

***Isaa Sub-location, Ndakani Location, Mutomo Division
(26 Non-participants)***

Household Demography

Head of the Household sex (%)

Sex	Non-participants
Female	38.5
Male	61.5
Total	100.0

Head of the Household age category

Age bracket	Non-participants
20 ò years	0
20 < years ó 35	26.9
35 < years ó 55	53.8
55 < years ó 70	15.4
70 < years	0
not reported	3.8
Total	100.00

Head of Household level of education

Level	Non-participants
informal	30.8
primary	65.4
secondary	3.8
tertiary	0
university	0
not reported	0
Total	100.0

Head of household main occupation (%)

	Main occupation	Secondary occupation
subsistence farmer	80.8	11.5
businessman	3.8	19.2
regular employment	11.6	00
wage earner	0	7.7
other	0	0
not reported	3.8	61.5
Total	100.0	100.0

Household annual income-% (KShs.)

Income	Non-participants
10,000 ò income	38.5
10,000 < income ó 30,000	38.5
30,000 < income ó 50,000	15.4
50,000 < income ó 100,000	3.8
100,000 < income	0

no response	0
not reported	3.8
Total	100.0

Household size(%)

Size	Non-participants
3 ò members	0
3 < members ó 8	11.5
8 < members ó 12	30.8
12 < members	57.7
not reported	0
Total	100.0

Household composition (%)

Composition	Non-participants
females =males	19.2
females > males	46.2
females < males	34.6
Total	100.0

Household Inventory (Assets)

Main house thatch

Thatch type	Non-participants
iron sheets	15.4
grass	84.6
tiles	0
not reported	0
Total	100.0

Main house floor type

	Non-participants
cemented	3.8
un-cemented	96.2
other	0
Total	100.0

Main house number of rooms

<i>Number of houses</i>	<i>Non-participants</i>
one room	84.6
two or three	7.7
four or five	7.7
six and more	0
not reported	0
Total	100.0

Wall material- main house

Wall material	Non-participants
brick/mud	42.3
brick/cement	11.5

block/cement	0
poll/mud	46.2
other	0
Total	100.0

Household with toilets

	Non-participants
households with toilets	11.5
households without toilets	69.2
not reported	19.2
Total	100.0

Other household possessions

Number of chicken and ducks, cows and goats(%)

	Non-participants		
	Chicken/ducks	Cows	Goats
nil	26.9	76.9	46.2
one	7.7	0	0
1 < number ó 5	26.9	19.2	46.2
5 < number ó 10	30.8	3.8	7.7
10 < number	7.7	0	0
not reported	0	0	0
Total	100.0	100.0	100.0

Number of donkeys

	Non-participants
nil	65.4
0 < donkeys ó 3	34.6
more than four	0
not reported	0
Total	100.0

Number of jembes, spades, mattocks, etc.

	Non-participants
nil	3.8
0 < jembes ó 5	61.5
5 < jembes ó 10	30.8
10 < jembes	3.8
not reported	0
Total	100.0

Number of Ox-ploughs, Bicycles, carts/wheel barrows, plant machines, Transistor radios, television sets(%)

	Ox-ploughs	bicycles	carts/wheel barrows	plant machines	radios	TV	motor vehicles
nil	84.6	73.1	96.2	96.2	65.4	100.0	100.0
0 < number ó 3	15.4	26.9	3.8	3.8	34.6	0	0
3 < number	0	0	0	0	0	0	0
not reported	0	0	0	0	0	0	0

Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
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Land ownership total land rented (acreage)

	Non-participants	
	owned	rented
5 ò acres	19.2	0
5 < acres ó 10	53.8	0
10 < acresó 50	23.1	0
50 < acres	3.8	0
not reported	0	100.0
Total	100.0	100.0

Main land use (%)

Use	Non-participants	
	main use	second main use
homestead	0	23.1
agriculture	57.7	46.2
livestock grazing	42.3	30.8
rented out	0	0
not reported	0	0
Total	100.0	100.0

Source of energy

Source of energy

	Non-participants	
	main	second main
firewood	100.0	0
charcoal	0	7.7
kerosene	0	80.8
solar	0	0
gas	0	0
not reported	0	11.5
Total	100.0	100.0

