



RESEARCH
PROGRAMON

Dryland Systems

*Food security and better livelihoods
for rural dryland communities*

Empowering Women and Youth in the Malian Dryland Systems - Impact of research technologies diffusion

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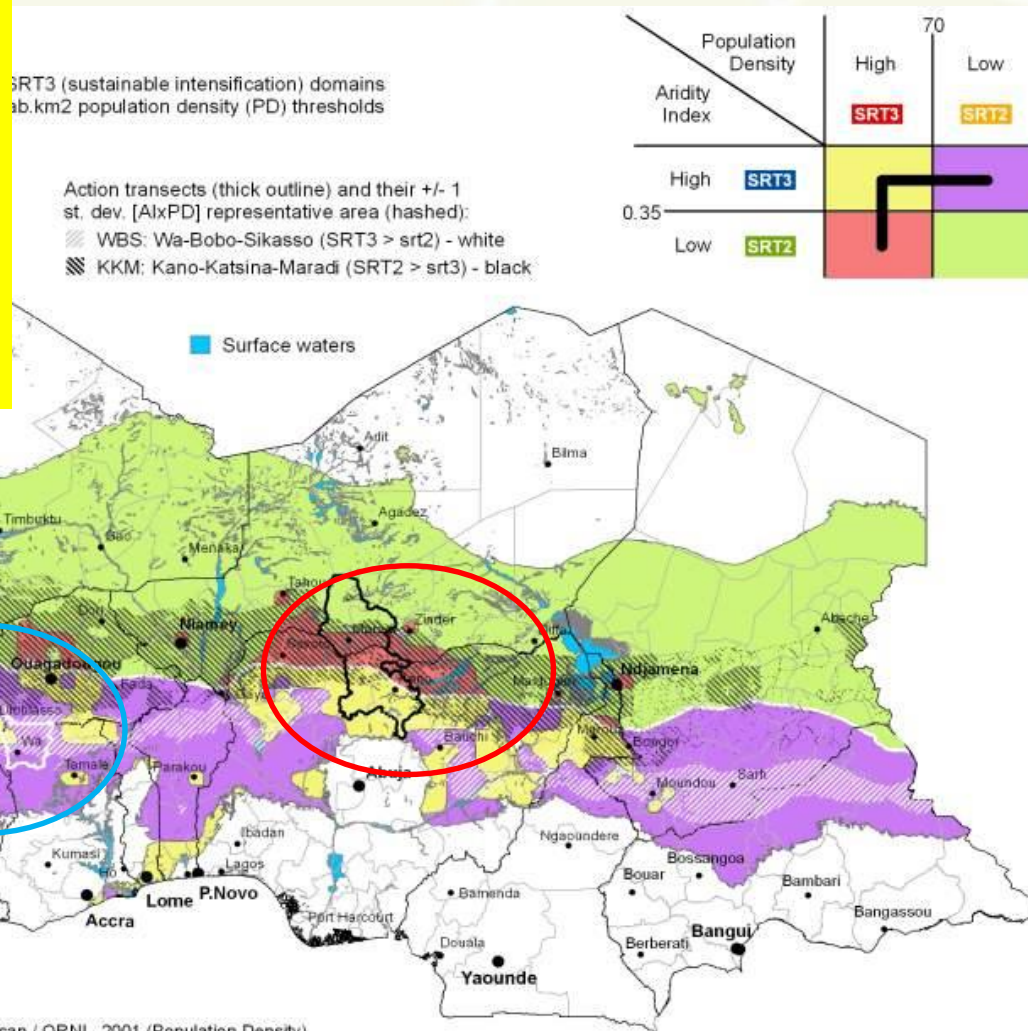
OUTLINE

- Background and Implementation context
- Problem statement & research questions
- Methodology
- Results & conclusion

Action sites across aridity x pop. density gradients

- WBS:
 - contrasted biophysical conditions
 - More homogeneous socio-economic conditions
- KKM
 - More homogenous biophysical conditions
 - Diverse socio-economic conditions

Background and Implementation context



The DS interventions can be grouped into four main categories (2012 -2016) – reaching 24,913 (5,061 women) beneficiaries

