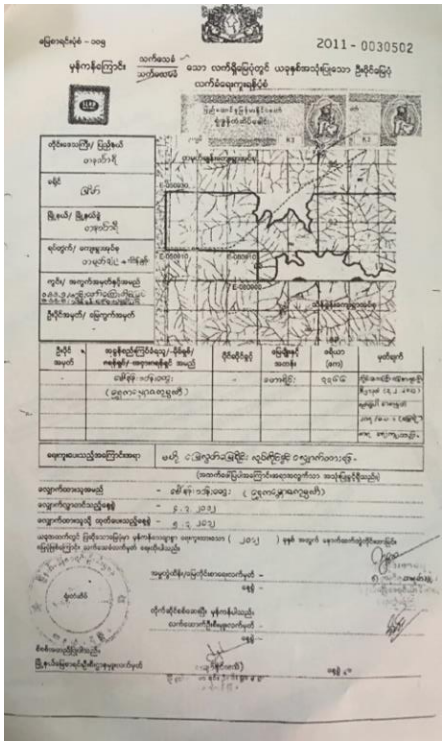

Co-production using technical means

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Co-production of land use and claims towards navigating conflicts and finding solutions

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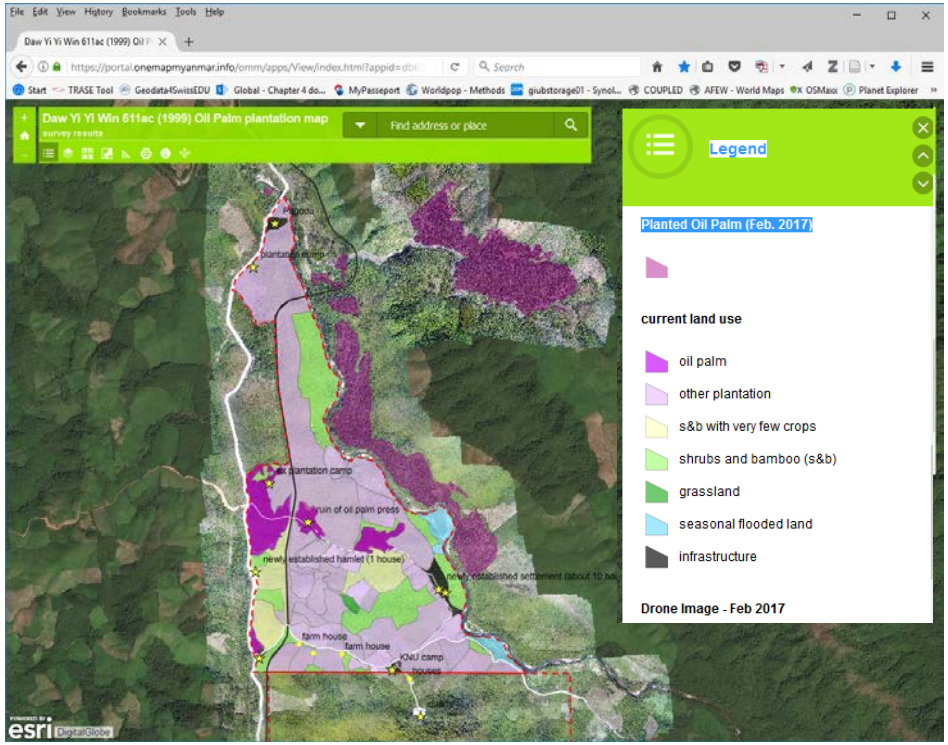
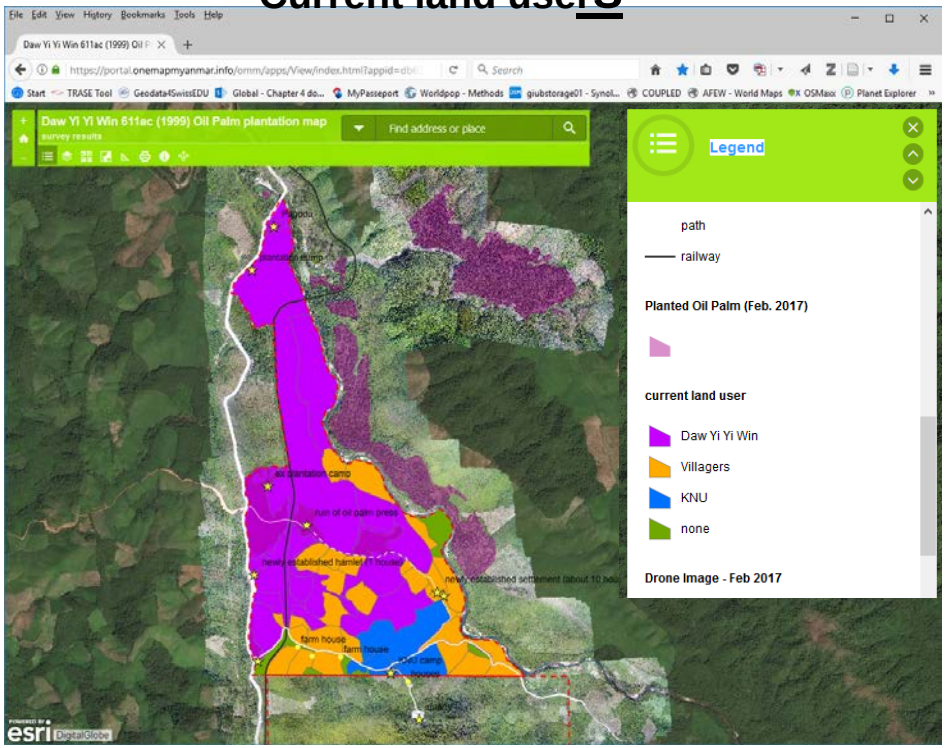
Current land use



