EFFICIENT WATER USE FOR AGRICULTURAL PRODUCTION PROJECT.

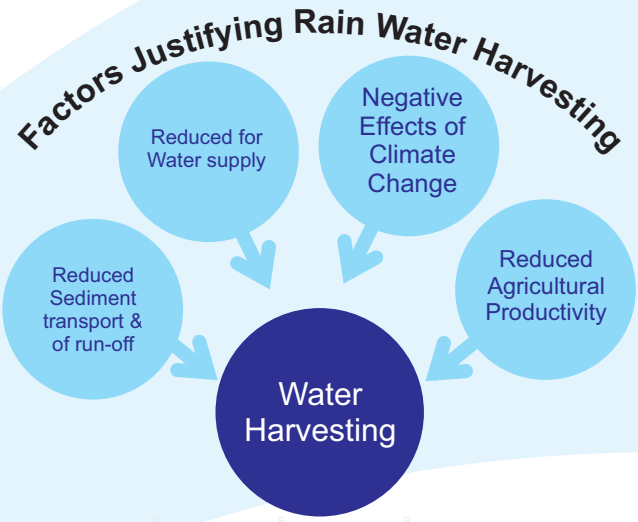
Best practices for water harvesting

Burundi

Background

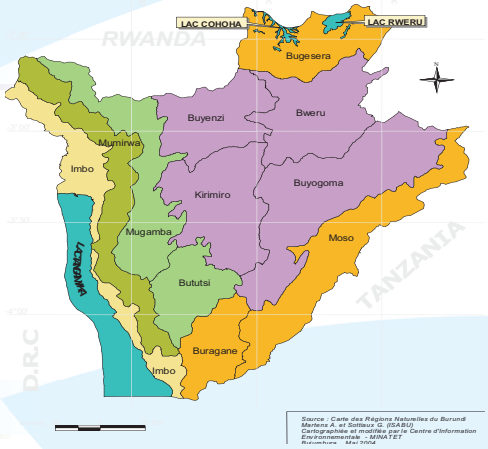
This poster illustrates the Best Practices and Best Practice Sites on Water Harvesting in Burundi prepared under the auspices of Nile Basin Initiative's Efficient Water Use for Agricultural Production (EWUAP) Project.

Five domains were used to profile best practices and best practice sites: Technical, Institutional, Social, Economic and Environmental. These were taken into consideration in the planning and implementation of water harvesting projects in the country.



Identified Practices & Sites

- Roof water collection
- Runoff storage in artificial ponds
- Water conservation and erosion control (terraces)



Practices

- Roof water collection

- Run off storage in artificial ponds

Strengths

- Good hillside conservation

Weaknesses

- Lack of experience on water harvesting

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Best practices for water harvesting

Democratic Republic of Congo

Background

This poster illustrates the Best Practices and Best Practice Sites on Water Harvesting in Democratic Republic of Congo prepared under the auspices of Nile Basin Initiative's Efficient Water Use for Agricultural Production (EWUAP) Project.

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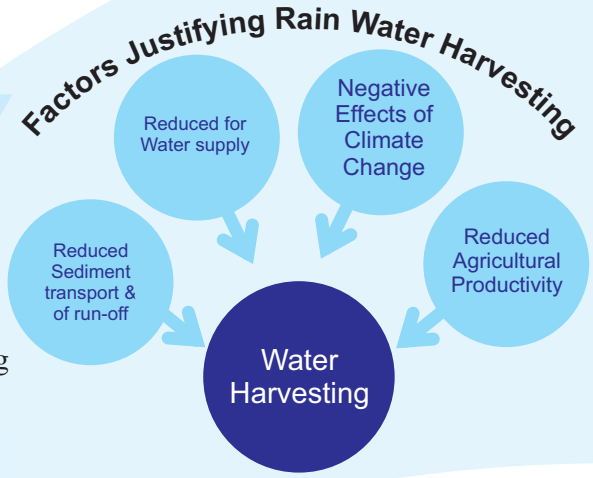

