

DREAM – Learning Event IV



The Need for Integrated Spatial Development Planning: the Case of Gully Control near Jigjiga Town

Gully Hazard Rapid Assessment: **Institutional Overview**

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Outline

- ▶ Introduction
- ▶ Field observation
- ▶ Stakeholders' discussion
- ▶ Potential stakeholders, analysis and engagement strategy
- ▶ Resources: possible sources and opportunities for alignment
- ▶ Conclusion and recommendation



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1. Introduction

- ▶ Request by **GiZ** to conduct rapid assessment on the gully development and its challenges in Jigjiga area
- ▶ The **MetaMeta** team to carry out:
 - ▶ quick field assessments,
 - ▶ stakeholder mapping,
 - ▶ review existing relevant documents and
 - ▶ make an updated assessment report including recommended options
- ▶ All tasks carried out accordingly and the outcomes analyzed
- ▶ Conclusions have been made and recommendations have been forwarded

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2. Field Observation

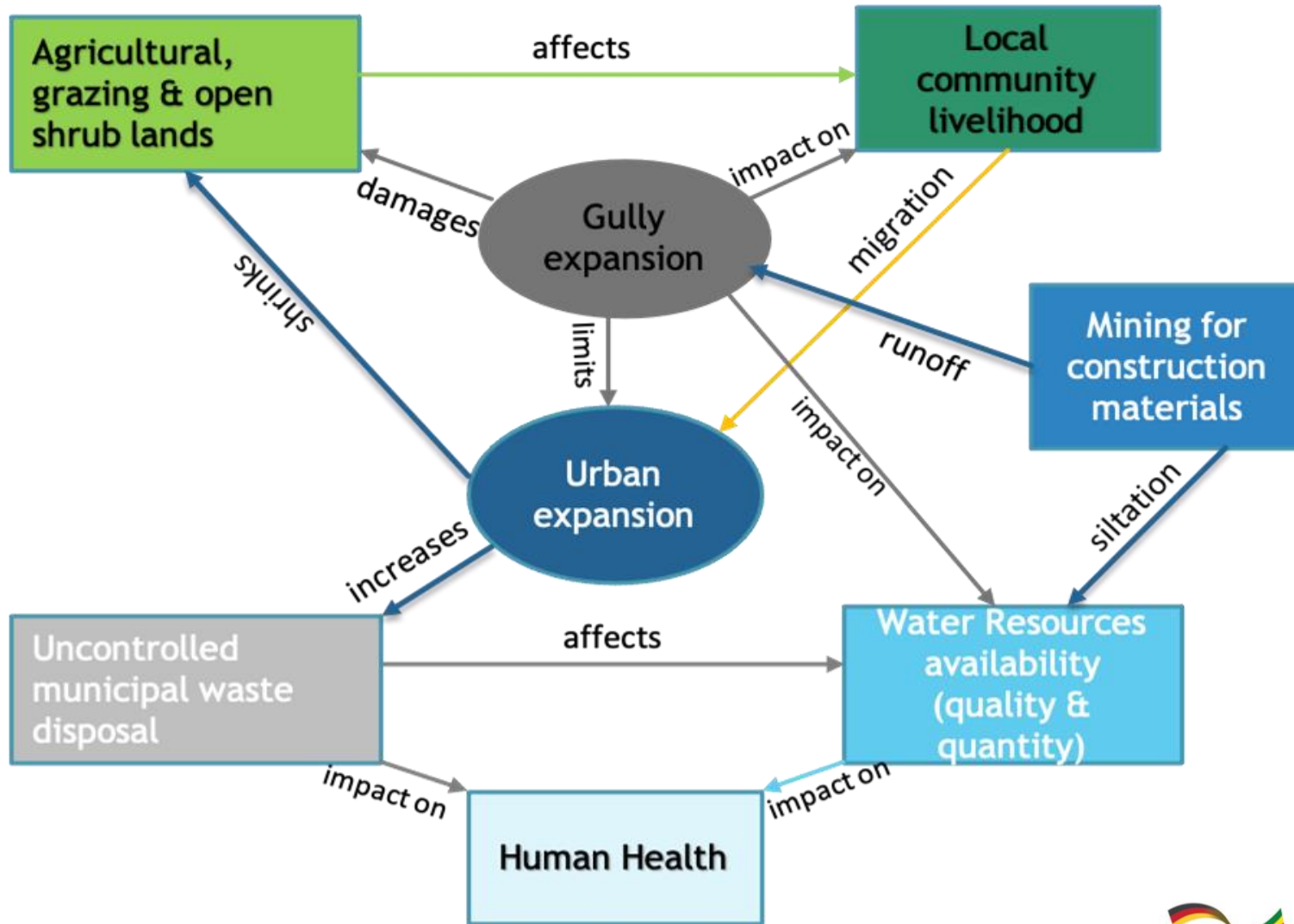
- ▶ Major land use types are agricultural, grazing, urban and open shrub lands
- ▶ The land use practice has been changing continuously over the last few decades
- ▶ Growing urban area (200% from 2011 to 2021) consuming other land use types, particularly agricultural land
- ▶ Degraded watershed (Karamara Ridge), devoid of vegetation, active construction materials quarrying
- ▶ Extensive gully developments disturbing agricultural land, damaging infrastructures and posing risk to the city
- ▶ Illegal and not properly managed municipal waste disposal sites increasing the vulnerability of already scarce water resources to pollution
- ▶ Impacts on the livelihoods of the local rural community