Migration

Year of migration

	Non-participants
1990-1992	7.7
1993-1997	15.4
1998-2001	7.7
no response	0
not migrated	69.2
Total	100.0

Nature of migration

	Non-participants
permanent	26.9

temporary	3.8
working outside the location	0
no response	0
not migrated	69.2
Total	100.0

Place of settlement

	Non-participants
village	19.2
town	7.7
abroad	0
no response	0
not applicable	73.1
Total	100.0

Reasons for migration

	Non-participants
in search of employment	3.8
land inadequacy	3.8
drought coping	0
marriage	19.2
other	0
no response	0
not migrated	73.2
Total	100.0

Daily water use - litres (Non-participants)

	Cooking	Washing/cleaning
20 ò litres	38.5	34.6
20 < litres ó 40	46.2	30.8
40 < litres ó 60	3.8	15.4
60 < litres ó 80	0	0
80 < litres ó 100	0	3.8
100 < litres	0	0
not reported	11.5	15.4
Total	100.0	100.0

Factor influencing choice of water source:

Factor	dry season			wet season		
	Rank 1	Rank 2	Rank 3	Rank 1	Rank 2	Rank 3
distance	53.8	15.4	7.7	84.6	0	0
Multiple use	26.9	3.8	0	3.8	11.5	0
quality	3.8	11.5	0	3.8	26.9	7.7
quantity	3.8	19.2	11.5	3.8	19.2	23.1
Reliability	0	3.8	7.7	3.8	3.8	7.7
No alternative	3.8	3.8	11.5	0	0	0
accessibility	0	0	0	0	0	0
not reported	7.7	42.3	61.5	0	38.5	61.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

Main Source of Water

Source	Dry Season	Wet season
river	7.7	0
piped	19.2	0
springs	11.5	23.0
scoop-hole	0	15.4
bore-hole	0	0
rock catchment	30.8	0
roof catchment	0	0
sand dam	0	0
wells	30.8	30.8
earth dam	0	30.8
not reported	0	0
Total	100.0	100.0

Depth of scoop holes (ft)

Depth (ft)	Non-participants
2 ò depth	0
2 < depth ó 5	3.8
5 < depth ó 10	57.7
10 <depth ó15	0
15 <depth	0
not applicable	0
not reported	38.5
Total	100.0

Quality of water from main source before and after IWSS

Quality	Dry Season	Wet season
Clean/clear/good	100.0	69.2
Dirty/coloured/bad smell	0	26.9
Salty	0	3.8
Other	0	0
not reported	0	0
Total	100.0	100.0

Quantity of water from main source before and after IWSS (litres)

Litres	Dry season	Wet season
40 ò quantity	50.0	23.1
40<quantityó60	3.8	15.4
60<quantityó80	38.5	42.3
80<quantityó100	3.8	3.8
100>quantity	3.8	15.4
not reported	0	0
Total	100.0	100.0

Distance to the main water source before and after IWSS (Km)

Kilometres	Dry season	Wet season
0.5 ò Km	0	15.4
0.5 < Km ó 2	7.7	42.3
2 < Km ó 5	34.6	30.8
5 < Km ó 10	30.8	7.7
10 < Km ó 15	11.5	0
15 < Km	15.4	0
not reported	0	3.8
Total	100.0	100.0

Time taken to and from the main water source (hours)

Hours	Dry season	Wet season
0.5 ò hour	3.8	34.6
0.5 < hours ó 1	11.5	30.8
1 < hours ó 2	3.8	23.1
2 < hours ó 5	15.4	7.7
5 > hours ó 10	42.3	0
10 > hours	23.1	0
not reported	0	3.8
Total	100.0	100.0

Trips to the main water source in a day

Trips	Dry season	Wet season
One	73.1	34.6
two	19.2	30.8
three	3.8	11.5
four and five	3.8	19.2
more than five	0	0
not reported	0	3.8
Total	100.0	100.0

Who used to fetch water before and after IWSS?

