

Mapping

'Mapping Resources and Development Interventions in the Lowlands: Supporting Planning and Coordination at Woreda Level'

(Using non-conventional mapping techniques)

DREAM hybrid event

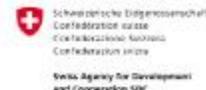
21 June 2022



Implemented by



PHICS PUBLIC
MINISTRY OF AGRICULTURE



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra
Swiss Agency for Development
and Cooperation SDC

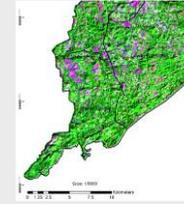


Introduction

- Climate variability, resources degradation and repeated drought are getting severe in the pastoral and agropastoral Ethiopia to demand enhanced and more coordinated effort,
- Little knowledge of the resources base, its development status in the LL of Ethiopia is challenging proper planning.
- Although data about the lowlands of Ethiopia is scarce, the community has a deep understanding of the resources and effective information exchange systems that can be tapped.
- There is considerable development efforts taking place in the Ethiopian lowlands but poorly coordinated to bring resilience.
- The amounts spent are very substantial, but more is needed to achieve a lasting impact.
- There is a general feeling that more progress could be made if there is proper planning and efforts are well better coordinated.
- In addition to essential coordination measures, mapping can serve as one of the powerful tools to assist effective planning and coordination process,
- This presentation looks into two important areas of mapping:
 - Highlighting the importance and methods of resource mapping and preparation of spatial district development plan
 - Elaborate on the results of the intervention mapping exercise during DREAM II conference. These can reinforce one another, how mapping can be linked with planning
 - Provides highlights on visualization, validation, information update and modification

Approach:

- SELECT THE RIGHT APPROACH TO IDENTIFY ACCEPTABLE /MANAGEABLE PLANNING UNIT:
 - WATERSHED
 - ADMINISTRATIVE (KEBELE, GOTT, ..)
 - CLAN/SUB-CLAN
- FOLLOW A TOP-BOTTOM APPROACH IN BUILDING CONSENSUS (AS POLICY MAKERS' INTERESTS ARE VITAL)



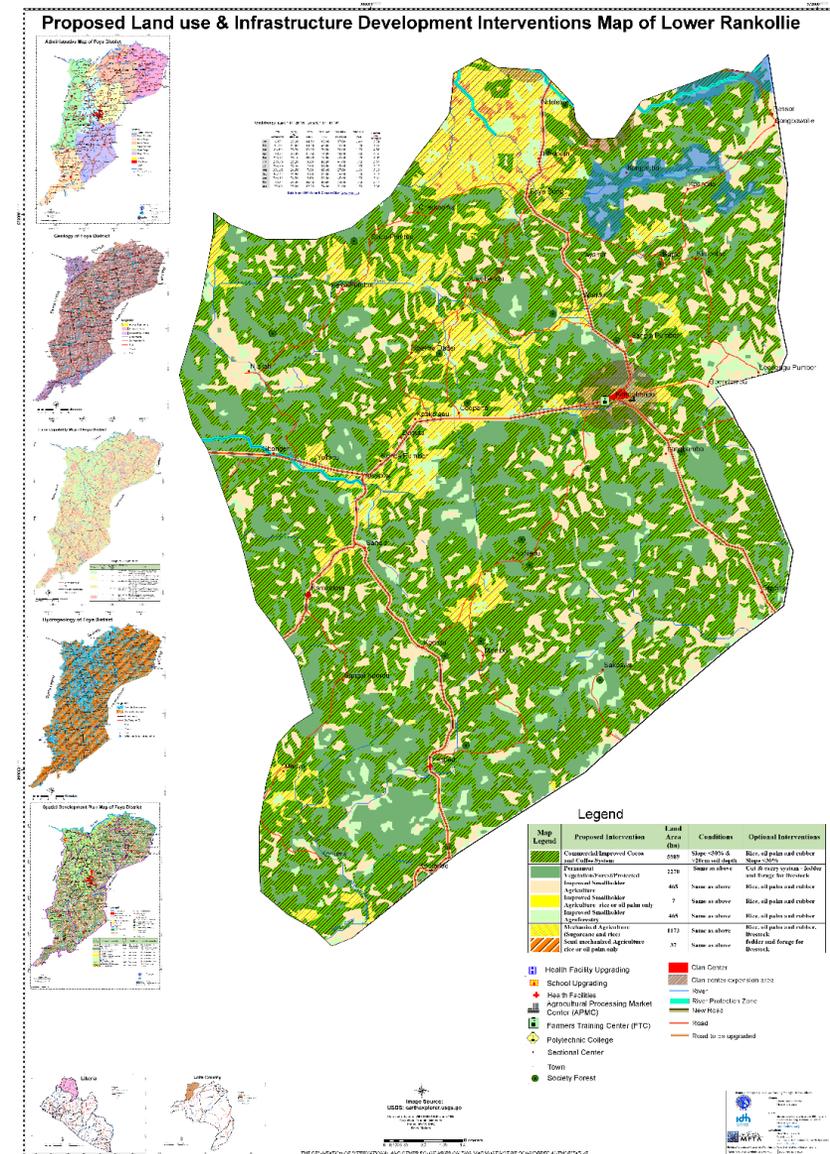
Preparations:

- Prepare a base map based on the mission objective (admin/watershed-based)– show all necessary features that help SH to identify intervention areas on the base map.
- Identify and Invite community groups for the mapping exercises (elders, community leaders, women, youth)
- Use locally available materials to symbolize features – (pebbles, sticks, leaves, ...)
- Agree on symbols
- Carefully identify topics to be discussed during the PRA sessions :
 - Defining land and its purposes at the plenary
 - Develop a resource map within the planning boundary
 - Drawing the planning boundary (towns, villages, roads, rivers, natural resources)
 - Map existing land uses/landcover
 - Discuss development challenges associated with current development, and issues such as LU/LC, effects, causes and solutions.
 - Plan future developments-
 - Discussion development challenges – policy, regulatory framework, ...



Data integration and Results

- INTEGRATED COMMUNITY RESOURCES AND PLANNING MAP WITH THE BIOPHYSICAL CONDITION AND CONVENTIONAL PLANNING MAPS
- UNDERTAKE MULTICRITERIA ANALYSIS TO DEVELOP A SPATIAL DEVELOPMENT PLAN FOR EACH PLANNING UNIT BASED ON THE AGREED COUNTRY'S DEVELOPMENT POLICY.
- MERGE THE SPATIAL PLAN OF EACH PLANNING UNIT TO GENERATE DISTRICT LEVEL DEVELOPMENT PLAN



Validation:

- USE ORAL AND SECONDARY SOURCES
- FIELD VALIDATION -
 - CONSIDER SUFFICIENT CONTROL POINTS
 - USE HIGH-RESOLUTION RECENT SATELLITE IMAGES
- VALIDATION BY STAKEHOLDERS – FOLLOWING BOTTOM-UP APPROACH (WHAT IS AGREED BY THE COMMUNITY IS A GOOD GUIDE FOR DECISION MAKING).



Validation and Ownership

- CREATE A SENSE OF OWNERSHIP BY INTRODUCING THE NEW PLAN THAT ADDRESSED THEIR INTERESTS.
- FACILITATE THE SIGNING OF MOU THAT INSURE COOPERATION AND POLICY SUPPORT
- DEVELOP IMPLEMENTATION GUIDELINE AND IMPLEMENTATION PLAN



Handing over the local development plan

Mapping Intervention Areas

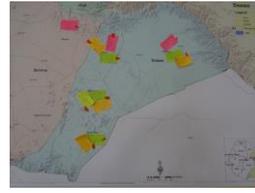
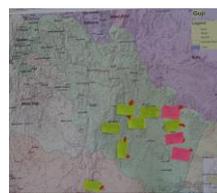
Objectives:

- TO KNOW WHO IS DOING WHAT AND WHERE
- TO IDENTIFY POSSIBLE AREAS OF COOPERATION AND REDUCE DUPLICATION OF EFFORTS,
- USE SPATIAL INFO TO DEVELOP A FUTURE PLAN.



