Disclaimer

Citation:


Contact:

CCAFS Coordinating Unit - Faculty of Science, Department of Plant and Environmental Sciences, University of Copenhagen, Rolighedsvej 21, DK-1958 Frederiksberg C, Denmark. Tel: +45 35331046; Email: ccafs@cgiar.org.

Creative Commons License

This document is licensed under a Creative Commons Attribution – NonCommercial–NoDerivs 3.0 Unported License.

Indicators appearing in this publication may be freely quoted and reproduced provided the source is acknowledged. No use of this publication may be made for resale or other commercial purposes.

© 2015 CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Baseline Survey Indicators.

DISCLAIMER:

This document has been prepared as an output for the Flagship on Policies and Institutions for Climate-Resilient Food Systems, under the CCAFS program. All images remain the sole property of their source and may not be used for any purpose without written permission of the source.
• Introduction ........................................................................................................ 3
• Map .................................................................................................................... 4
• Demography and basic site characteristics ..................................................... 5
• Changes in farming practices and drivers of changes in resources ............ 6
• Livelihood diversification .............................................................................. 7
• Food security .................................................................................................... 8
• Collective action in natural resource management (NRM) ....................... 10
• Membership of organisations and organisational agendas ..................... 11
• Household assets ............................................................................................ 12
• Networks of information .............................................................................. 13
• Organisational priorities ................................................................................ 16
Introduction

The CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) is a strategic partnership of CGIAR and Future Earth led by the International Center for Tropical Agriculture (CIAT). CCAFS brings together the world's best researchers in agricultural science, development research, climate science and Earth System science to identify and address the most important interactions, synergies and trade-offs between climate change, agriculture and food security.

CCAFS is focusing its research for development efforts in five regions, East and West Africa, South and Southeast Asia as well as Latin America, working in 25 research sites. The regions represent areas that are particularly vulnerable to climate change, and the sites are focal locations to generate knowledge and learning that can be applied and adapted to other regions worldwide.

Extensive baselines have been implemented at all CCAFS sites and consist of analysed information collected at three levels: households, communities and organisations. The baselines capture the big picture of how farmers are changing their practices in light of climate change and other pressures. The aim is to revisit the same communities and households in five and again in ten years to document changes in livelihoods, resource management practices and other factors over time and update these indicator documents accordingly. The CCAFS baseline is a key component of the program’s monitoring and evaluation system.

This document series compiles key indicators from the three levels of the baseline for each site. Indicators include: demography and basic site characteristics of each site, rainfall distribution, changes in farming practices and land management, income sources, food security and food sources, asset ownership by households and involvement in organisations and more.

This CCAFS baseline indicator document was developed for the CCAFS site at Mid-Western Terrai/Rupandehi in Nepal.

The baseline indicator series is complemented by CCAFS site atlases, that include site maps with climate information, biophysical characteristics and socio-economic factors. Site maps are available at: www.ccafs.cgiar.org/atlas-ccafs-sites

Download the baseline tools, data and reports: www.cafs.cgiar.org/resources/baseline-surveys

Get in touch:
Science Officer Wiebke Förch (w.foerch@cgiar.org)

Sources
Throughout this document the sources of data for the indicators are colour coded as follows:

- CCAFS Household baseline study
- CCAFS Village baseline study
- CCAFS Organisational baseline study
Country: Nepal

Map

Demography and basic site characteristics

Ratio of women headed households

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

% households of different sizes

<table>
<thead>
<tr>
<th>Number of people in the household</th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>12%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6+</td>
<td>68%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Area of land cultivated (ha)*

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>78.77</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Average (mean) per household (ha)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.57</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Highest level of education obtained by any household member

<table>
<thead>
<tr>
<th>No formal education</th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Primary

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>23%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Secondary

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>52%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Post-secondary

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>23%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Area of land cultivated (ha) is the total amount of owned or rented land used for growing food or aquaculture

* Organisations have been recoded by CCAFS researchers from original data (participant perceptions of community, local and beyond local) to categories of local and external.

