

Knowledge Management in Central Asian Countries Initiative for Land Management phase II

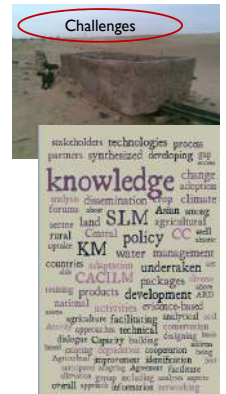
Achievements and gaps to fill

Annual project meeting
Tashkent, 28-30 April 2014



Knowledge Management in CACILM-II

- Diverse and operational partnership to address Sustainable Land Management in Central Asia
 - Collaborative effort of ICARDA-CAC and GIZ to promote SLM in the region
 - Developed into 3-year ICARDA project supported by IFAD
 - Logical continuation of earlier SLM-research and other projects conducted within CACILM I



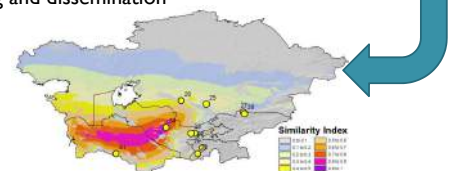
Project objectives

- Enhance the CACILM knowledge management component for facilitating widespread dissemination of SLM
- Improve agricultural systems for enhanced productivity and sustainability, and promote climate change adaptation approaches and technologies

Output (5) SLM-KM (Knowledge Management) system established. This has been successful in knowledge creation and capture but has failed in knowledge sharing, retrieval and dissemination, as per original TA design. The membership of the Community of Practice (COP) is limited and therefore defeats the purpose of widespread dissemination, which can be achieved through arranging an easily accessible internet site.

Approach and Components

- Multidisciplinary approach to disseminate SLM at different levels for enhanced productivity and climate change adaptation through:
 - Synthesis
 - Socio-economic assessment
 - Packaging and dissemination



Target groups

- Key decision and policy making units responsible for SLM in each participating country
- NGOs and rural development agencies working in each country and at the regional level
- Extension agencies, farmers and farmers' organizations
- International donor community active in Central Asia

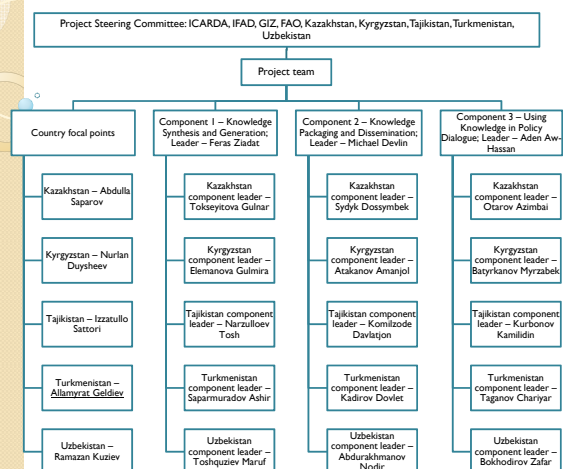
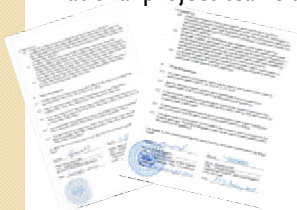
Inception and partners

- Officially launched in June 2013 with inception workshop in Bishkek
- Full involvement and support from NARS
 - Kazakhstan: Soil Research Institute
 - Kyrgyzstan: Ministry of Agriculture and Melioration
 - Tajikistan: Academy of Agricultural Sciences
 - Turkmenistan: Ministry of Water Resources
 - Uzbekistan: Soil Research Inst.

