Harnessed flood water re-greens degraded pastoral lands in Ethiopia

- Land that couldn’t grow any crops was turned into a **productive oasis in 3 years** in Chifra, Afar

**Future steps**
- Flood analysis of Afar region using Sentinel-1 satellite data shows flood-based farming potential:
  - **550,000** ha in **Belg** (Short rains)
  - **1.2 million** ha in **Meher** (Rainy season)
- Pilot to be upscaled in Shebelle and Genalle basins in **Somali region** and **Omo-Gibe basin**

**Innovative ways of working**

*The big shift to agro-pastoralism*

**Context**
- Land degradation robs livelihoods of lowland pastoralists in Chifra.
- Floods from the highlands, dwindling rains and overgrazing make it worse.
- Conflicts over scarce resources and dependence on food aid increase.
- Urgent need for a behavior change in pastoralists to learn farming skills.

**Better food security**: 52 households in the pilot project, who grew food and forage, relied less on food aid

**Sustainable pastoral systems**: Increased feed and water access around the year.

<table>
<thead>
<tr>
<th>Year</th>
<th>Pastoralists farm 24 ha with project guidance</th>
<th>Farming area increased to 46 ha</th>
<th>Pastoralists take their own cropping decisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>Produced biomass of about 10 t/ha</td>
<td>Produced biomass of about 12 t/ha</td>
<td>Crops grown: Sorghum, maize, teff, mung bean, cowpea, elephant grass, pigeon pea and lablab</td>
</tr>
<tr>
<td>2017</td>
<td>2018</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Built Water Spreading Weirs**
- Harnessed the highland floods
- Taught pastoralists farming skills
- Introduced 8 food-feed crops

**Community chiefs (Kedoh Abbotti) coin byelaws, fine crop-grazing and facilitate the shift**

**Water Spreading Weirs** capture highland floods and spread to lowlands (Designed by GIZ-SDR)

**Cropping zones mapped based on soil moisture content (GIZ, ICRISAT & Agri-universities)**

**Pastoral Agriculture and Development Office** acts as conflict mediator and bylaw enforcer

**Success of lead agro-pastoralists encourages others to shift to the new system**

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