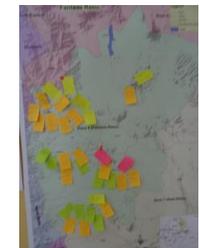
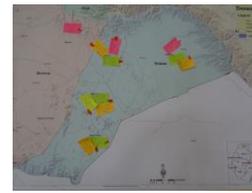
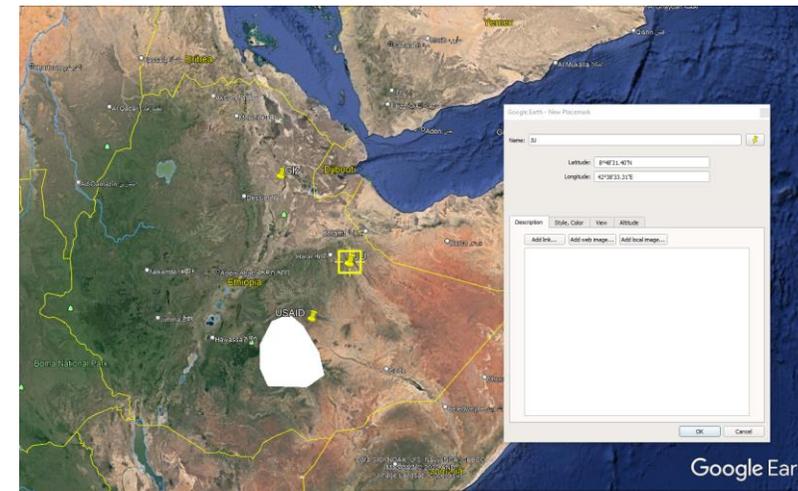
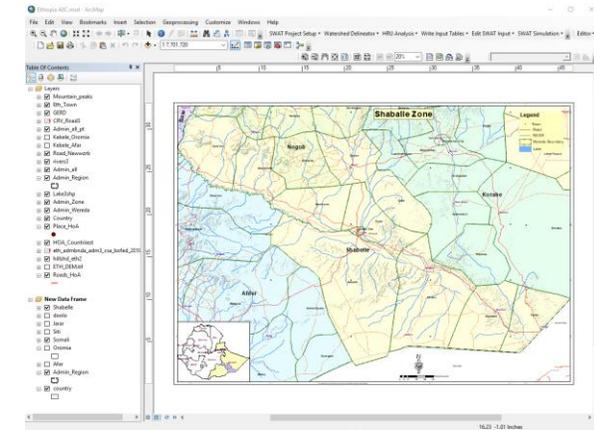
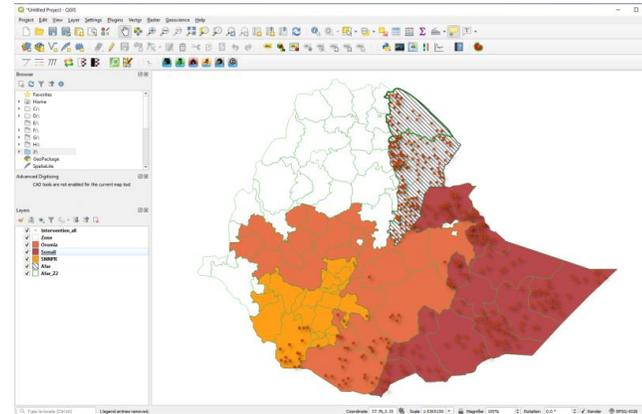
PREPARATIONS

