



Understanding local water conflict and cooperation

- the case of Namwala District, Zambia



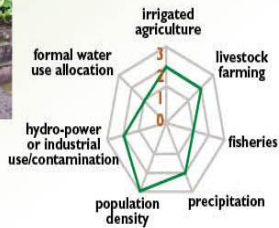
**Presented by
Mikkel Funder**

**Carol Mweemba
Imasiku Nyambe
Barbara van Koppen
Helle Munk Ravnborg**

Competing for Water Research Programme



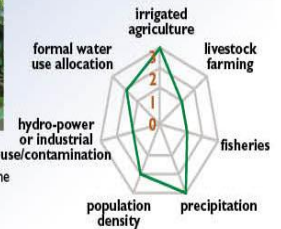
NICARAGUA
Condega district covers 398 km²



Nicaragua team:
- Ligia Gómez (national programme coordinator), Nitapan, UCA
- Roberto Rivas, Nitapan, UCA
- Helle Munk Ravnborg, DIIS



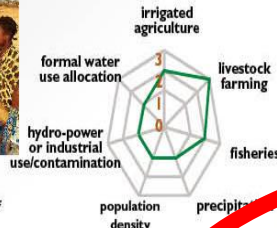
VIETNAM
Con Cuong district covers 1,744 km²



Vietnam Team
- Nguyen Thi Bich Yen (national programme coordinator), CARES, HAU
- Nguyen Van Dung
- Phuong Le, CARES, HAU
- Thomas Skjelboe, Nordeco



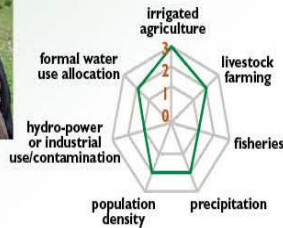
MALI
Douentza district covers 18,903 km²



Mali Team
- Moussa Djire (national programme coordinator) GERSDA, University of Bamako
- Abdoulaye Ousmane Cassé, GERSDA, University of Bamako
- Signe Marie Cold-Ravnkilde, DIIS and RUC
- Jamie Skinner, IIED



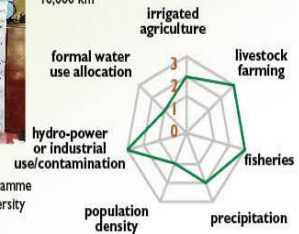
BOLIVIA
Tiraque district covers 680 km²



Bolivia Team
- Rocío Bustamante (national programme coordinator), Centro AGUA, UMSS, Cochabamba
- Vladimir Cossio, Centro AGUA, UMSS, Cochabamba
- Thomas Skjelboe, Nordeco



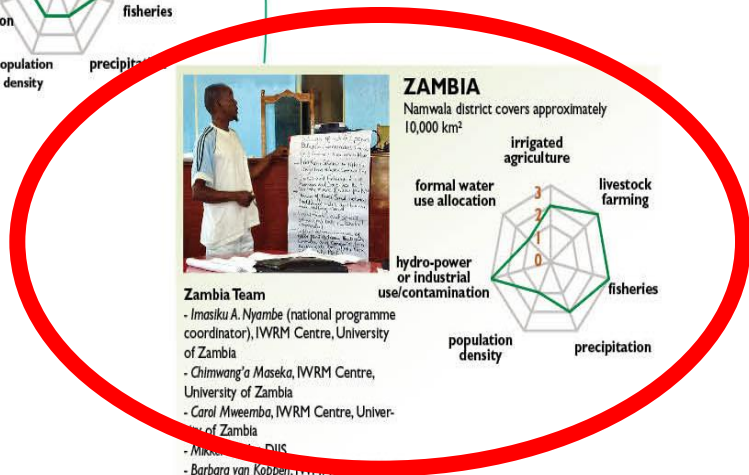
ZAMBIA
Namwala district covers approximately 10,000 km²



Zambia Team
- Imasiku A. Nyambe (national programme coordinator), IWRM Centre, University of Zambia
- Chimwanga Maseka, IWRM Centre, University of Zambia
- Carol Mweemba, IWRM Centre, University of Zambia
- Mikko... DIIS
- Barbara van Koppen, IWRM Centre, University of Zambia

Legend:

- 1 = none or limited/low/<500 mm/<15 persons/km²;
- 2 = some/somewhat important/500-1500 mm/15-75 persons/km²;
- 3 = a lot/very important/>1500 mm/>75 persons/km²



Collaborative research on local water conflict & cooperation
5 research locations in: Bolivia, Mali, Nicaragua, Vietnam, Zambia

The nature and extent of local water conflict and cooperation

1. Inventories

of conflictive & cooperative water “events” (1100+)

2. Household questionnaire survey

on poverty and water access (5 x 400)