Current land userS



Link to interactive WebApp

Planted or not?

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CSOs
Privat sector
High level decision makers
Affected farmers
Government representatives of all main departments

From mapping to policy processes and land redistribution to villages

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LE FIGARO.fr

Bangladesh: déploiement des gardes-frontières sur une île proche de la Birmanie

Par Le Figaro avec AFP | Publié le 07/04/2019 à 18:48

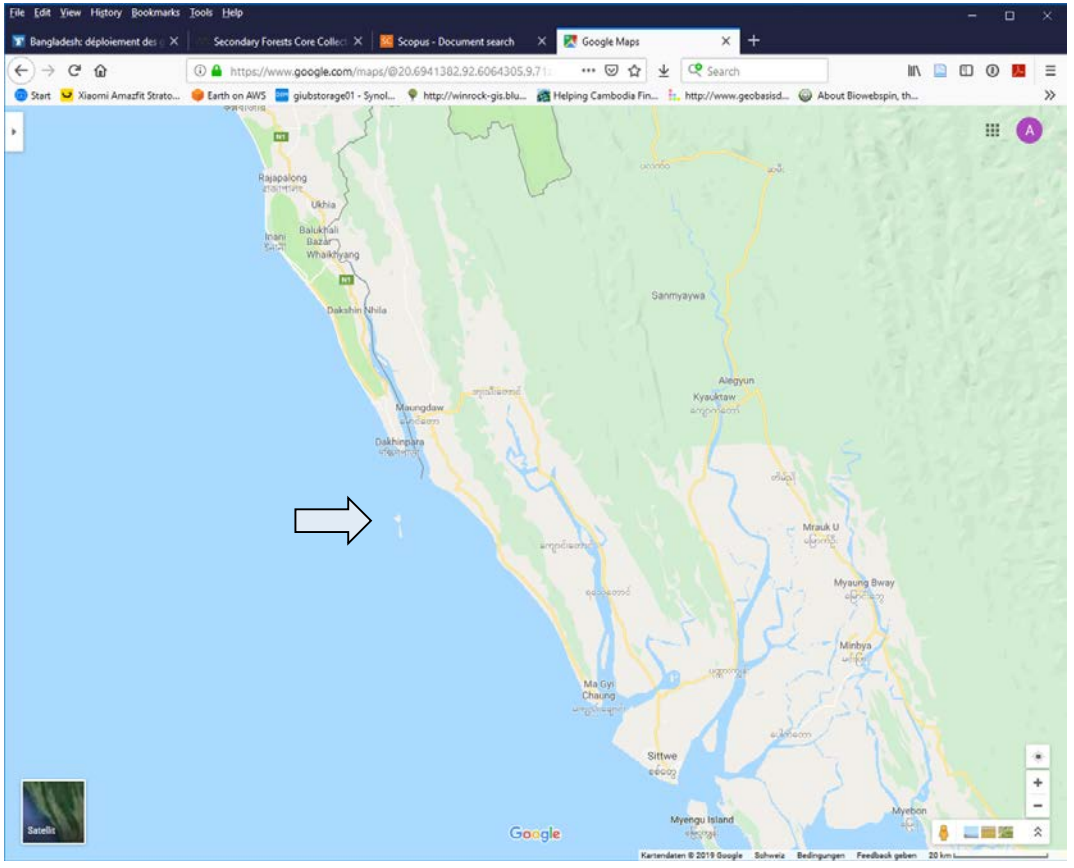
Les musulmans Rohingyas ont fui en masse la Birmanie pour le Bangladesh en 2017 pour échapper à une répression militaire massive, ce qui a envenimé les relations entre les deux voisins. *STR / AFP*

Le Bangladesh a déployé ce dimanche des gardes-frontières lourdement armés sur une île proche de sa frontière avec la Birmanie, pour la première fois en 20 ans, a-t-on annoncé officiellement à Dacca.