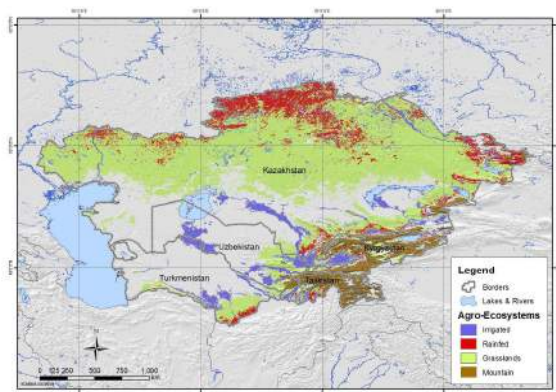


Workplan – MoA - teams

- Workplan is developed and responsibilities are assigned during October project review meeting
- Memorandums of Agreement with national partners are completed
- National project teams are established



Target Agroecosystems



Sources of information

- Huge amount of information and ready technologies to tap for upscaling, including:
 - CACILM I projects (15 identified)
 - World Overview of Conservation Approaches and Technologies
 - Partner initiatives (i.e. NARS, ELD)

	Agriculture	Forestry	Pasture	Multi-focus	Wild life
Kazakhstan	-	-	GEF/GIZ/UNDP	-	GIZ
Kyrgyzstan	-	-	GEF/UNDP + GIZ	-	GIZ
Tajikistan	GEF/AIB	GIZ	-	GEF/UNDP + GIZ	GIZ
Turkmenistan	-	GIZ	-	GEF/GIZ/UNDP	-
Uzbekistan	GEF/AIB	-	GIZ	GEF/UNDP	-

Compiled by Alois Reichsmuth, GIZ



Collected SLM

Countries	Approaches	Technologies	TOTAL
Kazakhstan	1	34	35
Kyrgyzstan	9	25	34
Tajikistan	5	31	36
Turkmenistan	0	20	20
Uzbekistan	14	40	54



SLM description

- Short template based on WOCAT form
- Can be compiled and produced as a brochure
- Contains short definition and info about technology, reference to author, environment, impact etc.

Title (Name of Technology) Country – Name in local language		Name of inventor or the technology
Description (1, 2, 3) (1) apparatus (2) description (3, 2) (max. 2 pages)		Location (1) address (2) place (3, 2) (page of document 2, 2, 2, 1)
Link to problems and main causes of land degradation (abstract) (2, 2) (1, 2, 2)		Main technical features (2, 2, 2)
Land use	Ownership system	
☐ agriculture ☐ forestry ☐ other	☐ private ☐ public ☐ other	
Environment		
State of environment		Human environment
Forest cover (percentage) (1, 1) Soil erosion (rate) (1, 1) Land use (1, 1) State (1, 1) Land (1, 1) Forest (1, 1) Forest (1, 1) Forest (1, 1) Forest (1, 1)		Forest cover (percentage) (1, 1) Land use (1, 1) Land use (1, 1) Land use (1, 1) Land use (1, 1) Land use (1, 1) Land use (1, 1) Land use (1, 1)
Assessment		
Impact of the Technology (1, 1, 1, 1, 1, 1, 1, 1, 1, 1)		Risk characteristics
Major results -		
References (abstract) (1, 1)		
(maximum 100 references of books, articles, journals, internet, etc. which are considered useful and significant technology) Date of recording published the technology		

Prioritization and selection of SLM

- 1st – national level (January – February 2014)
- 2nd – regional level (Almaty, February 2014)



Core technology	Technology options to integrate
Irrigated agroecosystem	
Raised bed technology	• NTOZ-1, manure, irrigation methods, mulching
Mountain agroecosystem	
Agroforestry and afforestation	• Sainfoin, gardening, fodder crops, pistachio plantation, irrigation, community based agroforestry
Rainfed agroecosystem	
Conservation agriculture	• Crop diversification, oil and legume crops, minimum tillage
Rangeland agroecosystem	
Pasture improvement	• Perennial grass seed plots, pasture rotation, early-spring irrigation

Climate change model downscaling

- Downscaling of global models commenced in collaboration with Texas A&M University
- Initial climate data from the region is provided for calibration
- Training and fine-tuning is planned for the week of June 16-23, 2014
- National teams are identifying candidates for training

Demonstration sites

Agroeco- system	Technolog y package	Kazakhstan	Kyrgyzstan	Tajikistan	Turkmenistan	Uzbekistan
Irrigated	Raised bed	1. Almaty province; 2. South Kazakhstan province	Chuy valley	Central Tajikistan	1. Ahat province; 2. Dashauz province	1. Yakkabog district; 2. Bayavut district
Mountain	Agroforestry and afforestation		Djalalabad province	Rasht valley		
Rainfed	Conservation agriculture	South Kazakhstan province, Sayram district	Chuy province	Kuliab zone	Lebap province	1. Ahangaran or 2. Middle-Chirchik district
Rangeland	Pasture improvement	Almaty province	Naryn province	Sogd province	Ahat province	Navoi province