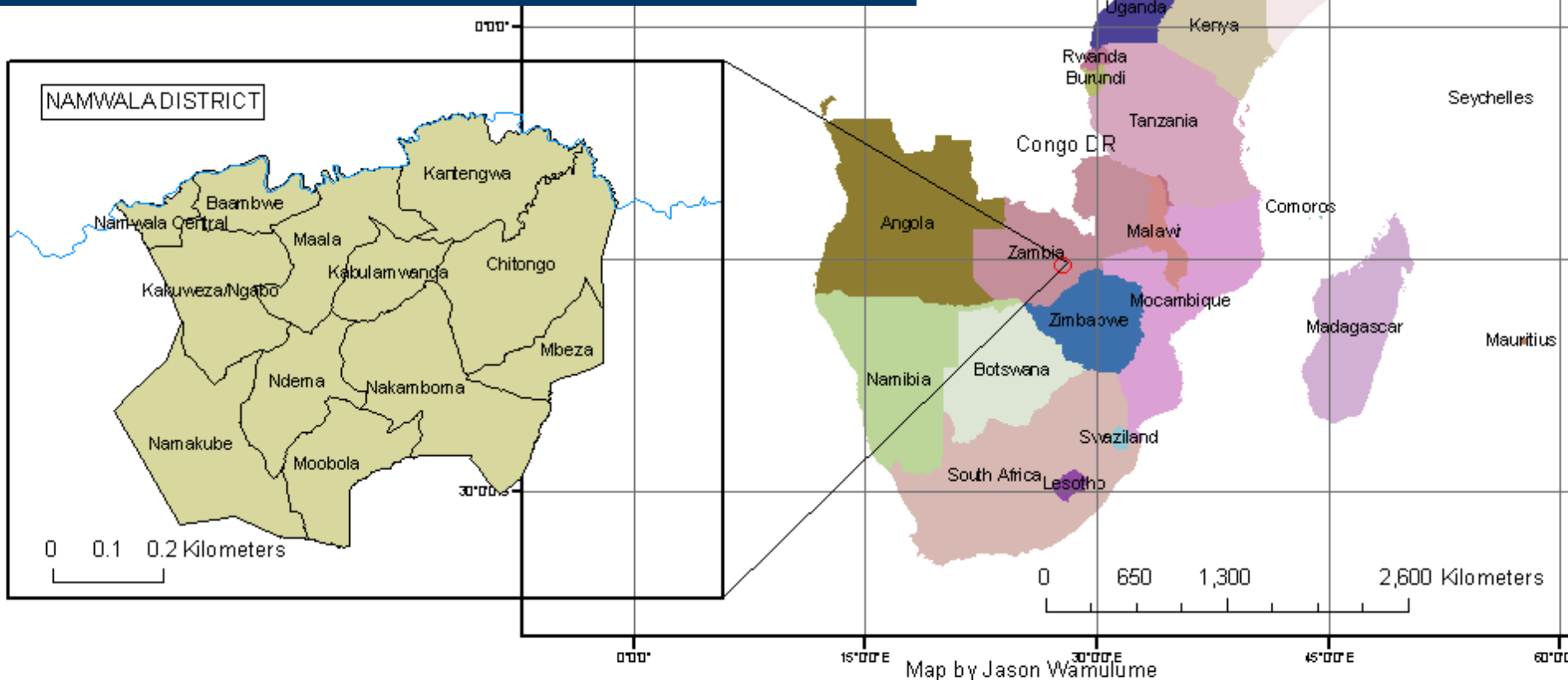
3. Qualitative case studies

of conflict/cooperation processes and actor strategies (15)



Namwala District, Zambia

- Rural District
- 10,000 square kms
- Population: 82,700
- Ila pastoralists and Tonga farmers
- High poverty rates