- PREPARE BASE MAP – SHOW ALL NECESSARY FEATURES THAT HELP STAKEHOLDERS TO IDENTIFY INTERVENTION AREAS ON THE BASE MAP.
 - ADMIN BOUNDARIES, WATERSHEDS
 - ROADS, RIVERS, TOWNS, VILLAGES, LANDMARKS, ...
- CHOOSE APPROPRIATE SCALE AND PRINT SIZE AND PAPER TYPE- LARGES SCALE MAPS COVER SMALL AREAS BUT PROVIDE SUFFICIENT INFO
- USE MULTICOLORED STICKER/MARKERS FOR SYMBOLS, WITH CLEAR MEANING- HAVE SUFFICIENT COLORS – CARE NOT TO MISS/MERGE IMPORTANT ACTIVITIES, USE CONVENTIONAL COLORS
- PROVIDE SUFFICIENT ORIENTATION AND FACILITATE THE PROCESS
- MINIMIZE/AVOID AMBIGUITY



PROCESSING

- ONE CAN USE COMMERCIAL/OPEN-SOURCE GIS PACKAGES
- LOCATIONS AND AREAS CAN BE SHOWN ON GOOGLE EARTH –
 - SUBJECTED TO LOCATIONAL ERROR
 - DIFFICULT TO ENTER ALL ACQUIRED DATA



OUTPUTS



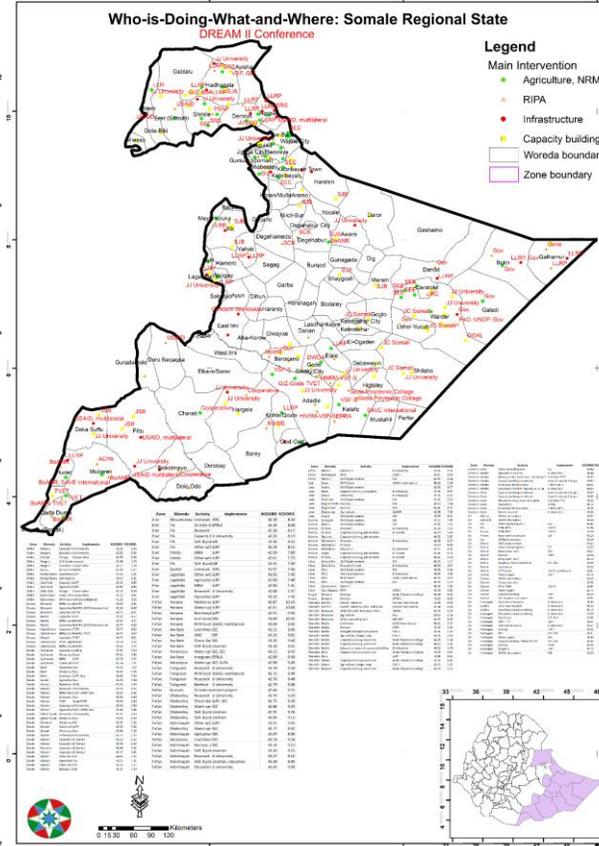
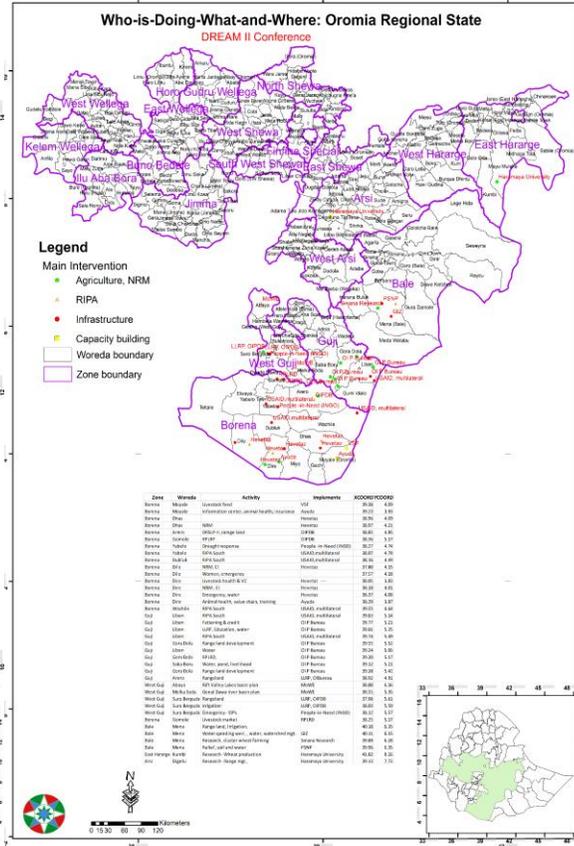
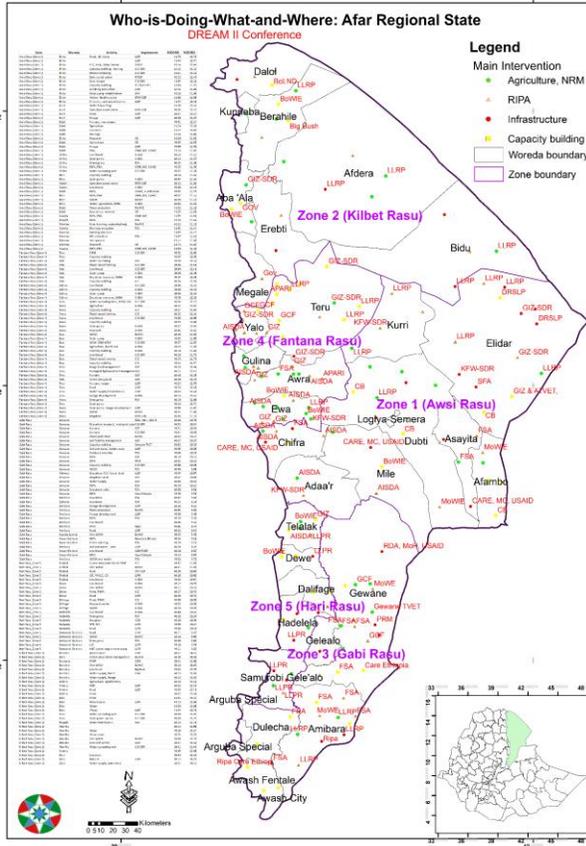
- ATTRIBUTE DATA IN SPREADSHEET OR WORD FORMAT
- SUMMARY REPORT
- ANALYSIS REPORT THAT ADDRESS THE OBJECTIVES