Similarity maps based on criteria

- Criteria are identified – mapping is ongoing
- Training on GIS for fine-tuning – ca. August 2014

Irrigated agroecosystem	Similarity criteria	Mountain	Similarity criteria
Land use	Irrigated land	Slope, degree	>7
Slope, degree	0-5	Precipitation	>500
Water availability/source	Sufficient	Altitude, m	>800
Soil (texture), clay content, %	10-75 physical clay	Land use	exclude inconvenient areas (rocks, gullies etc.)
Soil salinity, %	to be clarified	Soil depth, cm	>50
Rainfed agroecosystem	Similarity criteria	Rangelands	Similarity criteria
Precipitation	300-600	Land use	rangelands, pasture
Slope, degree	<7	Slope, degree	>12
Land use	Cropland	Precipitation	to be clarified
Soil (texture), clay content, %	20-75 physical clay	Degradation degree	to be clarified
		Livestock density per ha	to be clarified
		Watering points/ha	to be clarified

Knowledge dissemination

- Initial project website is located within ICARDA-CAC website
- Project related materials are published online for easy access and reference



Knowledge dissemination

- Newly designed project website is ready and is being tested
- Number of materials are provided to upload
- Will circulate the link when operational



- Частные и неправительственные организации

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- Центры распространения знаний в сфере АТК

- | Appendix Table for Assessment of Net Change from Selected Smart Technology Packages | | | | | |
|--|---|----------------------|--|-----------|---------------------------|
| A. With/without new smart packages | | | | | |
| Categories | Impact | Unit and Unit-Factor | Quantity of package per installed unit of technology | Cost, USD | Net benefit, million Baht |
| Capital | Machine (new) / rent (used) | hour | | | |
| Labour | Operator (new) / rent (used)
(for preparation, operating, and/or cleaning) | hour | | | |
| Material | Feedstock | kg | | | |
| Energy | Electricity | kWh | | | |
| Water | Water | m ³ | | | |
| Waste | Waste | kg | | | |
| Production Output | Yield | ton per ha | | | |
| Cost | Cost | USD | | | |
| B. With/without new traditional technologies | | | | | |
| Categories | Impact | Unit and Unit-Factor | Quantity of package per installed unit of technology | Cost, USD | Net benefit, million Baht |
| Capital | Machine (new) / rent (used) | hour | | | |
| Labour | Operator (new) / rent (used)
(for preparation, operating, and/or cleaning) | hour | | | |
| Material | Feedstock | kg | | | |
| Energy | Electricity | kWh | | | |
| Water | Water | m ³ | | | |
| Waste | Waste | kg | | | |
| Production Output | Yield | ton per ha | | | |
| Cost | Cost | USD | | | |
| Qualitative Indicator for Assessment of Net Change from Selected Smart Technology Packages | | | | | |
| <p>1. Market: How is the technology the incorporation of the serving system. Some technology may not be the market of the nation. Please provide the market, and advantages from the point of view of the market.</p> <p>2. Technology: Application of the technology may require additional data that not yet follows on the front of the technology.</p> | | | | | |

Knowledge Management in CACILM II

Activity 3.1: Enhancing evidence-based knowledge	Review the different experiences of farm advisor services, strengths and weaknesses	✓
	Identify policies that can strengthen the dissemination and adoption of SLM practices	Ongoing
	Conduct economic and financial evaluation of SLM practices	Ongoing
	Conduct training course for national partners on SLM technology evaluation	Ongoing
	Evaluate the impacts of current land registration program	Planned
Activity 3.2: Policy dialogue to facilitate adoption of SLM	Identify policy champion for the project in each country (2013)	Commenced and ongoing
	Develop policy communications material (2014-2015)	
	Organize policy dialogue workshops	
	Conduct Policy seminars presenting evidence-based policy advice (2015)	

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