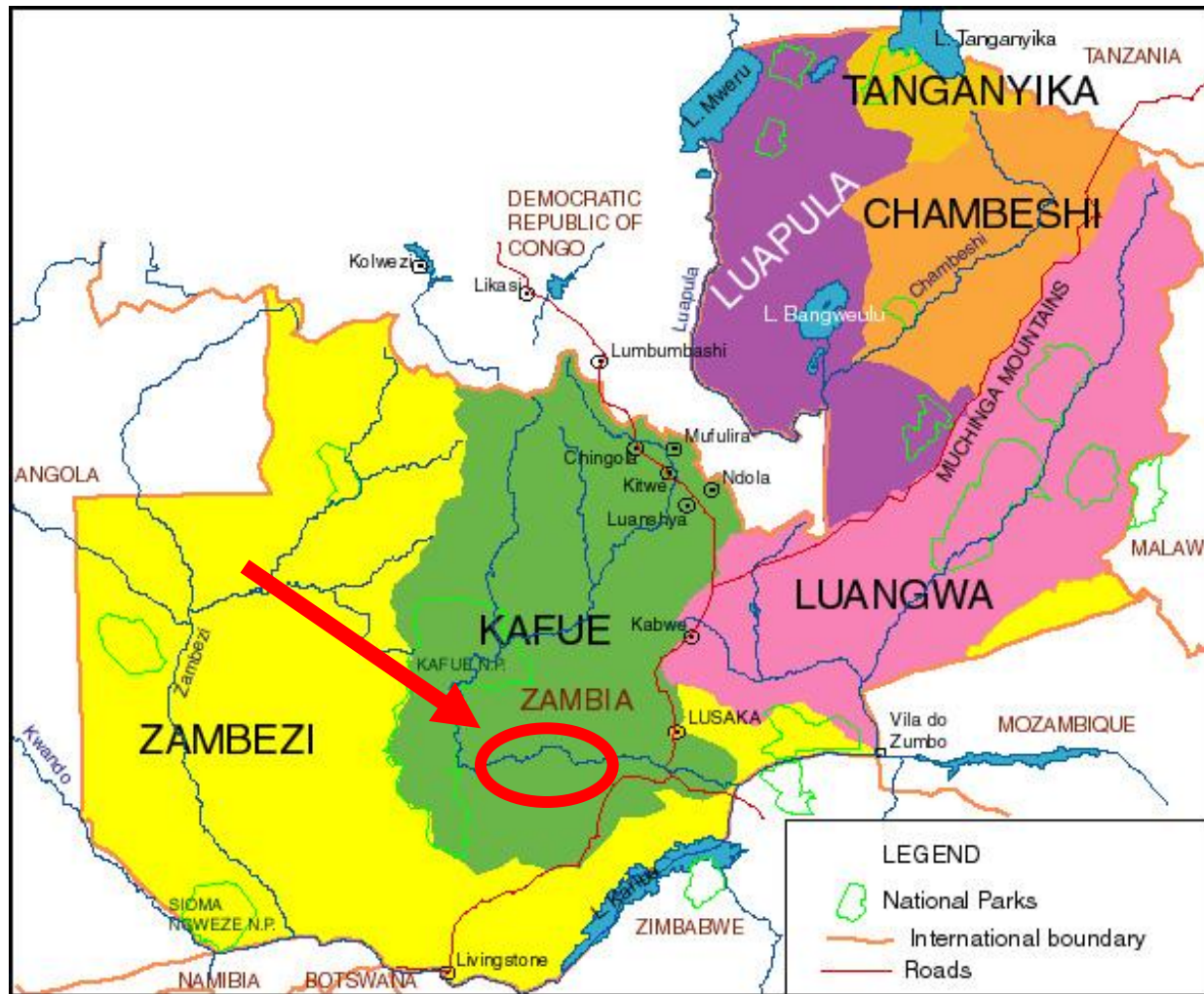


Fieldwork 2007-2010

Lower Kafue basin

Low level of water infrastructure development

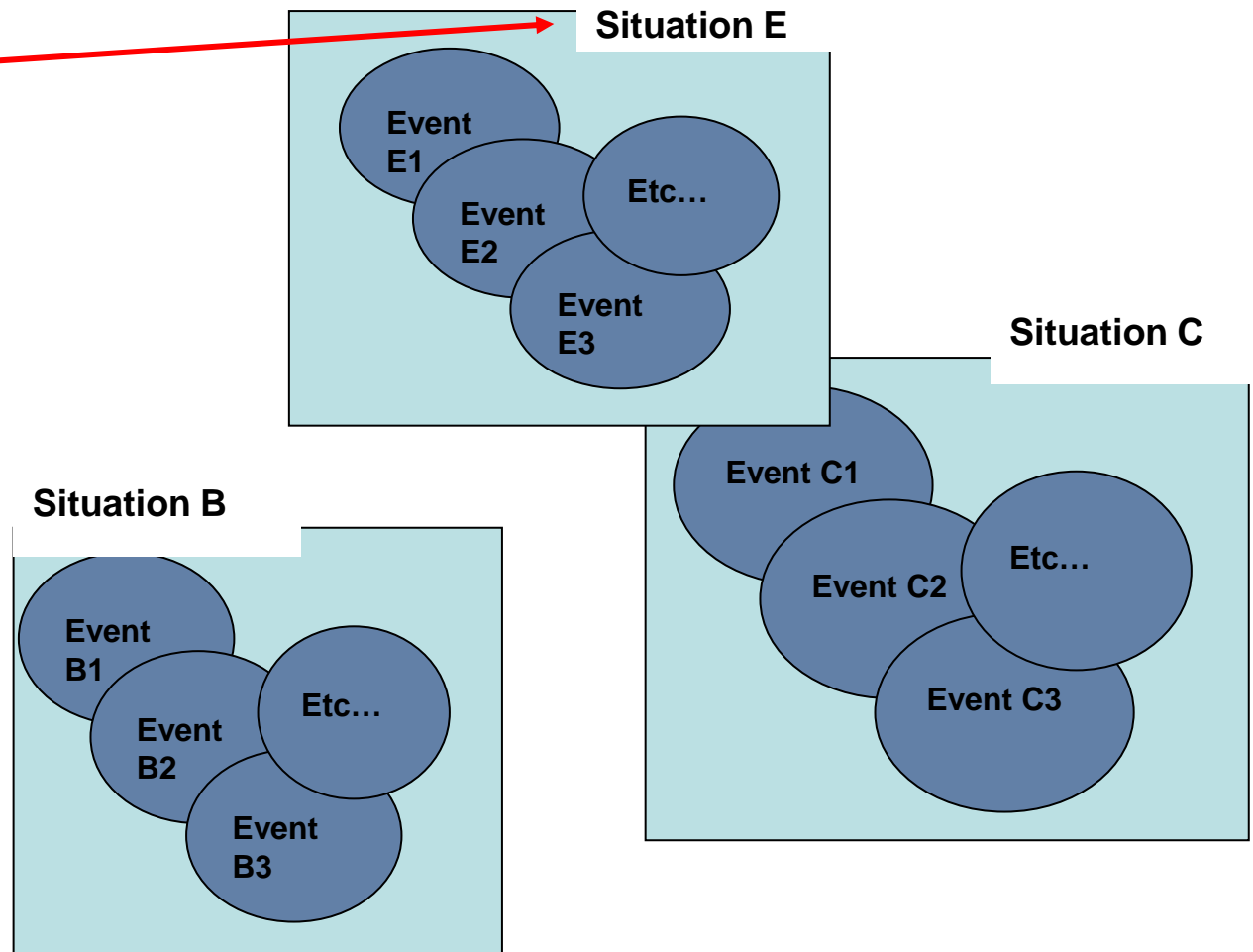
Annual rainfall: 800-1100 mm



Inventory of Water competition "Situations" & "Events"

A water competition **situation** is a social situation where two or more parties have competing interests in the same water resource

