

International experiences in Watershed

1. Integrating FFS
2. Integrating climate at different scale

Marie aude Even, IFAD



1. International experiences in Watershed & FFS

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Building on presentations & reports from IFAD & FAO, and contributions from FAO FF platform colleagues (Anne Sophie Poisot, Stefano Modovi, Salvatore Ndabirore and Yaap Vandepole) and reports



Watershed and FFS: practical examples

- ▶ Design concepts and overview complementarities between FFS and watershed
- ▶ Step 1 to 3: Examples from FAO FFS platform & Kagera projects
- ▶ Step 4: FFS and sustainability: rural institutions: IFAD stocktake



Design concept linking SFD comp & FAO comp

Subcomponent 1.1: Community Mobilization and Engagement:

Subcomponent 1.2: Community Capacity building:

- *In design mention comp 1 is implemented by SFD in close cooperation with FAO to*
 - identify **capacity building needs for agricultural production** delivered through FFS
 - *Joint analysis of root cause of watershed issues (i.e. role of agriculture & options)*
- SFD Integrated watershed plan inform geographic targeting of selected FFS
- FFS can reinforce community awareness & engagement on watershed restoration through SLM
- FFS can help reduce pressure on watershed

Subcomponent 2.1: Domestic Water Supply

Subcomponent 2.2: Small-scale irrigation schemes and flood-based agriculture

Sub-component 2.3: Soil and water conservation

- FAO FFS can help communities make the best of infrastructure
- FFS could also focus on specific SLM required in segment of watersheds or on how infrastructures can be best managed (terraces etc.)
- FFS reinforces need for less water withdrawal adaptation etc.



C3: Protection of Agriculture Livelihoods

Subcomponent 3.1: **CD for Agriculture Production through FFS and participatory research**

trainings will include land and water management to introduce more effective and climate resilient practices and technologies

Applied Research will support improvements in research capacity and reducing climate vulnerability on farmer's fields

The focus will be on enhancing climate change resilience and mitigating risks specific to each governorate.

Subcomponent 3.2: **Food and Nutrition Security**

- Sub-Component 3.3:
Livelihood Resilience and Value Addition
- Agriculture livelihood support kits to restore crop production and generate income
- Increasing value-added of key agricultural products

Financial literacy training and improved income can reduce activities degrading watershed and improve investments in positive practices

Some FFS topics foreseen in designs

FFS·Main·Topic	Priority·Target	Main·Objective	Main·Climate·Change·Adaptation·Benefit·(CCAB)
Water harvesting infrastructures (on farm contour bunds/gully plugs)	Rainfed crop producers (e.g. pulses and grains)	Increase water availability at the farm level and increase soil moisture at the roots level	Increased evapotranspiration caused by increasing temperatures and water deficit. This will potentially allow for increased productivity per unit of water and more stable income for households.
Water harvesting infrastructures (on farm bunds)	Rainfed fruits producers	Increase water availability at the farm level and increase soil moisture	<ul style="list-style-type: none"> Improving soil water storage to maximize plant water availability by maximizing infiltration of rainfall minimizing unproductive water losses (evaporation, deep percolation and surface run-off) increasing soil water holding capacity; and maximizing root depth
Conservation Agriculture (no/minimum tillage, crop rotation and restorative fallow practices)	Rainfed crop producers	Increase soil moisture, reduce land erosion due to rain washing and enhance the soils physical properties	<ul style="list-style-type: none"> Application of conservation agriculture Use of supplemental irrigation from harvested rainwater in the critical stages of crop growth Modification of planting and harvesting dates
Adapting the crop calendar to changing temperature and rainfall patterns; modification of planting and harvesting dates	Rainfed crop producers (e.g. pulses and grains)	Reduce risks of water shortage and increase chances of water availability in the critical phases of growth of the plants	
Protected and semi-protected cultivation practices for home	All farmers with irrigation and households		

From PIM

Watershed and FFS: practical examples

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Experience from FFS in watershed overview of approaches

- ▶ **FFS informs and support implementation of village action plans** in agric fields,

Example: In Malawi FAO first developed the village level action plans (VLAPs) in the targeted micro-watersheds and used the FFS to address and support some of the issues and needed actions identified in the VLAPs. This is starting to show very good impact.

- ▶ **Scope of SLM covered: Private land SLM vs public watershed activities...** not always easy

Burundi example where had to focus FFSs more on sustainable land management in their private fields.

- ▶ **FFS serve to train master trainer / watershed level on main SLM practices** options

Example, Kagera Burundi (since 2012): Discuss and train master trainers at watershed level : on water and soil conservation, reforestation, agroforestry, riverbanks protection with bambous, improved compost and introduction of animal to increase soil fertility and food security

- ▶ **After FFS curricula**, FFS are structured into cooperatives or linked to the existing cooperative / watershed institutions unit at watershed level.

Example Kagera

Enhancing farmers' capacities through participatory learning for sustainable land and agro-ecosystem management

the impact of farmer field school approach in adoption of watershed management practices

1.

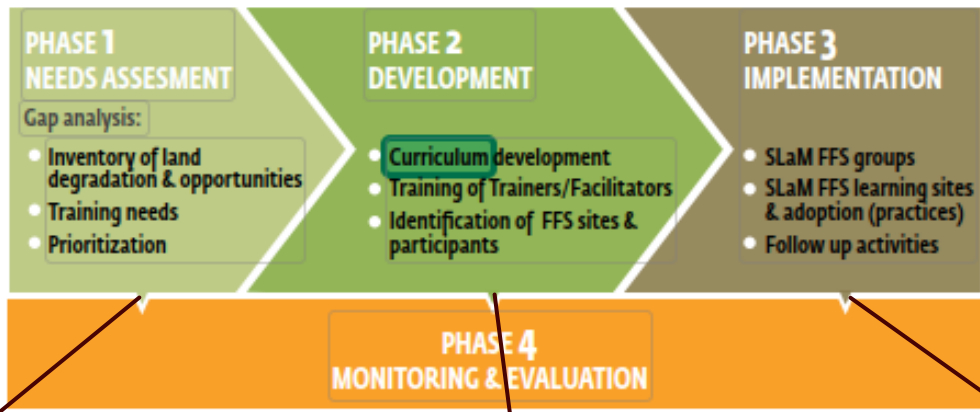
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Affiliation: College of Agriculture, Animal Sciences and Veterinary Medicine,
University of Rwanda



<https://openknowledge.fao.org/server/api/core/bitstream/s/df26df61-a0c8-469e-ad7e-a537fce7eb54/content>





Source FAO SLM in Practice in Kagera

Baseline, causes of degradation & identification existing practices
 Awareness building
 Participatory diagnosis and selection of best SLM

Step 1 IWM

Selection of FFS sites in micro catchment & FFS facilitators
 Training of trainers and FFS facilitators (ToTs and ToFs),
 FFS curriculum and action plans

Step 2 IWM

Implementation of FFS in selected parts of the watershed
 Includes participatory diagnosis and planning as step 1

Step 3 IWM

Experience from FFS in watershed overview of curriculum



Food and Agriculture Organization
of the United Nations

Discovery-based learning in land and water management A practical guide for farmer field schools



Module 1. Discovery-based learning	9
Module 2. Improving land management	33
Module 3. Innovation and experiments	61
Module 4. Knowing your soil	77
Module 5. Using organic materials	91
Module 6. Encouraging soil life	115
Module 7. Managing plant nutrients	137
Module 8. Conservation agriculture	165
Module 9. Managing livestock	187
Module 10. Managing rainwater	207
Module 11. Harvesting water for crops	233
Module 12. Harvesting water for people and livestock	249
Module 13. Managing weeds	259
Module 14. Managing biodiversity	271
Module 15. Farm management, marketing and diversification	287
Module 16. Assessing impacts, learning lessons	307

Step 1: FFS & watershed planning

- ▶ vision of the landscape developed by communities
- ▶ During the farmer field training, every FFS is asked to develop a vision for the management of their landscape.
- ▶ Steps include involving populations in a critical analysis of the state of their lands in order to prompt them into awareness and a decision to address land erosion and economic impacts (using the LADA methodology)



Figure 1: State of the landscape in 2012, Kayokwe commune in Nyakibari.





