

ROCK CATCHMENT

Kenya

F2F Event 2017: Grey, Green or
Hybrid – The value of nature-based
solutions for DRR

Fredrick Ochieng
December 6-8, 2017



Bare rock

Doing the right thing



Gutters

Doing the right thing



Weir

Doing the right thing



pipng

Doing the right thing



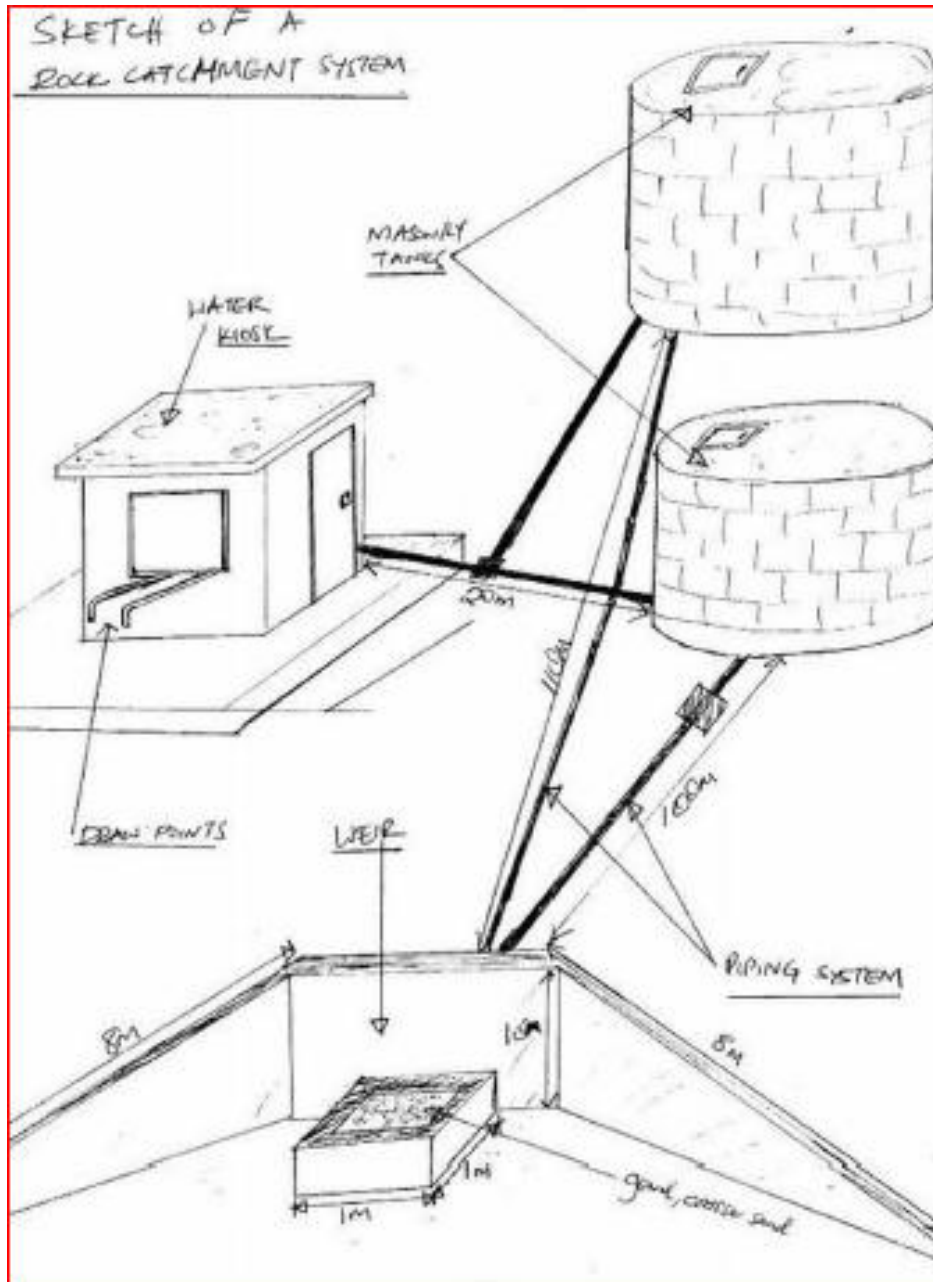
Water tanks

Doing the right thing



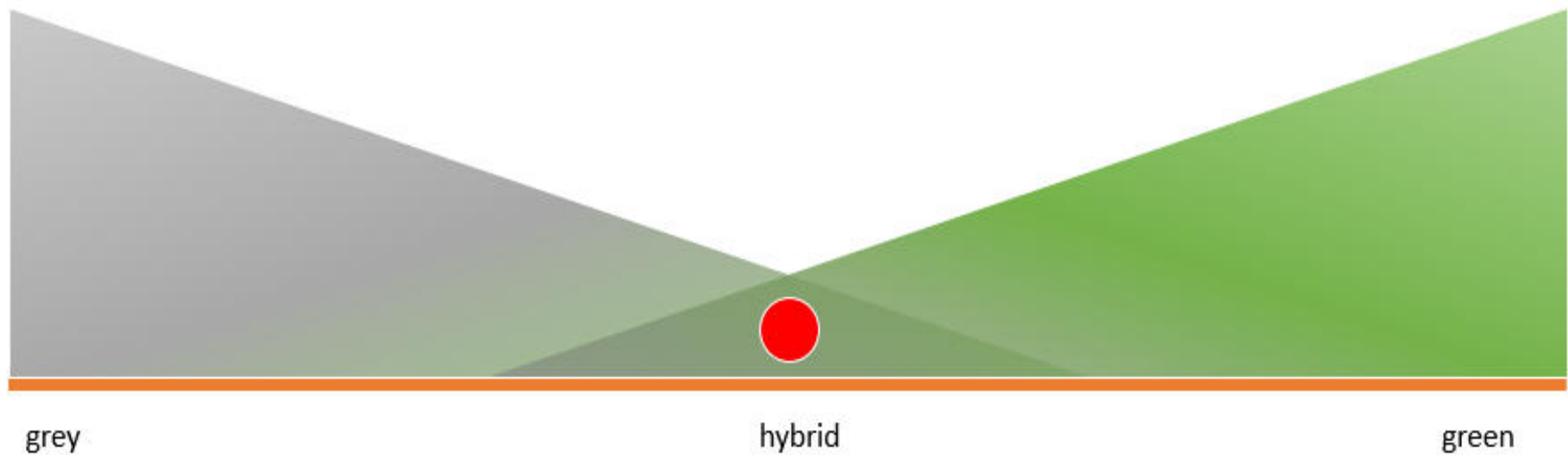
Water kiosk

Doing the right thing



Doing the right thing

Continuum of approaches and measures



Doing the right thing



Context - climate

- **Extreme climatic conditions**
- **High temps**
- **Erratic, unreliable rainfall**
- **Winds**
- **Chronic droughts/floods**

Doing the right thing



**Context -
socioeconomics**

- Pastoralism
- Remote, little reach by amenities
- Literacy levels

Doing the right thing

Chronic humanitarian situation

2009 drought

2011 drought

2016 drought

2017 drought

Assessments

- Reconnaissance
- Meetings with leaders
- Government officers



Doing the right thing



**Technical surveys, hydrological surveys,
Environmental impact assessment, approvals**

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With Govt - approvals, validation, site/community selections,
goodwill, technical support, planning