Who	Non-participants
husband	3.8
wife	46.2
boys	3.8
girls	11.5
house-help	0
girls/husband	0
boys/husband	0
husband/wife	3.8
wife/boys	3.8
wife/girls	11.5
wife/house-help	0
boys/girls	3.8
boys/house-help	0
girls/house-help	0

husband/house-help	0
wife/Children	3.8
D.I.L	0
wife/D.I.L	7.7
other	0
no response	0
Total	100.0

Means of fetching water (main) before and after IWSS

Means	Non- participants
human labour	38.5
donkey	34.6
bicycle	3.8
cart/wheel barrow	0
motor vehicle	0
human labour/donkey	23.1
human labour/cart/wheel barrow	0
human labour/bicycle	0
human labour/motor vehicle	0
donkey/cart/wheelbarrow	0
donkey/bicycle	0
not reported	0
Total	100.0

Water rationing (%)

	Non-participants
yes	65.4
no	34.6
not reported	0
Total	100.0

Mode of water rationing before and after IWSS (%)

	Non-participants
Queuing	11.5
Restricted to a fixed amount of water per day	34.6
other	7.7
not reported	46.2
Total	100.0

Non-participants: Sanitation

Per week	Clothe washing	Body washing
daily	0	23.1
once	69.2	23.1
twice	15.4	19.2
thrice	15.4	34.6
rarely	0	0
when dirty	0	0
doesn't	0	0
not applicable	0	0
not reported	0	0
Total	100.0	100.0

Protection of water points

	Non-participants
fencing	15.4
covering well with lid	11.5
locking gate	0
watchman	0
no protection	65.4
not applicable	0
local arrangements	7.7
animals have separate watering points	0
not reported	0
Total	100.0

Soil conservation

Terracing before and after IWSS (%)

	Non-participants
nil	42.3
0 < number ó 3	26.9
3 < number ó 5	15.4
5 < number ó 10	7.7
10 < number	0
no response	0
not reported	7.7
Total	100.0

Tree planting before and after IWSS (%)

	Non-participants
nil	38.5
0 < number ó 5	23.1
5 < number ó 10	7.7
10 < number ó 50	11.5
50 < number	7.7
no response	0
not reported	11.5
Total	100.0

Gabions before and after IWSS (%)

	Non-participants
nil	80.8
0 < number ó 5	3.8
5 < number ó 10	0
10 < number	0
no response	0
not reported	15.4
Total	100.0

Misonzo before and after IWSS (%)

	Non-participants
nil	46.2

0 < number ó 5	23.0
5 < number ó 10	15.4
10 < number	7.7
no response	0
not reported	7.7
Total	100.0

Grass planting before and after IWSS (%)

	Non-participants
Yes	0
No	80.8
no response	0
Not reported	19.2
Total	100.0

Waterborne diseases mitigation measures

Boiling (%)

	boil drinking water	apply chemicals	clean/clear compound	Dry stagnant water	Inoculation	well cooked food	Using nets	Utensil cleanliness
Reported	57.7	0	0	0	0	0	0	0
not reported	42.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Mode of choosing water source committee members/dam committee members

Non-Participants:

	Participants (Dam committee)			
	Nomination	Election	Selection	Other mode
Yes	0	57.7	34.6	0

Non-participants:

By whom	Participants (Dam committee)			
	Nomination	Election	Selection	Other mode
not reported	100.0	38.5	61.5	100.0
community	0	46.2	23.1	0
provincial administration	0	3.8	3.8	0
political leaders	0	0	0	0
water source members	0	7.7	7.7	0
Other	0	3.8	3.8	0
Total	100.0	100.0	100.0	100.0

Non-participants: Duration in office- committee

	Percent
not reported	3.8
one month	0
half-year	0
one year	38.5
two years	3.8

more than two years	19.2
not stated	0
indefinitely	30.8
no response	3.8
Total	100.0

Community give people who have not had opportunity to lead a chance to lead

	Non-participants
yes	88.5
no	7.7
no response	0
not reported	3.8
Total	100.0

Linkage between dam and other committees?

	Non-participants
yes	46.2
no	50.0
not reported	3.8
Total	100.0

If yes to linkage, how?

	Non-participants
considering community committee members in water source committee	7.7
water source committee members considered in other community committee	11.5
source committee members opinion sought in development issues	23.1
no response	0
other	3.8
not reported	53.8
Total	100.0

Member of any community group?