» LIRE AUSSI - Le Bangladesh rend à la Birmanie un militaire capturé après avoir franchi la frontière

L'administration des gardes-frontières du Bangladesh (Border Guard Bangladesh - BGB) a diffusé des images montrant des dizaines de soldats armés de fusils d'assaut débarquer sur l'île de Saint Martin, un îlot du golfe du Bengale objet de tensions entre les deux pays. Selon BGB, ce déploiement de troupes fait partie de ses «activités régulières» pour assurer la protection de la frontière et lutter contre le trafic de drogue.

Mais le lieutenant colonel Sarker Mohammad Mustafizur Rahman a précisé à l'AFP que c'était la première fois depuis 1997 que ses hommes débarquaient sur cette île. «Après



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34

The Land Matrix Global Observatory

Founding partners:
CDE, ILC, CIRAD, GIGA

Why?

- Open data: visible and understandable
- Transparency in land investment
- Participation in building a database

What and How?

- Global information on investor, deal, status, target region
- Source: partners networks, research and policy reports, government and company reports, etc.
- Crowdsourcing

www.landmatrix.org

LAND MATRIX

The Online Public Database on Land Deals

The Land Matrix is a global and **independent land monitoring initiative** that promotes **transparency** and **accountability** in decisions over land and investment.

This website is our **Global Observatory** - an open tool for collecting and visualising information about large-scale land acquisitions.

The data represented here is **constantly evolving**: to make this resource more accurate and comprehensive, we encourage your **participation**.

Read more

Watch the video introduction

We currently have information about:

Size		Number of deals	
48,898,726 ha	67%	1,323	81%
17,475,464 ha	24%	207	13%
6,957,833 ha	9%	103	6%

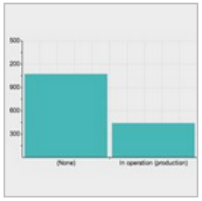
Concluded | Intended | Failed

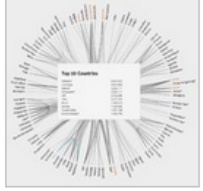
GET THE IDEA

GET THE DETAIL

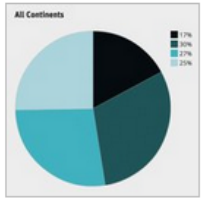
GET INVOLVED

Data is at the core of our project, but numbers alone can't tell a good story. These interactive visualizations are here to help you grasp the phenomenon of large-scale land acquisitions. Through them, we try to provide answers to questions such as how much land we're talking about, who's buying where, how much of the land is used for growing food, etc.


Dynamics overview


Web of transnational deals

Global map of investments



Agricultural drivers

It's a big deal

Compare the size

Latest database modifications:

Deal ID	State	Target country
4936	Updated	Malawi
5316	Updated	Ghana
1653	Updated	Namibia

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Tweets by @Land_Matrix

Land Matrix Retweeted

Land Matrix Africa @LM_Africa
New regional observatory to be established to monitor the forests in #Kenya , #Mozambique , #Tanzania and #Uganda