Step 2: watershed & village planning

Options selected

Diversification of land use systems

Soil and water conservation and integration of crops, agroforestry and livestock were the number one priority of farmer field schools' members.

During the training sessions, members learned how to make and use an A-frame for laying out anti-erosion measures on the contour which helps to conserve rainwater and reduce the loss of soil due to erosion (Figure 3), increase soil fertility and protect against sedimentation of the lowlands and river pollution.

Two rows of grass or shrub fodder species such as *Tripsacum laxum*, *Pennisetum* spp., *Leucena* spp. and *Calliandra calothyrsus* were planted above the contour line, in staggered rows in order to help stabilise the soil, while at the same time providing nutrients for the plants and contributing small branches for a variety of purposes. The feed grasses are also used for small ruminants that are permanently tethered, thus enhancing production of farmyard manure as a means for improving the organic fertilisation. The animals also provide source of food and savings for the family and community at large.

Intensification of market garden crops

In order to improve food security, the communities taking part in the project adopted improved agricultural practices, notably row sowing techniques, mastery of the agricultural calendar and experimental trials to compare the productivity of certain crops by agro-ecological zone (including potatoes, beans, maize). Experimental trials to assess changes in bean productivity under different fertiliser regimes were carried out by the Biraturabain FFS in the commune of Nyabihanga in Mwara Province, starting in March 2012. The participatory trials were as follows; T₀: field with no fertiliser, T₁: application of mineral fertiliser, T₂: application of organic fertiliser (farmyard manure) and T₃: combination of mineral and organic fertiliser and closely monitored by the FFS to understand the results and inform decisions on members own farms.

Promotion of community woodlots

In the framework of the integrated management of the catchment area of Mirama (Gitega), a 45 hectares community woodlot was established at the top of the hill (Figure 6), for the benefit of Haguruka FFS which comprises 40 members (28 women and 12 men). An agreement was signed between the local government, the Forestry Department and the beneficiary FFS on how to share the costs and benefits relating to the establishment and management of the woodlot, in relation to the benefits arising from the use and commercialisation of the forestry products. As per the agreement, 80 percent of the benefit would be for the beneficiary population, ten percent for the commune and ten percent for the Forestry Department.

Example of results over typology of watershed

source: wocat

Table 1: Typical watersheds in Tajikistan: zones, characteristics, and SLM options (based on GIZ 2012)

		Upper zone	Middle zone	Lower zone
Natural environment	Climate	Sub-humid with seasonal rainfall and inter-seasonal heavy rainfall events	Semi-arid, temperate with seasonal rainfall	Semi-arid, temperate with seasonal rainfall
	Land form	Mountainous, steep slope	Hilly, moderate slope	Plain, gently sloping or flat
	Type of soil	Shallow stony soil	Deep, fairly fertile colluvial soil	Fertile alluvial soil
Human environment	Accessibility	4-8 km from the village	2-4 km from the village	0-2 km from the village
	Land use rights	State and communal	Communal and individual	Individual and leased
Land use	Land use types	Grazing land and forests	Rainfed cropland, mixed areas and grazing land	Settlements, irrigated cropland, grazing land
	Degradation causes	Overgrazing, deforestation	Inappropriate cropland management, deforestation, overgrazing	Runoff concentration, sediment accumulation
Effects on natural resources	Land degradation types	<ul style="list-style-type: none"> Reduction in vegetation cover Loss of topsoil due to water and wind erosion 	<ul style="list-style-type: none"> Reduction in vegetation cover Loss of topsoil due to water erosion, gully erosion Decline in fertility 	<ul style="list-style-type: none"> Riverbank erosion Decline in fertility Waterlogging
	Effects on the water balance	<ul style="list-style-type: none"> Increased evaporation Reduced infiltration Increased runoff (volume contribution 20%-40%) 	<ul style="list-style-type: none"> Increased evaporation Reduced infiltration Increased runoff (volume contribution 60%-80%) 	<ul style="list-style-type: none"> Runoff (accumulation in flood waterways) Increasing ground water levels
SLM options	Examples of SLM Technologies and Approaches (WOCAT code)	<ul style="list-style-type: none"> Rotational grazing supported by additional water points (T_TAJ100) Joint forest management (A_TAJ015) Public women's organization (A_TAJ036) spreading heat exchangers as energy efficiency measure to save fuel wood 	<ul style="list-style-type: none"> Agroforestry (orchard with intercropping) (T_TAJ043) Infilling of gullies with vegetative structures (T_TAJ356) Perennial herbaceous fodder plants for intact canopy cover (T_TAJ009) 	<ul style="list-style-type: none"> Strengthening of river banks with stones and gabions (T_TAJ403) Poplar trees for bio-drainage (T_KYR001) Technical assistance groups (A_TAJ043) for improved management of crops

Impacts and lessons

- ▶ **Important impact on social cohesion**, engagement, innovations and access to community infrastructure and land as groups are empowered and connected to village committee
- ▶ **Impact on SLaM adoption**: experience from Kagera TAMP shows that four key steps enhance SLaM understanding and adoption through FFS, namely:
 - ▶ 1) generation of SLaM knowledge and technologies in a common study field;
 - ▶ 2) adoption of good practices in farmers' own environments;
 - ▶ 3) dissemination of good practices in the whole catchment (mass adoption);
 - ▶ 4) sharing of experiences and harmonization (synchronization) across different land use types.
- ▶ **Adoption at individual fields**: One of the major interventions in SLaM FFS groups was the introduction and execution of “adoption contracts” to support and ensure that members are willing and able to adopt SLaM technologies and practices in their own home environments.

Watershed and FFS: practical examples

- ▶ Design concepts and overview complementarities between FFS and watershed
- ▶ Step 1 to 3: Examples from FAO FFS platform & Kagera projects
- ▶ **Step 4: FFS and sustainability: rural institutions: IFAD stocktake**



FFS and rural institutions: Kagera

Opportunities and Challenges

The equivalence of the FFS group under the new Uganda Cooperative Alliance (UCA) guidelines is the RPO while the equivalent of the FFS Network is the ACE (see Figure 1).

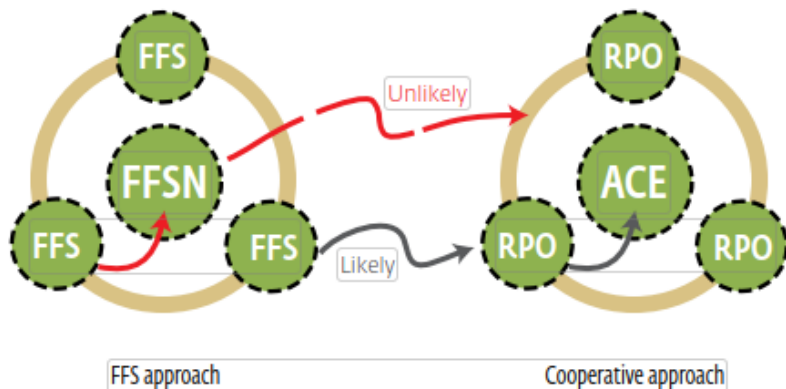


Figure 1: Possible pathways for transformation of FFS groups into cooperatives.