Identified practices

- Roof water harvesting with water stored in small cisterns, storage basins or reservoirs
- In situ water harvesting techniques to reduce erosion through use of contour bunds and to increase water retention using infiltration basins.
- Small rectangular ponds for crop production;
- Small storage earth dams

Practice Sites

- Minova (Rusturu)
- Bouroha/Sake (Mountain Zones of North-Kivu
- Rumangabo & Kibuma (All with an average rainfall from 1,200 to 1,900 mm)
- Zoo / Sama (Kisangani)
- Katalé (Masisi)

Technologies

Weaknesses

- Lack of information, poor institutional framework & inadequate technical capacity.

Strengths & Opportunities

- Abundant water resource base

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Best practices for water harvesting

Egypt

Background

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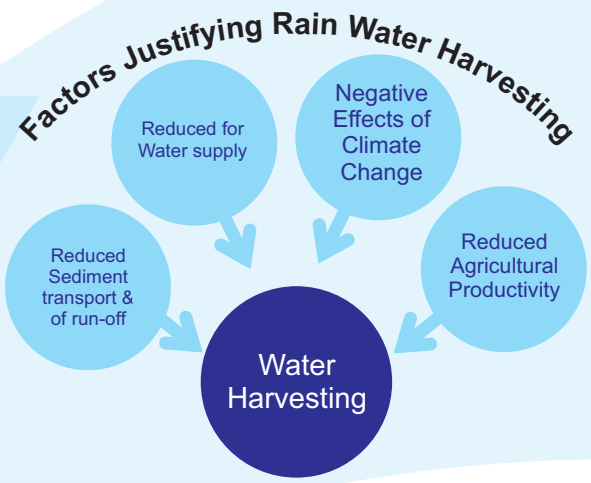
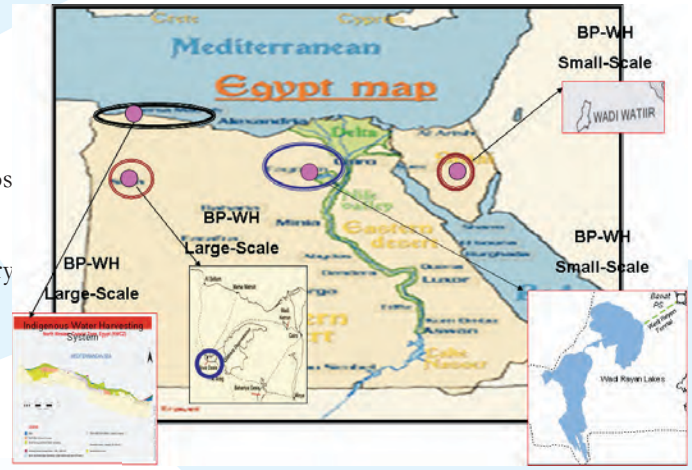


Identified Practices

- Dikes to prevent the wadi runoff flow reaching the sea.
- Dikes to divert wadi runoff onto fields using guide bunds to spreads the flow or small channels to convey water to prepared and bunded fields.
- Stone or earth diversions in small wadi beds to facilitate sedimentation and create terraces for cultivating & drought resistant perennial tree crops and seasonal food crops
- Contour dikes (earth, stone and/or cemented) to reduce surface runoff and increase water infiltration into the soils.
- Cisterns (capacity 300 m^3) intsalled near houses in the primary farm unit for storage of sheet runoff.
- Concrete reservoirs (capacity 300 – 20,000 m^3) excavated below ground and encased with concrete or masonry walls for harvesting and storage of sheet runoff.

