
By

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Outline

• High light of Ethiopia & WVE

• Dryland Development Program ToC & planning process

• Impacts

• Recommendation of external review team

• Implication to Ethiopia

• Acknowledgment
Overview: Dryland coverage

- 60% Africa is drylands

- More than 50% of the IGAD region is classified as dryland

- In Ethiopia the drylands cover is 75% (Kidane, 2010)
The Rock-Hewn Churches of Labella

Axum

Lucy - 3.5 years old make Ethiopia the origin of mankind

Ethiopia

Second populous country in Africa - 104+ million
WVE’s Operational Areas in Ethiopia

Active programmes in 7 out of 8 regions of the country
WHAT we do

- Economic Development
- WASH
- Education
- Food Security
- Disaster Management
- Mother and Child Health
- Nutrition
- Child Protection
DryDev Ethiopia program

- DryDev-I sites
  - Oromiya
    - Gursum, Jarso & Boset
  - Tigray
    - Steda Emba, K. Awulalo
    - Samere

Site selection criteria:

- 400-800 RF
- Dependency on PSNP
- Population density
Theory of change for DRYDEV’s direct work with Farmers

Sustained improvements in food security and water management, livelihoods, and resilience, and the empowerment of women and disadvantaged farmers

1. ✆ Water capture & soil conservation/fertility at sub catchment & farm levels
2. ✆ Production of profitable, climate smart commodities & food crops
3. Improved & inclusive & climate smart production options pursued
4. Participation of M&F & vulnerable farmers in lucrative value chains
5. ✆ M&F & vulnerable farmers linked to appropriate credit & fin. services

WP1. Landscape/NRM work package
WP2. Water & soil mgt. work package
WP3. Production options work package
WP4. Value chain dev. work packages
WP5. Financial services work package
WP6. Policy institutional dev. work package
Maps developed by the community-T.E

Social Institution Mapping

Market linkage Map

Vision Map

Base Map
DRYDEV designing: bottom up, OxC & sequentially integrated

Stage 1: Community & local level sector offices engagement
- Step 1: Site selection and area characterisation
- Step 2: Setting up a facilitation team and planning
- Step 3: Social mobilization
- Step 4: Community introductory meeting

Stage 2 Vision setting
- Step 1: Situation analysis
- Step 2: Development of goal, and outcomes

Stage 3 Option prioritisation
- Step 1: Identifying and prioritising options/ interventions
- Step 2: Agreeing on options to be implemented
- Step 3: Identify learning priorities
- Step 4: Country level consolidation

Stage 4 Action Planning
- Step 1: Community feedback by representatives
- Step 2: Agreeing on activities and actions to be taken
- Step 3: Action plan consolidation
- Step 4: Developing and agreeing on an Exit Strategy

Stage 5: Collaborative monitoring and learning
- Step 1: Deciding what and how to monitor
- Step 2: Community reflection, review and planning

Stage 6 Implementation of planned comparisons
- Step 1: Prioritising planned comparisons
- Step 2: Implement planned comparisons
- Step 3: Document and disseminate

Stage 7 Formalising programme delivery structure at community level
- Step 1: Selecting Committees
- Step 3: Community level platforms
Landscape within many of DryDev watersheds

- Steep slope
  - Deforestation
  - Soil erosion
  - Dry season water shortage
  - Food/feed shortage

- Moderately sloped
  - Expansion of cropping
  - Soil erosion
  - Dry season water shortage
  - Food/feed shortage

- Flat land/plateau
  - Low productivity
  - Soil erosion
  - Low fertility

- Valleys
  - Waterlogging during rainy season/water shortage otherwise

Overall constraints
- Fast population growth
- Fragmented land size
- Incompatible technologies
- Land degradation
- Lack of infrastructure
- Low productivity
- Poor human nutrition & health
- Poor quality water