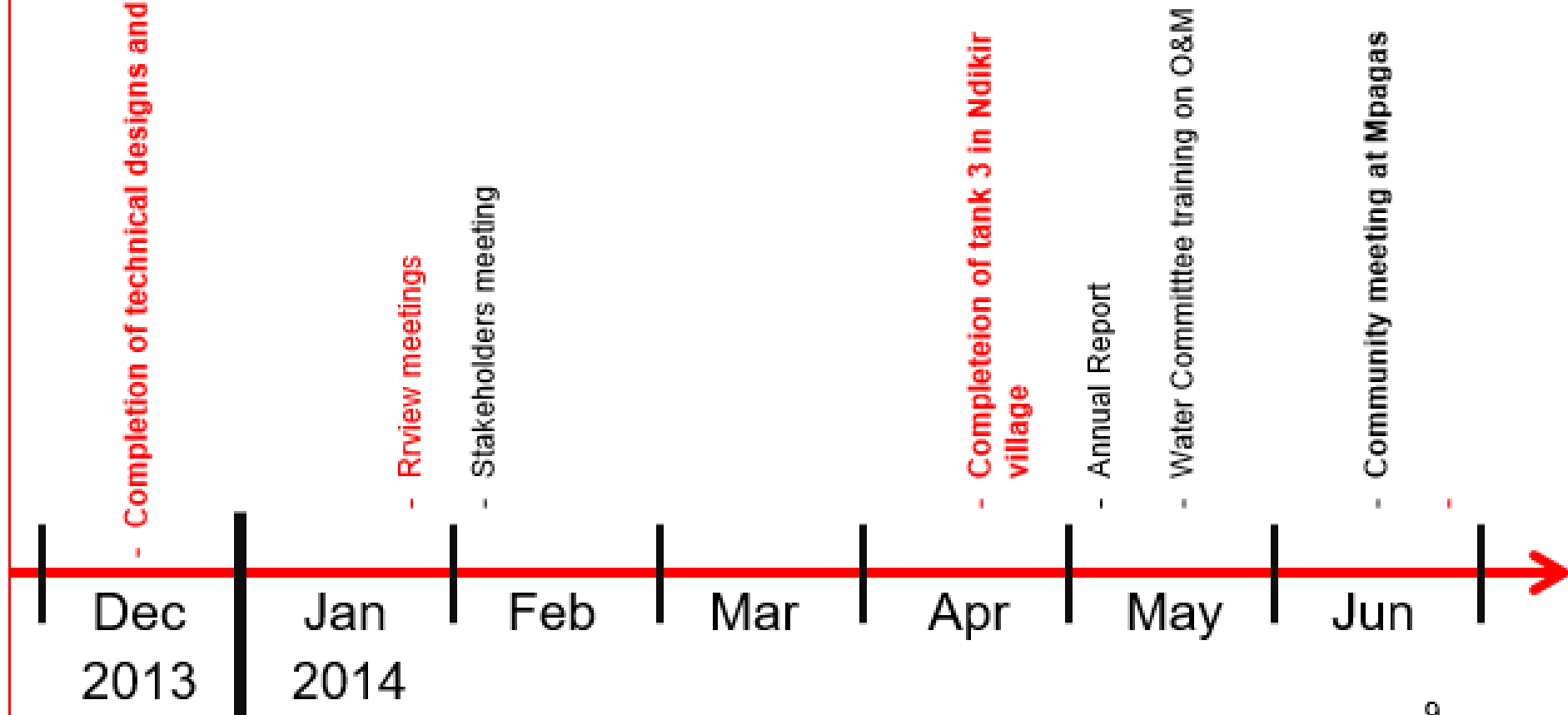
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With Communities: Community meetings, MoU signing,
organization, leadership,

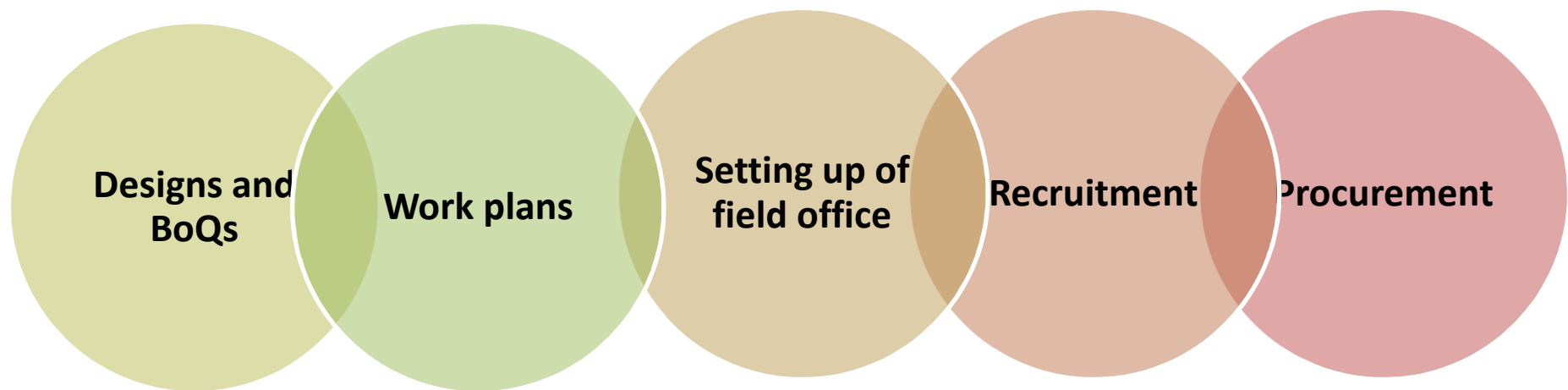
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Timeline & Tasks



Monitoring: joint, based on M&E plans, tools for quality monitoring

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Construction approach: working with
artisans

Doing the right thing



■ **Capacity building**

artisans

water management

committee

Village hygiene

promoters

Board of magt –

schools

Children Hygiene and

Sanitation Training

(CHAST)



The work begins: Labour intensive, Coordination,
Unskilled/skilled labour, Technical supervision

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Ongoing engagement with community: continuous sensitization, motivation, review of plans...

