

Community based planning for sustainable urban water management in Addis Ababa, Ethiopia

Presented at the Challenges & Opportunities for Watershed Management conference in Ann Arbor– organized by the water institute, University of Michigan, USA

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Presentation contents

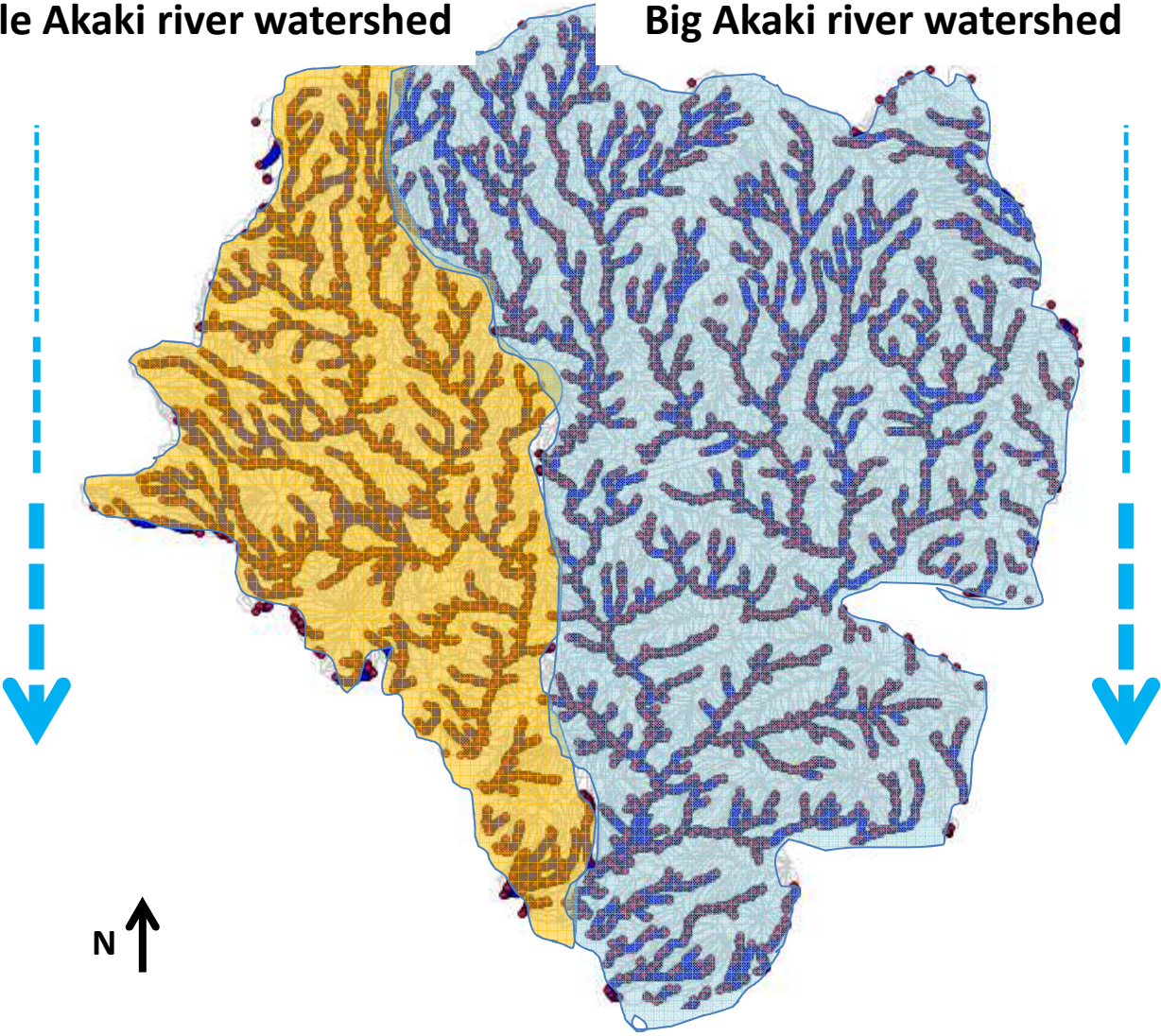
- Background information:
- Watersheds/Rivers in Addis Ababa
- condominiums/Purpose/Associated problems
- Community Based-Approach to Urban Water Management
- Conclusion
- Acknowledgment