Practice Sites



Technologies

Strengths

- Strong government support & technical back-up
- Many practices

Weakness

- Inadequate or lack of rainfall in most part of the country

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Best practices for water harvesting

Ethiopia

Background

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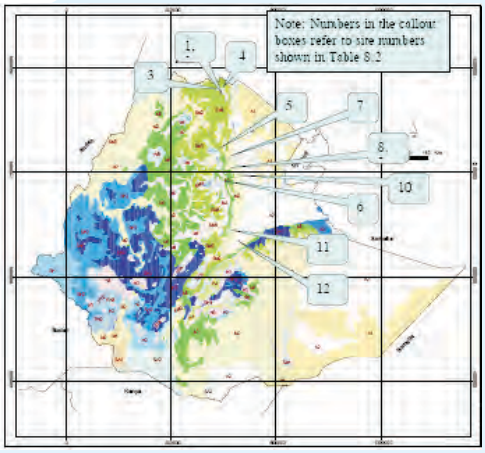

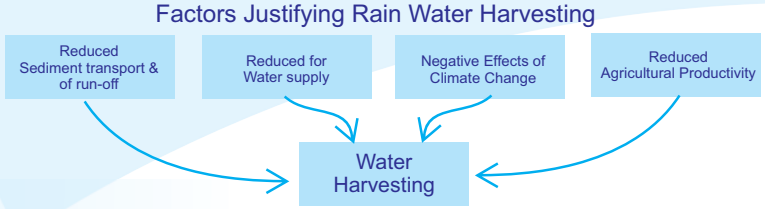

Identified Practices & Sites

- Terracing
- Bunding
- Gully Rehabilitation
- Improved grazing land management
- Micro catchment and ponds
- Runoff/floodwater farming

	Site Name	Location: Region/District	Description of Best Practice Site	Use
1	Abreha Atsbeha	Tigray; Kilte Awlaelo	Integrated Watershed Development	Crop/Wood Production; Conservation; Conservation;
2	Mekuh Integrated	Tigray; Kilte Awlaelo		
3	Migulat Mekodo	Tigray; Ganta Afeshum		
4	Gergera	Tigray; Atsbi Wemberta		
5	Ayub	Amhara; Kobo		
6	Chekorti	Amhara; Kalu		
7	Lenche Dima	Amhara; Gubalafto	Watershed Development	
8	Totit Wajeto	Amhara; Ambasel		
9	Golbo	Amhara; Ambasel		
10	Hato	Amhara; Bati		
11	Minjar	Amhara; Minjar	WH Storage Sites; Plastic Lined Ponds	Crop Production
12	Boset	Oromia; Boset	WH tanks and moisture conservation	

Technologies

Strengths

- Good water shed management & water conservation measures

Weaknesses

- Devolution of government structure leads to discontinuity in adoption

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EFFICIENT WATER USE FOR AGRICULTURAL PRODUCTION PROJECT.

Best practices for water harvesting

Kenya

Background

This poster illustrates the Best Practices and Best Practice Sites on Water Harvesting in Kenya prepared under the auspices of Nile Basin Initiative's Efficient Water Use for Agricultural Production (EWUAP) Project.

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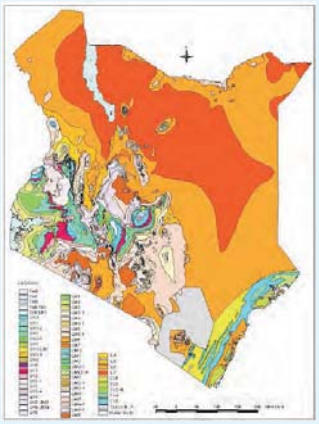

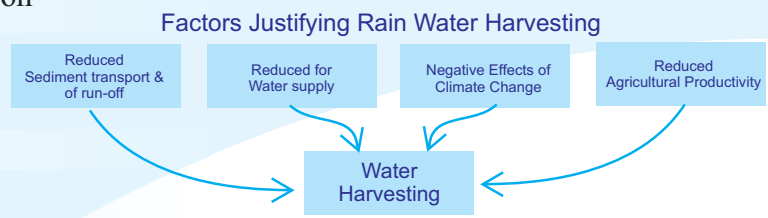

Identified Practices & Sites

- Agronomic
- Vegetative
- Terracing
- Micro-catchments
- Runoff water harvesting & storage

