CLCA II Scaling Indicators

Team Brainstorming Meeting

Enrico Bonaiuti

18th December, 2019
Outline

1. ICARDA Strategy and CGIAR Indicators
2. Knowledge Management (Tools, Interfaces and Use)
3. Project Log Frame (indicators)
4. M&E Plan
Taking Research to Scale – Partnerships for Impact

SRP1. Preserve and protect agricultural biodiversity in drylands in order to meet future climate and market related challenges.

SRP2. Improved and resilient crops for greater food security in face of climate change and market volatilities.

SRP3. Develop integrated drylands farming systems for improved and resilient livelihoods.

SRP4. Support the establishment of functional value chains and viable off-farm activities for diversified incomes and improved livelihoods in drylands.

SRP5: Support sustainable use and management of water and land resources in drylands.

Climate Change Adaptation and Mitigation

Gender Equity and Youth

Big Data and ICT
The value of Knowledge Management

Knowledge Management means more than optimizing the data flow within an institution, itself an essential and valuable asset, it also means enabling and foster post-research impact over time, through:

- sharing
- monitoring
- evaluating
- learning
Monitoring, Evaluation and Learning (MEL)

MEL is an online platform for integrated management, monitoring, and reporting of projects, from planning to budgeting, risks assessment, knowledge sharing.
Interoperability Network: Sustainability through Partners
Field Data Collection

Server: Download – Upload

Field Collection

Analyze

Coding

Data Collection Template

Standards

Project Planning

Reporting

Curation/ Sharing

Aggregate

Visualize

Research/ Outreach Team

Geoinformatics and Data Management

Staff/User

Geo Data Kit

Open Data Kit

Download – Upload

The Dataverse Project

DOI

Trustees

GEOAGRO
What we offer

National and International Actors target their investment for Agricultural Technologies & Natural Resources Management Practices

Context-specific evidence available to support sound investment decisions

Promote scaling of Technologies and Practices for socio-economic impact

Shareable global knowledge applicable at local dimension

Spatio-temporal linkages for evaluation and dissemination

Flexible entry points to accommodate users requirements

A tool for Better Investment Decisions in Agriculture and Rural Development
A tool for Better Investment Decisions in Agriculture and Rural Development
Nutrition, Food Security and Livelihoods: Basic concepts

This short 35-minute module addresses the basic terms and concepts relating to food and nutrition, malnutrition, food security and livelihoods.
Project Log Frame (indicators)

Goal:
• Yield gaps of cereals, legumes and livestock are reduced by increased resources use efficiency (e.g. water and nutrients). **Crop yield gaps reduced by as much as 40% and livestock offtake rate by 30% in both rain fed and irrigated systems.**

Objectives:
1. Beneficiaries of existing and new IFAD as well as other government initiatives have been **exposed** and have applied technologies and practices promoted by the project through **4 country-based formative research and interactive KM models, tools and products.**
2. **Regulatory systems and policies** in four countries have been **informed** on newly gained knowledge via evidence based policy briefs and bottom-up information flow.
3. Four national innovation systems (one in each target countries) have been engaged in developing avenues for enhancing an enabling institutional and economic environment to facilitate broad uptake of CLCA technologies.
4. Farmers, men and women, **have adopted agronomic and biomass management practices** resulting in a better management of natural resources for more productive and sustainable use (relative increase of 3-5% of soil organic matter depending on soil type and aridity conditions and 10-20% increase in water use efficiency).
5. Farmers, men and women, have adopted fodder, cover crops, and alternative feed resources leading to increased feed availability with ultimate increases in livestock productivity.
6. Farmers, men and women, in the intervention areas of NA and LAC are **exposed** to an efficient, integrated and economically viable CLCA system **achieving increased productivity**, and most importantly, stabilization in cereal yields, as well as reduction in production costs (**20-40% reduction in energy cost, 15-20% reduction in other production costs**).
**Project Log Frame (indicators)**

**Outcome 1:** 3,000 smallholder farmers reached (at least 40% women and 20% youth below 35 years) and 2100 have directly adopted CLCA farming systems (in 4 target countries) with increased production and improved cost-benefits that are optimized by filling research and development gaps;

1. In NA, 20% increase in barley and wheat yields across a total area of 60,000 ha (11,000 irrigated) through effective integrated CA packages; 30% increase of forage biomass which will support small-scale farm feedlots.