Context

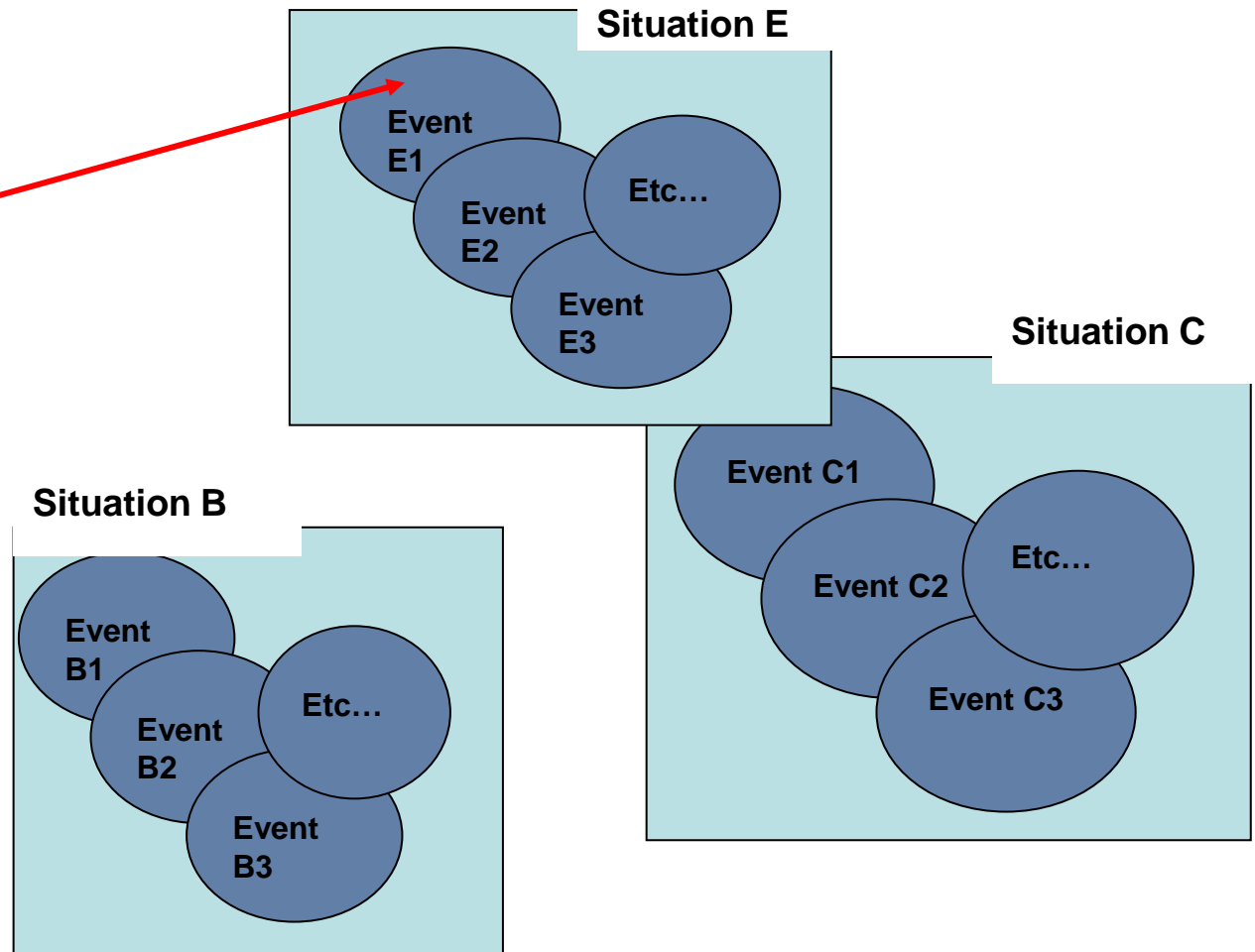


Inventory of Water competition "Situations" & "Events"

A water **event** is an action that seeks to secure one or more party's access to water by:

- (i) challenging other parties' access
- (ii) confirming own or other parties' access
- (iii) collaborating with other parties to secure access

Context



Inventory of Water competition "Situations" & "Events"

Fieldwork:

Mapping of public conflict/
cooperation events through:

(1) Interviews with sampled
**community members and key
informants** in 10 sample villages

(2) Interviews with **observers and
district staff**

(3) Archival research - **district
archives, newspapers etc**

Triangulation with hh survey (400
hhs) and 3 in-depth case studies



Conflict & cooperation events in Namwala

Identified 183 "events" from 10 sample villages

Total estimated events over 10 years in Namwala = 1300+

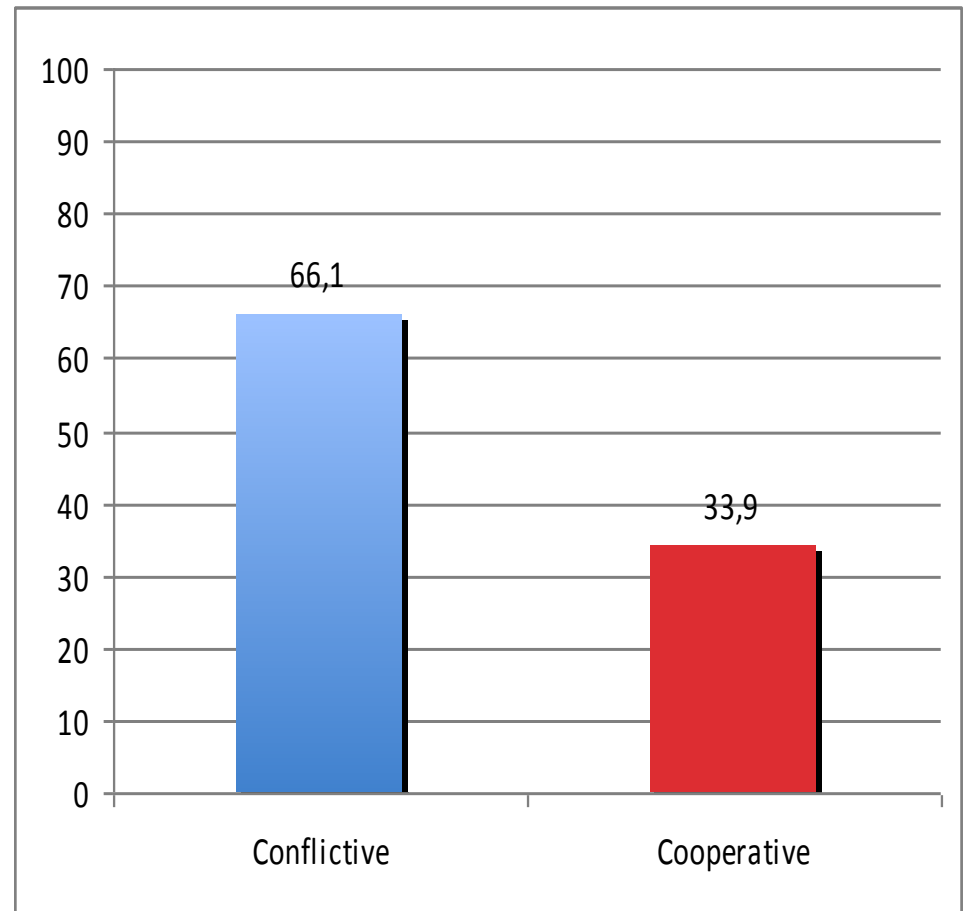
2/3 of events were **conflictive**

1/3 were **cooperative**

Few events were violent (4%)