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Watershed Processes & interrelationships - causes & effects

System Dynamics



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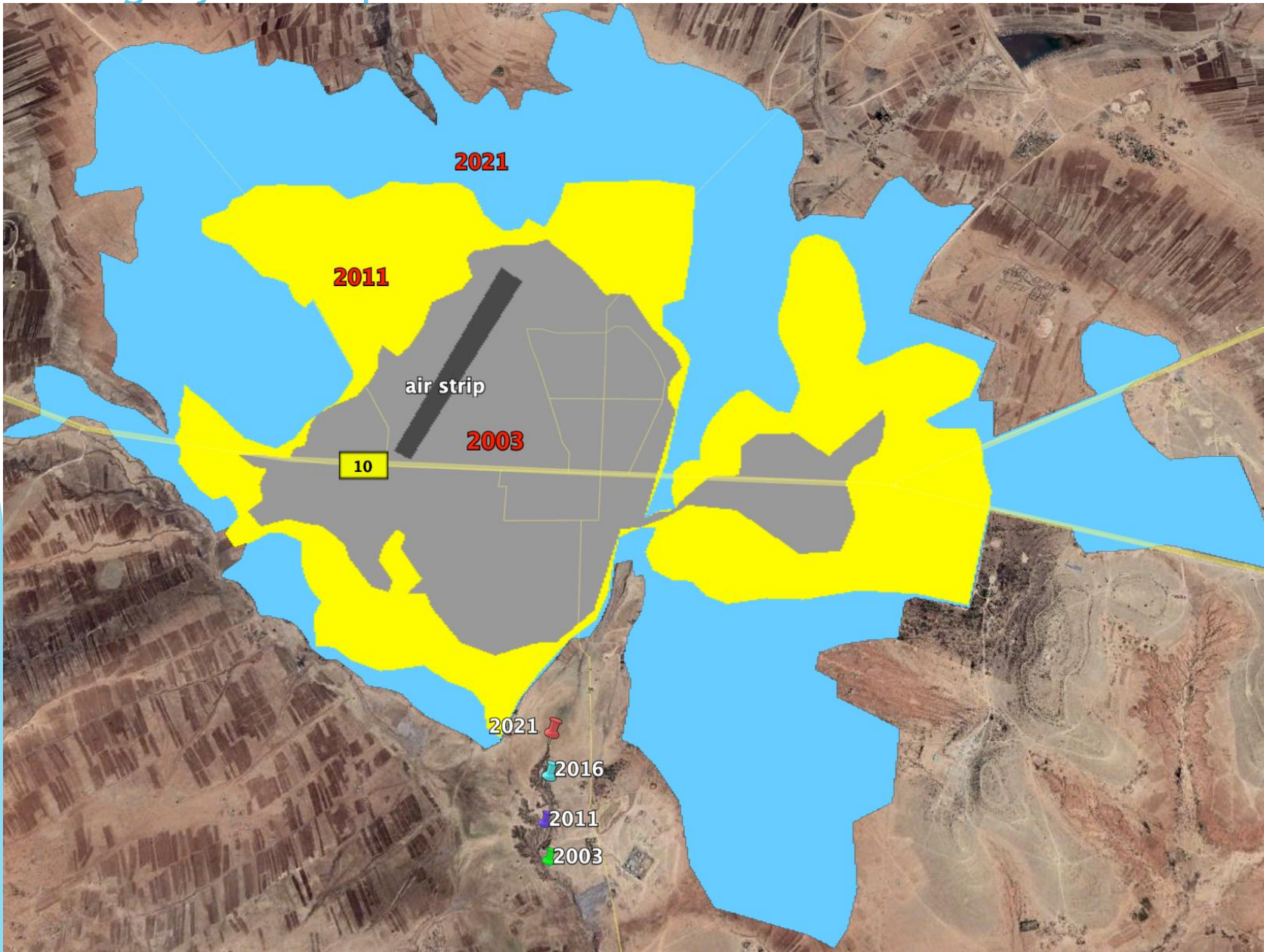