The FFS groups catalysed by the Kagera TAMP rather than forming FFS Networks, instead opted to form RPOs directly. The most feasible route to transform FFSs into structured cooperatives is as follows:

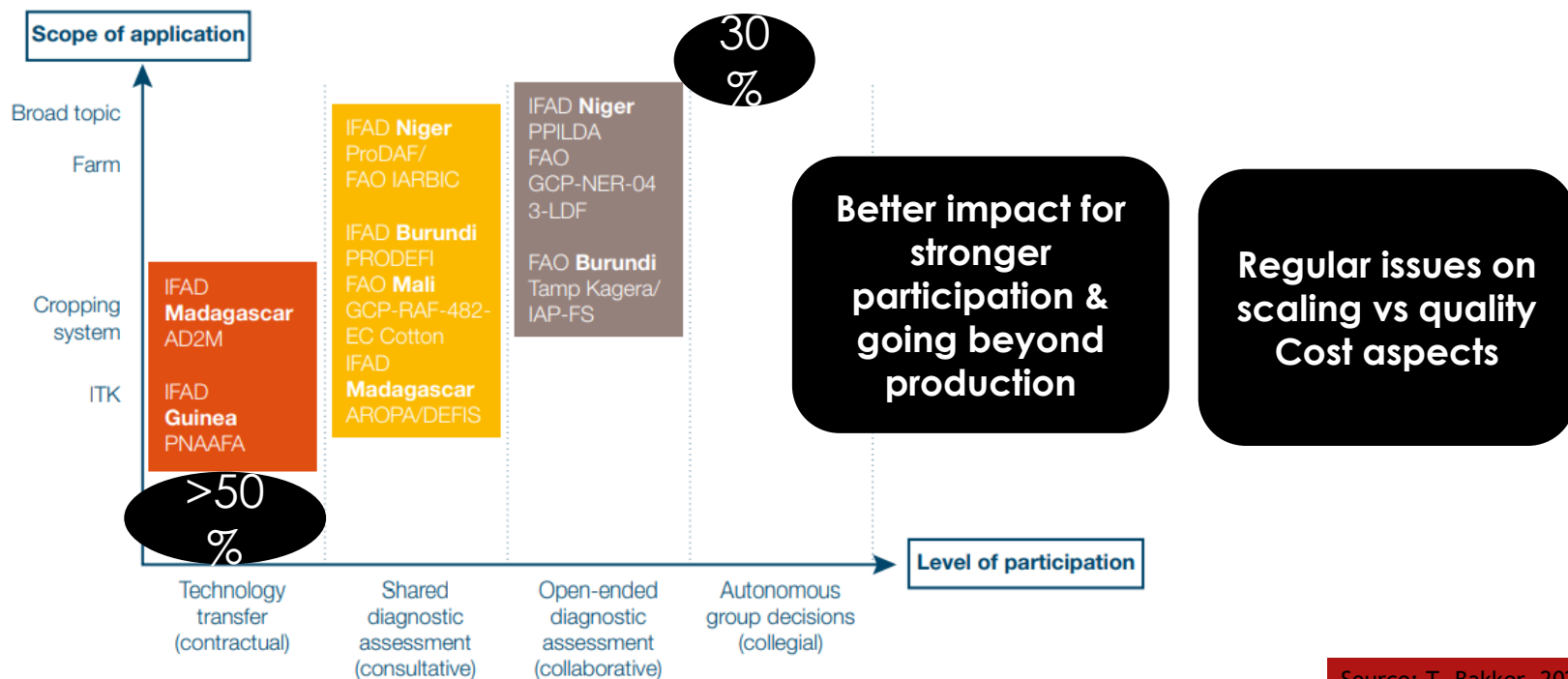
Conclusion and recommendations

- FFS groups established under the Kagera TAMP are viable links for transforming into RPOs and then forming cooperatives.
- Using this approach, the new farmer field schools formed are being co-opted into established cooperatives based on the similarity in enterprise and benefit products generated from use of sustainable land management practices.

Overview of FFS types in IFAD

Source: IFAD, 2022, stock take FFS & FO

Diagram 1 Type of FFS implemented in the projects funded by IFAD and/or implemented by FAO, broken down by level of farmer participation and scope of application of the topics covered



FFS and collective action: IFAD stocktake in Africa

Source: IFAD, 2022, stock take
FFS & FO

•
To what extent the FFS approach at local level, particularly the “collective learning” modality, is conducive to the emergence of sustainable collective action?

1. Few collective action in the technology transfer type of FFS (so called “simplified FFS”)
2. Emergence of sustainable seed producer organizations (i.e. PPILDA Maradi/Niger, DEFIS/Madagascar, PRODEFI/Burundi, FAO/IERBIC)
3. Dairy cooperative movement (i.e. PRODEFI/Burundi, Rwanda and Malawi)
4. Bla Producer Network (i.e. FAO Cotton Project/Mali)
5. Higher opportunities of collective action when FOs are involved as partners or implementing agency (i.e. input bulking action, support to grass-root level FO, etc.)
6. Sustainable collective action linked to sustainable financial capacities (i.e. FAO VSLAs Niger/Burundi, IGA, MFIs, etc.)



Decision Support Framework for SLM mainstreaming and scaling-out

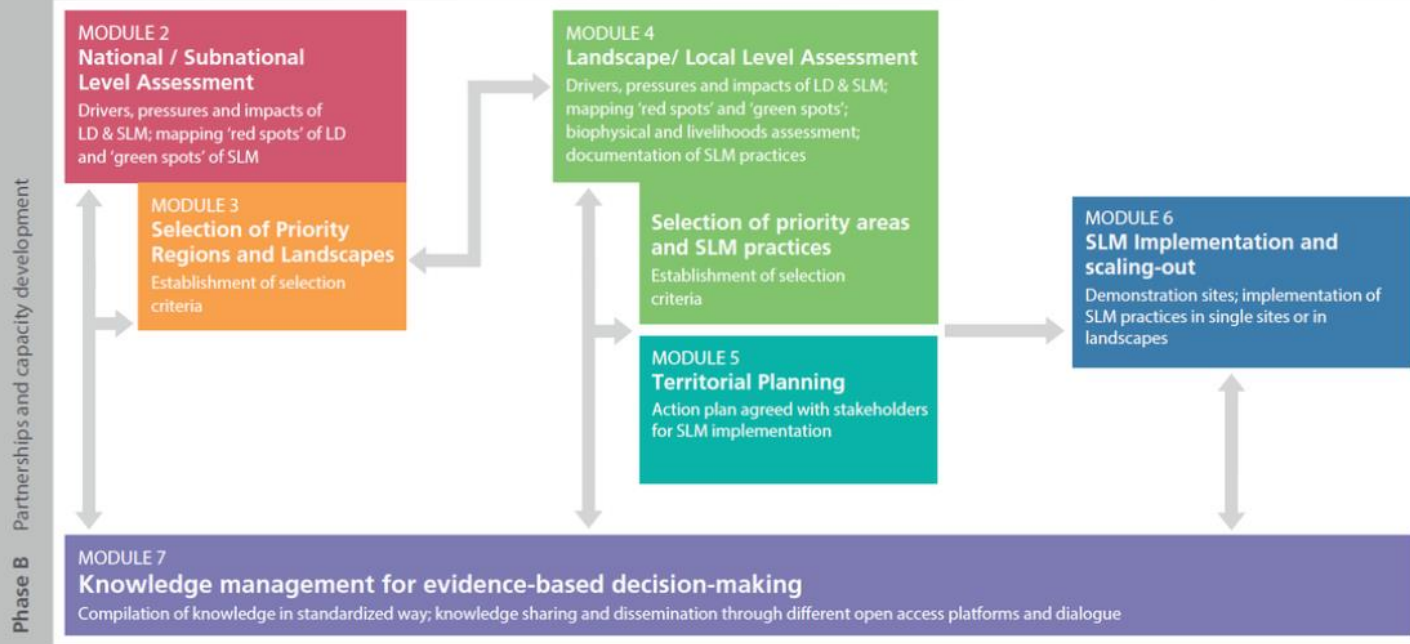
<https://wocat.net/en/decision-support-slm/>

MODULE 1

SLM mainstreaming and scaling-out strategy

Mainstreaming SLM into decision-making processes within policies, strategies and programmes, finance and incentives, education and awareness-raising, land use and territorial planning and local initiatives.