- **Designing technologies/interventions**
- **Integrated soil fertility management**
- **Agroforestry systems**
- **Social innovations in institutions and markets**

Background and Implementation context

1. More efficient **livestock-mediated nutrient** transfer through dual purpose crop varieties and fodder trees reduces feed gaps and increases overall system productivity
2. Increased **biomass production** from better tree/crop/livestock integration improves SOM, WHC, nutrient availability and system resilience
3. Improved **access and equitable participation in markets** by smallholders adds value, enhances profitability, productivity and reduces vulnerability
4. **Land tenure security** enhances system intensification and reduces vulnerability of rural households
5. Improved **access to financial services** (credits, savings, subsidies, insurance) enhances technology adoption, productivity and community resilience
6. Enriching agro-biodiversity improves system resilience and profitability for smallholders
7. **Empowering disadvantaged groups (women, youth, migrants) in decision making, resources and technology improves productivity and reduces vulnerability of rural households**
8. Effective **water harvesting and management** increase both plant and livestock productivity and reduce exposure to climatic and other risks
9. **Strengthening** local and national institutions (laws, by-laws and conventions) reduces natural resource degradation and conflicts
10. Strong incorporation of indigenous knowledge in the **innovation systems approach** accelerates adoption and scaling up of promising practices and services

Implemented Activities

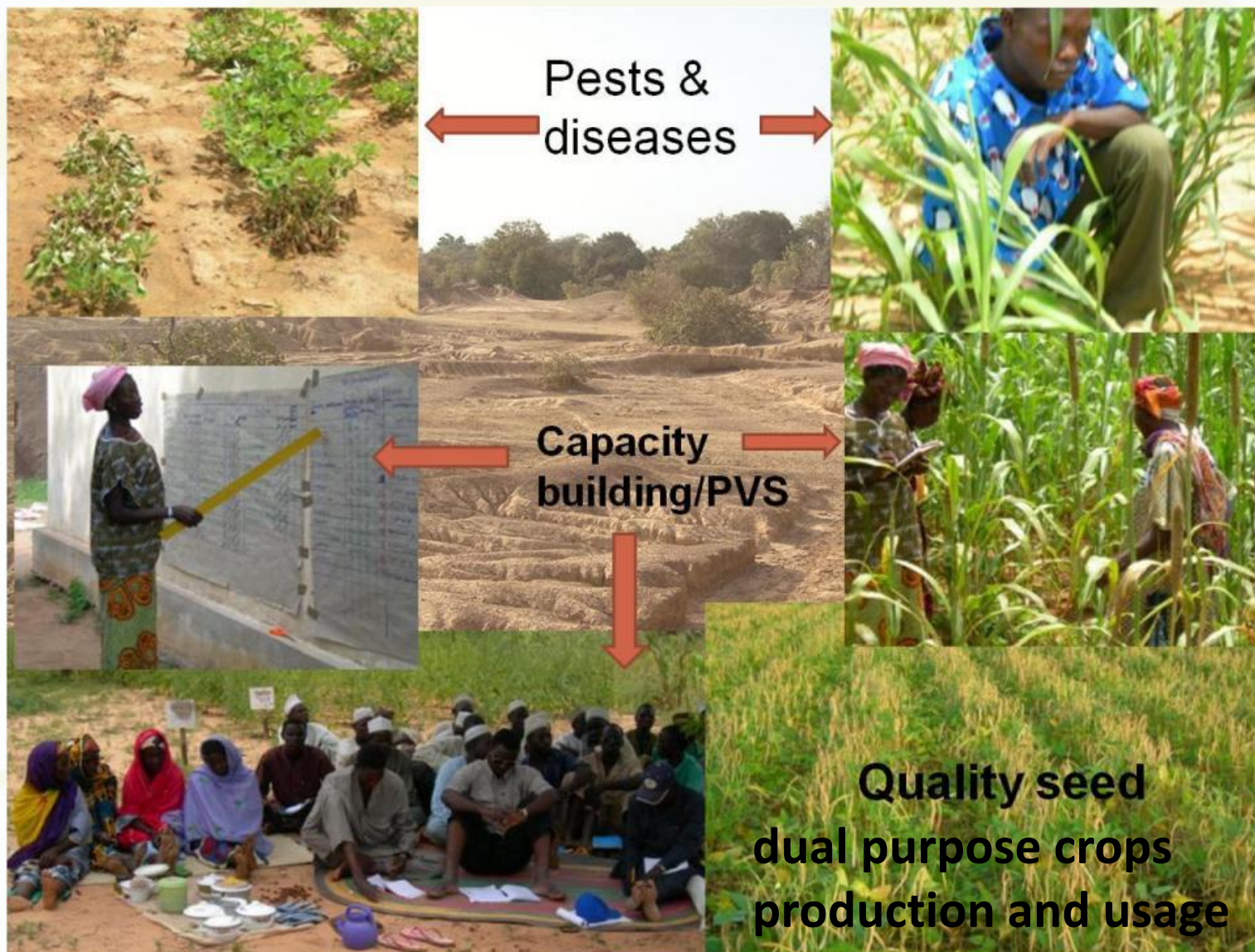
Designing technologies/interventions compatible with the resources and objectives of the target groups