Implementer	Region	Zone	Woreda	Activity	XCOORD	YCOORD
ACPA	Somali	Daawa	Mubarek	Capacity building (BSD, bee keeping), NRM	40.254	4.514
ADB	Afar	Hari Rasu_Zone 5	Hadelela	Irrigation	40.182	10.296
AISDA	Afar	Awsu Rasu (Zone 1)	Chifra	Livelihood	40.032	11.669
AISDA	Afar	Awsu Rasu (Zone 1)	Chifra	Solar pump	40.131	11.669
AISDA	Afar	Awsu Rasu (Zone 1)	Mile	Solar pump	40.475	11.636
AISDA	Afar	Awsu Rasu (Zone 1)	Adaa'r	Livelihood	40.281	11.327
AISDA	Afar	Awsu Rasu (Zone 1)	Mile	Water, agriculture, NRM	40.857	11.217
AISDA	Afar	Fantana Rasu (Zone 4)	Yalo	Solar pump	39.897	12.388
AISDA	Afar	Fantana Rasu (Zone 4)	Yalo	Dry stone measures, NRM	39.985	12.381
AISDA	Afar	Fantana Rasu (Zone 4)	Golina	Capacity building	39.903	12.131
AISDA	Afar	Fantana Rasu (Zone 4)	Golina	Solar pump	39.963	12.141
AISDA	Afar	Fantana Rasu (Zone 4)	Golina	Dry stone measures, NRM	39.998	12.131
AISDA	Afar	Fantana Rasu (Zone 4)	Awra	Agriculture	40.021	12.068
AISDA	Afar	Fantana Rasu (Zone 4)	Awra	Solar pump	40.372	12.071
AISDA	Afar	Fantana Rasu (Zone 4)	Ewa	Solar pump	40.254	11.894
AISDA	Afar	Fantana Rasu (Zone 4)	Ewa	Agriculture, livelihood	40.034	11.847
AISDA	Afar	Fantana Rasu (Zone 4)	Ewa	Capacity building	40.136	11.839
AISDA	Afar	Hari Rasu_Zone 5	Telalak	Livelihood	40.221	10.945
AISDA	Afar	Hari Rasu_Zone 5	Dewe	Livelihood	40.173	10.793
AISDA	Afar	Hari Rasu_Zone 5	Dilifage	WASH	40.503	10.394
AISDA	Afar	Hari Rasu_Zone 5	Hadelela	Livelihood	40.435	10.347
APARI	Afar	Fantana Rasu (Zone 4)	Awra	Research	40.463	12.050
APARI	Afar	Fantana Rasu (Zone 4)	Teru	Forage development	40.134	12.666
APARI	Afar	Hari Rasu_Zone 5	Dilifage	Research center	40.522	10.499
Ayuda	Oromia	Borena	Moyale	Information center, animal health, insurance	39.226	3.925
Ayuda	Oromia	Borena	Dire	Animal health, value chain, training	38.285	3.874
Big Bush	Afar	Kilbet Rasu (Zone 2)	Berahile	Livelihood	40.217	13.929
BoANR	Somali	Daawa	Mubarek	NRM, capacity building	40.434	4.307
BoANR	Somali	Daawa	Hudet	NRM, capacity building	39.690	4.470
BoANR	Somali	Daawa	Qada Duma	PSNP, Agriculture	39.742	3.680
BoANR	Somali	Daawa	Qada Duma	NRM, capacity building	39.553	3.701
BoANR	Somali	Jarar	Degehabur	Agriculture	43.841	7.963
BoANR, SAVE International	Somali	Daawa	Mubarek	Agriculture, Livelihood	40.332	4.345
BoANR, SAVE International	Somali	Daawa	Hudet	Agriculture, Livelihood	39.772	4.300
BoANR, TVET	Somali	Daawa	Qada Duma	NRM, capacity building	39.708	3.974
BoLND	Afar	Kilbet Rasu (Zone 2)	Dalol	Community forest management	40.099	14.190
BoWIE	Afar	Awsu Rasu (Zone 1)	Mile	WASH	40.897	11.409