	Percent
no response	76.9
yes	23.1
no	0
Total	100.0

If a member of community group- benefits

	%
advice from older people to young members of the society	3.8
community members interact freely while working together	3.8
women contribute to a fund to uplift their welfare	3.8
community formed groups for planting vegetables and seedlings for sale	0
formation of groups to help in harvesting/terracing and other undertakings	73.1
making new friends	3.8
other	0

Influence of development agenda by community

	Non-participants
yes	53.8
no	46.2
not reported	0
Total	100.0

If influence yes, how:

How	%
the community is free to express its interests during development meeting	15.4
before any law/bylaw/rule is passed people community is consulted	3.8
done through <i>barazas</i> whereby members air their views freely	11.5
through consultation with those concerned	0
involved when discussing development ideas	15.4
headman (administrators) consults with the people and forwards their views	3.8
chairpersons of groups, headmen and other leaders consulted through formation of groups	7.7
any other way	3.8

Non-participants: impact of water availability/scarcity on the following:

	Availability			Scarcity		
	+ ve	- ve	no effect	+ ve	- ve	no change
health	7.7	0	0	23.1	61.5	3.8
cleanliness	7.7	0	0	19.2	65.4	3.8
leisure	3.8	3.8	0	19.2	65.4	3.8
girl-child school absenteeism	3.8	0	3.8	15.4	38.5	26.9
boy-child school absenteeism	3.8	0	3.8	15.4	38.5	30.8
girl-child school punctuality	3.8	0	3.8	23.1	23.1	34.6
boy-child school punctuality	3.8	0	3.8	23.1	26.9	34.6
cooking at the right time	3.8	0	3.8	26.9	38.5	23.1

Non-participants: Impact of water scarcity on the following:

	Availability			Scarcity		
	+ ve	- ve	no effect	+ ve	- ve	no change
security	7.7	0	0	3.8	76.9	7.7
pregnancy rates	0	0	7.7	23.1	65.4	3.8
community cohesiveness	7.7	0	0	53.8	26.9	11.5
marriage rates	7.7	0	0	38.5	46.2	7.7

Is trekking long distances by girls regarded as good?

	Non-participants
good	3.8
bad	96.2
not reported	0
Total	100.0

bad

	Non-participants
tiring	34.6
compromise other household duties	7.7
develop irresponsible behaviour-	23.1

early pregnancies/marriages	
leads to school absenteeism/lateness	3.8
not generally safe	34.6
other reason	0

good

	Non-participants
body exercise and good health	7.7
test of adulthood- could take care of themselves	0
other reason	0

Hours of sleep

	wet season	dry season
2 ò hours	0	0
2 < hours ó 4	0	26.9
4 < hours ó 6	0	34.6
6 < hours ó 8	38.5	26.9
8 < hours	61.5	11.5
not reported	0	0
Total	100.0	100.0

Whom do you consult before participating in community projects (sand dam project)

	Non-participants
husband (in the household)	19.2
husband (elsewhere)	0
wife (in the household)	15.4
wife (elsewhere)	0
friends	15.4
local administration (headman/Ass. Chief/Chief)	23.1
political leaders	3.8
none	15.4
religious leaders	0
other	3.8
not reported	3.8
Total	100.0

Economic activities (%):

Mentioned	Non-participants
agriculture	96.2
goat/sheep	23.1
cattle	11.5
vegetable growing	3.8
kitchen gardening	0
brick making	0
tree nurseries	0
bee keeping	7.7

Cost of water per 20 litre jerrican (KShs)

	Dry season	Wet season
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5 ò shillings	0	34.6
5 < shillings ó 10	15.4	53.8
10< shillings ó 15	57.7	0
15 < shillings ó 20	23.1	0
20 < shillings	0	0

Controlled measure

Measure	Non-participants
covering the well with a lid	3.8
washing of clothes not allowed in the IWSS	11.5
only participants are allowed	7.7
planting of grass to check erosion	7.7
children not allowed to play near the IWSS	11.5
other control/plan (eg. prayers)	46.2
not controlled	30.8

If not controlled, why?