2. In NA at least 25% increase in live weight growth and 20% increase in fertility of sheep directly and indirectly impacting 220,000 heads.

3. In LAC grain and straw yield of cropping systems increased by 15% through CA management, including agroforestry and soil and water conservation practices. Fodder and cover crops adopted by farmers leading to 25% increased fodder availability with ultimate increase of livestock productivity by 15%.

4. In both regions, 25% of total beneficiaries (900 farmers), 50 extension staff, and 30 scientists participate in knowledge sharing on CLCA practice management.

5. A suite of pertinent soil and water conservation practices (SWC) (including no-till and residue management) identified and promoted for different agro-ecologies in LAC countries and appropriate for different types of farming systems.
**Project Log Frame (indicators)**

**Outcome 2:** At least 6 NARES, in addition to decision makers, NGO’s and IFAD loan project partners in the 4 target countries have adopted tools and methodologies for reliable decision making and guide investments on contextually appropriate CLCA systems.

1. Detailed analysis of costs, benefits, and market viability of CLCA options.
2. Farm level models for multi-criteria assessment and trade off analysis for different farm types and agro-ecologies, one in each target countries of NA and LAC developed, calibrated and available for use by NARES.
3. Simplified simulation tools of optimised CLCA systems for wider use by IFAD loan projects and local development partners.
4. ITC-based M&E tools developed and used by NARES and collaborators. Algorithms for data storage, classification and analysis developed.
5. 4 qualitative studies on farmers’ (men and women) existing knowledge, attitudes and practices are carried out with 150 participants in each country.
6. 4 participatory evaluations are conducted with 150 farmers (men and women) in each country.
7. Feedback indicators from decision makers and private market actors are collected via survey monkey on a national level and shared between the countries.
Outcome 3: At least 4 effective agricultural innovation systems - 1 in each implementation area of the 4 target countries - are coalesced in order to foster broad uptake of conservation agriculture practices within integrated dryland crop-livestock production systems

1. Context relevant knowledge and learning centred structures are facilitated (innovation systems, learning centres, multi-stakeholder workshops) – at least two in each country of engagement – within which IFAD’s toolkits on household methodologies (HHMs) are tested for proof of concept and adaptation in context.

2. Extension/advisory services providing efficient and effective support to the beneficiaries allowing for a successful implementation of the framework.

3. CLCA guidelines for extension and advisory services are developed with partner organizations.

4. Private machinery service providers are supported through facilitation in access conventional finance sources, and where required through public-private partnerships in order to foster investment in machinery required to facilitate broad uptake of CA.

5. 500 farmers, 50 extension staff, 20 scientists, 2 NGOs, and 2 traders per country participating in courses, workshops and field days in relation to CLCA

6. At least 1 training platform and 10 validation sites and 10 scaling partners using methodologies and knowledge generated in the project per country.

7. At least 2 research questions per country formulated that feed back to Component 1.
<table>
<thead>
<tr>
<th>Country</th>
<th>Projects proposed for linking with the CLCA grant in the grant project document</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algeria</td>
<td>No IFAD projects currently relevant. The grant will link to a national programme for fallow resorption in the cereal-livestock belt of the country’s North Central and North Eastern regions.</td>
</tr>
</tbody>
</table>
| Tunisia  | 1. “Development of agricultural value chains for local development in Siliana”. Spill-overs in the area of alternative feeding systems and livestock enterprises are expected within the IFAD investment project  
2. “Agro-pastoral value chains in the governorate of Medenine”. |
| Nicaragua | 1. "NICAVIDA (Nicaraguan Dry Corridor Rural Family Sustainable Development Project)" aims at strengthening the resilience of rural families and indigenous people by promoting links between economic diversification, productive transformation, environmental protection, and family nutrition. |
| Honduras? |  |
| Bolivia | 1. “Integral Strengthening Programme for the Camelid Value Chain in the Bolivian High Plateau” (Pro-Camélidos) that aims to reduce rural poverty and child malnutrition, increase the incomes of rural families, and promote practices that are conducive to sustainable natural resource management. |
CGIAR: Indicators for Impact....