20 Apr

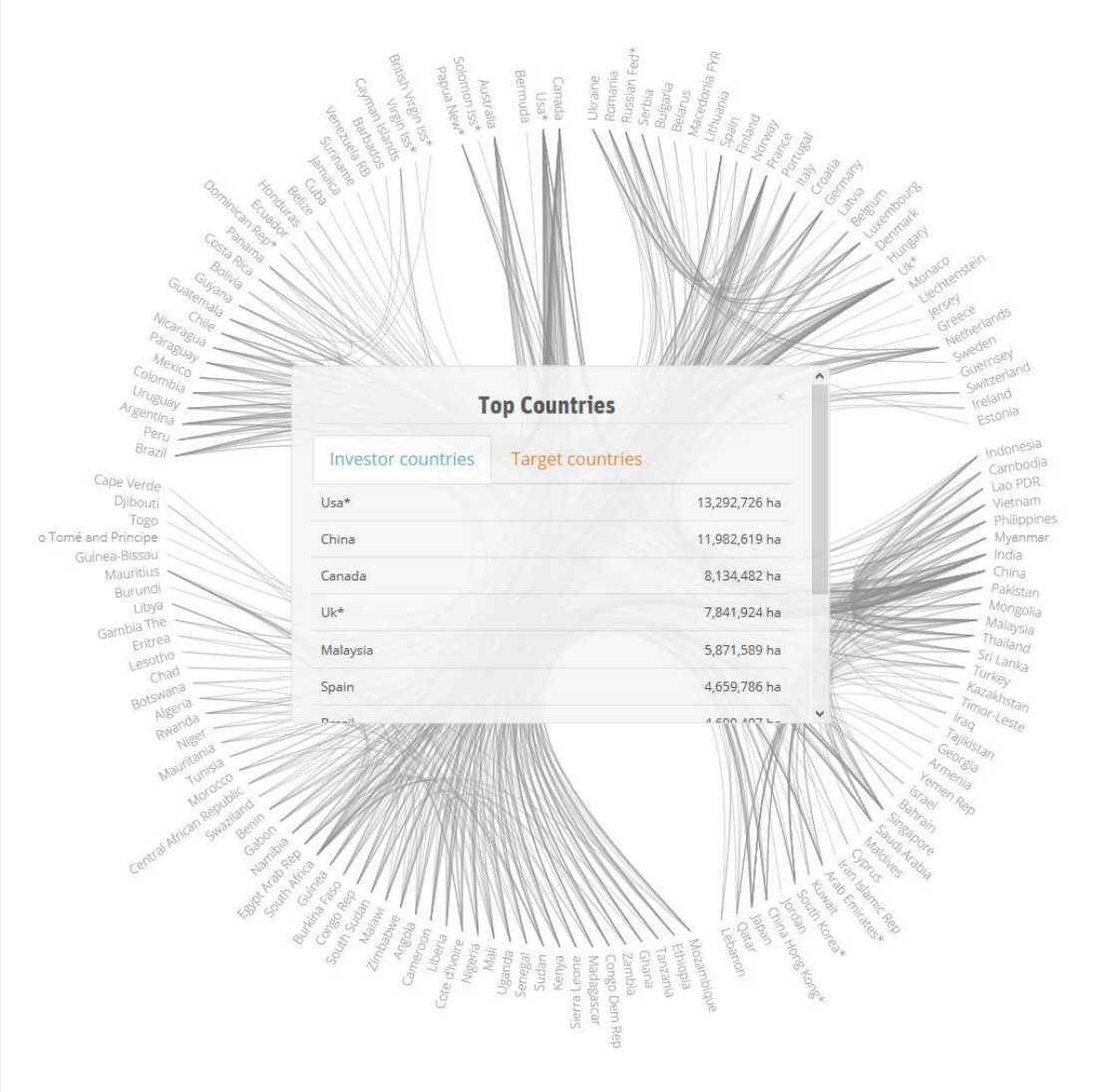
Land Matrix Retweeted

Joeva Rock @joevarock
Database of some of the major land acquisitions in Ghana over the past decade
landmatrix.org/en/get-the-det... via @Land_Matrix

Analytical Report of the Land Matrix II - published on October 11, 2016

International Land Deals for Agriculture - Fresh insights from the Land Matrix

Treiber des globalen Land Rush



Status April 2019:

- 3351 deals, 108.5 million hectares
- Nahrungsmittel > Biotriebstoffe > Holz & Papier > Andere