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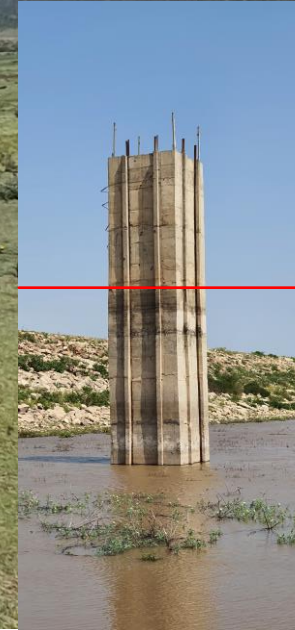
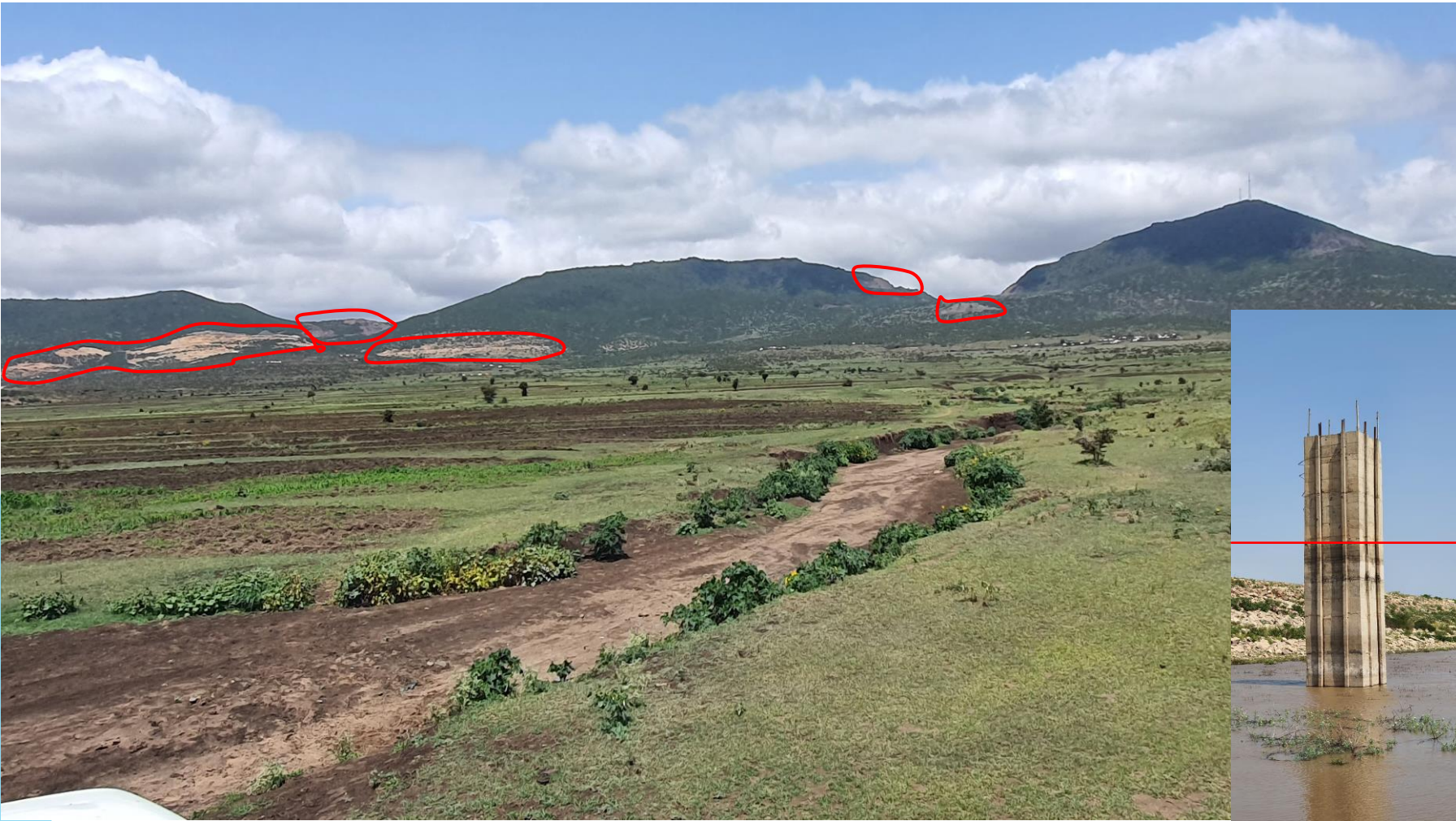