1500m a.s.l.
Sequentially integrated planning a-SWSs

WP1 - Sub-catchment-level natural resource management

WP2 - On-farm water & soil management

WP3 - Agricultural commodity production

WP4 - Enhancing market access

WP5 - Financial services linking

WP6 - Local governance & institutional strengthening

WP7 - Planning, M&E, and scaling of learning

WP8 - Policy analysis & influencing
### Number of farmers’ reached by WP (2014-2018) (irrespective of integration)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WP1</td>
<td></td>
<td>8,486</td>
<td>19,935</td>
<td>30,747</td>
<td>23,877</td>
</tr>
<tr>
<td>WP2</td>
<td></td>
<td>1,870</td>
<td>5,483</td>
<td>13,590</td>
<td>8,073</td>
</tr>
<tr>
<td>WP3</td>
<td></td>
<td>6,093</td>
<td>8,405</td>
<td>6,362</td>
<td>7,116</td>
</tr>
<tr>
<td>WP4</td>
<td></td>
<td>836</td>
<td>6,741</td>
<td>8,626</td>
<td>7,289</td>
</tr>
<tr>
<td>WP5</td>
<td></td>
<td>2772</td>
<td>4,130</td>
<td>5,758</td>
<td>5,702</td>
</tr>
<tr>
<td>WP6</td>
<td></td>
<td>181</td>
<td>2,247</td>
<td>2,599</td>
<td>3,263</td>
</tr>
<tr>
<td>WP7: Inception year</td>
<td></td>
<td>564</td>
<td>2,653</td>
<td>1,779</td>
<td>939</td>
</tr>
<tr>
<td>WP8: Inception year</td>
<td></td>
<td>67</td>
<td>699</td>
<td>692</td>
<td>445</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>8,399</td>
<td>20,869</td>
<td>50,293</td>
<td>70,153</td>
</tr>
</tbody>
</table>

- Area wise to date 58,097.68 ha (145%)
- Estimated resource leveraged USD 3,293,654.256 (~30% donors' fund)
Sub-catchment-level NRM

- Gully reclamation Oda Oromiya SWS, Gursum – East Ethiopia
- Gully reclamation (Metseqo) SWS, K/Awulalo – North Eth
- Gully reclamation Takot SWS- N. Eth
- Trenches & fodder production Osole SWS, Boset – Central Eth
Community mobilization as one of leveraging strategy used
Number of trees planted by DryDev woredas
Survival of planted seedlings incorporating mulching & different water frequencies demonstrated above 90% unlike < 50% national

<table>
<thead>
<tr>
<th>Species</th>
<th>M + W + 5DL</th>
<th>M + W + 10DL</th>
<th>W + 5DL</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gravelia</td>
<td>306</td>
<td>278</td>
<td>162</td>
<td>297</td>
</tr>
<tr>
<td>Moringa</td>
<td>162</td>
<td>134</td>
<td>247</td>
<td>297</td>
</tr>
<tr>
<td>Mango</td>
<td>171</td>
<td>159</td>
<td>159</td>
<td>171</td>
</tr>
<tr>
<td>Orange</td>
<td>159</td>
<td>159</td>
<td>159</td>
<td>159</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>936</strong></td>
<td><strong>818</strong></td>
<td><strong>936</strong></td>
<td><strong>936</strong></td>
</tr>
</tbody>
</table>

- Highest survival rate - watering 5 days (97.4%) w/o mulching
- Mulching + at 5 days interval watering (94.2%)
- Mulching + at 10 days interval watering (70.51%)
Small-scale irrigation schemes promotion

Pond under-construction Oda muda SWS, Jarso

Canal construction Meago SWS, K/Awulalo

Making available water for agriculture

Hand dug well at Mai-Hantso SWS, T/Emba

Water harvesting check dam Bara SWS, Samre
Water Management schemes found - game changer!
Open grazing to ‘controlled’ grazing – T. Emba, Northern Ethiopia

Landscape restoration led to livestock breed change & its productivity, then nutrition.
92% of the farmers are practicing climate smart production options in DryDev intervened sites in Ethiopia (end of 2017 uptake survey)
Three Pillars of CSA

<table>
<thead>
<tr>
<th>Districs</th>
<th>Sustainable production</th>
<th>Mitigation</th>
<th>Adaptation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jarso</td>
<td>68%</td>
<td>86%</td>
<td>100%</td>
</tr>
<tr>
<td>Boset</td>
<td>48%</td>
<td>67%</td>
<td>90%</td>
</tr>
<tr>
<td>Gursum</td>
<td>99%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Samre</td>
<td>85%</td>
<td>98%</td>
<td>100%</td>
</tr>
<tr>
<td>Kilite Awulalo</td>
<td>80%</td>
<td>95%</td>
<td>95%</td>
</tr>
<tr>
<td>Tsaeda Emba</td>
<td>91%</td>
<td>97%</td>
<td>97%</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>78%</td>
<td>97%</td>
<td>97%</td>
</tr>
</tbody>
</table>

In both three indicators program performance higher, which is in agreement with Africa strategy (end of 2017 uptake survey)
Context Based Value Chain Commodities promotion

- Haricot bean
- Potato
- Groundnut
- Onion
- Goat
- Milking
Value Chain

Tsaeda Emba

Kilite Awlalo & Samere
Increased participation of farmers in value chain

According to the uptake survey, **76% of farmers have been exposed to marketing strategies** by the DryDev Programme and **74%** of these people are practicing them, which is great (end of 2017 survey)
Land less youth & women farmers – poultry value chain

➢ 45-Day old chicken

➢ Producers (Land less youth Farmers)

➢ Collectors

➢ Skill training provided
➢ Actors identified & discuss at bi-annual VC platforms
➢ Market information made available at locality
➢ Access d >11,000 improved layers
➢ 29 producer groups established to produce 45-day old chicken for market
Post harvest loss

• After DryDev PH management promotion, PH losses, for most of the commodities, found 1-6% except for Potato in Jarso where 17% of produce is lost.