www.landmatrix.org

Beispiellose Dynamik von Landkäufen in Laos
➔ *Die Grenze von Datenkampagnen*

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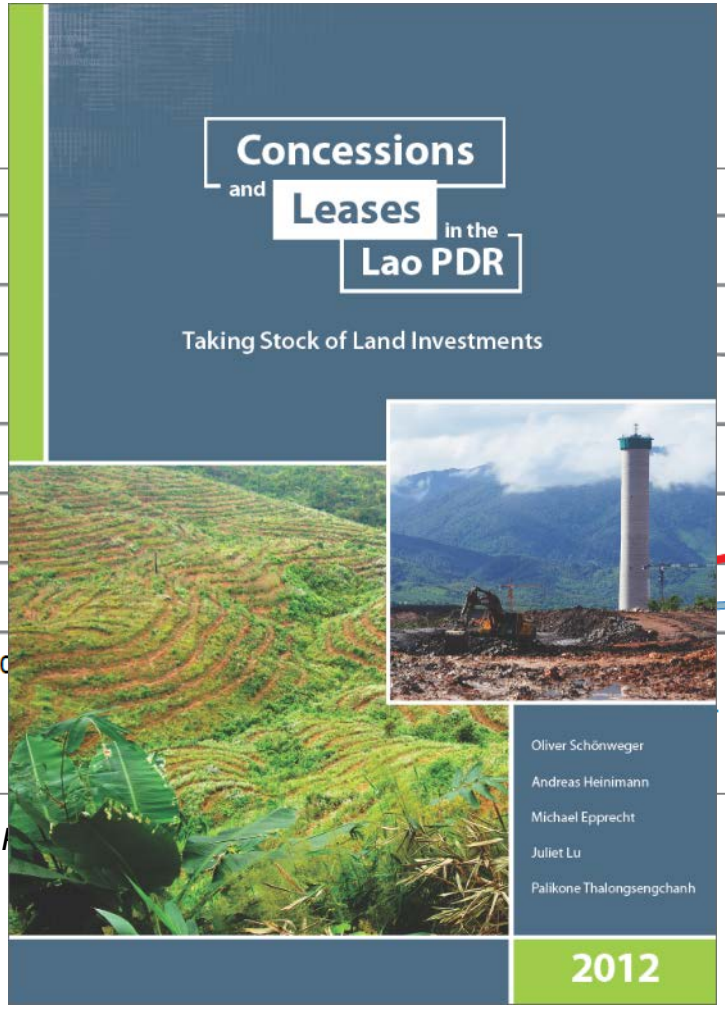
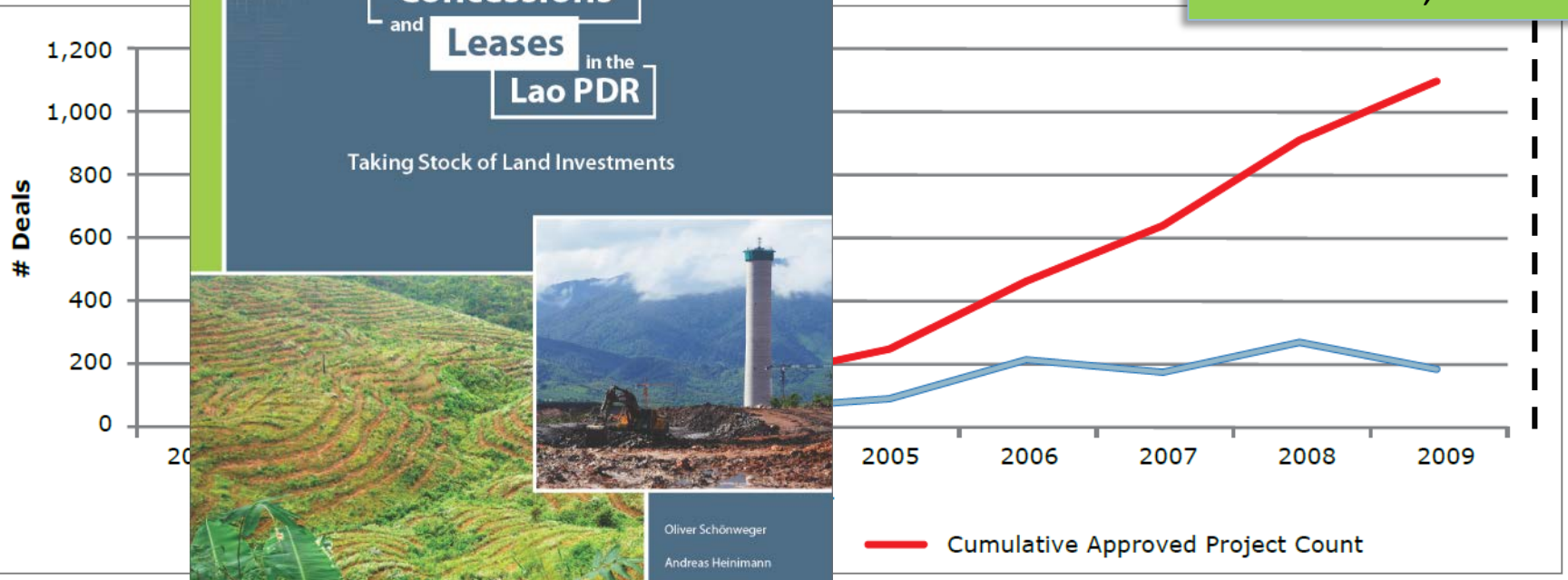


1.1 million ha granted

2,642 Deals



Concessions I

Aber: Nicht nur «WAS?» auch «WO?» und «WER?»