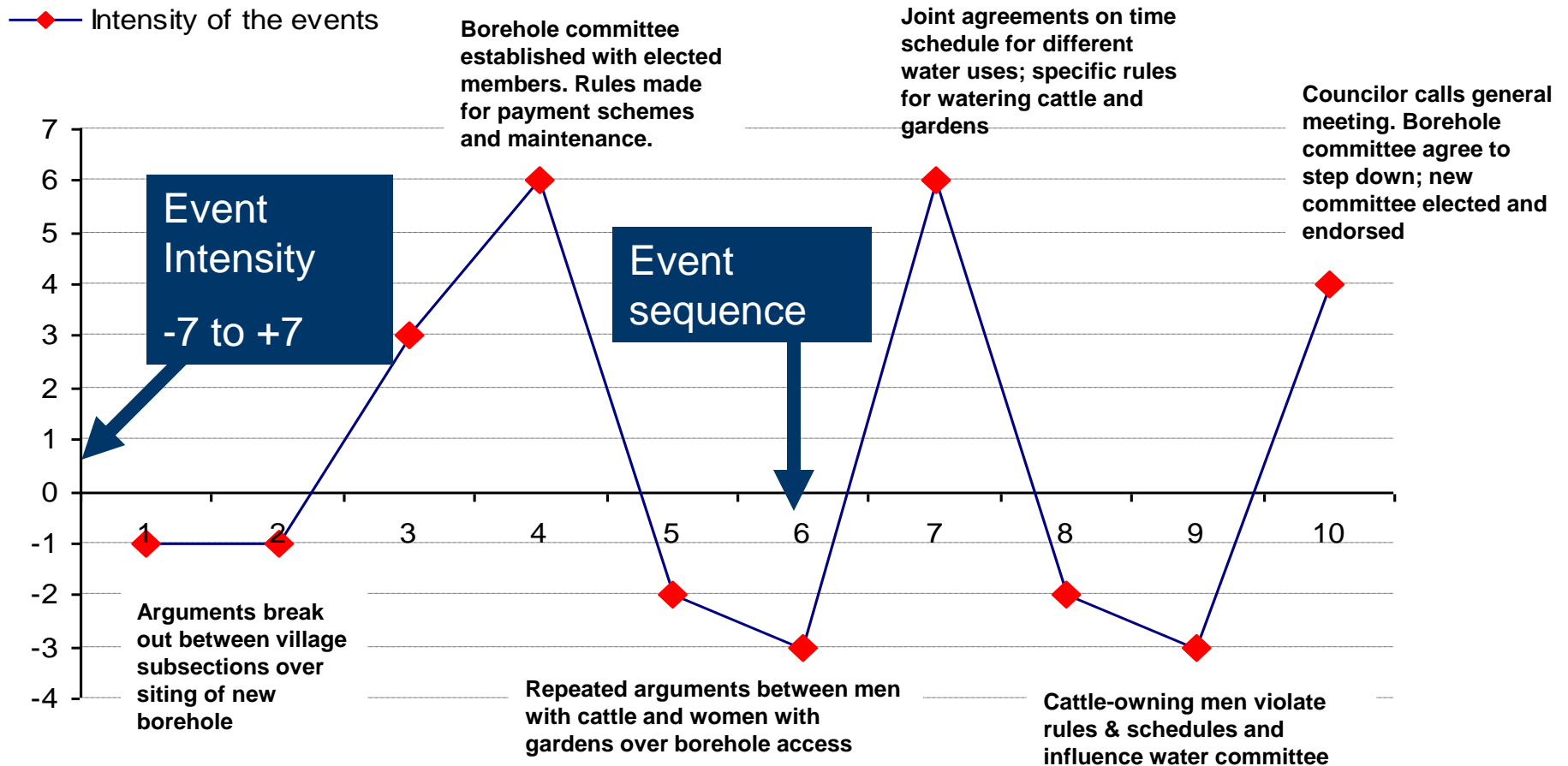
Conflict and cooperation often closely related

Type of events (%)