Phase A Review key decision-making processes and design of the strategy



Phase C Consolidation and implementation of mainstreaming and scaling-out strategy

Wocat module 4. Project step 2

Participatory workshop sub watershed

- ▶ The workshop is comprised of the following seven exercises with the option to add specific exercises needed in a certain problem context (e.g. on zoning, integrated farming systems). The [WOCAT Technologies and Approaches documentation](#) serves as the evidence to be used during the workshop.
- ▶ **DAY 1: Understanding the local context**
- ▶ Ex. 1: Introduction to the workshop
- ▶ Ex. 2: Observed changes in land use and climate
- ▶ Ex. 3: Land size and livelihoods
- ▶ Ex. 4: Land management problems and solutions
- ▶ **DAY 2: Assessing and selecting relevant SLM technologies**
- ▶ Ex. 5: Selection of technologies to be assessed
- ▶ Ex. 6: Assessment of promising technologies
- ▶ Ex. 7: Evaluation and closure of the workshop



references

- ▶ [FAO, 2017, SLM in practice in Kagera](#)
- ▶ [IFAD, 2022, FFS stocktake and farmer organizations](#)
- ▶ [IFAD FFS stocktake on livestock FFS](#)
- ▶ Wocat data base on 2700 SLM practices across the world
<https://wocat.net/en/global-slm-database/>
- ▶ Wocat [website](#) and approaches for SLM, cost benefit etc.
- ▶ [FAO FFS platform](#)

International experiences in integrating climate in watershed/NRM

Marie aude Even, IFAD
Building on presentations & reports from IFAD, Alessia, project (PMU Nepal Asha)



IFAD experiences : climate in watershed and community planning

- ▶ Integrating climate adaptation plan in watershed and livelihoods interventions.
 - ▶ Why is climate change an issue in Yemen? Concept designs
 - ▶ Example from Nepal: from sub watershed to community: from sub watershed assessment to community plans
 - ▶ Climate resilient community plans: Example from Sudan



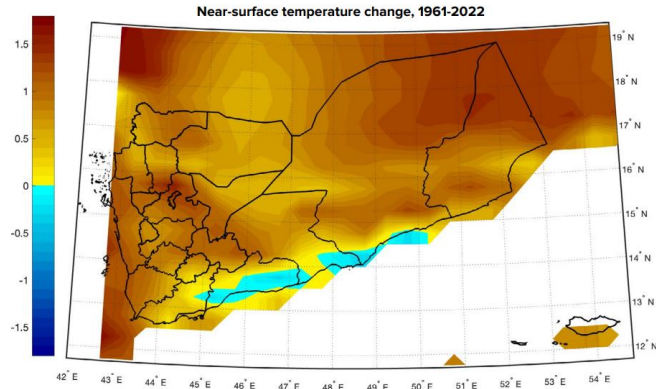
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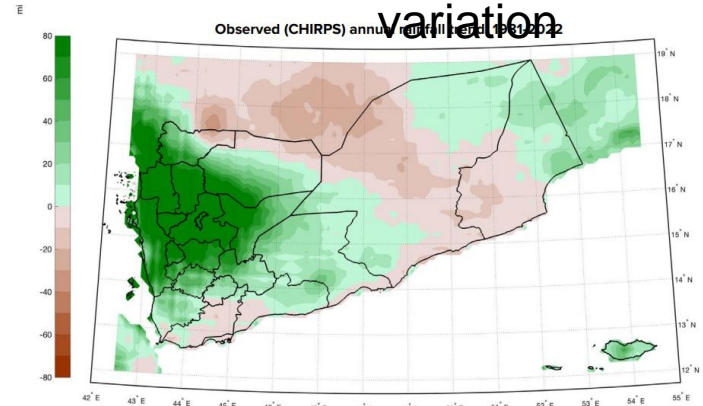
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Climate change in Yemen

Temperatures have increased and will continue to increase.