➔ *Erfassen komplexer Verbindungen*

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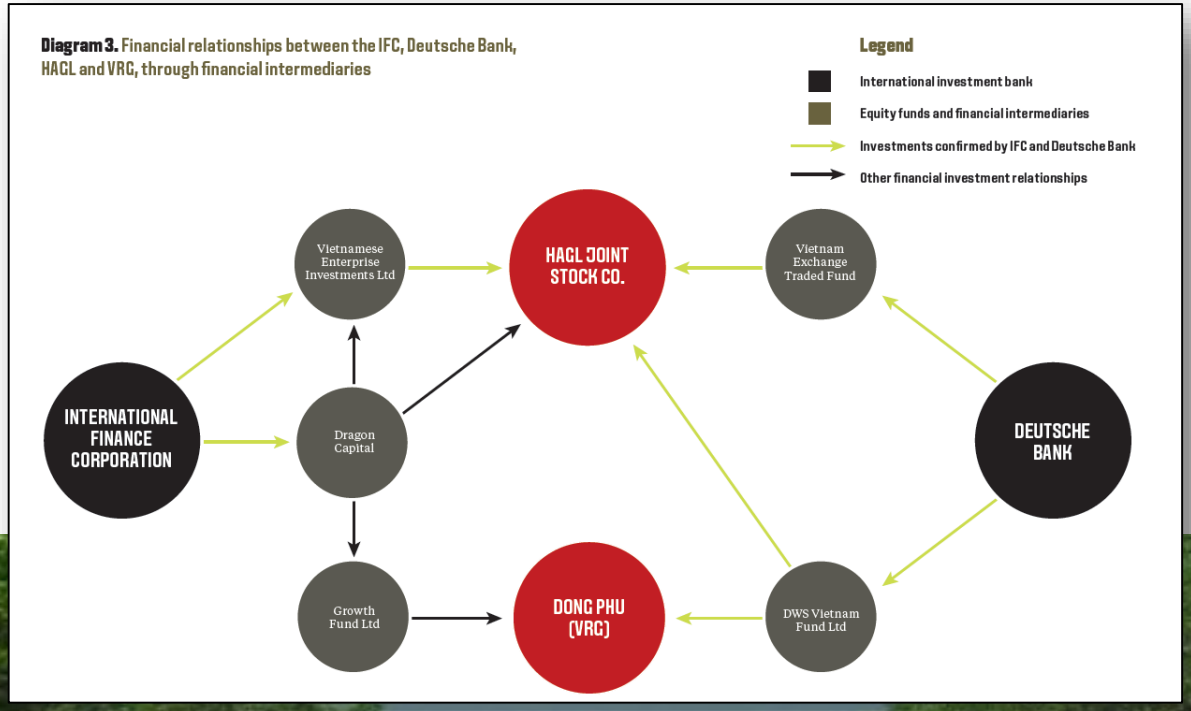
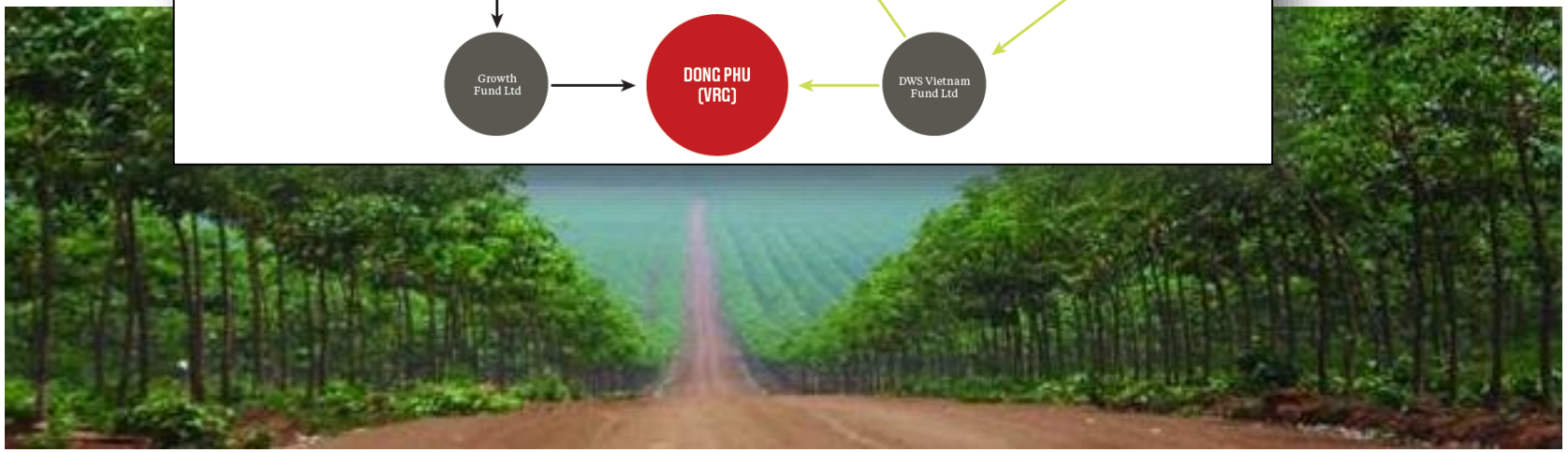
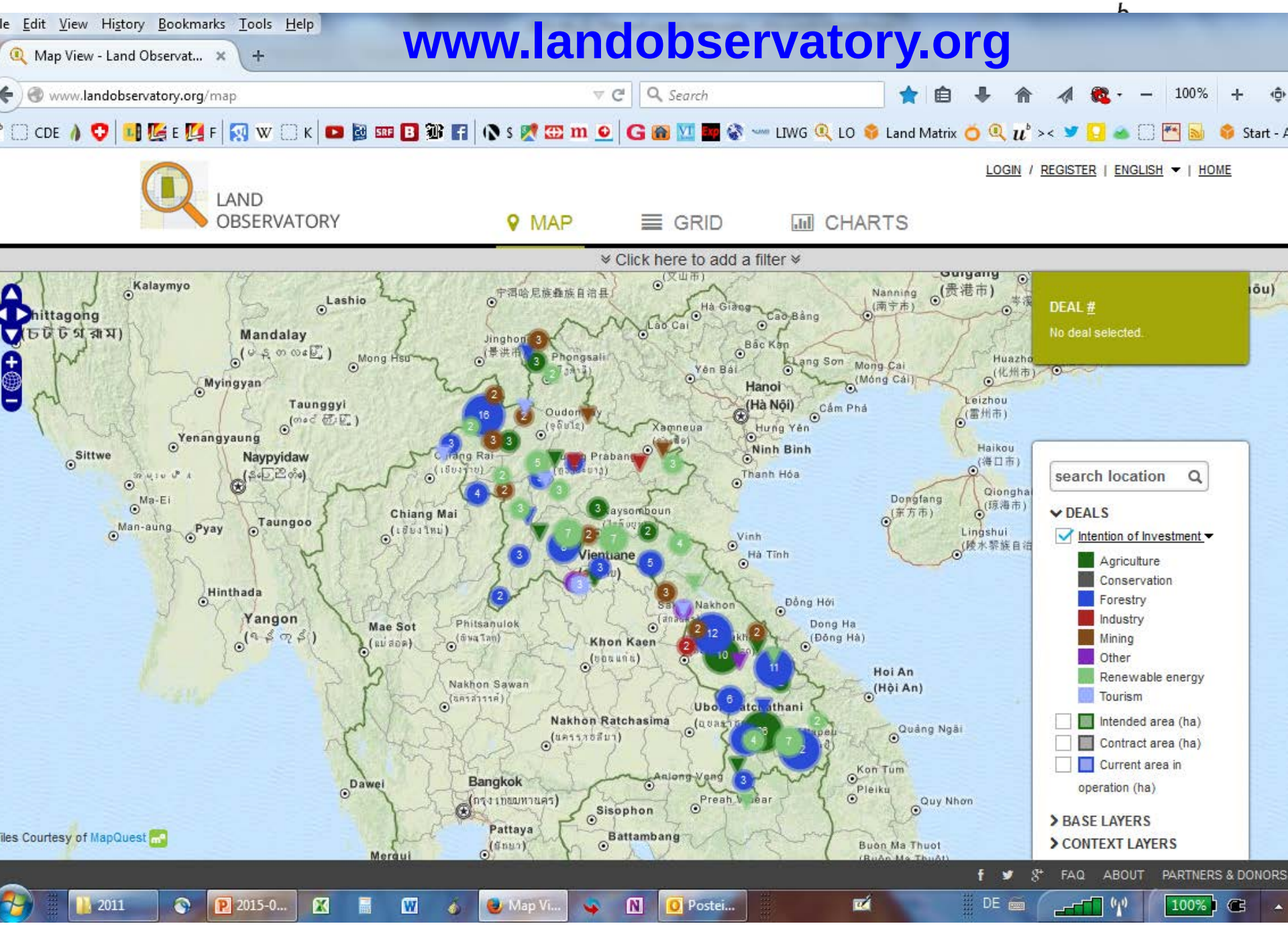
Diagram 3. Financial relationships between the IFC, Deutsche Bank, HAGL and VRC, through financial intermediaries



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Lashio
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Myingyan
Taunggyi
Yenangyaung
Sittwe
Naypyidaw
Ma-Ei
Man-aung
Pyay
Taungoo
Hinthada
Yangon
Chiang Mai
Mae Sot
Phitsanulok
Khon Kaen
Nakhon Sawan
Nakhon Ratchasima
Bangkok
Dawei
Sisophon
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Battambang
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Where-what-who?

