Flood Based Farming – Spate Irrigation System

Introduction to course objectives and procedures

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Introduction/ መግቢያ

- Flood is known for its distractive image

- Can flood be trained for beneficial use?
Course Objectives

- Learning the beneficiary side of flood - “Spate”/ Flood recession farming,
- Introduction to flood recession farming
- Importance of seasonal flood as a resource for crop/pasture production, and etc.
- Introduction to spate hydrology and sediment management
Course Objectives

- Understand the uniqueness of spate irrigation compared with conventional irrigation
- Familiarizing design criteria for modernizing and implementing new spate irrigation system
- To create a platform for sharing knowledge and experiences among the participants and facilitators
Key learning's in this particular module

- Spate Irrigation/ Flood recession farming
- Water diversion and control structures (Traditional and modern system)
- Spate Hydrology
- Field water management
- Spate Sediment management
- Practical attachment:
  - Videos followed by discussions
  - Problem based Group exercises and presentations
  - Site visit: Konso
Module Content: Contents

1  INTRODUCTION
1.1  Introduction to flood based farming
1.2  Definition and Concepts
1.2.1  Flood Recession Farming, & 1.2.2  Spate Irrigation
1.3  Extent and Distribution of Spate
1.4  Classification of Spate Irrigation Schemes
1.5  Hydrology of Spate

2  SPATE IRRIGATION SCHEMES INFRASTRUCTURE
2.1  Traditional Spate Irrigation Scheme
2.1.1  Traditional Structures (intakes)
2.1.2  Traditional canals and water control structures
2.2  Modernization and Introducing New Spate Irrigation Scheme
Module Content: Contents

2.2.1. Why Modernization or New Spate Irrigation
2.2.2. Diversion Structures (INTAKES)
2.2.3. Improved traditional canals and water control structures
2.2.4. Wadi bed retrogression and wadi training

3  SPATE AGRONOMY AND FIELD WATER MANAGEMENT
3.1  Spate Agronomy
3.2  Field water Management
3.3  Moisture Conservation

4  SPATE SEDIMENT TRANSPORT AND MANAGEMENT
4.1  Sediment Transport
4.2  Estimating sediment loads
4.3  Sediment Management
Facilitators

Habtamu Tsegaye

Samuel Dagalo

Abebe Demissie (my self!)