Rainfall is increasing, but with higher uncertainty and regional variation

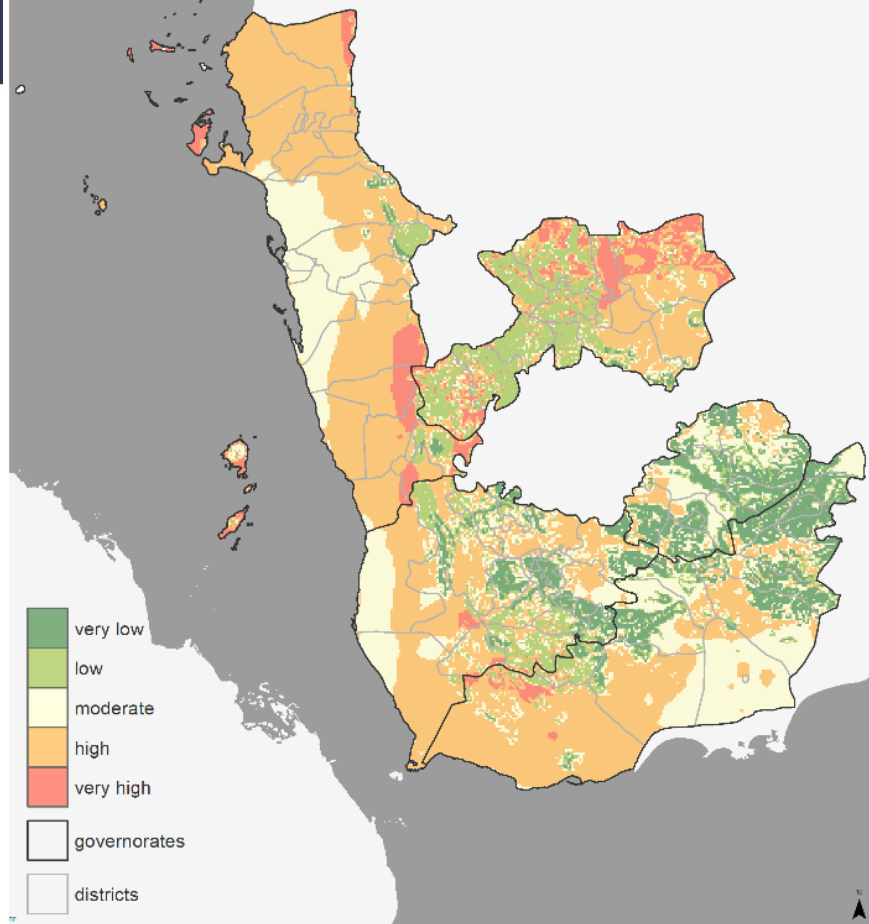


“Cycles” of more frequent and intense flooding, and more extended droughts

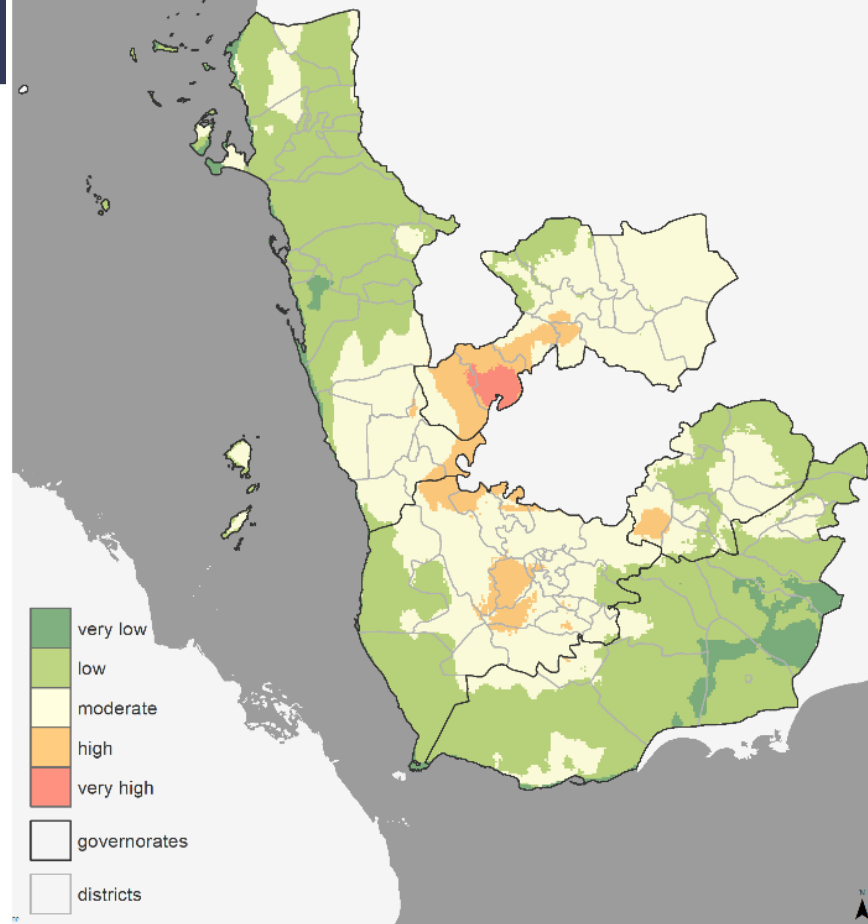


Lower yields, loss of agricultural land, and livestock, destruction of irrigation and other key infrastructure

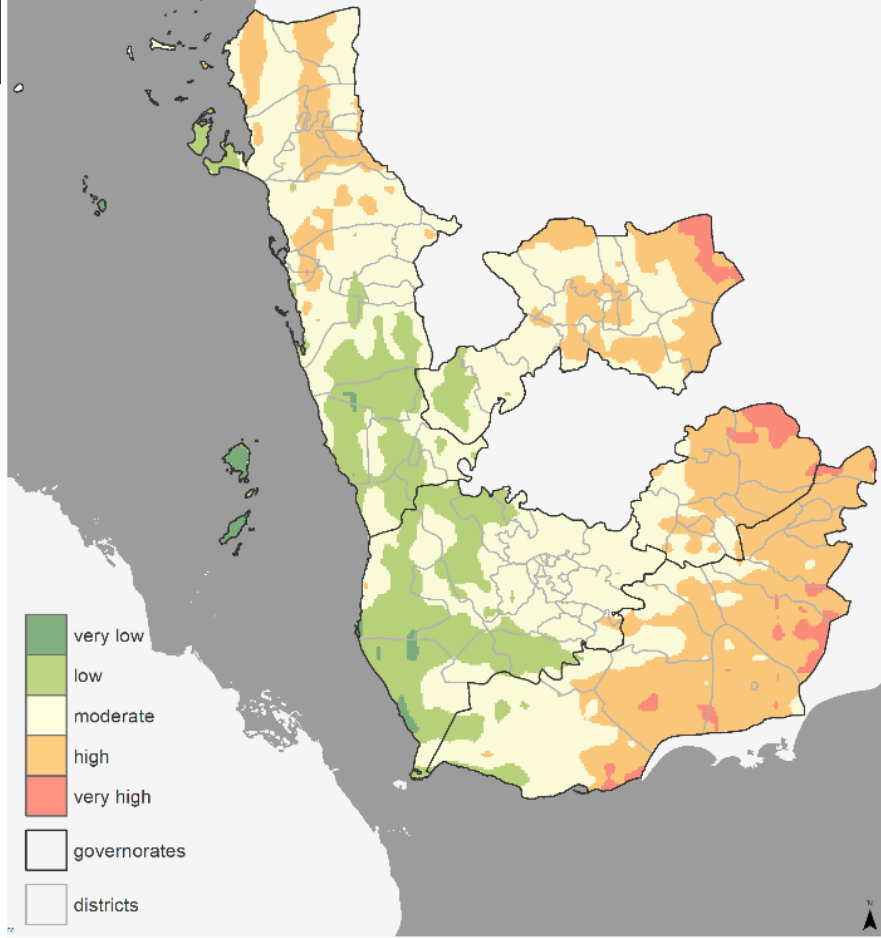
Flash-floods Risk



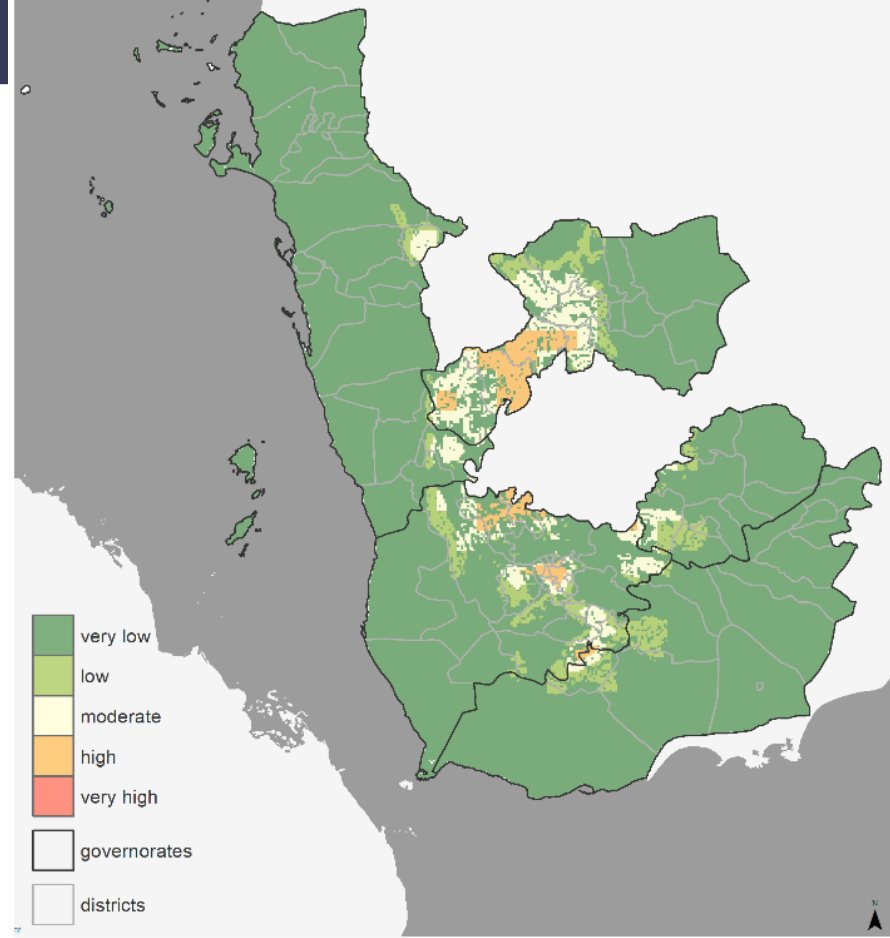
Erosion Risk



Climate Risk



Landslide Risk



Adaptation in Yemen

ASAP+ funding adaptation measures:

- ▶ **Rainwater harvesting** (e.g. roof tops) to address water scarcity, in conjunction with training
- ▶ **Soil and water conservation**, including terracing, village road sections upgrading to include climate smart and water conservation features and construction of soil protection measures as check dams and gabions to reduce increased risks of soil erosion and flooding

IFAD experiences : climate in watershed and community planning

- ▶ Integrating climate adaptation plan in watershed and livelihoods interventions.
 - ▶ Why is climate change an issue in Yemen? Concept designs
 - ▶ Example from Nepal: from sub watershed to community: how to link step 1 and 2
 - ▶ Step 2 and 3: Example from Sudan



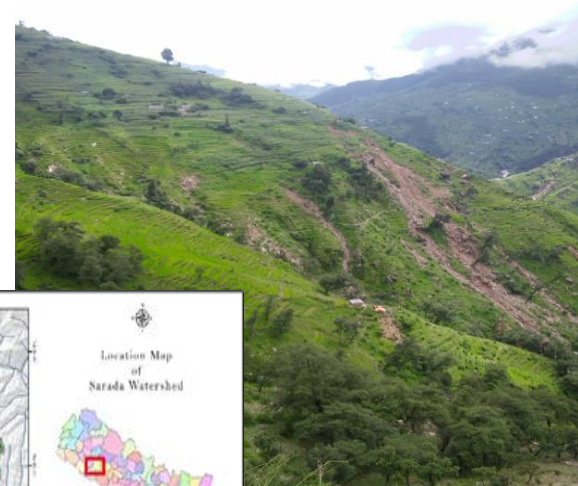


Government of Nepal
Ministry of Forests and Environment



Adaptation for Smallholders in Hilly Areas (ASHA) Project

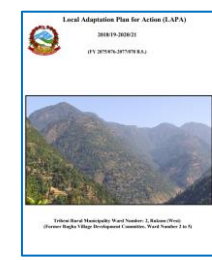
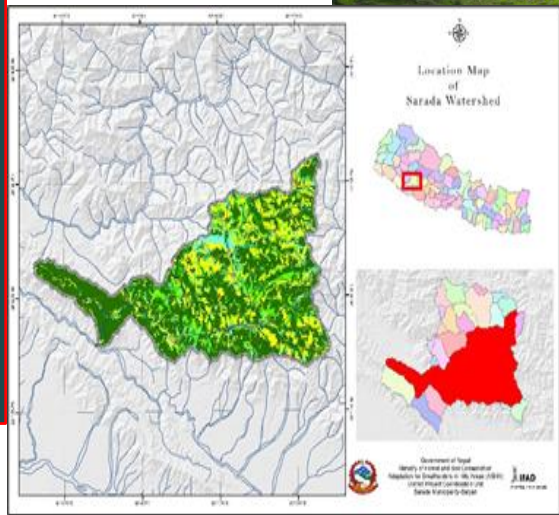
LAPA as Tools for Scaling Community Driven Climate Adaptation: Experience from ASHA Project in Nepal



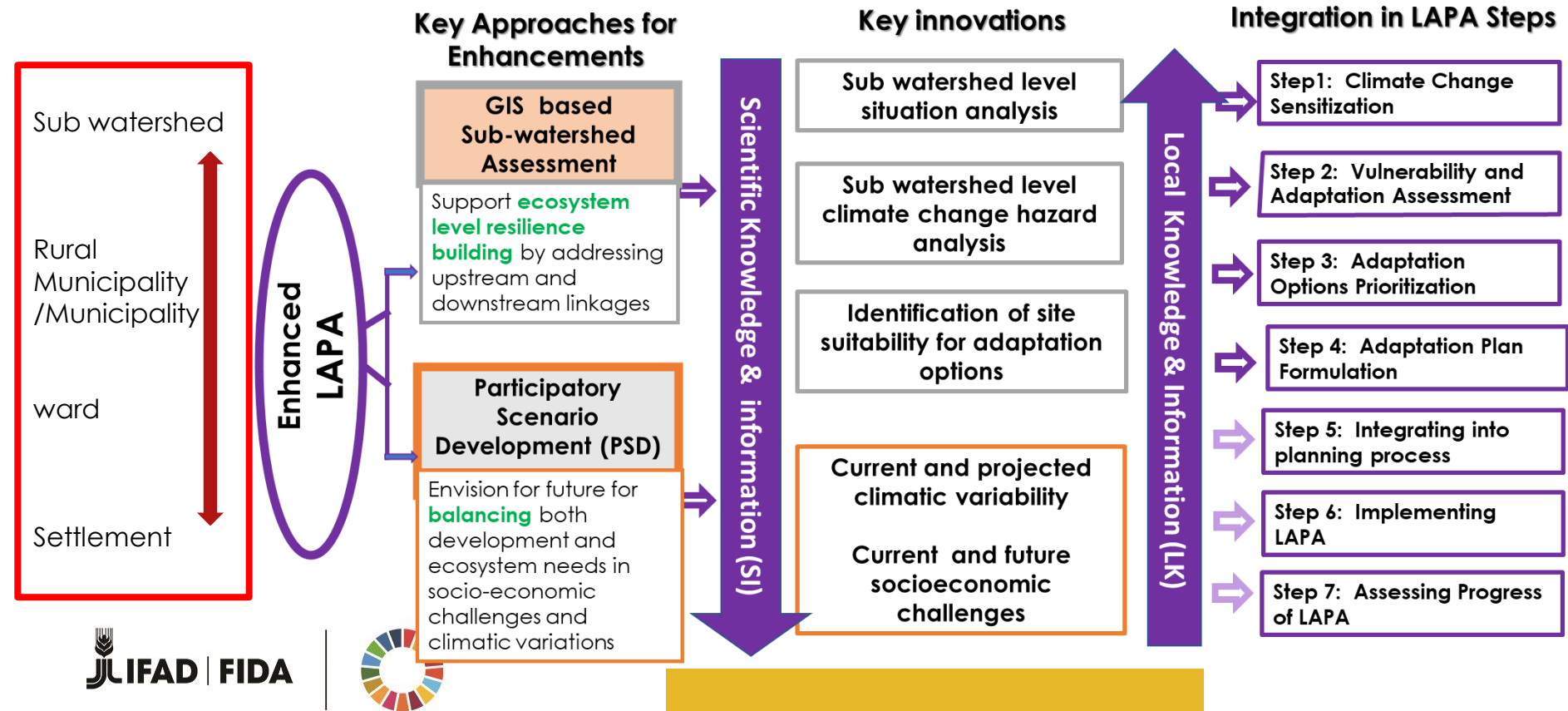
Major climate risks affecting project areas, heterogeneity of impacts impacts across landscapes, slopes and within communities: poor rainfed & drought, forest fire, forest degradation, pest and disease

Objectives: Vulnerability of local communities to climate related risks reduced & enabling institutional environment for CC adaptation strengthened to reduce poverty

Scale: 100,000 poor rural HH in 2 least developed Provinces, 7 Districts, 30 municipalities, 200 wards



Climate Intervention : Enhanced LAPA Process



LAPA as Tools for Scaling CDD Climate Adaptation Experience from ASHA Project in Nepal

Guided Process:



Guiding plan: Local Adaptation Plan for Action (LAPA)