• The finding indicated that PH lost at DryDev sites found much lower than the country average i.e about 30%
Marketing

• In terms of marketing, the proportion of those who are selling directly to traders became high (80-100%) except for Boset where 50% onion producers are still selling to brokers after all efforts.

• The farmers who have reported increase in yield & sales found 87%.

• For livestock value chains, the number of those reported production has been higher (72-85%) for improved chicken, milk and shoats and no one is selling to brokers.

This implies DryDev program minimized middlemen from marketing system.
Women in VC
Intensity of participation in marketing nodes in Ethiopia – women are able to participate due to intentional target

Livestock value chains

Intensity of participation in marketing in Ethiopia, by gender category and value chain

<table>
<thead>
<tr>
<th>Produce</th>
<th>Men-NY (n1=6,n2=10,n3=26,n4=9)</th>
<th>Women-NY (n1=6,n2=0,n3=3,n4=2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk</td>
<td>61%</td>
<td>0%</td>
</tr>
<tr>
<td>Honey</td>
<td>70%</td>
<td>100%</td>
</tr>
<tr>
<td>Poultry</td>
<td>83%</td>
<td>46%</td>
</tr>
<tr>
<td>Goat</td>
<td>46%</td>
<td>70%</td>
</tr>
</tbody>
</table>

Total (N1=40,N2=15,N3=40,N4=17)
DryDev impact on financial services

• According to the annual uptake survey, 80% of the SWS population has been exposed to savings & credit through the DryDev, and uptake as a result of DryDev became 52%.

• The average amount of saving per person has more than doubled i.e. from USD 24 in 2016 to USD 56 in 2017. Similarly, the average loan size has increased from USD 135 to USD 159.
Access to finances per district & country level

Access to Finances

- **Exposure**
- **% Saving (Uptake1)**
- **% Borrowing (Uptake1)**
- **% Saving (Uptake2)**
- **% Borrowing (Uptake2)**

2019-08-25
## Institutionalization at grass root - Farmers Organization

<table>
<thead>
<tr>
<th>Districts</th>
<th>Producer &amp; Marketing group</th>
<th>VSLA</th>
<th>CSWT</th>
<th>Coops.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gursum</td>
<td>19</td>
<td>42</td>
<td>4</td>
<td>0</td>
<td>65</td>
</tr>
<tr>
<td>Jarso</td>
<td>21</td>
<td>38</td>
<td>4</td>
<td>0</td>
<td>63</td>
</tr>
<tr>
<td>Boset</td>
<td>14</td>
<td>39</td>
<td>5</td>
<td>9</td>
<td>67</td>
</tr>
<tr>
<td>Samre</td>
<td>14</td>
<td>52</td>
<td>4</td>
<td>13</td>
<td>83</td>
</tr>
<tr>
<td>K/Awulalo</td>
<td>8</td>
<td>48</td>
<td>4</td>
<td>8</td>
<td>68</td>
</tr>
<tr>
<td>T/Emba</td>
<td>44</td>
<td>39</td>
<td>8</td>
<td>11</td>
<td>102</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>120</strong></td>
<td><strong>258</strong></td>
<td><strong>29</strong></td>
<td><strong>41</strong></td>
<td><strong>448</strong></td>
</tr>
</tbody>
</table>
Impacts on farmers’ income & expenditure

Data source: 2018 DryDev districts household survey
Rural employment creation increasing over time
Number of people graduated from PSNP - with in 4-5 years reached 6 to 58%

To lift people out of food insecurity, to achieve stable and predictable income sources – i.e. graduation.

Graduated ranges from 2019-08-25 to 2025.