Example of a water competition situation

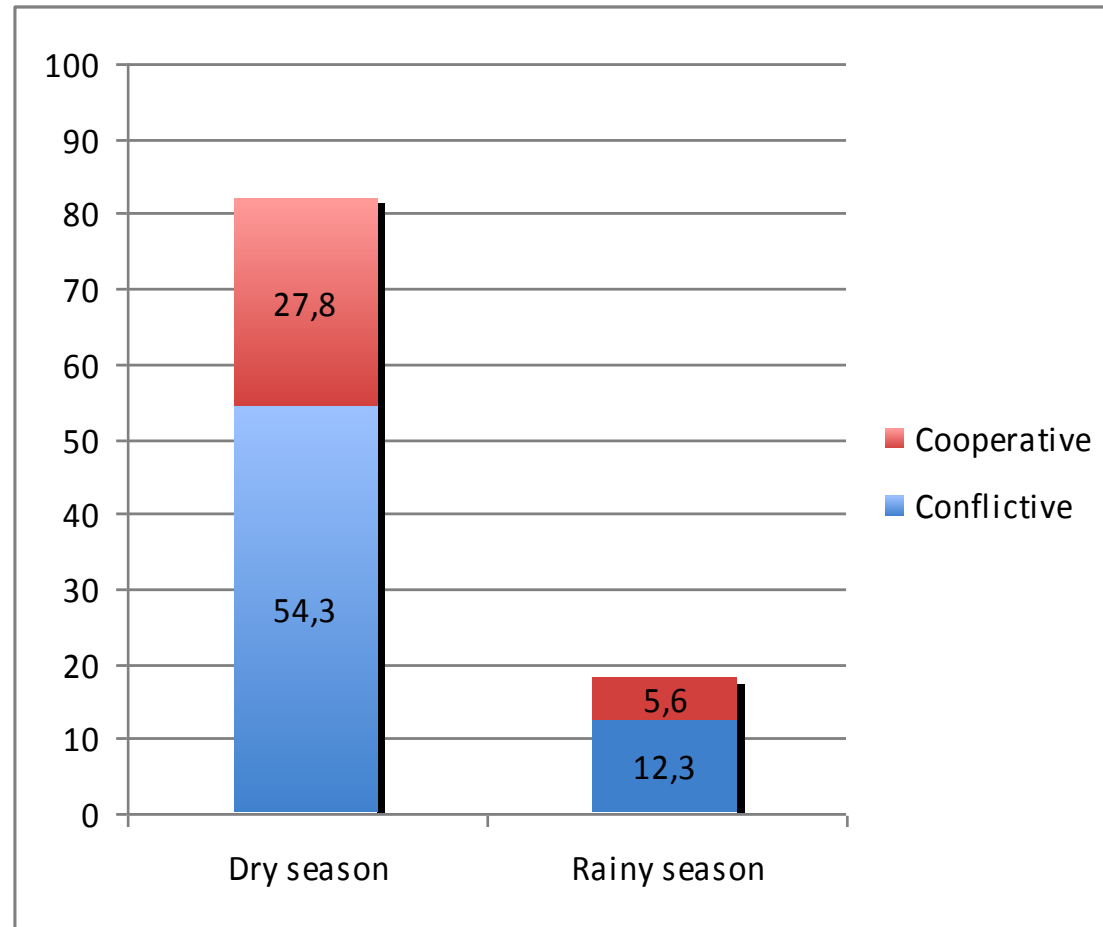
(Muchila Chiefdom, Namwala District)



Seasonal distribution of conflict/cooperation

More events in the dry season

Season where event began



Seasonal distribution of conflict/cooperation

More events in the dry season

- reduced rainfall/ open sources
- wells/boreholes dry up/break down
- infrastructure is built
- cattle focus on water points
- agreements have to "stand their test"
- hh have time for



cooperation

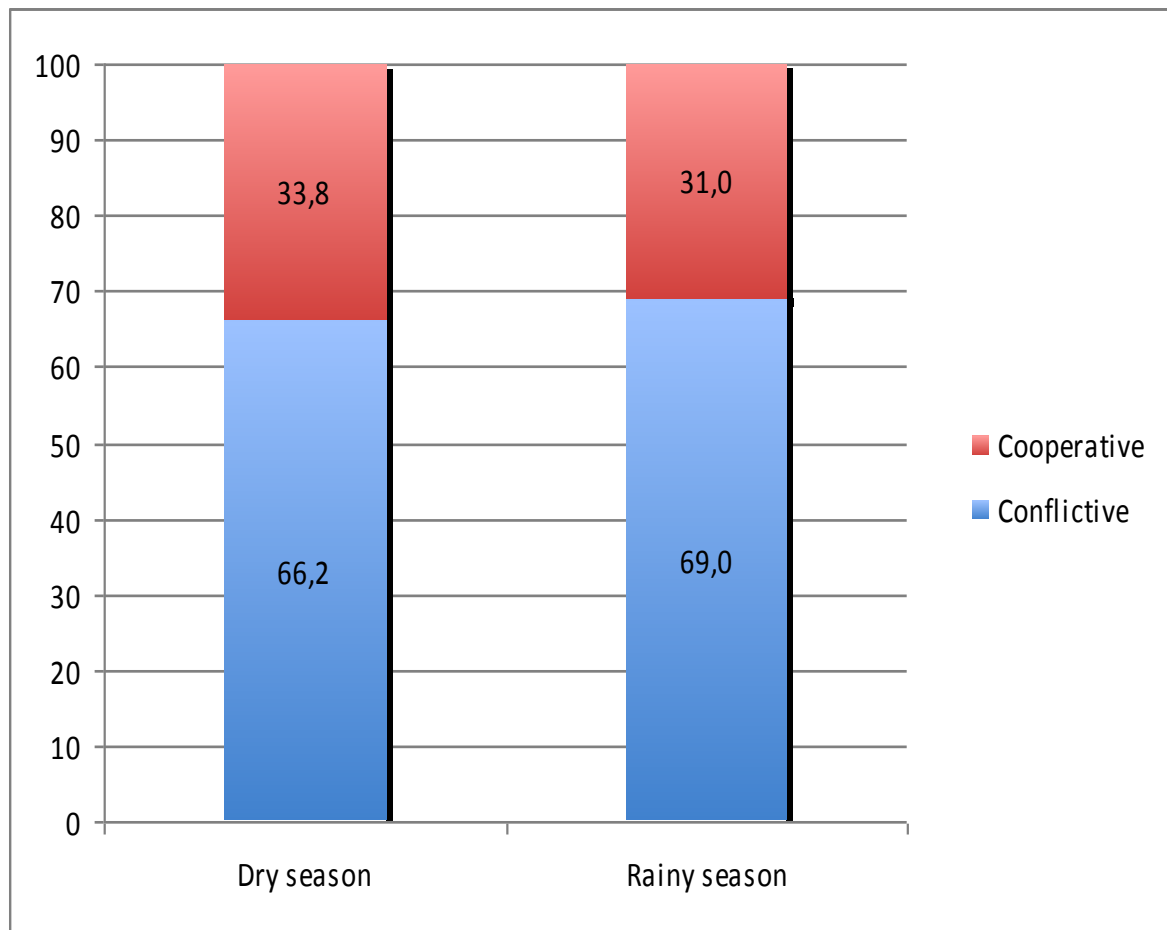
Events and seasons

More conflicts in dry season...

... but also more cooperation

Conflict / cooperation ratio almost the same across seasons

Ratio between conflict/cooperation in %



What are conflict and cooperation events about?