Why	Non-participants
it is a public/natural resource	0
participants are responsible people- respect their efforts	0
other reason	11.5
no reason given	88.5

Pollution penalties/action(%)

Type of pollution	pays fine	report to source committee	report to provincial administration	warning/ cautioned	excommu nicated
washing inside the dam/well	80.8	0	0	0	0
washing clothes inside the dam/well	80.8	0	0	0	0
watering animals in the dam/well	80.8	0	0	0	0
spraying vegetables/crops chemicals around the dam/well	80.8	0	0	0	0
defecating/urinating near the dam/well	80.8	0	0	0	0
dropping objects in the source	80.8	0	0	0	0

Who is responsible for operation and maintenance of your water resource (Sand dam/well)

	Non-participants
source committee members	0
chairperson of the dam committee	0
provincial administration	3.8
community	11.5
watchman	15.4
no body/party	0
government	0

no maintenance required	11.5
owner	11.5
NGO	0
other	7.7
not reported	38.5
Total	100.0

Source of funds for operation and maintenance of the IWSS if applicable

	Non-participants
dam committee members	0
chairperson of the dam committee	0
no body/party	0
provincial administration	0
community	76.9
politicians	0
no funds needed	15.4
NGO	0
other	0
not reported	7.7
Total	100.0

Operation and maintenance contribution by households if applicable (KShs)

	Non-participants
25 ò KShs.	19.2
25 < KShs ó 50	0
50 < KShs ó 75	11.5
75< KShs ó 100	42.3
100 < KShs	7.7
in kind (labour)	0
no funds needed	0
not reported	19.2
Total	100.0

Frequency of water source committee meetings

	Non-participants
monthly	26.9
once/three months	0
semi annually	3.8
annually	0
never meet	23.1
when there is need	11.5
other	11.5
no committee reported	0
not reported	23.1
Total	100.0

Control over family resources:

	Income	Labour	Expenditure
husband	23.1	30.8	23.0
wife	26.9	30.8	30.8

husband/wife	50.0	38.4	46.2
children	0	0	0
father/mother-in-law	0	0	0
boys	0	0	0
girls	0	0	0
other	0	0	0

Value household attach to their water source

	Non-participants
500 ò KShs	0
500 < KShs ó 1,000	0
1,000 < KShs ó 5,000	3.8
5,000 < KShs ó 10,000	0
10,000 < KShs	15.4
not acceptable (invaluable)	65.4
not reported	15.4
Total	100.0

Willingness to pay for improved water resource

	Non-participants
500 ò KShs	73.1
500 < KShs ó 1,000	23.1
1,000 < KShs ó 5,000	0
5,000 < KShs ó 10,000	0
10,000 < KShs	0
not reported	3.8
Total	100.0

Suppose you perceive wrong committee management, what measure would you take?

	Participants
report to chairperson	15.4
report to provincial administration	3.8
quit the source	26.9
report to sponsor	0
question the source committee	7.7
alert other members and ask for a meeting	7.7
advice the management accordingly	0
request management to quit office	11.5
other	19.2
not reported	7.7
Total	100.0

Willingness to take up leadership position

	Non-participants
willing to up leadership position	76.9
not willing to lead	19.2
not reported	3.8
Total	100.0

Ownership of water resource (sand dam):

	Non-participants	
	True	False
community	96.2	3.8
individual	0	100.0
government	19.2	80.8
schools	0	100.0
KANU	7.7	92.3
NGOs	15.4	84.6
SDP	0	100.0
Christians	3.8	96.2
<i>Kathambi</i>	7.7	92.3

Why own the water resource (sand dam): Reasons

	community participated	it is a natural resource	sponsored	other
community	65.4	0	0	23.1
individual	7.7	3.8	26.9	38.5
government	0	3.8	26.9	46.2
schools	0	0	30.8	46.2
KANU	0	3.8	26.9	46.2
NGOs	15.4	0	26.9	50.0
SDP	0	0	26.9	46.2
Christians	0	0	26.9	46.2
<i>Kathambi</i>	0	3.8	26.9	46.2
other	0	0	26.9	46.2

Suppose somebody started demolishing your water resource (sand dam), what action would you take (%):

	As an individual	As a member of the community
ask him/her why	19.2	0
report to dam/source committee chairperson	23.1	0
report to other members	3.8	3.8
report to the head man	0	0
report to the provincial administration	23.1	46.2
report to sponsor	0	0
report to the police	23.1	0
beat up the person	0	3.8
banish him/her	0	3.8
force him/her to bear the cost	0	19.2
use force to stop him/her	3.8	0
no action	0	0
other	3.8	23.1
no response	0	0
Total	100.0	100.0

Any other comment

	Non-participants
need IWSS	15.4
water source near home required	80.8
no comment	

not reported	3.8
Total	100.00