



The Spate Irrigation Network and Its Partners Past Challenges and Achievements, and the Journey Ahead

For the common cause

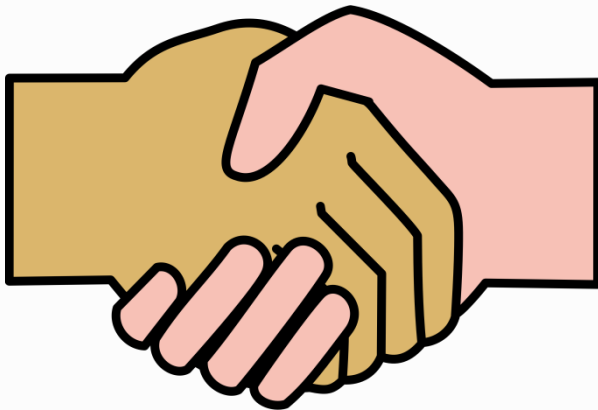
Flood-based Farming Systems
From Subsistence to Significant Contributors for Food
Security and Enhanced Ecosystem Services



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Co-convener Spate Irrigation Network

The Spate Irrigation Network (SpN)

- Born in 2002 with a hand full of interested members



UNESCO-IHE
Institute for Water Education



Familiarize policy makers, implementing agencies, research and educational institutions, donors with development scope, experiences & practical approaches to spate irrigation development

Methods of Flood-based Farming

- **Spate Irrigation:** diversion, distribution and management of short duration flood flows from seasonal or ephemeral rivers
- **Floodplain agriculture:** cultivation of flood plains, using either receding or rising flood water or both
- **Inundation canals:** canals fed by temporarily high water levels in rivers to irrigate adjacent low-lying land
- **Flood-spreading weirs:** using a series of weirs to manage and spread floods for rehabilitating degraded land, enhancing ground water recharge
- **Roads for water:** Water harvesting from roads for multiple use

Phase I: 2002 to 2006

The Challenge

Spate Irrigation dismissed as unreliable systems merely supporting subsistence farming

The Approach

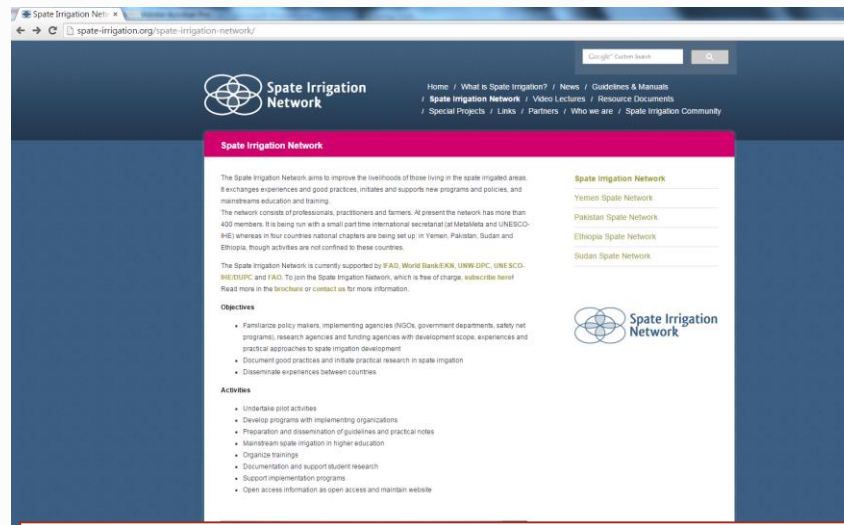
Build knowledge-base (document successful practices) and create platform for knowledge and experience sharing

The Approach

Working in partnership with varied stakeholders
“Agents of Change”

The start: Make SpN and FBFS Visible

1. Build website – link to major websites
2. Establish country bases
3. Don't wait for invitations, show-up at major events **with powerful messages!!**



Destructive floods for productive use



Huge sediments: from major challenge to a blessing



Farmers trying to raise canal water level to irrigate fields

Annual average field rise: 3 cm

Up to 10% sediment concentration in floodwater



FBFS are productive – there are bright spots?