Best Practice site	District	Type	Use	Ran
Lare division	Nakuru	Terracing and grass strips, runoff water harvesting from roadside drainage, roof catchment, and farm ponds	Domestic; Livestock,; Conservation; agricultural production;	
Utooni sub-location	Machakos	Sand Dams	-	
Ndeiya Karai sub-location	Kiambu	Roof water Harvesting	-	
Mutomo division	Kitui	Earth dam	-	
Naromoru division	Laikipia	Farm Ponds	-	

Practice Sites




Strengths

- Good water management practice
- Good example of water harvesting

Weaknesses

- Minimal up-scaling

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Best practices for water harvesting

Rwanda

Background

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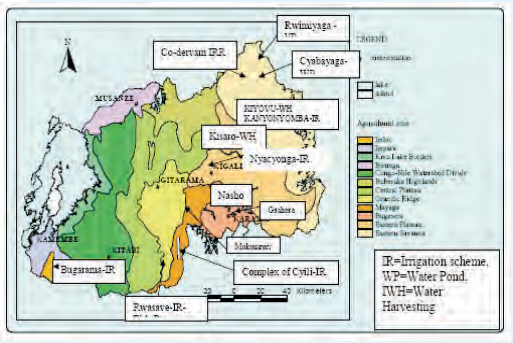
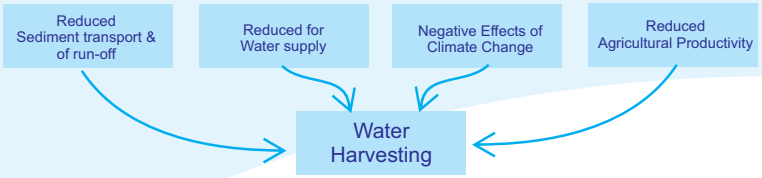


Factors Justifying Rain Water Harvesting



Identified Practices & Sites

- Valley dam for livestock, domestic
- Water pond for domestic & crop production
- Terracing for crop production

Site	Region/District
Rwibishorogoto	Eastern, Nyagatare
Rwimiyaga (Rwimiyaga)	Eastern, Nyagatare
Rukindo	Eastern, Nyagatare
Gakagati	Eastern, Nyagatare
Kiyovu	Eastern, Gatsibo
Kiyovu	Eastern, Gatsibo
Kanyonyomb	Eastern, Gatsibo
Cyabayaga	Eastern, Nyagatare
Muvumba (Rukomo)	Eastern, Nyagatare
Nasho	Eastern, Bugesera
KISARO	Gicumbi, Northern Province
Kigali urban area	Kigali City

Technologies

Strengths

- Good conservation initiative
- Good valley bottom small scale irrigation system
- Strong political will & support

Weaknesses

- Lack of institutional support
- Poor water management

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Best practices for water harvesting

Sudan

Background

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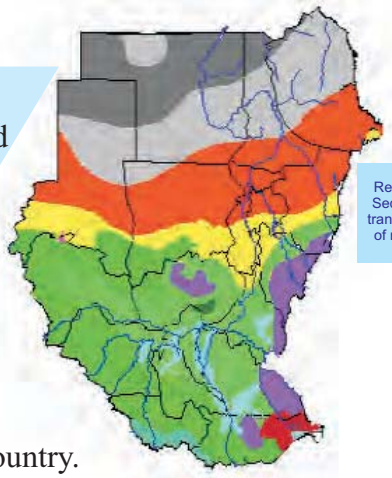