- Improved crop variety
- Integrated soil fertility and water management
- Tree propagation
- Post harvest handling of fruit trees



Implemented Activities

Testing the interventions/technologies



Implemented Activities

Scaling up of proven technologies: Technologies/interventions, innovation platforms



Implemented Activities

Scaling up of proven technologies: Technologies/interventions, innovation platforms



Problem statement and research questions

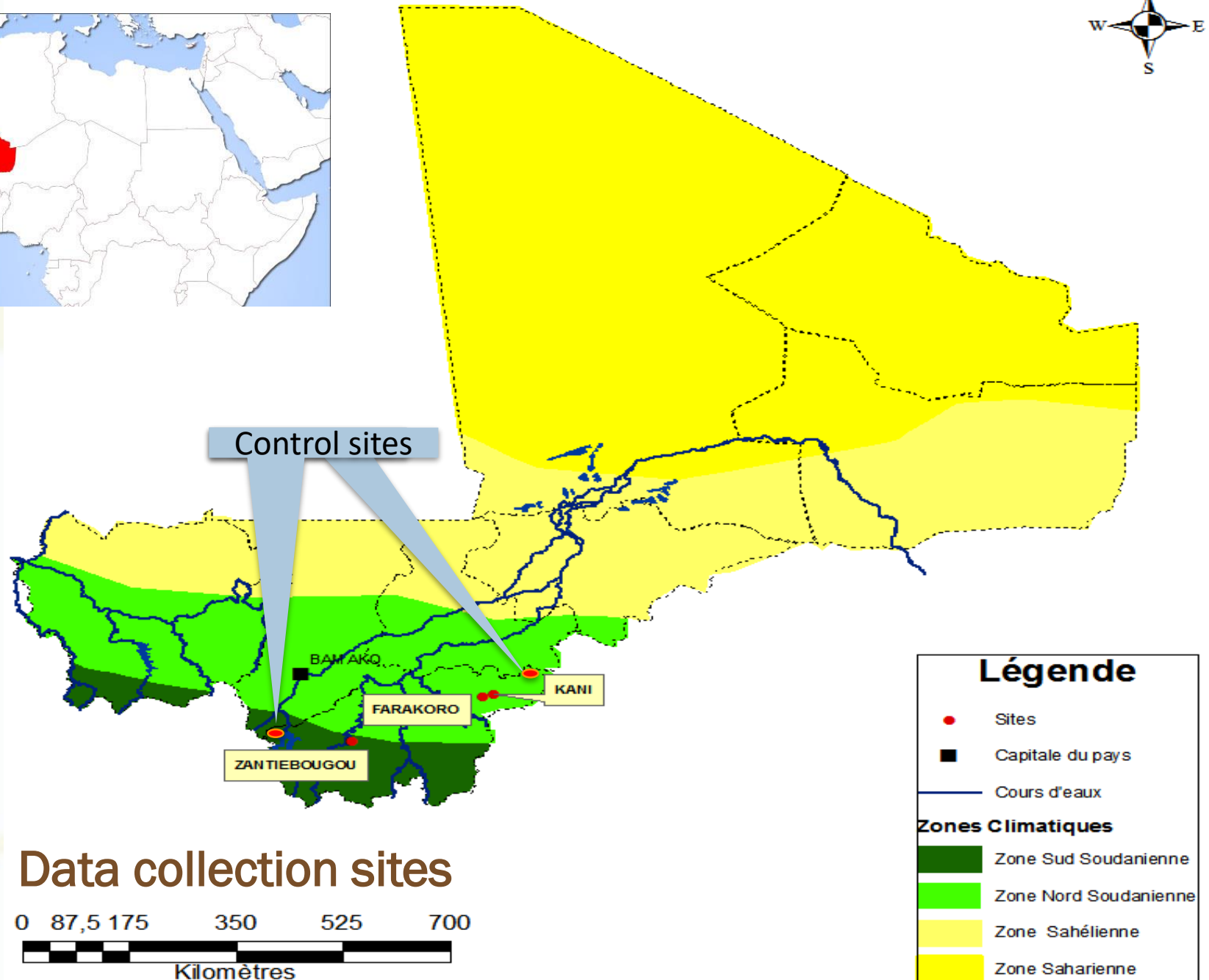
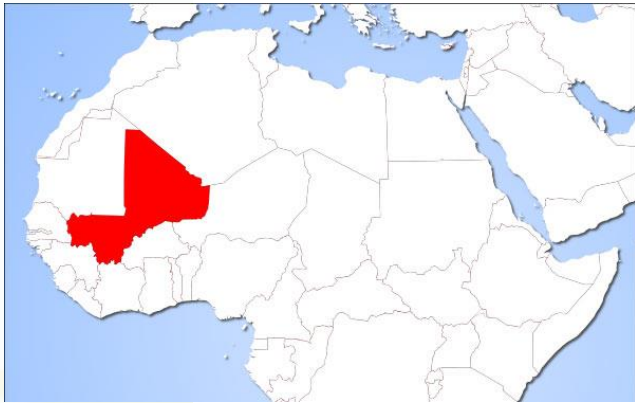
Key questions expressed by beneficiaries and drylands consortia of gender focal points across and within flagships:

- *“to which instance these the interventions - research outputs-capacity building , helped improving women and youth situations”*
- *“ how to build awareness on the impact of mainstreaming and empowerment on women and youth for a sustainable scaling up and out research outputs?”*

- What are the impact on:
 - Decision making around production and income generation;
 - Access to productive capital;
 - Access to credit;
 - Leadership and influence in the community;
 - Membership for different groups in the village;
 - Capacity to make one's own decision regarding some activities

A mixed method approach will be used during this research.

- Quantitative
 - A-WEAI approach couple with qualitative research methods (Re-adjustment with age-disaggregation)
 - The survey was carried out to gather data from a sample of 240 households (30 households in each village)
 - and communities selected from 3 sites in WAS-DS action transect and 5 others control sites from non-transect sites.
 - No gender specific baseline study was not initially conducted, calling for a counterfactual sampling and analytical approach will be used
- qualitative
 - in-depth case studies will be conducted with men, women and youth, to understand the technologies diffusion and adoption history, path and process, perception through gender disaggregated FGD (3 x 8)



Computing the WEAI

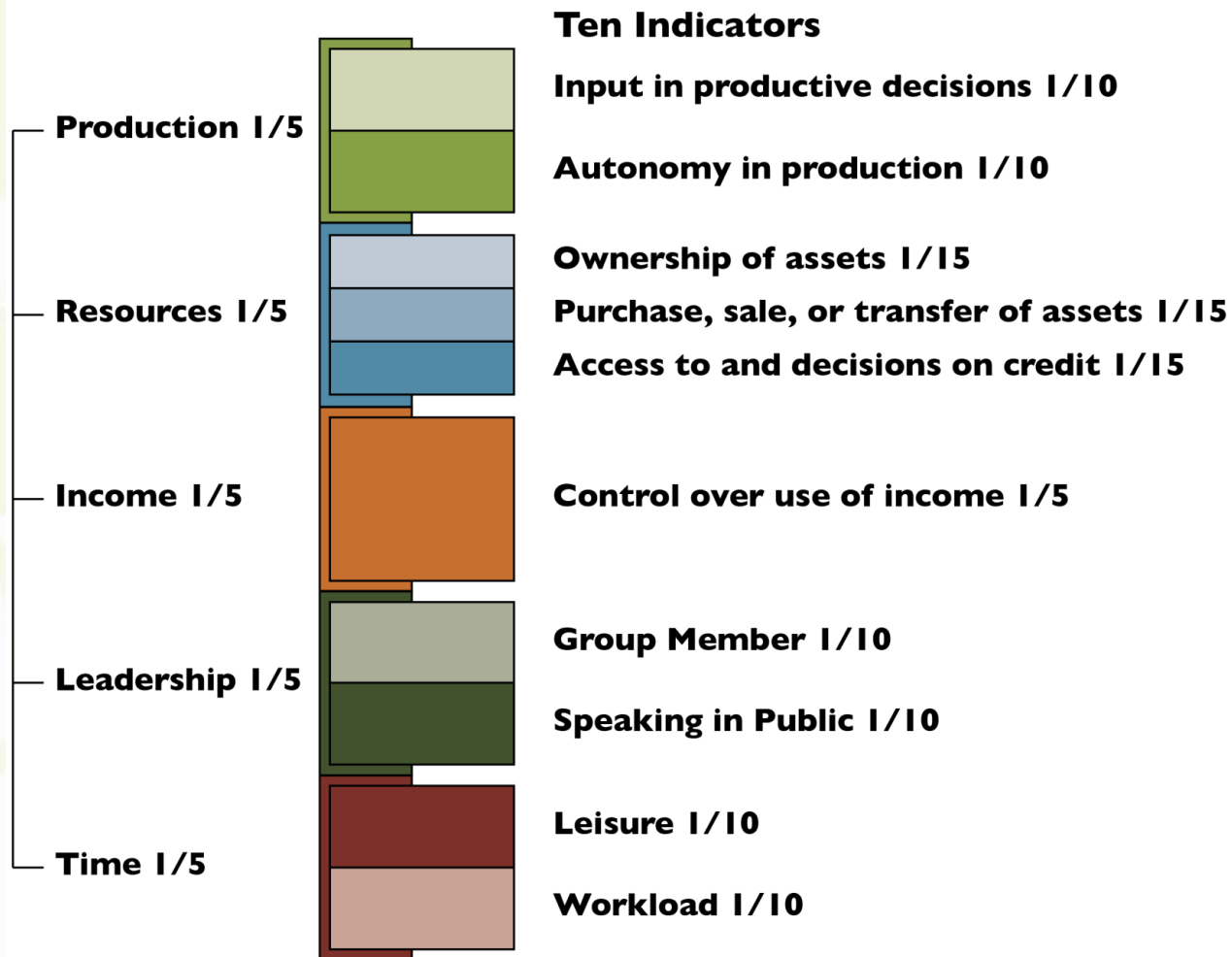
Computing the WEAI

	WEAI	Abbreviated-WEAI	Pro-WEAI	Ad-hoc adaptations
Domains	<ol style="list-style-type: none"> 1. Production 2. Resources 3. Income 4. Leadership 5. Time 	<ol style="list-style-type: none"> 1. Production 2. Resources 3. Income 4. Leadership 5. Time 	<ol style="list-style-type: none"> 1. Production 2. Resources 3. Income 4. Leadership 5. Time ... 	Any combination of domains
Indicators	<ol style="list-style-type: none"> 1. Input in productive decisions 2. Autonomy in production 3. Asset ownership 4. Rights over assets 5. Access to and decisions over credit 6. Control over use of income 7. Group membership 8. Speaking up in public 9. Workload 	<ol style="list-style-type: none"> 1. Input in productive decisions 2. Asset ownership 3. Access to and decisions over credit 4. Control over use of income 5. Group membership 6. Workload 	<ol style="list-style-type: none"> 1. Input in productive decisions 2. Asset ownership 3. Access to and decisions over credit 4. Control over use of income 5. Group membership 6. Workload ... 	Any combination of indicators, and any weighting scheme can be chosen, as determined by the organization