Additional Note:

## Changes in farming practices and drivers of changes in resources

### % households introducing 3 changes or more

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crop</td>
<td>59%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soil</td>
<td>72%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tree/agroforestry</td>
<td>19%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Livestock</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Drivers of changes to crop production and land management

% households reporting this driver

<table>
<thead>
<tr>
<th>Driver</th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Markets</td>
<td>99%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weather/climate</td>
<td>2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pest and Diseases</td>
<td>17%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labour</td>
<td>35%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land</td>
<td>29%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Projects</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Drivers of changes to livestock production*

% households reporting this driver

<table>
<thead>
<tr>
<th>Driver</th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Markets</td>
<td>55%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weather/climate</td>
<td>9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pest and Diseases</td>
<td>16%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labour</td>
<td>52%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Projects</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Drivers of change in the community

Frequency with which they were mentioned in group discussions

<table>
<thead>
<tr>
<th>Factor</th>
<th>Men Baseline</th>
<th>Mid-term</th>
<th>Final</th>
<th>Women Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population Growth</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deforestation</td>
<td>2</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pest and Diseases</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information/Knowledge</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land Demarcation/fragmentation</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soil degradation/Erosion</td>
<td>1</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rainfall Changes</td>
<td>1</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charcoal Burning/Fuel</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forest Fire/Bush burning</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overuse</td>
<td>1</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spiritual/Cultural/Religious</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Invasive tree species</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase in wealth</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase in livestock</td>
<td>0</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social/Community conflicts</td>
<td>1</td>
<td></td>
<td></td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infrastructure</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*For tree/agroforestry changes these are the households who have either planted or protected trees within the last year

*For livestock changes these are the households who have made 3 of more of the changes in the livestock section
## Livelihood diversification

### Source of Cash Income other than own farm

<table>
<thead>
<tr>
<th>Source of Cash Income</th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment on someone else's farm</td>
<td>26%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other off-farm employment</td>
<td>44%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business</td>
<td>11%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remittances/gifts</td>
<td>27%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payments for environmental services</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payments from government or other projects/programs</td>
<td>12%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loan or credit from a formal institution</td>
<td>14%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informal loan or credit</td>
<td>7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renting out farm machinery</td>
<td>18%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renting out your own land</td>
<td>7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No off-farm cash source</td>
<td>19%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Product diversification

<table>
<thead>
<tr>
<th>Product diversification</th>
<th>% of households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of products sold</td>
<td>7%</td>
</tr>
<tr>
<td>1-4 products (low)</td>
<td>7%</td>
</tr>
<tr>
<td>5-8 products (intermediate)</td>
<td>40%</td>
</tr>
<tr>
<td>9 or more products (high)</td>
<td>53%</td>
</tr>
</tbody>
</table>

### Selling/Commercialization Diversification:

<table>
<thead>
<tr>
<th>Selling/Commercialization</th>
<th>% of households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of products sold</td>
<td>17%</td>
</tr>
<tr>
<td>1-2 products sold (low)</td>
<td>46%</td>
</tr>
<tr>
<td>3-5 products sold (intermediate)</td>
<td>27%</td>
</tr>
<tr>
<td>6 or more products sold (high)</td>
<td>10%</td>
</tr>
</tbody>
</table>
### Food Security

#### Food Security Index

<table>
<thead>
<tr>
<th>% Households</th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 6 hunger months/year</td>
<td>3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-6 hunger months/</td>
<td>3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-4 hunger months/</td>
<td>13%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2 hunger months/</td>
<td>7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food all year round/No hungry period</td>
<td>75%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Food Security Organisational Linkages

**Men groups**

<table>
<thead>
<tr>
<th>Organisation receives</th>
<th>Men groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding</td>
<td>Baseline: 4</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity Building</td>
<td>Baseline: 1</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Food</td>
<td>Baseline: 0</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Organisation provides**

| Funding                  | Mid-term: 1 |
| Food                     | Mid-term: 0  |

**Women groups**

<table>
<thead>
<tr>
<th>Organisation receives</th>
<th>Women groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding</td>
<td>Baseline: 6</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity Building</td>
<td>Baseline: 1</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Food</td>
<td>Baseline: 0</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Organisation provides**

| Funding                  | Mid-term: 3  |
| Food                     | Mid-term: 0  |

#### Source of Food during Highest and Lowest Shortage Months

<table>
<thead>
<tr>
<th>% Households mainly consuming from own farm in the month of highest shortage</th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>79%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Households mainly consuming from own farm in the month of lowest shortage</td>
<td>99%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Ratio of Local Organisations to Total Number of Organisations Named in Each Area of Food Security Work

#### Men's Group

<table>
<thead>
<tr>
<th>Area</th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability</td>
<td>3/7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access</td>
<td>0/2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilisation</td>
<td>0/1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Women's Group

<table>
<thead>
<tr>
<th>Area</th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability</td>
<td>6/11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access</td>
<td>6/9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilisation</td>
<td>1/1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Organisations have been recoded by CCAFS researchers from original data (participant perceptions of community, local and beyond local) to categories of local and external.*

These charts are taken from the Household Baseline Survey - Food Security Section.
### Collective action in natural resource management (NRM)