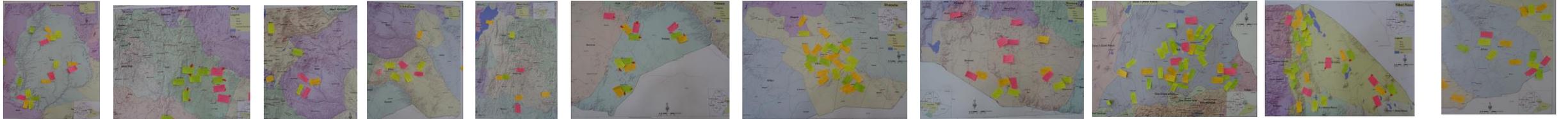
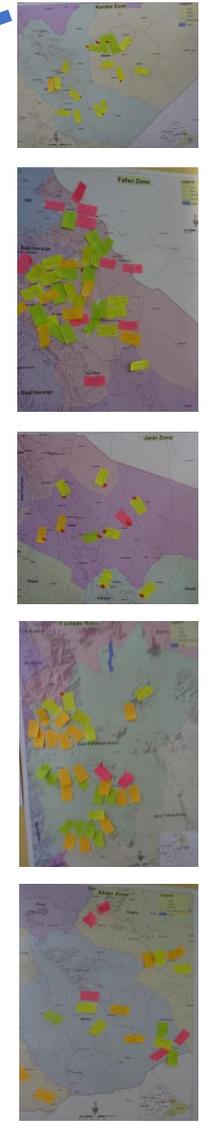
(The 180 participants, who participated during the DREAM II mapping exercise had identified 427 ongoing intervention areas in the pastoral & agropastoral Ethiopian lowlands in one hour)