Computing the WEAI

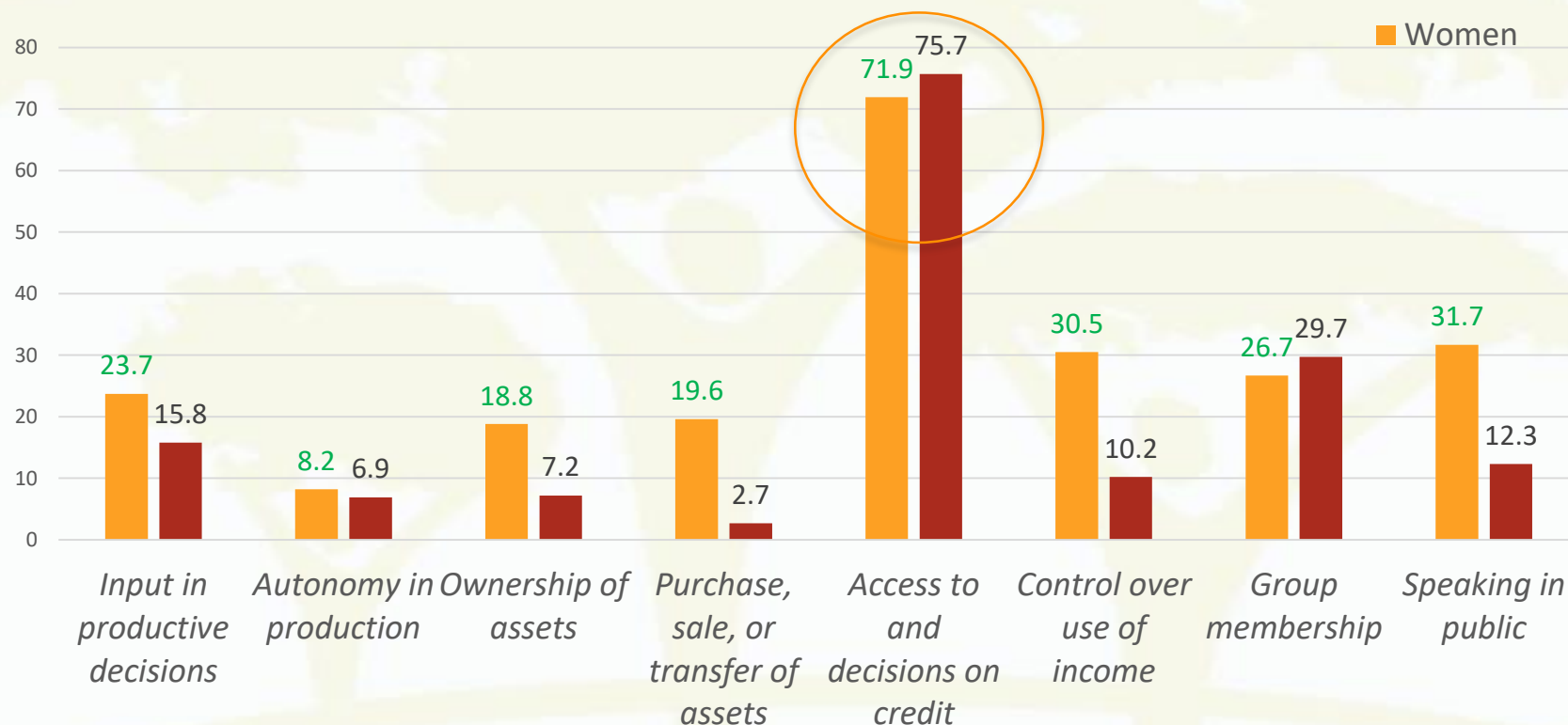
Scoring WEAI

Five domains of empowerment



RESULTS

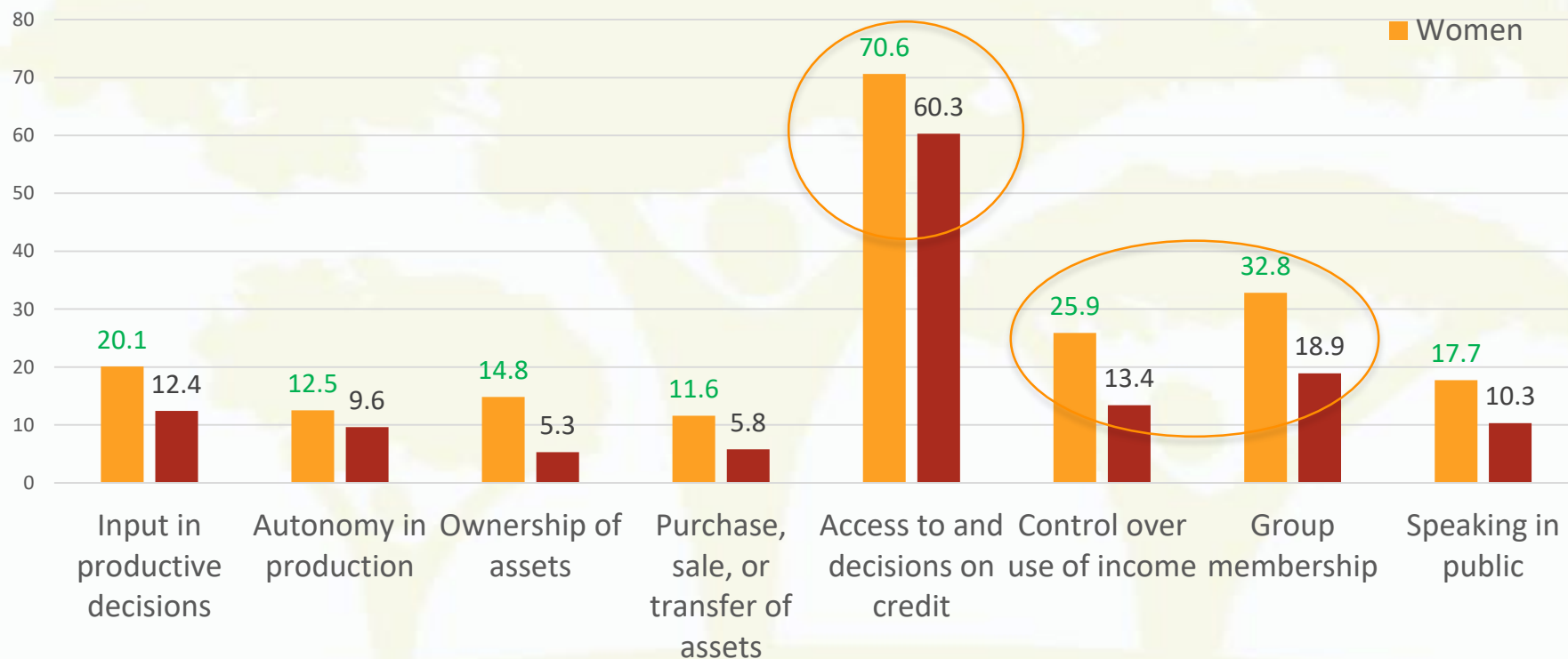
Disempowerment factors in the intervention zone



Lack of access to credit contribute a lot to both men and women disempowerment in the intervention area