Temporal Changes: urban are encroaching into fertile agricultural land, gully developments



- Visualising urban area increase from 2003 (gray) to 2011 (yellow) and 2021 (blue)
- Future expansions have been proposed to east, north and southwest
- Growing Sheik Ali Gure gully from 2003 to 2021 for about 1035m, ten years (2011 to 2021) average increase is 72m/y.
- Only 7 to 8 years to reach the city periphery if the past ten years expansion rate is maintained
- Old Jiggiga airstrip is now almost the center of the city.

Field Observation: degraded watershed



- The Karamara mountain chain, main recharge area
- Devoid of vegetation
- Selected materials quarrying for construction aggravates runoff
- Due to runoff
 - reduced/no GW recharge
 - soil erosion
 - **gully development**
 - flood hazards
 - siltation

Field Observation: relative positions of expanding gully (upstream) and Jigjiga city (downstream) at Karamara site & mitigation efforts



Field Observation: highly disturbed fertile soil due to gully development (left) and competing land use, farm vs. grazing lands (right)



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Field Observation: damaged or abandoned structures due to gully expansion



- 3 boreholes with its infrastructures have been completely damaged
- Cattle troughs



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INSTITUTE FOR THE SEMI-ARID TROPICS

Flood-Based Livelihoods
Network Foundation

META

Field Observation: illegal municipal solid waste disposal site, southern periphery of Jigjiga city



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Field Observation: legal but not properly managed landfill site



- Landfill site in the Jerer valley
- Not properly levelled, compacted and managed
- Runoff through and leachates from the waste finally drains to Wabi Shebelle River