Number of people graduated from PSNP as of July 208

Number of people PSNP dependent before DryDev

% graduated
### 2014-2019 DryDev promoted technologies & productivity increment recorded from North, Central & Eastern Ethiopia

<table>
<thead>
<tr>
<th>Region</th>
<th>DryDev Districts</th>
<th>Variety/breed being under production before DryDev</th>
<th>Yield (Qt/ha)</th>
<th>Improved variety/breed introduced by DryDev</th>
<th>Yield (Qt/ha)</th>
<th>Yield increment (%) after DryDev programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oromia</td>
<td>Gursum</td>
<td>Local groundnut</td>
<td>23</td>
<td>Roba</td>
<td>45</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>Jarso</td>
<td>Wheat</td>
<td>24</td>
<td>Kekeba</td>
<td>38</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Potato</td>
<td>120</td>
<td>Local+ management</td>
<td>180</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Boset</td>
<td>Onion</td>
<td>200</td>
<td>Red Coach</td>
<td>500</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Haricot bean white</td>
<td>12</td>
<td>Melkass-2</td>
<td>24</td>
<td>100</td>
</tr>
<tr>
<td>Tigray</td>
<td>Ts.Emba</td>
<td>Local barley</td>
<td>17</td>
<td>Photena &amp; Hiritu</td>
<td>43</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>Tomato</td>
<td>220</td>
<td>220</td>
<td>Venus-1</td>
<td>360</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>Potato</td>
<td>220</td>
<td>220</td>
<td>Gudina</td>
<td>350</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mean= 91%</td>
</tr>
<tr>
<td></td>
<td>Liter/eggs/kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Local cow (Zebu)</td>
<td>3 liter per day per cow</td>
<td>66%</td>
<td>Holstein Freesia</td>
<td>15 lit/ day/ cow</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>Local poultry</td>
<td>60 eggs per year</td>
<td>Bobans</td>
<td>190 eggs/ year</td>
<td>201</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Local beehive</td>
<td>7kg/hive</td>
<td>Improved beehive</td>
<td>22kg/ hive</td>
<td>210</td>
<td></td>
</tr>
</tbody>
</table>

*2019-08-25*
Overall recommendation

DryDev Ethiopia can be considered a **success** with large areas of **degraded land rehabilitated**, **crop and livestock production increased**, **access to inputs, markets and credit enhanced** and **overall livelihood improvement** evidenced in FGDs by **increased household income**, **improved status of women** and **reduction of migration** due to improved opportunities at home.
1. The Ethiopia new cabinet to consider DryDev approach for another development

2. If possible let DryDev approach expanded & up scaled to the 177 SLMP districts that have in many ways completed WPs 1-3 and need linkages to WPs 4-6 to graduate to commercial self-sufficiency.

3. DryDev has reduced out migration, particularly in Tigray & indication in Oromiya. So, DryDev approach considered against out migration efforts
Specific to DryDev recommendations

1. The core area of the 6 woredas should be retained with minimal support to those areas supported under phase-I but they should be monitored for sustainability & the effect of the change to self-sufficiency.

2. In particular the management & maintenance of communal interventions, the ability to respond to market changes and the effect of a potential increase in livestock due to increased affluence should be
Specific to DryDev recommendations

3. The DryDev approach should be expanded to other sub-watersheds within the same Districts following the same approach as in phase I with the addition of an enhanced livestock work package.

4. Youth unemployment is becoming a critical national issue & while DryDev has reduced and even reversed out migration, particularly in Tigray, there is scope for linking agriculture with IT particularly with value chain and market developments.
Major lessons learned

• Context based sequential integrated planning & implementing with care potential to uproot FNS
• Making water management as center of intervention
• Robust MAE framework, intensive monitoring & feedback
• Partnership
• Leveraging
• Dedicated team work
DryDev program IMPLICATION to Ethiopia

Through DryDev we are convinced that:

- **Doubling** agriculture productivity per unit area is VERY POSSIBLE within 5-8 years
  - If policy makers, policy executors, academia, DPs & at least lead farmers re-dedicate
  - As well as coordinated professionally
More evidence available & shared

- Videos produced & posted as: [DryDev\Vedios\April_2017_Tigray\DryDev\tofu4.wmv](DryDev\Vedios\April_2017_Tigray\DryDev\tofu4.wmv)
- Reports published, documented & shared

**Shared**

- 25 organizations came from seven African countries including Somalia
- Broad casted through ETV, radio & newspapers
- Videos: uploaded to WV website
- Blogs & video [VID_20190823_213020_075 DryDev Ts.Em.mp4](VID_20190823_213020_075 DryDev Ts.Em.mp4)
Acknowledgement

- Netherlands Government for financing
- WV Australia for matching fund as well as technical supports
- ICRAF
- Local Implementing partners (EOC-DICAC & REST)
- People of Ethiopia
- Government of Ethiopia