Background information

Elevation: 3100 m.a.s.l (10,170 ft)

Little Akaki river watershed

Big Akaki river watershed



- 7 perennial & many small rivers
- Estimated average length of all rivers lines= 760km (472 mile)

Elevation: 2100 m.a.s.l (6,889 ft)

Condominiums

- They are residential apartments



Purpose:

- To solve the problem of housing
- some condos have 30,000 to 40,000 residents

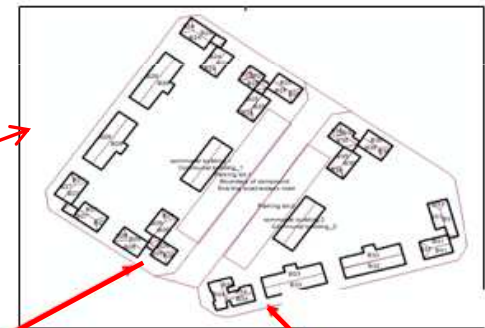
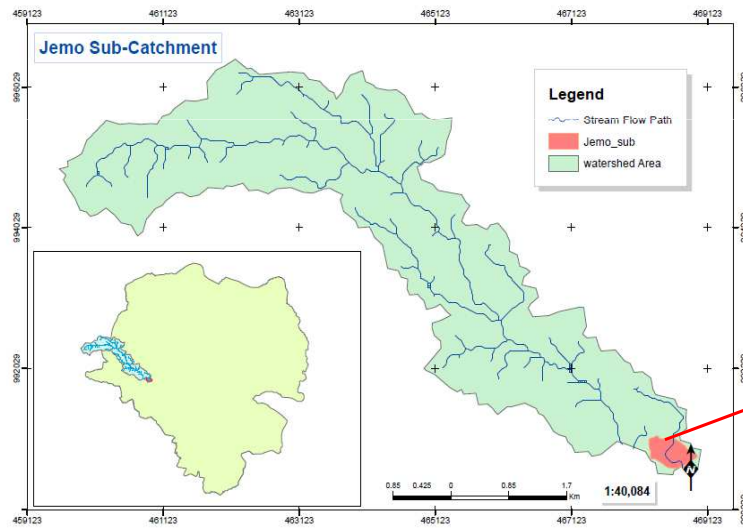
Associated problems:

- Water shortage
- poorly managed stormwater management



Community Based-Approach to Urban Water Management

- Based on initiatives from Addis Ababa & Copenhagen Universities:
 - ✓ a decentralized urban/stormwater management considered
 - ✓ a condominium site was selected as case site through experts' assessment & community interest



Jemo condo: "Biruhesfa compound"

A 3-day community based planning conducted (June 19-21, 2015)



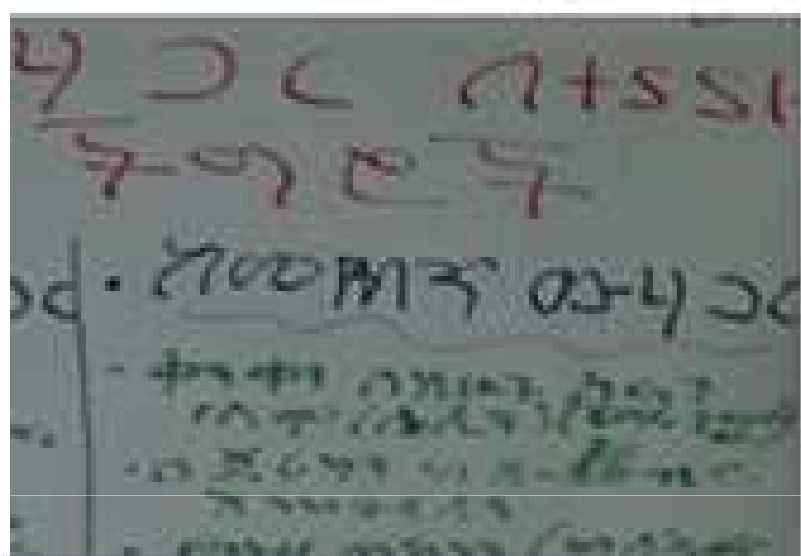
Participants:

1. KU (=3), AAU (=7)
2. Local community (=40)

3. Stakeholders (=11):

- urban dev't & const
- Water & sewerage
- EPA
- Beautification
- Urban planning
- Master plan office
- AACRA
- Urban agriculture

A. Activities



- 1st day: Background information & problem identification
- 2nd day: watershed plan preparation
- 3. Presentation of the plan to participants

The equivalent English translation is:

Problems related to stormwater

- water logging,
- standing stormwater because installed drains surrounding each block are without outlet,
- stormwater entering between building walls and walkways surrounding each block,
- lack of awareness.

Problems related to water supply

- serious water shortage is one of the major problems
- water mainly supplied during night
- we buy water from other people in hundreds percentage greater than provider (AAWSA) does,
- water loss through taps left open during night time

B. Field visit



a



b



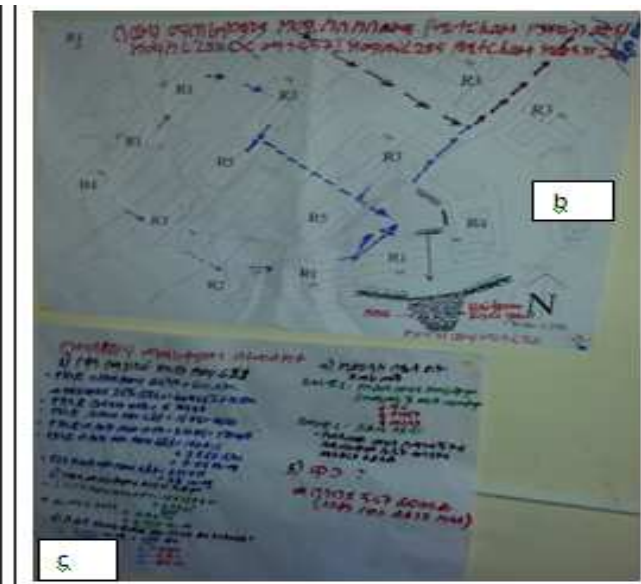
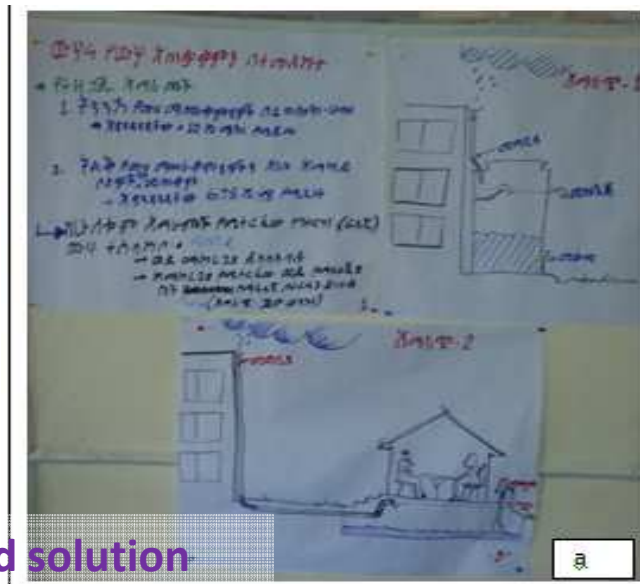
c



d

C. Integrative planning:

- based on identified problems: discussion & field visit



Final community-based local watershed planning

Final Layout plan of the LSM technologies at 'Biruh Tesfa' compound

Legend:

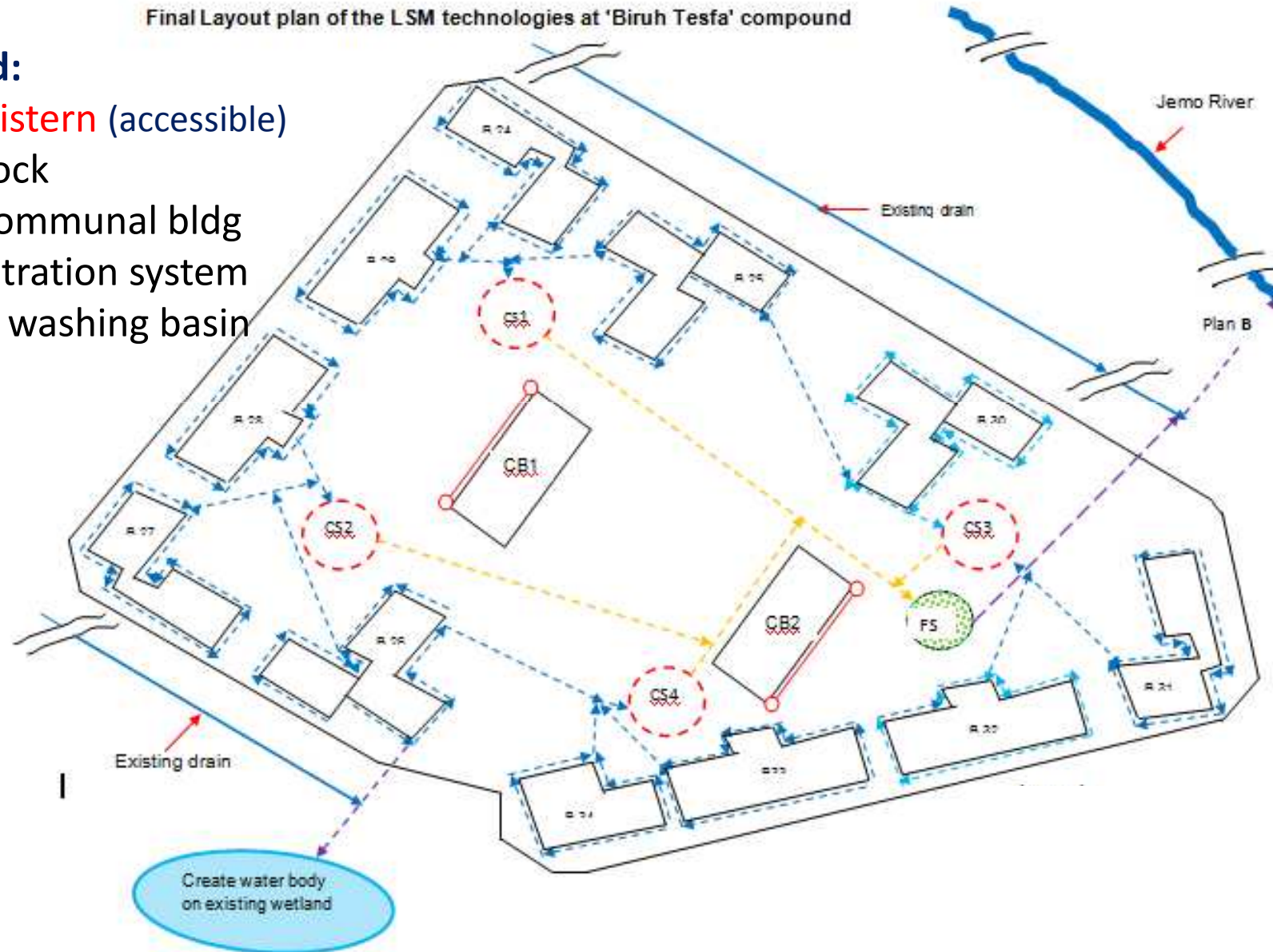
C.S = Cistern (accessible)

B = Block

CB = Communal bldg

FS = Filtration system

○—○ washing basin



Conclusion

- ✓ Community based planning for sustainability,
- ✓ Decentralized stormwater management (LSM),
- ✓ Supplement the water supply (e.g. rainwater harvesting),
- ✓ Minimize volume of stormwater moving from u/s to d/s,
- ✓ Minimize river water pollution,

Acknowledgment

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