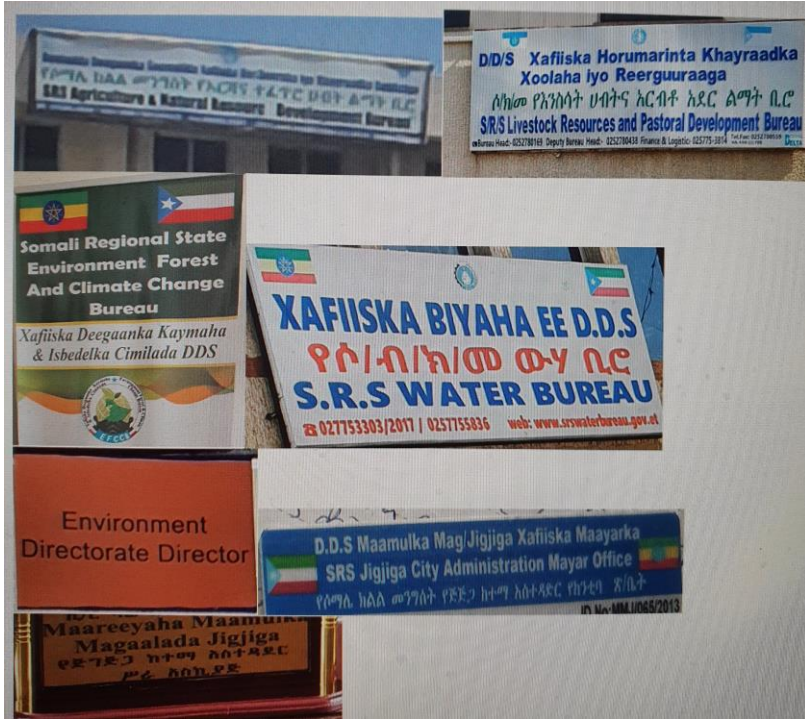


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3. Stakeholders' Discussion



- ▶ selected stakeholders considered to have high interest/influence
- ▶ environmental degradation, gully expansion, uncontrolled municipal waste disposal and related environmental processes are major concerns with adverse environmental and socioeconomic consequences
- ▶ construction of water spreading weirs and check dams along some gullies are few visible efforts
- ▶ however, such efforts are not satisfactory compared to the scale and complexity of the problems
- ▶ Overall, awareness is still low, capacity is limited, efforts are fragmented and coordination is weak.

4. Stakeholders' list, analysis and engagement strategy



- ▶ stakeholders list based on field observation and additional discussion with selected stakeholders
- ▶ stakeholder analysis to identify and map key players using importance/influence matrix and plan engagement strategy
- ▶ high interest & high influence group are the most important stakeholders and key players that need to be engaged closely as owners and promoters of the effort.
- ▶ the remaining groups need to be kept informed and communicated as necessary
- ▶ at least, annual meetings shall be organized with all the remaining stakeholders and others, as necessary, for updates and review of implementation.

Proposed steering committee and technical task force members

No.	Steering Committee	Technical Task Force (TTF)
1	Agriculture & Natural Resources Development Bureau	Agriculture & Natural Resources Development Bureau
2	Water Bureau	Water Bureau
3	City Administration/ Municipality	Municipality
4	Livestock Resources & Pastoral Development Bureau	Livestock Resources & Pastoral Development Bureau
5	Environment, Forest & Climate Change Bureau	Environment, Forest & Climate Change Bureau
6	Woreda Administration	Irrigation & Basin Development Bureau
7	Federal Ministry of Agriculture	Jigjiga University
8	Federal Ministry of Peace	Pastoral & Agropastoral Research Institute
9	Office of the President	Design & Supervision Works Enterprise

- ▶ the **steering committee** will be responsible for overall strategic guidance, resource alignment, and coordinating of efforts
- ▶ the **technical task force** is more to deal with technical and professional aspects of integrated development plan
- ▶ a **secretariat office** accountable to the steering committee exclusively responsible for planning and managing the activities of the steering committee and the technical task force

5. Resources: Possible Sources and Opportunities for Alignment

- ▶ Resources are always limited, but there is also an opportunity for integration
- ▶ Mobilizing and coordinating existing efforts and resources in the region
- ▶ several development programs are being implemented and running in the region, all having similar interests on
 - integrated natural resources development & sustainable environmental management
 - livelihood improvement & diversification
 - capacity building.
- ▶ Discussion with executing agencies (BoANRD, BoLRPD) and program partners (LLRP) indicated the possibility of integration and alignment.

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Resources: Possible Sources and Opportunities for Alignment

- ▶ Programs currently operating in the region
 - Lowland Resilience Project (LLRP)
 - Productive Safety Net Program (PSNP)
 - Development Response to Displaced Impact Project (DRDIP)
 - Strengthening Drought Resilience in Pastoral and Agro-Pastoral Communities (SDR):
 - Regular Budget of the Regional Government
 - Other development partners?
 - The government initiated *green legacy* program

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6. Conclusion and Recommendations

- ▶ quick field assessments and discussions with selected stakeholders
- ▶ land degradation, gully expansions, continuously changing land use practices, uncontrolled municipal waste management are challenges with adverse environmental and socioeconomic impacts
- ▶ there has been few existing efforts, but not adequate for sustainability
- ▶ low awareness level, limited capacity, fragmented efforts and weak coordination are main challenges
- ▶ There are opportunities for resource mobilization and alignment
- ▶ coordination, cooperation and capacitation - steering committee, technical task force and secretariat office as a tool
- ▶ planning and implementations should be considered at a watershed scale (integrated spatial development plan)
- ▶ comprehensive mitigation measures that include physical and biological methods



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