1. Conflicts mainly between different water uses within communities (82%)

- livestock watering
- small-scale crop production
- domestic uses

2. Reflects competition between:

- different livelihood strategies
- different gender roles
- differences in wealth/poverty



What are conflict and cooperation events about?

74% of events involve public water infrastructure

Issues include:

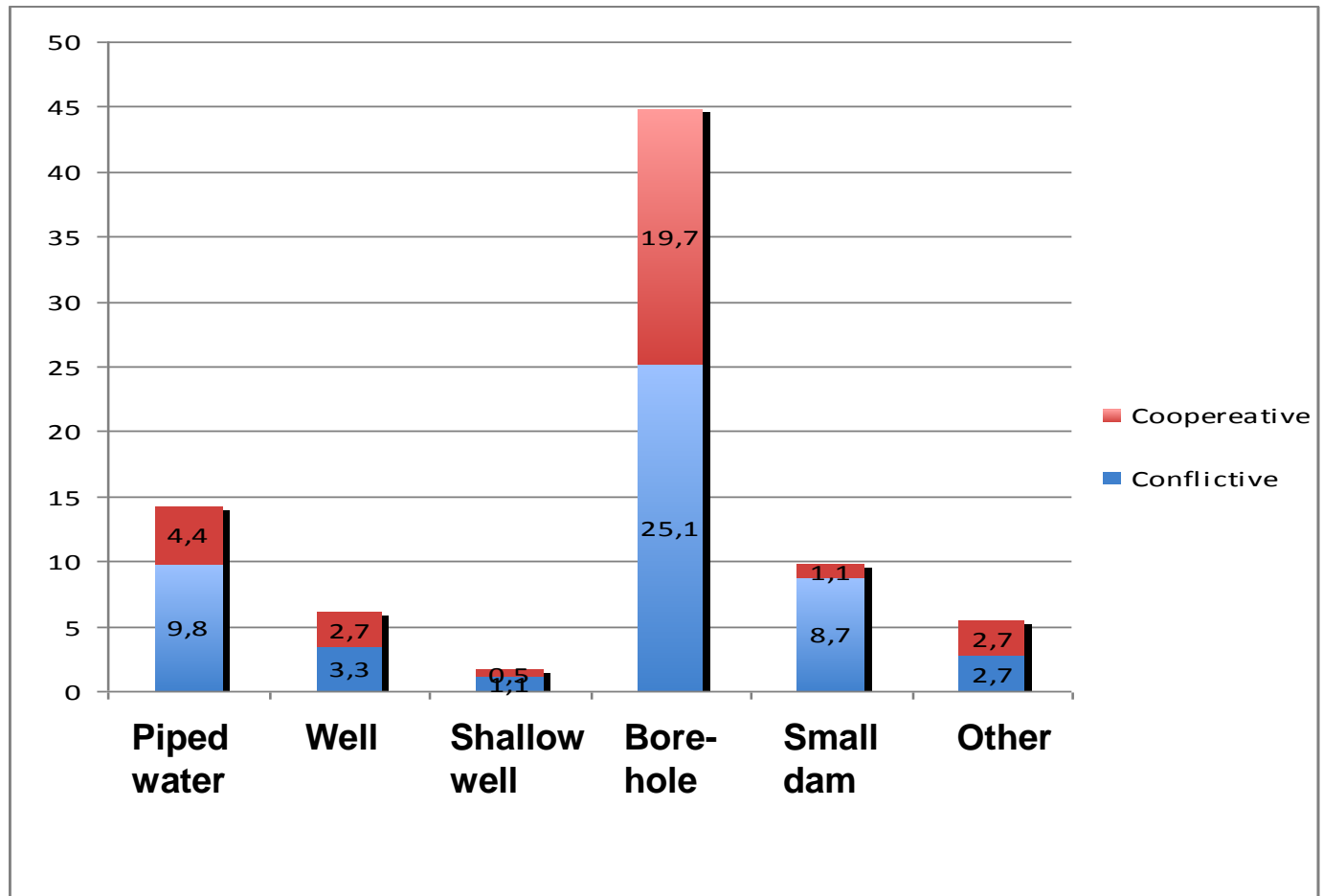
- Right of access
- Priority and extent of access
- Siting
- Maintenance
- User fees



What are conflict and cooperation events about?