Guidance Sheets for Common Reporting Indicators

https://sites.google.com/cgxchange.org/cgiar-pbm-resources/guidance/guidance-sheets-for-indicators
SDG 1
End poverty in all its forms everywhere

1. Proportion of population below $1.25 (PPP) per day (MDG Indicator) World Bank
2. Proportion of population living below national poverty line, by urban/rural (modified MDG Indicator) World Bank, UN DESA
3. Multidimensional Poverty Index UNDP, World Bank, UNSD, UNICEF
4. Percentage of eligible population covered by national social protection programs ILO, CCAFS
5. Percentage of women, men, indigenous peoples, and local communities with secure rights to land, property, and natural resources, measured by (i) percentage with documented or recognized evidence of tenure, and (ii) percentage who perceive their rights are recognized and protected. FAO, UNDP, UNHabitat
7. Total fertility rate UN Population Division, UNFPA

Complementary National Indicators:
1.1. Poverty gap ratio (MDG Indicator)
1.2. Percentage of population using banking services (including mobile banking)
1.3. [Indicator on equal access to inheritance] – to be developed
1.4. [Disaster Risk Reduction Indicator] – to be developed, CCAFS
SDG2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture

8 Proportion of population below minimum level of dietary energy consumption (MDG Indicator) FAO, WHO
9 Percentage of women of reproductive age (15-49) with anemia FAO, WHO
10 Prevalence of stunting and wasting in children under 5 years of age WHO, UNICEF
11 Percentage of infants under 6 months who are exclusively breast fed WHO, UNICEF
12 Percentage of women, 15-49 years of age, who consume at least 5 out of 10 defined food groups FAO, WHO
13 Crop yield gap (actual yield as % of potential or water-limited potential yield) FAO
14 Number of agricultural extension workers per 1000 farmers [or share of farmers covered by agricultural extension programs and services] FAO
15 Nitrogen use efficiency in food systems FAO, International Fertilizer Industry Association (IFA)
16 [Crop water productivity (tons of harvested product per unit irrigation water)] – to be developed FAO

Complementary National Indicators:
2.1. Percentage of population with shortfalls of: iron, zinc, iodine, vitamin A, folate, vitamin B12, [and vitamin D]
2.2. Proportion of infants 6–23 months of age who receive a minimum acceptable diet
2.3. Percentage children born with low birth weight
2.4. Cereal yield growth rate (% p.a.)
2.5. Livestock yield gap (actual yield as % of attainable yield)
2.6. [Phosphorus use efficiency in food systems] – to be developed
2.7. Share of calories from non-staple crops
2.8. Percentage of total daily energy intake from protein in adults
2.9. [Access to drying, storage and processing facilities] – to be developed
2.10. [Indicator on genetic diversity in agriculture] – to be developed
2.11. [Indicator on irrigation access gap] – to be developed
2.12. [Farmers with nationally appropriate crop insurance (%)] – to be developed
2.13. Public and private R&D expenditure on agriculture and rural development (% of GNI)
2.14. [Indicator on food price volatility] – to be developed
SDG13: Take urgent action to combat climate change and its impacts

77 Availability and implementation of a transparent and detailed deep decarbonization strategy, consistent with the 2°C - or below - global carbon budget, and with GHG emission targets for 2020, 2030 and 2050. **UNFCCC**

78 CO2 intensity of new power generation capacity installed (gCO2 per kWh), and of new cars (gCO2/pkm) and trucks (gCO2/tkm) **UNFCCC, IEA**

79 Net GHG emissions in the Agriculture, Forest and other Land Use (AFOLU) sector (tCO2e) **UNFCCC, CCAFS, WLE, DCL**

80 Official climate financing from developed countries that is incremental to ODA (in US$) **OECD DAC, UNFCCC, IEA**

**Complementary National Indicators:**

13.1. [Climate Change Action Index] – to be developed

13.2. GHG emissions intensity of areas under forest management (GtCO2e / ha)
SDG15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