Results (cont.)

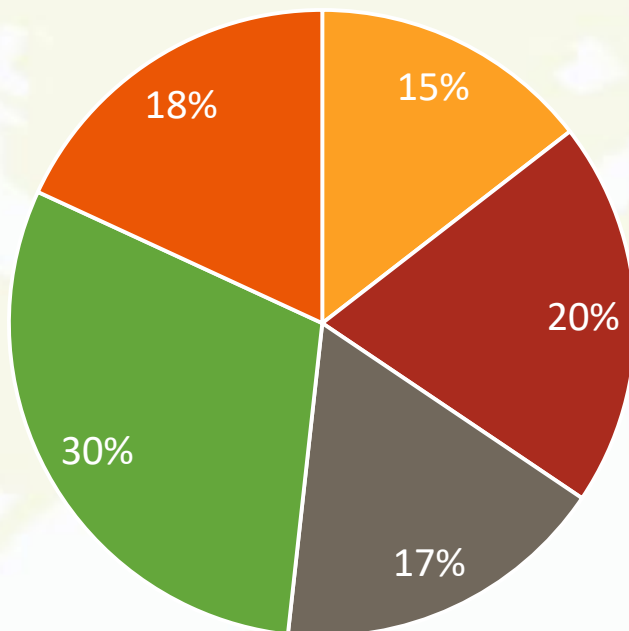
Disempowerment factors in the control zone



Lack of access to credit – lack of control over income – low group membership - contribute to both men and women disempowerment

Results (cont.)