OUTPUTS



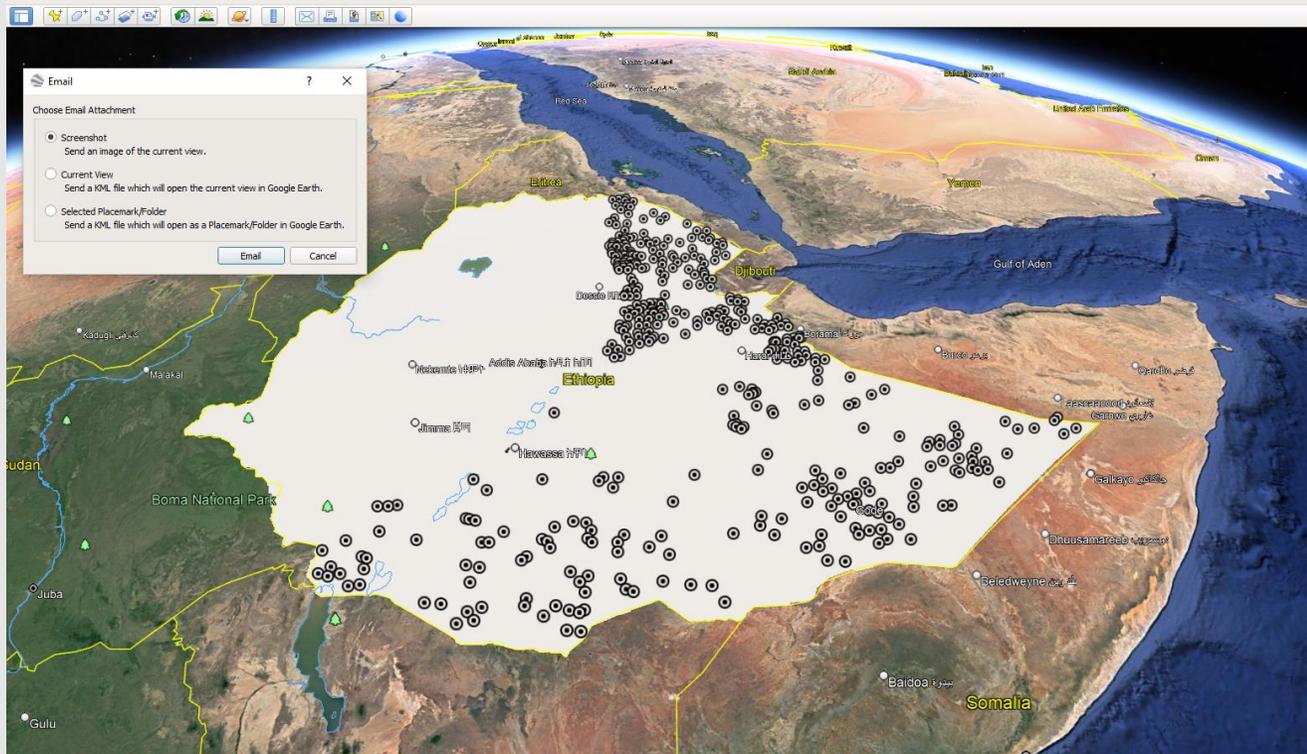
(The 180 participants, who participated during the DREAM II mapping exercise had identified 427 ongoing intervention areas in the pastoral & agropastoral Ethiopian lowlands in one hour)



Validation

- ORAL SOURCE
- MAKING USE OF REMOTELY SENSED HIGH-RESOLUTION IMAGES
- ASKING FOR GPS COORDINATE FROM LOCAL STAFF:
 - GPS COORDINATE – ONE CAN USE GPS OR A MOBILE APP TO READ THE LOCATION OF AN INTERVENTION AREA
- FIELD CHECK





- HARDCOPIES – CONVENTIONAL WAY
- EMAIL OPTION ON GOOGLE EARTH
- EMAIL- ZIPPED GIS FILE, ATTRIBUTE DATA
- USB STICKS

Data sharing

Visualization

- OPEN MAP AS A PICTURE/PDF WITH A WIDE RANGE OF AVAILABLE SOFTWARE
- OPEN WITH GOOGLE EARTH
- USE GIS SOFTWARE TO VISUALIZE, UPDATE AND IMPROVE