83 Annual change in forest area and land under cultivation (modified MDG Indicator) FAO, UNEP
84 Area of forest under sustainable forest management as a percent of forest area FAO, UNEP
85 Annual change in degraded or desertified arable land (% or ha) FAO, UNEP, CCAFS
86 Red List Index (changing state of global biodiversity) IUCN
87 Protected areas overlay with biodiversity UNEP-WCMC

Check for 15.3 LDN

Complementary National Indicators:
15.1. Improved tenure security and governance of forests
15.2. [Indicator on the conservation of mountain ecosystems] – to be developed
15.3. Vitality Index of Traditional Environmental Knowledge
15.4. [Indicator on access to genetic resources] – to be developed
15.5. Abundance of invasive alien species
15.6. [Indicator on financial resources for biodiversity and ecosystems] – to be developed
15.7. [Indicator on financial resources for sustainable forest management] – to be developed
15.8. [Indicator on global support to combat poaching and trafficking of protected species] – to be developed
15.9. Living Planet Index
Monitoring Progress along the Result Framework

<table>
<thead>
<tr>
<th>Output</th>
<th>Type</th>
<th>Output Responsible</th>
<th>Deliverable</th>
<th>Crops</th>
<th>Reporting Scientist</th>
<th>Center</th>
<th>Type</th>
<th>Delivery date</th>
<th>Files</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Extended technical CLCA framework developed and applied</td>
<td>L. Mourad Rekik</td>
<td></td>
<td>-</td>
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<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>1.2 Increased water use efficiency in rainfed and irrigated systems and reduction of erosion in soils with steep slopes</td>
<td>L. Claude Zucca</td>
<td>13987: Field experiment on WUE, SOC, and erosion on steep slopes: work plan</td>
<td>2018-12-18</td>
<td>-</td>
<td>Claudio Zucca</td>
<td>ICARDA</td>
<td>Report</td>
<td>2018-12-31</td>
<td>-</td>
</tr>
<tr>
<td>1.3 Comprehensive trade-off models between competing uses for crop residue biomass developed and simplified for wider use</td>
<td>L. Ayman Fria</td>
<td></td>
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<tr>
<td>1.4 Appropriate monitoring and evaluation frameworks are established</td>
<td>L. Enrico Bonaldui</td>
<td></td>
<td>-</td>
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</tr>
<tr>
<td>2.1 Contextually relevant processes for enhancing broad uptake of conservation agriculture</td>
<td>L. Andrea Garberelab Monalve</td>
<td></td>
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<tr>
<td>2.2 Effective delivery systems for machinery, agronomic and livestock services through facilitation of access to finance, private investment and public-private partnerships</td>
<td>L. Mourad Rekik</td>
<td>15054: Tunisia: Pioneering new ways of farming</td>
<td>2018-12-18 09:12:19</td>
<td>-</td>
<td>Udo Rudiger</td>
<td>ICARDA</td>
<td>Blog</td>
<td>2018-12-01</td>
<td>-</td>
</tr>
</tbody>
</table>

Training Information

- **Tunisia Female PhD on Crop-Livestock Integration under Conservation Agriculture: Modelling Alternative Intensification Options and Environmental Trade-offs for wider adaptation**
  - Supervisor: Ayman Fria
  - Center: ICARDA
  - Type: Individual Degree - PhD
  - Implementation Period: From 2018-05-01 To 2019-05-31
  - Files: -

- **Tunisia Female MSc on Trade-off analysis of options for enhancing the large scale adoption of conservation agriculture practices in small farming systems of North Africa: case of Tunisia**
  - Supervisor: Ayman Fria
  - Center: ICARDA
  - Type: Individual Degree - MSc
  - Implementation Period: From 2018-05-01 To 2018-09-15
  - Files: -

- **Regional Face to Face Workshop Training on CLCAI - Inception Meeting in (Tunisia) (Male:10, Female:5)**
  - Supervisor: Mourad Rekik
  - Center: ICARDA
  - Type: SemW5/TC - Workshop Training
  - Implementation Period: From 2018-05-07 To 2018-05-09
  - Files: -