Doing the right thing



Technical supervision: Quality & standards,
efficiency, timelines

Doing the right thing

Completion : functionality tests,
withholding fee for artisans, O&M
orientation,





Why the Approach

- community capacity
- community link with county government
- accountability
- ownership
- Cost effectiveness

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Why the Technology? Appropriate technology/cost effectiveness; Available resources-Environmental considerations; Caritas experience

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Cost of a complete system

Materials
Labour

90,000€

Maintenance Costs

Scooping
of sand,
plumbing

500 €/pa

Daily household water needs

Cooking
Washing
Drinking

30-40 liters/HH
3500 total
population

Challenges

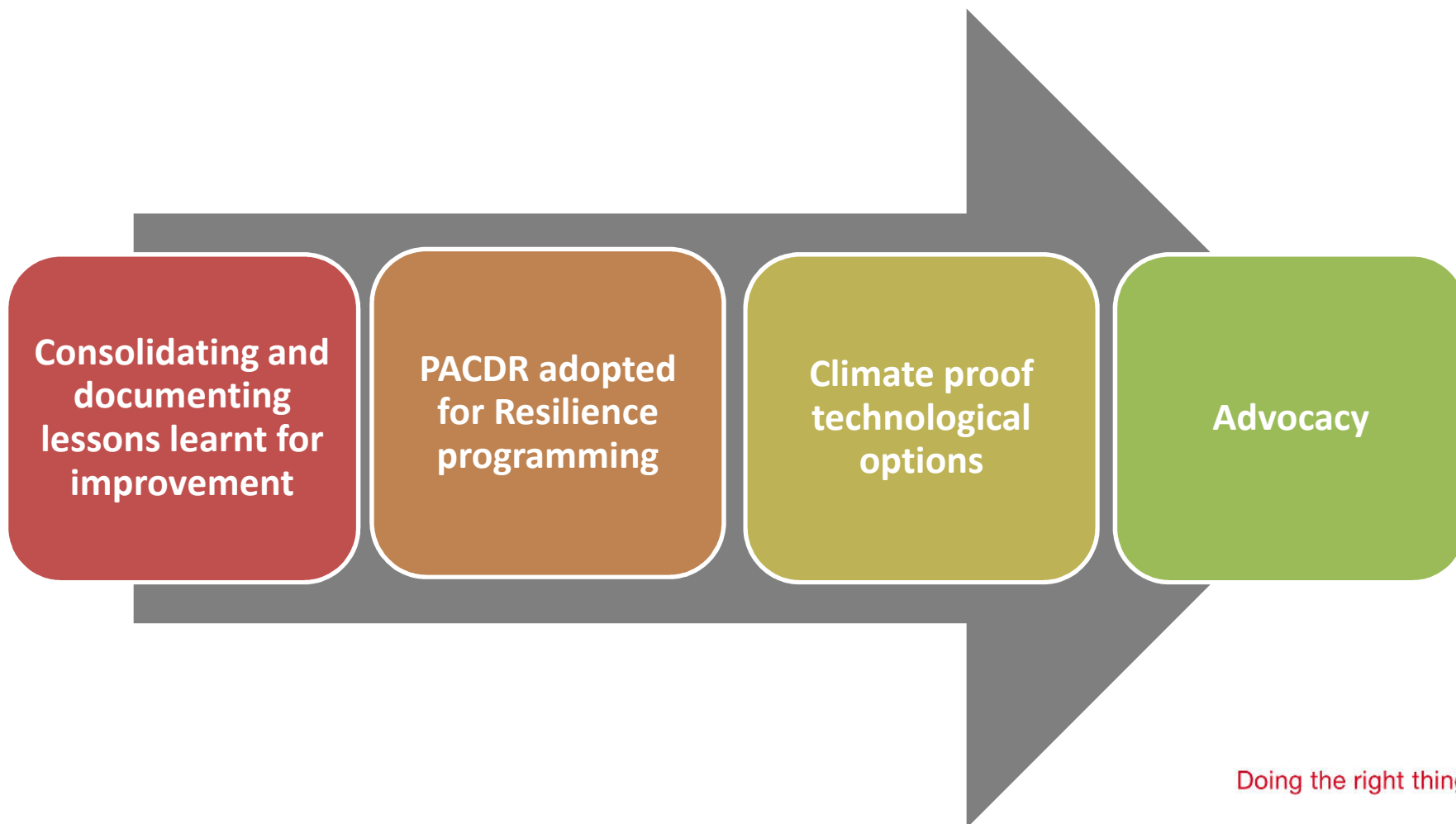
**Coordination of
Stakeholders**

**Approaches
implemented**

**Cultures not
supportive to project
priorities**

**Humanitarian
conditions**

Going forward...





Thank you!

Doing the right thing