+ HH vulnerability assessment

Climate resilient Households and Community

CSA tested in CSV & FFS

+ Farmer diary

Identified investments

LAPA

GIS mapping

Vulnerable ward

Participatory Sub-watershed assessments

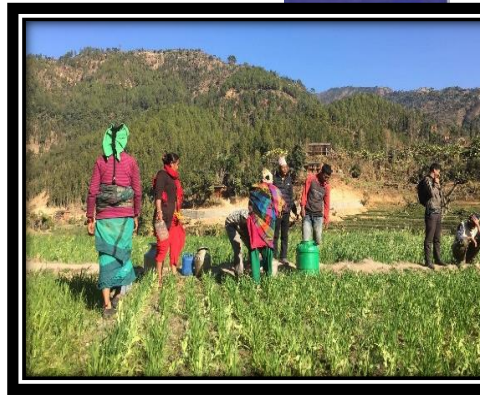
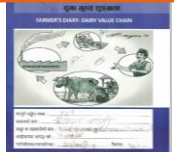
Participatory scenario development

17 ward LAPAs

Upstream: 4

Mid-stream: 6

Downstream: 7



Main impacts

- 200 ward level LAPAs achieved & integrated in RM/M plans & eNDC adaptation plans in all (753) local government
- 114,000 people engaged :
 - 15% income increase,
 - decreased seasonal **out-migration** and increased **youth engagement**
 - 85% adopting CSA,
- Mitigation: **316,679.54 ton CO2e** for its four year
- **Cost-effective adaptation & mitigation measures:** CSA, improved livestock, efficient water use, RET, homemade inputs-liquid fertilizer, permaculture, drudgery reduction



Key-Performance Indicators	Project Target (ASHA)	Total Achievement Till July 2021	Total Progress % against project target
LAPAs incorporated into RM/M's development plan	200	200	100%
Beneficiary HHs participated	100000	114306	114.3%
Beneficiary HHs adopting at least one CSA	100000	94737*	94.7%
Land managed under CR micro-watershed management practices	40000	21742	54.4%
HHs adopting livestock stall-feeding with adapted forage and fodder trees	25000	23222	92.9%
HHs applying efficient water use techniques	25000	26686	106.7%
HHs adopt RETs for domestic purposes	7500	7134	95.12%
Lead farmers contracted by LAPA			

Inter-linkages of women, agro-ecological practices (CSA), food safety and nutrition

Role of women in nutrition

- ▶ 100% bread makers are women & concerned by nutrition and food safety
- ▶ ASHA has a goal level objective: 15% reduction in the child malnutrition compare to baseline

Strong links between nutrition, health and agro-ecology

- ⇒ Climate resilient, agri-livestock-forest based farming practices increase resilient food system/**food stability**
- ⇒ Improved use of bio-input & more diversified production (permaculture–agro-forestry) contribute in the **nutrition diversity and food safety**
- ⇒ Case study & field discussion says that the **health and nutrition is an important argument to adopt agro-ecology**



Women empowerment helps women adopt agro-ecology

>80% agriculture workers are women, and they face constraints:

- ▶ Lack/inadequate resources & low productivity
- ▶ No/low paid work & increased workload

Project empowers women along GAP :

- ▶ 48% of the project beneficiaries are women
- ▶ Involved in CSA , including kitchen gardening using no/low chemical inputs, promoting water saving practices
- ▶ **Dedicated investments :**

- ▶ Gender sensitive local social mobilizer;
- ▶ 29% (429) Women Lead farmers trained and capacitated;
- ▶ Water access & involvement in O&M;
- ▶ Women friendly drudgery reduction agri-tool kits
- ▶ Establishment of Permaculture and demo farms & FFS
- ▶ Improved Cook Stoves and Improved water mills

Establishment/strengthening of CCA GESI network



Impact on women adoption of agro-ecology

- Increase information access and knowledge
- Targeted drudgery reduction activities save time
- Improved fresh water access: saves 2-3 hours labor
- Saved time: hygiene, food preparation & homegarden
- +15% production and income from CSA & homegarden

Impact on women empowerment, dissemination of agro-ecology & nutrition

- Women (LF) actively approaching government planning process to include more ASHA/government investments in agro-ecological practices etc.
 - Women Lead Farmers: change agent; very dedicated; feel dignified & empowered; key for sustainability
- ⇒ Project's ambition to become gender transformative
- ⇒ Further survey and action to connect gender, nutrition and climate resilient practices



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Key challenge

Challenge



Delay in LAPA preparation

Externalities

LAPA ownership and sustainability

Response



- Refreshed already available LAPAs to start implementation
- Developed LAPAs in package system to accelerate work
- Minutely worked in planning and M&E to tackle externalities
- Participatory LAPA preparation, implementation
- Sustainability plan along with actions developed together with local governments

Results



- 200 LAPAs developed and are in different stages of implementation
- Solved all the externalities and acknowledged quality implementation by SMs
- Sustainability and Exit plans are being implemented

Lessons learnt for inclusive impacts and scaling

- Blending **local knowledge with scientific through GIS mapping**
- Crossing **administrative boundary** (semi-watershed GIS)
- **Local capacities**: use of lead farmers, extension worker & local resource persons
 - CSA demo farms, nursery & FFS as learning centers etc.
 - 429 lead farmers contracted by LAPA groups for support;
- **Community meaningful participation**, addressing differentiated vulnerability with farmers diary & HH approach
- **Flexibility in investments but review value for money & climate proof**
- **Strong policy engagement, ownership & mainstream:**
 - Local **government lead process & signed sustainability plans**, leadership trained and informed
 - Policy inputs: Climate change policy, LAPA framework, Organic Province Declaration –Karnali and others

Production Profitable Agriculture Activities of ASHA Grant, Kalikot



IFAD experiences : climate in watershed and community planning

- ▶ Integrating biodiversity in geographic targeting
- ▶ Integrating climate adaptation plan in watershed and livelihoods interventions.
 - ▶ Example from Nepal: from sub watershed to community: how to link step 1 and 2
 - ▶ Step 2 and 3: Example from Sudan





Climate Resilience Community Village Plans

Lessons from Sudan

Based on presentation from **Alessia Marazzi**
Environment and Climate Finance Specialist
08 February 2023

HOW TO DO NOTE

Formulating a Climate
Resilience Community
Village Plan

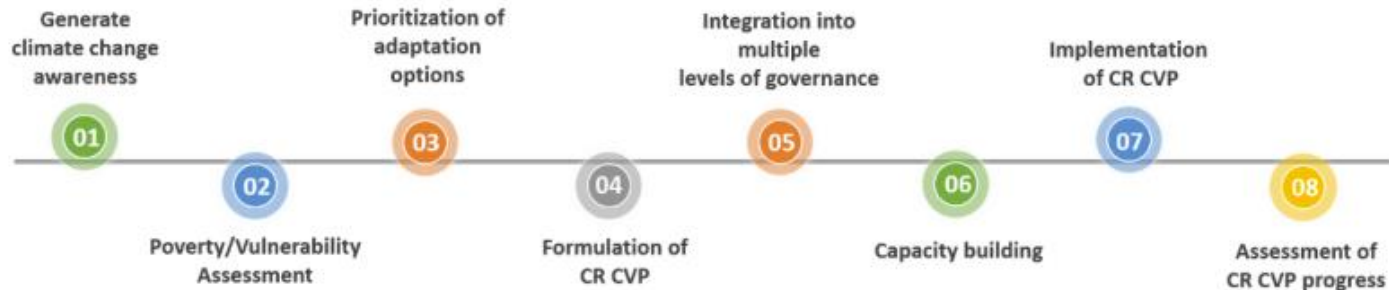


[HtDN available at this link](#)

Leverage community empowerment

Climate Resilience Community Village Plans CR CVP Lessons from Sudan

- **CR- CVPs = community action plans to identify implementable actions to reduce community vulnerability to CC**
- **Include investments in livelihoods and NRM/watershed:** community forest, terrace, rangeland forage reserve, water harvesting
- The formulation of CR- CVPs is a **bottom-up** and **participatory process**, involving all members of the communities



- ▶ So integrate disaster reduction & flash flood mitigation in village plan?