Chick pea yield:

- Rainfed: 0.4 to 0.6 ton/ha
- Conventional irrigation: 2- 5 ton/ha
- FBFS: up-to 3.5 ton/ha

Fogera Flood plain - Flood recession:
North West Ethiopia, East of Lake Tana



FBFS are productive

First harvest :

4 ton/ha

**Second
harvest**

(ratoon):

2 ton/ha

Third crop:

water melon



Konso spate irrigation, SNNP

Phase 2: 2007 to 2011

The Challenge

Where is the technical know-how to develop FBFS

Where are the credible technical references

The Approach

Solutions oriented scientific research

Institutionalizing Spate Irrigation at UNESCO-IHE

Creating platform for knowledge-sharing platforms

The Approach

Working in partnership with varied stakeholders
“Agents of Change”



ILIFAD

Investing in rural people



Innovations from Pakistan: Porous Spillway

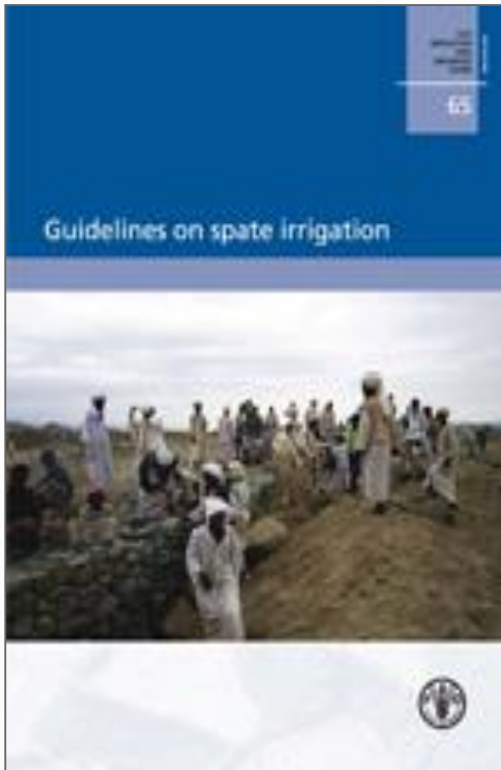


Innovation from Yemen: Remove the divide wall



Divide wall removed to splash sediments & make weir operational

Some milestones



*IFAD Large Grant:
Spate Irrigation for Rural Economic Growth and Poverty Alleviation: Ethiopia, Sudan, Yemen and Pakistan*

Phase 3: 2011 to 2015

The Challenge

- Embedding FBFS in national policy
- Integrate FBFS into national curricula
- Strengthened outreach to farmers

The Approach

- Invest into local champions
- Strengthened country knowledge centers
- Easy to read knowledge products

The Approach

- Working in partnership with varied stakeholders
- “Agents of Change”



Investing in local Champions - Stockholm 2012



**A Pro-poor local political leader
(Pakistan)**

Model practitioner from Sudan



Model Farmer from Ethiopia

Knowledge sharing: Experts, farmers and policy makers

December 2013, Sudan



December 2013, Sudan



Webinar: Flood-based Farming and Rain-fed Agriculture; March 12, 2015

Knowledge products: Videos and brief notes in local languages

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Water Rights In Spate Irrigation

This is Anambar Weir, Babochistan (Pakistan)
What happened here?

00:00 00:00

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"Floods are not always a hazard. They may also sustain aquatic life and riverine biodiversity, recharge aquifers, enrich soils and in some of the world's poorest areas they are the main source of irrigation." -- Global Water Partnership (2000) 'Toward water security: a framework for action.

Spate irrigation is the art and science of managing floods for irrigation. It is unique to arid and semi-arid environments, found in the Middle East, North Africa, West Asia, East Africa and parts of Latin America.

Unpredictability is inherent to spate irrigation, yet water distribution rules regulate the distribution of the unpredictable water supplies. They impose a pattern and reduce uncertainty and potential conflict by regulating the relations between the landowners that have access to flood water. Particularly where flood water users depend on one another in maintaining flood channels and reconstructing diversion structures, agreement on how water is distributed is a precondition for cooperation between different parties in this respect.

More info: <http://www.spate-irrigation.org/library/spate-notes>
Produced by: TheWaterChannel

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Drinking Water From Spate Irrigation

اناج کے مقامی ذخیروں کو بہتر بنانا

الثروة الحيوانية في مناطق الري ألسيلي في اليمن

ورقة عامة تطبيقية في الري بمياه السيول

Practical Note

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Command Area Improvement and Soil Moisture Conservation in Spate Irrigation

Phase 4: 2015 ... we have just started our journey



- From 4 to 8 countries – to all countries with potential
- **Establishing farmer led Spate Irrigation Network Foundation**

- From Scheme to landscape level
- From spate irrigation to all FBFS:
 - 3 to 30 million ha
 - 15 to 150 million beneficiaries



Thank you
Dear Webinar Audience

Thank you
Dear FBFS Family