#### Resource | Gender | Discussed | Baseline | Mid-term | Final
--- | --- | --- | --- | --- | ---
**Is there an issue with the resource?**
Irrigation | M | Yes | Canals are in poor condition and costly to maintain, dams lack of maintenance |  |  
| F | Yes | Canals dry during dry season otherwise useful |  |  
Farmland | M | Yes | Soil fertility in decline |  |  
| F | Yes | Poor soil fertility and low productivity |  |  
Forest | M | Yes |  |  |  
| F | Yes |  |  |  
Pasture | M | No |  |  |  
| F | Yes | No grassland or grazing land as such. Cattle fed by grazing in fields during on and off cropping seasons |  |  
Markets | M | Yes | Little income opportunities for the community |  |  
| F | No |  |  |  
**Is there a problem of access to the resource?**
Irrigation | M | Yes | canals are owned by government |  |  
| F | Yes | privately owned and managed |  |  
Farmland | M | Yes | Government owned and managed |  |  
| F | Yes | Government owned and managed |  |  
Forest | M | Yes | Private, no community forest, owner restrictions |  |  
| F | Yes | Government owned and managed |  |  
Pasture | M | No |  |  |  
| F | Yes | privately owned |  |  
Markets | M | Yes | Owned by villagers, Not under the local authority |  |  
| F | No |  |  |  
**Is there any local action in place to address the problem?**
Irrigation | M | No |  |  |  
| F | Yes | One dam is under construction |  |  
Farmland | M | No |  |  |  
| F | No |  |  |  
Forest | M | No |  |  |  
| F | No |  |  |  
Pasture | M | No |  |  |  
| F | No |  |  |  
Markets | M | No |  |  |  
| F | No |  |  |  

---

CCAFS Baseline Indicator Document for Mid-Western Terrai/Rupandehi, Nepal
### Membership of organisations and organisational agendas

#### % households with at least one member belonging to organised groups

<table>
<thead>
<tr>
<th>Activity</th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tree nursery/tree planting</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water catchment/management</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soil improvement related</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crop improvement related</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irrigation</td>
<td>2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Savings/credit related</td>
<td>85%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural product marketing</td>
<td>2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agricultural productivity enhancement related</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seed production</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vegetable production</td>
<td>6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other group not mentioned above?</td>
<td>3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No groups</td>
<td>12%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Ratio of local organisations involved in Natural Resource Management to total number of organisations involved in NRM*

<table>
<thead>
<tr>
<th>Group</th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men's group</td>
<td>0/6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women's group</td>
<td>1/1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Organisations have been recoded by CCAFS researchers from original data (participant perceptions of community, local and beyond local) to categories of local and external.*
### Household assets

#### % household with assets by type

<table>
<thead>
<tr>
<th>Type</th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic level</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intermediate level</td>
<td>17%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High level</td>
<td>83%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### % households ownership

**Transport**

- Bicycle: 96%
- Motorcycle: 14%
- Car or Truck: 2%

**Production**

- Tractor: 16%
- Mechanical Plough: 57%
- Mill: 2%
- Water pump/Treadle pump: 30%
- Thresher: 12%
- Boat: 0%
- Fishing Nets: 31%

**Energy**

- Solar Panel: 0%
- Generator: 2%
- Battery: 1%
- Biogas Digester: 4%
- LPG: 13%

**Information**

- Radio: 77%
- Television: 68%
- Cell Phone: 86%
- Computer: 0%
- Internet Access: 1%

**Luxury**

- Refrigerator: 5%
- Air Conditioning: 0%
- Electric Fan: 80%
- Bank Account: 54%

**Infrastructure**

- Improved storage facility for crops: 17%
- Water storage tank: 3%
- Well/borehole: 85%
- Running/tap water in dwelling: 4%
- Electricity from a grid: 88%
- Improved housing: 78%
- Improved roofing: 77%
- Separate housing for farm animals: 82%
## Networks of information

### Networks of information - Men Group

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Weather</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friends/relatives</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighbours</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atrologist/priest</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agri. Dev. Office</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal health service centre</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radio/TV</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observation</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agro-vet</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trainings</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field visit/tour</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Fertiliser

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends/relatives</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighbours</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atrologist/priest</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agri. Dev. Office</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal health service centre</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radio/TV</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observation</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agro-vet</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trainings</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field visit/tour</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Seed

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends/relatives</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighbours</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atrologist/priest</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agri. Dev. Office</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal health service centre</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radio/TV</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observation</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agro-vet</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trainings</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field visit/tour</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Livestock

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends/relatives</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighbours</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atrologist/priest</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agri. Dev. Office</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal health service centre</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radio/TV</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observation</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agro-vet</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trainings</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field visit/tour</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Networks of information