Outcome Table

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Outcome type</th>
<th>Indicator</th>
<th>Indicator description</th>
<th>Indicator values</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Smallholder farmers reached and directly adopted CLCA farming systems with increased production and improved cost benefits optimized by filling research and development gaps</td>
<td>Development Outcome</td>
<td>Smallholder farmers reached</td>
<td>The indicator measures the number of farmers (disaggregated by gender and country) reached</td>
<td>Value</td>
</tr>
<tr>
<td>2. NARES, in addition to decision makers, NGO’s and IFAD loan project partners have adopted tools and methodologies for reliable decision making and guide investments on contextually appropriate CLCA systems</td>
<td>Research Outcome</td>
<td>Adopting Institutions/Projects</td>
<td>The indicator measures the number of institutions (disaggregated by type and country) adopting tools and methodologies for reliable decision making and guide investments on contextually appropriate CLCA systems</td>
<td>Value</td>
</tr>
<tr>
<td>3. Effective agricultural innovation systems coalesced in order to foster broad uptake of conservation agriculture practices within integrated dryland crop-livestock production systems</td>
<td>Research Outcome</td>
<td># of agricultural innovation systems coalesced</td>
<td>The indicator measures the number of innovation systems coalesced (disaggregated by country)</td>
<td>Value</td>
</tr>
</tbody>
</table>
Capacity Development

Map Chart

Capacity Development world map chart

Highlight disaggregation

Shift + Click countries to view comparison of the trainees

Comparing the numbers of Female Trainees/Male Trainees/Total participants

Ethiopia

Sudan

Values

Male  Female

0  25  50  75  100

Highcharts.com © Natural Earth

Capacity Development Pie Chart

Total: 5,574

Male  Female

Phase

Planning

Institution

ICARDA International Center for Agricultural Rese...

CRP

Select CRP...

Period Range

2000  2010  2020  2025

Get graph  Export  Reset
Publications and Data

Keyword(s)
- awassi
- awassi sheep
- awassi sheep milk

Publications
Ethiopia: 3 Publications

Authors: Adnan Termanini, Muhi El-Dine Hilali

Number of publications for Adnan Termanini and Muhi El-Dine Hilali together: 1

http://hdl.handle.net/20.500.11766/7111
Welcome to MEL API

Information Sharing
Agricultural Research e-Seeker®

AReS is the first Explorer of Information Products across DSpace repositories.

AReS can currently visualize 75,000+ infoprod from CGSpace and MELSpace, providing extensive information in the form of figures, graphics, tables and a fully navigable list of publications.

The omni-tool incorporates Alternative Metrics (Altmetrics) data such as number of Mentions, Readers and Attention Score.

AReS is completely Open and its content is fully exportable!
Agricultural Research e-Seeker

Is presented by

ILRI
International Livestock Research Institute

ICARDA
Science for resilient livelihoods in dry areas

CodeBio

CGIAR
Agricultural Research e-Seeker

Overviews and Analytics

Info Products Overview

Info Products Analytics

- Journal Article
- Report
- Book
- Book Chapter
- Dataset

Type

Year

- 2016
- 2015
- 2014
- 2013
- 2017
List of Publications

Technology Showcases: Africa RISING project in the Ethiopian Highlands
ILRI, ICARDA, CIAT, CIMMYT, CIG, ICRISAT and IWAR, 2017.

Small ruminant value chain development in Bonga, Ethiopia

Small ruminant value chain development in Tanqua Abergelle, Ethiopia

Small ruminant value chain development in Yabello, Ethiopia

Small ruminant value chain development in Menz (Gera and Mama), Ethiopia

Where does IFAD concentrates its effort during the last five year? And on which subjects?

Select Year «2013-2018» and Funder «International Fund for Agricultural Development» and find out!

Region and Countries are shown in the atlas, while the «Subject» filter will automatically sort for those available in the Info Products List of Results. The same list if sortable by Subject.
How did ICARDA funded its work on gender and livestock in Ethiopia? Which scientists took part in those projects?

Select Affiliation «International Center for Agricultural Research in Dry Areas», select Subject «Gender» and «Livestock», then select Country «Ethiopia» and find out!

The top Funders and top Contributors are shown in the tables.
Plan


2. Analysis of IFAD, CGIAR, UN Projects Indicators - February-March 2019

3. Consultation with National Partners (Algeria/January; ++)

4. Sharing and finalization of M&E plan including Mid-term Review TOR

5. Implementation of Indicators Monitoring using MEL.CGIAR.ORG