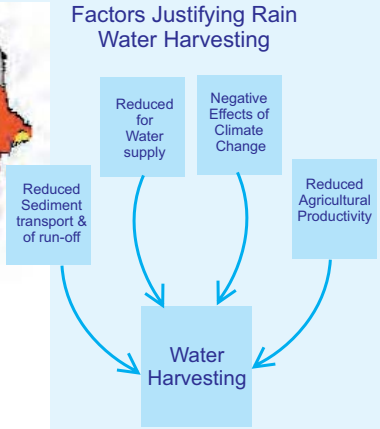

Identified Practices & Sites

- Flood systems
- Terraces
- Runoff
- Spate irrigation
- Strong water user association

No.	Best practice	Site location	Technology level
1	Bunds	Butana, Gezira state Managil, Gezira State	Traditional Traditional
2	Ridges	Sennar White Nile	Modern Modern
3	Tied ridges	Sennar White Nile	Modern Modern
4	Sayreen	Sennar White Nile state	Modern Modern
5	Micro-catchments	Butana, Gezira state North Kordofan	Modern Modern
6	Small dams	North Darfur Nile State Khartoum State Red sea State	Traditional Traditional Traditional
7	Boabab trees	North Kordofan State	Traditional
8	Haffirs	Kordofan State Darfur State Kassala State Red sea State Sennar State	Traditional Modern

Technologies




Strengths

- Good water harvesting especially spate irrigation

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EFFICIENT WATER USE FOR AGRICULTURAL PRODUCTION PROJECT.

Best practices for water harvesting

Tanzania

Background

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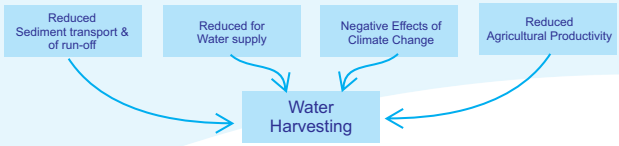
Factors Justifying Rain Water Harvesting



Identified Practices & Sites

- Good example to be applicable to other areas
- Replicable to other areas with similar AEZ
- Well adopted / owner by local community
- Efficient use of water
- Profitability
- Good profiling practice

Site	District
Makanya catchment, Makanya village	Same District, Kilimanjaro Region
Makanya catchment	Makanya Village- Kwesasu Subvillage
Makanya catchment	NDIVA -Champishi -Chome village
Makanya catchment	NDIVA Mgungani/ Manolo
Bukangilija / Njiapanda villages	Maswa district, Shinyanga region
Ilonga	Kilosa

Technologies;

Run off

- Pitting
- Run off
- Terracing

Flood water Harvesting

- Spate irrigation

Strengths

Good indigenous practices : Good training and professional experience : Many water harvesting systems

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Best practices for water harvesting

Uganda

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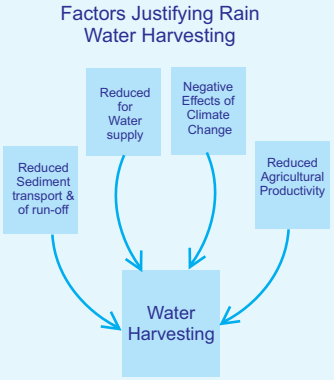

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Identified Practices & Sites

- Valley dam for watering animals and domestic use
- Valley tanks for watering animals and domestic use
- Pots and Jars for domestic
- In-situ, internal & external storage for agriculture
- Rock catchment
- Subsurface masonry tanks
- Brick masonry tanks
- Strong policy framework

Site	Use
Kyalulangira, Kiziba and Kyalulangira village (community)	Domestic
Kamubisi village (community)	
Kyanyanda village Rugaga sub county (community)	Domestic, Crop Production
Edward Kanyarutokye, (individual)	Domestic
Ekiryotozi (community)	Domestic; Animal Watering.
Kyamuyimba (community)	

Technologies

Strengths

- Good policies
- New up-coming approaches

Weaknesses

- Insufficient professional staff

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