UNIVERSITÄT BERN
CDE

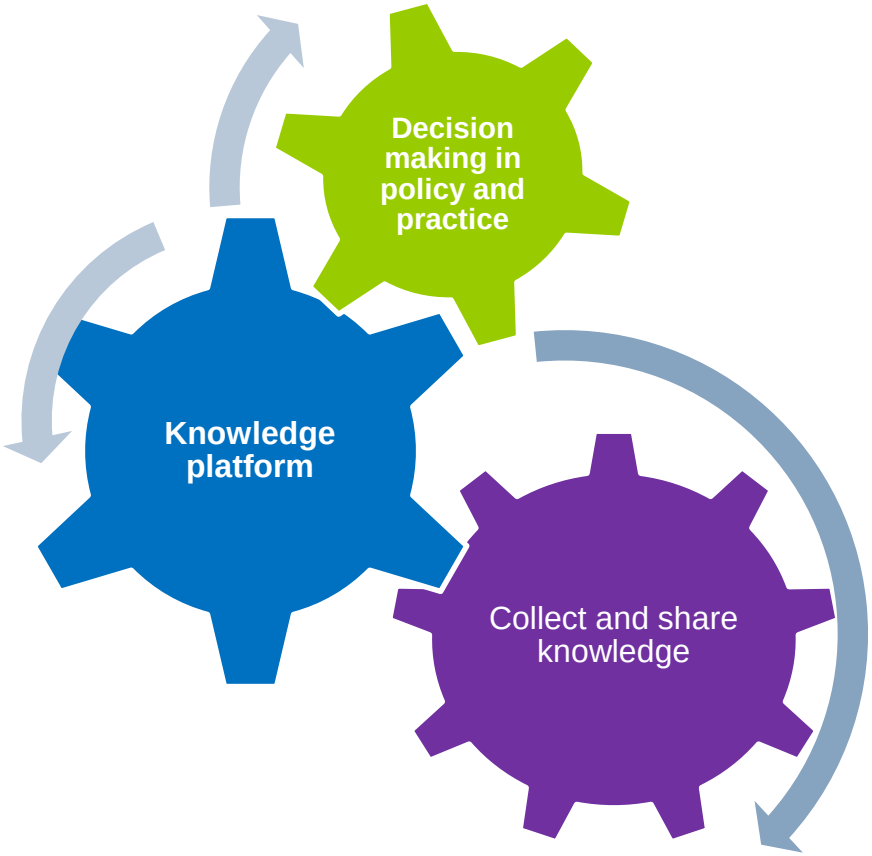
DURATION OF AGREEMENT (YEARS)	30
IMPLEMENTATION STATUS	Startup phase
NUMBER OF FARMERS	271
INVESTOR	
NAME	Olam Group
COUNTRY OF ORIGIN	Singapore
	View Stakeholder
DATA SOURCE	Company sources
FILES	1354069923OlamRespondstoMWReportFindings_28Nov2012(1).pdf
DATE	2012-10-03
REMARK	Response of the company to granting of land rights in Laos in the Muddy Waters report. See page 38-29
DATA SOURCE	Media report
DATE	2012-06-12
URL / WEB	http://www.atimes.com/atimes/Sout...
DATA SOURCE	Research paper
URL / WEB	http://www.laolandissues.org/wp-co...
CROP	Coffee Plant
USE OF PRODUCE	Export

History | Areal statistics | Edit this Deal

4 COMMENTS

Master student — March 25 2014, 02:48

Lessons learnt



- Keine technische ohne soziale Innovation: Qualität > Quantität
- Sozio-politische Bedingungen bestimmen Involvierung der Akteure
- Nationale Anpassung und Ownership vs. Verknüpfung lokal-global
- Daten, Fakten und Wissen muss mit Sozio-politische Prozessen verbunden werden
- Aber: Fakten von Bewertung und Debatten trennen

Vielen Dank für
Ihre Aufmerksamkeit!

andreas.heinimann@cde.unibe.ch

Cartoon: K Herweg