Box 9. Disaster-risk analysis

Lessons learned from the Southern Laos Food and Nutrition Security and Market Linkages Programme indicated that the project could achieve significant climate change adaptation success if village development plans and action plans integrated specific disaster-risk and climate change adaptation scenarios. Such an analysis is essential to inform decision-making processes and programmatic actions. It is also an area that can enable information-sharing and partnership with a wide range of actors. Identification of disaster risk will involve:

- Identification of disaster susceptibility based on past climate information and weather trends at the local level
- Development of specific disaster response strategies (for disasters that are deemed high risk or have a high probability of occurrence)
- Preparation of plans and schedule for mock drills to test the preparedness of disaster response strategies and ensure sufficient resources are available in the advent of a climate shock/stressor
- Mainstreaming of the disaster-risk strategy component in CR-CVPs and ensuring holistic participation from all stakeholders (different levels of institutional involvement).

Steps for village plans

Objectives: All stakeholders and committees at the village level and higher levels must agree on concrete adaptation objectives and desired outcomes.

The land-use option plan: This is a mechanism for zoning locations based on criteria that allow for different user types in different parts of the production ecosystem. Its advantages include the following:

- It helps to reconcile competition for conservation and development objectives (especially in situations involving settlers and mobile communities), while maximizing benefits that can be derived from using the resource.
- It facilitates comparison among alternative scenarios, which is instrumental in selecting realistic proposals.
- It enables specific risks associated with land, resettlement or environmental damage to be integrated into the main plan and support measures designed and managed in consultation with the communities affected.

Activity plans and road maps: Precise action plans and road maps should be prepared, and a realistic time frame should be agreed on:

- Activities should be specific to each zoned location, setting out the desired outcomes and targets to be achieved over defined periods. The level of detail of the plan and its complexity should be commensurate with the specific risks, impacts and opportunities of the project area.
- Considering that some community members are disadvantaged and more vulnerable than others, the plan can clarify the need for differentiated measures so that groups are not disproportionately affected in the sharing of benefits and opportunities.
- The dynamic nature of projects and the implementation process needs to be taken into account. The plan should be flexible and responsive to changes in project circumstances, unforeseen events, regulatory changes, climate change impacts, environmental and climate shocks, etc.



Implementation and stakeholder

roles

- An implementation approach should be defined. It should be ensured that activities are sequenced to show which ones should be implemented in the short, medium and long term, hence providing the necessary interface between long-term priorities and the routine annual work plan and budgeting exercise.

There should be a clear understanding on the part of all stakeholders of who plays what role within the proposed CR-CVP.

- The necessary technical capacity (including further training requirements) should be incorporated to address and manage the environmental and social risks that may occur during the implementation period.

Clarity regarding lines of communication and authority in the implementation of action plans should be provided. Key performance indicators should be set, and the milestones agreed on. This should also include supervision routines and measures to be employed in case of non-compliance with agreed actions.

Procedures: Procedures and by-laws should be agreed to establish what can and cannot be done in different parts of the CR-CVP (e.g. stakeholder participation in plan development, screening for environmental dam safety and social impacts). The procedures and by-laws should be strictly enforced by the community institution in collaboration with local authorities. The procedures should also comply with IFAD requirements for assessing and managing environmental risk. Chance-find procedures should be included in the plan, particularly in an area where tangible cultural heritage is likely to be found.

Options selected and results from Sudan – ex Terraces & rangeland

Lessons learned from Sudan - Terraces

- Degraded soils near home → move to further wadi beds, women not allowed.
- Terrace construction to address low rainfall and crop productivity.
- Sorghum Productivity : 80 to 630 kg/acre



Lessons learned from Sudan – Rangeland protection

- Feed shortage < low rainfall, land degradation and overgrazing.
- Rangeland protection to control grazing.
- 2011 low rainfall, protected community rangeland reserves supplied good and abundant dry fodder in dry season



- CR-CVPs provide a platform for the implementation of climate-resilient interventions at community level

=> CR-CVPs improves the **uptake and sustainability** of adaptive processes as communities develop strong ownership, ensuring that their priorities are met.

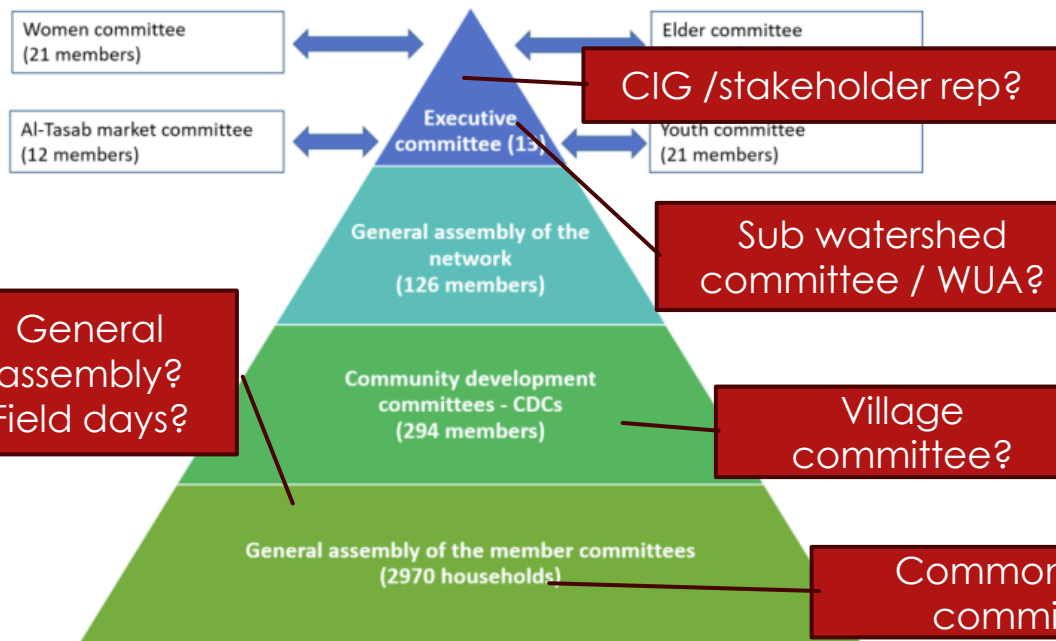
Key points in formulating a CR CVP

- TIME: Seasonality and timelines
- CAPACITY: community contribution and implementation capacity should be considered
- Integrating and valuing **local & scientific knowledge**
- Integrating CR-CVPs into different levels of the **planning process** (i.e. local to regional) to ensure coordination
- Build strong multi-stakeholder partnerships



Lessons learned from Sudan – Importance of watershed Networks

- Watershed network = decision-making mechanism encompassing multiple communities / **common challenges**
- Establishing *Al-Tasab Network* of the River Nile State in Sudan was a key success element to empower communities



Since creation, network managed to

- Effectively protect community resources from the rapidly expanding agribusiness investment in the area, e.g. building and operating water points,
- Establishing community rangeland reserves
- Mobilizing external funding.

- ▶ Content of HTDN
- ▶ Session with co writers & projects

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