45% of events involved boreholes

Events involving infrastructure



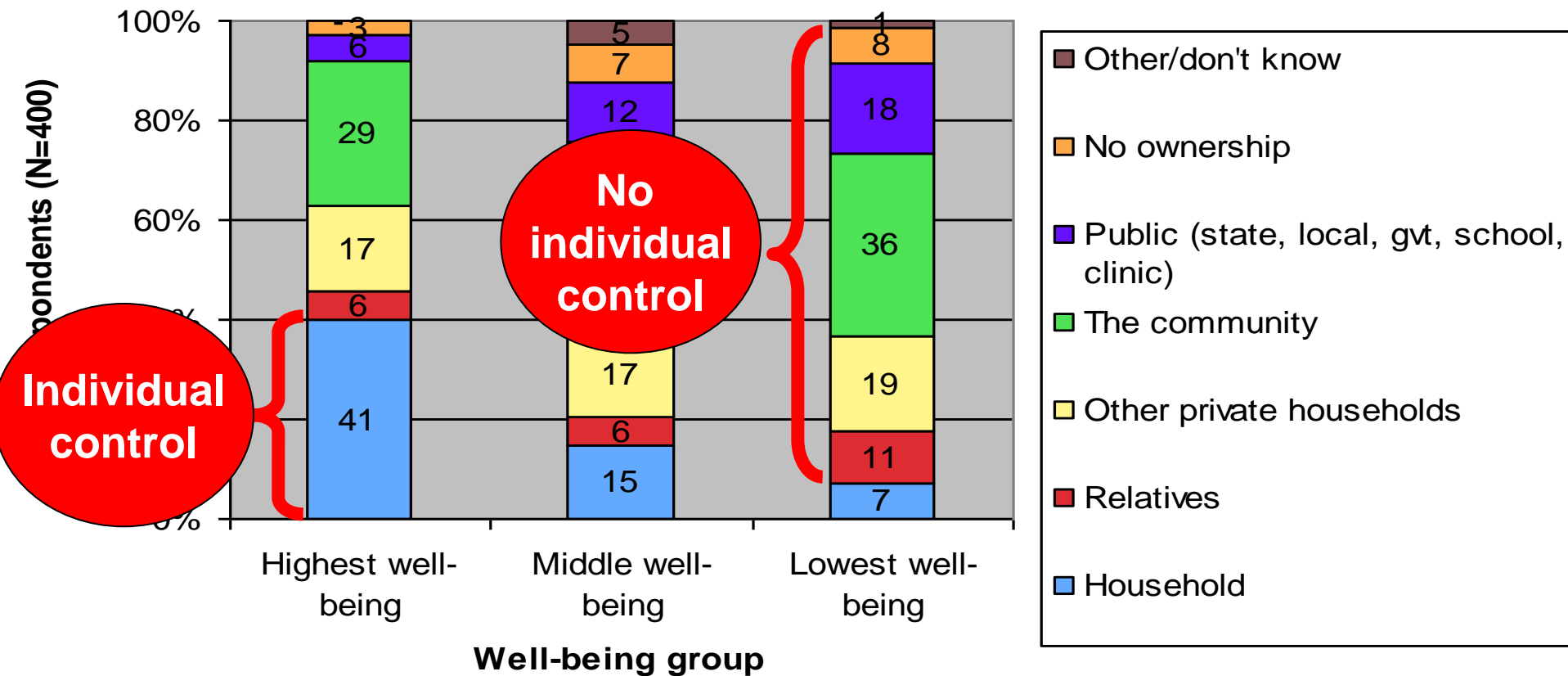
Why so many events about new public water infrastructure ?

1. Critical sources of water
2. New water points are "unsettled"
3. Require cooperation of multiple stakeholders (communal rights)
4. Involves issues of power and wealth



Ownership and poverty levels

Ownership of most important source of drinking & cooking water
(dry season)



Events and scale

Most events take place within a single community (>80 %)

Intra-community events affect more people in total:

**Events taking place within 1 community affected:
125.000 people in total**

**Across 2+ comms:
15.000 people**

**Across 2+ districts:
7.500 people**



Third parties

Majority of events dealt with by the involved parties themselves

Third parties called upon in 36% of events

Most third parties are customary/village authorities, and LG reps.

Water-authorities rarely called upon.





Some implications for local water governance

1. Local water **conflicts are numerous and require as much attention** as transboundary conflicts. Otherwise: bottlenecks for development and poverty alleviation (eg Northern Kenya).
2. Water scarcity also leads to cooperation. **There are mechanisms and local initiatives to build on.** Development Coop. can support this.
3. **New water infrastructure does not in itself reduce conflict.** Unequal access is often key. Water sharing mechanisms are as crucial as water development, incl. in CC efforts.



Some implications for local water governance

4. Communal ownership does not necessarily reduce conflict. Need for **alternative spaces for voicing grievances**, espec. for the poor.
5. New conflicts will always appear. Need for more focus on **conflict prevention/resolution mechanisms**. Existing mechanisms can sometimes cope, sometimes not.
6. Many conflicts are intra-community, and Third Parties are typically local village/ward authorities. **Need to focus more on role of local non-water authorities** in water governance (and CC)



- Local based and modern technologies (Kakua fishing system west)
- WATER COOPERATION
- Formation of Water Point Committees (Kakua and other areas)
- D-WASH, Namibia
- Villages with around Water Point Committees e.g. Cooperative in Namibia
- Water Community & W.F. (Water Community)
- Borehole Community and Borehole for Constructive Damire Dam
- D-WASH and Namibia
- on institutions and on institutions



Competition occurs when *more parties have different interests in the same water resource.*

- We characterize a water event as “**conflictive**” if one or more parties challenge other parties’ access to a particular water resource.
- This may range from petty water ‘theft’, judged according to formal or customary law or to local customs and agreements, through excessive water use either in terms of quantity or quality, to open violence and aggression or physical inhibition of other parties’ water access.
- A water event is characterized as “**cooperative**” if one or more parties engage in jointly coordinated actions with other actors to secure shared water access or to acknowledge other parties’ access to water.
- This may range from verbal acknowledgement of the rights of others to the establishment of joint water management mechanisms.

Water event intensity scale



Description	Intensity	Description
Engage in organized collective violence/warfare	-7	7 Merge formerly individual access rights
Engage in unplanned collective violence, riots	-6	6 Joint decision-making authority and/or rules development for water use and allocation
Undertake collective large-scale violation of other party's access rights	-5	5 Establish joint organisational forum
Stage public protests/demonstrations (peaceful)	-4	4 Commit to written or verbal agreements and plans that are sanctioned by a third party
Denounce to authorities and/or third party (formal or customary)	-3	3 Commit to written or verbal agreements and plans that are not sanctioned by a third party
Engage in sporadic/small scale violation or sabotage of other's access rights	-2	2 Engage in sporadic/occasional joint activities
Engage in informal verbal dispute/expression of discontent	-1	1 Express casual verbal recognition of each other's access rights
Neutral or ordinary acts of coexistence	0	Parties are present at the same meeting

Water governance in Zambia



- **New IWRM-based water law and policy**
- **Until recently, legal framework highly centralized**
- **Large-scale commercial users: common law**
- **Small-scale rural users: customary water governance**
- **70 % of Zambia classified as traditionally owned land**



The role of the poor

The poor...



For the poor, security of water access is a lot about being able to predict outcomes. Currently outcomes are often uncertain.

Public boreholes are critical for many of the poorest households