<table>
<thead>
<tr>
<th>Weather</th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends/relatives</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighbours</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atrologist/priest</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agri. Dev. Office</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal health service centre</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radio/TV</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observation</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agro-vet</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trainings</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field visit/tour</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fertiliser</th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends/relatives</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighbours</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atrologist/priest</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agri. Dev. Office</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal health service centre</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radio/TV</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observation</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agro-vet</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trainings</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field visit/tour</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Seed</th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends/relatives</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighbours</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atrologist/priest</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agri. Dev. Office</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal health service centre</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radio/TV</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observation</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agro-vet</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trainings</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field visit/tour</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Livestock</th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends/relatives</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighbours</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atrologist/priest</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agri. Dev. Office</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal health service centre</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radio/TV</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observation</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agro-vet</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trainings</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field visit/tour</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Networks of information

### % of households receiving weather-related information

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start of the rains</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forecast of extreme events</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forecast of pest or disease outbreak</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-3 month weather forecast</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-3 day weather forecast</td>
<td>71%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Of households receiving information, who in the family receives it

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start of the rains</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Both</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forecast of extreme events</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Both</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-3 month weather forecast</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Both</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forecast of pest or disease outbreak</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Both</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-3 day weather forecast</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>22%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Both</td>
<td>77%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Organisational priorities

Relative importance in the portfolio of organisations placed on climate or weather related activities

<table>
<thead>
<tr>
<th>Allocation of time</th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very high</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>33%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>25%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>17%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>1/6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Allocation of staff</th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very high</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>25%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>25%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>17%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>25%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Allocation of budget</th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very high</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>33%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>17%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>17%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>25%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Organisational priorities

<table>
<thead>
<tr>
<th>Community issues about natural resources and infrastructure</th>
<th>Organisation activities</th>
<th>Baseline</th>
<th>Mid-term</th>
<th>Final</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Forest:</strong> Privately owned with farm owner restrictions</td>
<td>Promotion of conservation and afforestation; control of soil erosion and forest fires; forest protection through people's participation; vegetation restoration and monitoring of forest harvesting; tree planting; training in forest development; tree nurseries establishment and free distribution of tree seedlings; promotion of non-timber forest products</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Orchards:</strong> Poor soil fertility and low productivity</td>
<td>Promotion of commercial orchards;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Farmland:</strong> Poor soil fertility and low productivity</td>
<td>Promotion of soil conservation and fertility; micro-irrigation projects; promotion of direct seeded rice in dry soil; technology transfer to farmers; promotion of integrated pest management; inclusion of legumes in crop cultivation; promotion of organic fertilizers and pesticides, green mulching and mixed cropping; Maize and wheat production improvement; direct seeded rice in dry soil</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Grasslands:</strong> No grassland or grazing land as such. Cattle fed by grazing in fields during on and off cropping seasons.</td>
<td>Promotion of over grazing control, plantation of fodder crops;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Degraded Land:</strong> Barren land around the river</td>
<td>Management of degraded land (including cropping patterns and methods of use)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>River:</strong> Encroaches farmland during rainy season; River is rain fed and volume decreases during dry season</td>
<td>Watershed conservation and management, training in river works; monitoring of groundwater level. Try to limit flood damage by flood proofing, flood fighting, protecting farm lands so that farmers have full insurance of crops and limiting the extent of damage by flooding; Riverbed farming</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Canals:</strong> Dry during dry season otherwise useful; Poor condition; costly to maintain</td>
<td>Water management; maintenance and improvement of irrigation canals;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ponds:</strong> Pond is good, however the government managed pond is dry</td>
<td>Management of public ponds; promotion of pond irrigation; promotion of fish farming in ponds; Public pond management for ground water table increment; Construction and maintenance of ponds</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Dams:</strong> Normal to poor, not a priority by the Irrigation Office for its maintenance</td>
<td>Water management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Roads:</strong> Good</td>
<td>Rehabilitation and protection of roads;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Bridge:</strong> operational</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Market:</strong> Not under the local authority. Little income opportunities for the community</td>
<td>Agricultural market regulation; market information (market price); collection and dissemination; workshops about marketing delivery; Construction of marketing sheds and vegetable collection centres</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Health post:</strong> New and in very good condition. However, No big hospital and many services are not available</td>
<td>First aid as well as blood transfusion services are provided; Child, Women health Service</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Schools:</strong> New and in very good condition. However, No high school or higher education options</td>
<td>No mention of schools or education in activities of the organisations</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) is a strategic partnership of CGIAR and Future Earth, led by the International Center for Tropical Agriculture (CIAT). CCAFS brings together the world’s best researchers in agricultural science, development research, climate science and Earth System science, to identify and address the most important interactions, synergies and trade-offs between climate change, agriculture and food security.

For more information, visit www.ccafs.cgiar.org