Contribution of each of the 5DE to women disempowerment (Intervention zone)



The domains that contribute most to women's disempowerment are lack of leadership (30.1%) and access to credit and productive resources (19.9%)

■ Production decision making

■ Control over use of income

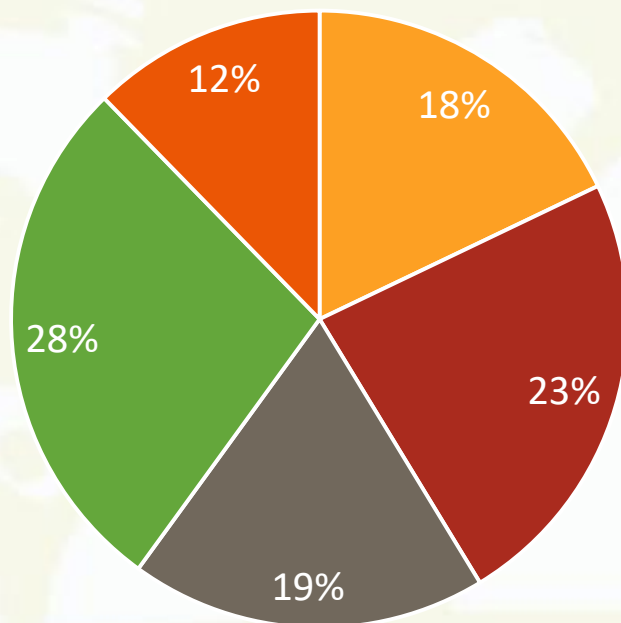
■ Time allocation

■ Access to productive resources

■ Community leadership

Results (cont.)

Contribution of each of the 5DE to women disempowerment (*Control zone*)



In the control zone the lack of leadership (27.7%) and access to credit and productive resources (23.4%) are found to be the most determinant women's disempowerment domains

■ Production decision making

■ Access to productive resources

■ Control over use of income

■ Community leadership

■ Time allocation

Results (cont.)

Empowerment statistics

	Intervention zone	Control zone
% of women disempowered (<80%)	58.5%	55.6%
Average inadequacy score	40.7%	58.3%
Disempowerment Index	0.24	0.32
5DE Index	0.76	0.68
Women with no gender parity	65.4%	61.3%
Average empowerment gap	0.32	0.37
GPI	0.79	0.77
<i>WEAI (0.9*5DE + 0.1*GPI)</i>	<i>0.76</i>	<i>0.69</i>

Women in the intervention area are more empowered than those in the control zone

Results (cont.)

Disempowerment and individual characteristics

Characteristics	intervention area	Control site
Age		
18-24	68.50%	71.50%
25 & >	67.47%	65.00%
Education		
No education	87.4%	84.2%
Primary level	67.8%	71.3%
Secondary education or higher	58.1%	66.5%
Literacy		
Knows how to read and write	59.0%	62.1%
Does not know how to read or write	88.6%	89.3%

Women empowerment index

- WEAI value ($0.09 \times 5DE + 0.1 \times GPI$) is **0.76** in the intervention against 0.69 for the control zone
- These figures place the intervention zone in the **middle class** while the control zone remains in the **lower classification**
 - >0.85 the high score*
 - [0.73 - 0.84] median score*
 - <is 0.72 low score*
- Initial WEAI in Mali $0.667 < 0.76$

Results (cont.)

Domains contributing to women's disempowerment

- Lack of leadership (30.1%) IZ & CZ
- Access to credit and productive resources (19.9%) IZ & CZ
- Agricultural decision-making is the least contributing factor to the disempowerment of women (14.5%) IZ
- Time allocation contributes the least in CZ (12.3%)



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Thank you
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