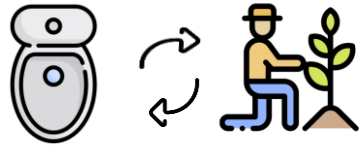
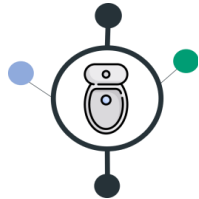


Productive Sanitation for Food Security in times of Climate Change

Agenda



Productive sanitation – food security – climate change



Need for integrated sanitation approach = resources + risks



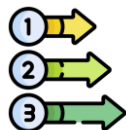
Clean and Green framework



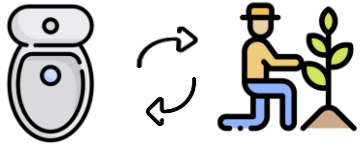
Key Features of Clean and Green framework



Clean and Green in Burkina Faso



Next steps for Clean and Green



Productive sanitation

Productive sanitation is a term used for the variety of sanitation systems designed to efficiently **recover** and **enable a safe reuse** of the **nutrient, organic matter** and **water content** of human excreta and wastewater for productive purposes.

Why is productive sanitation important for food security in times of climate change?



Photos: Linus Dagerskog

1

Resilient agricultural systems

Safe reuse of human and animal excreta can help **increase soil fertility and improve crop yield**

2

Reduce environmental impacts of agriculture

By reducing the **reducing the need for synthetic fertilizers** PS can help reduce emissions and promote more sustainable agricultural practices.

3

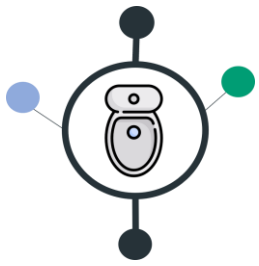
Improve food safety

By emphasizing the **safe management** of human and animal excreta PS can **reduce the risk of foodborne illnesses**

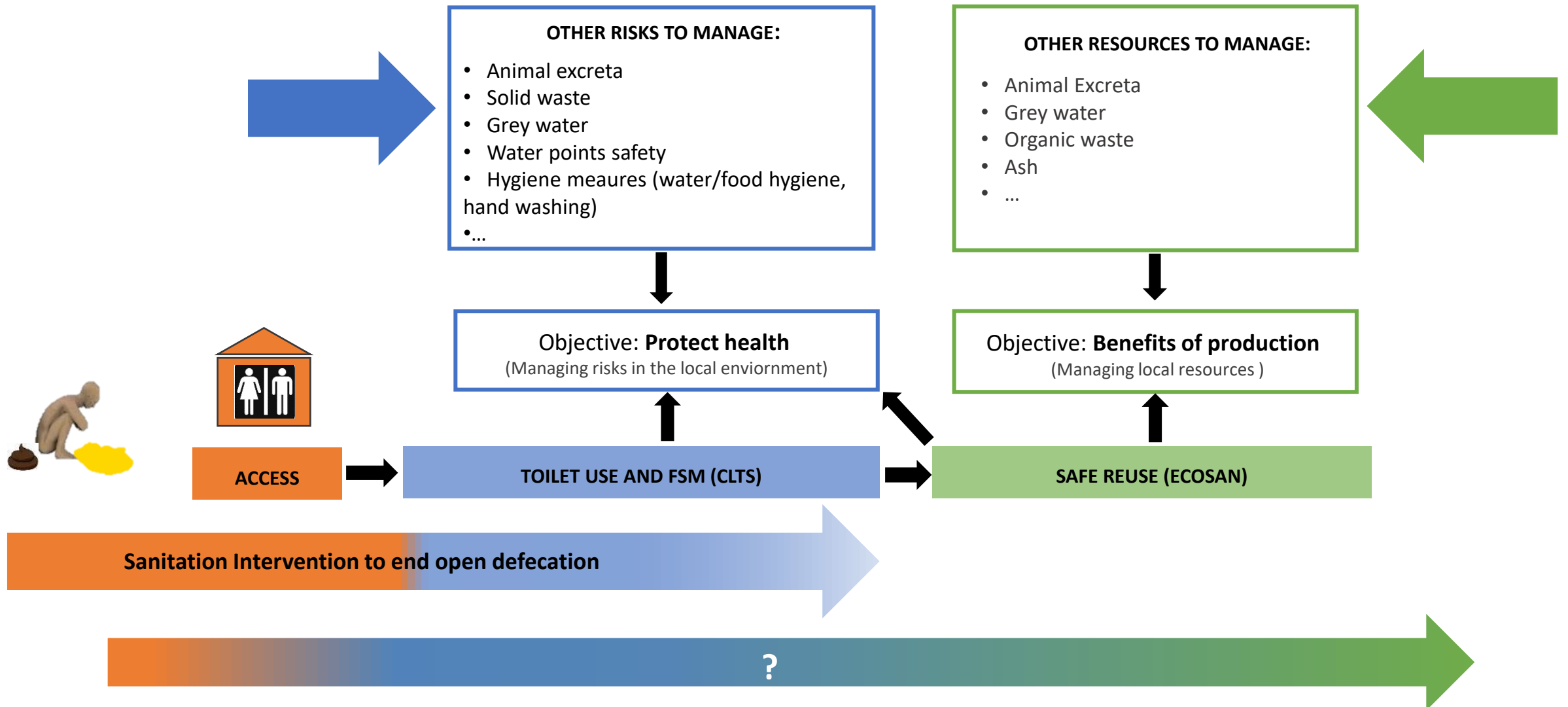
4

Increase food security

By contributing to more sustainable and resilient agricultural systems, PS can help guarantee that communities have **access to nutritious and affordable food**



Rural sanitation towards integrated risk and resource management





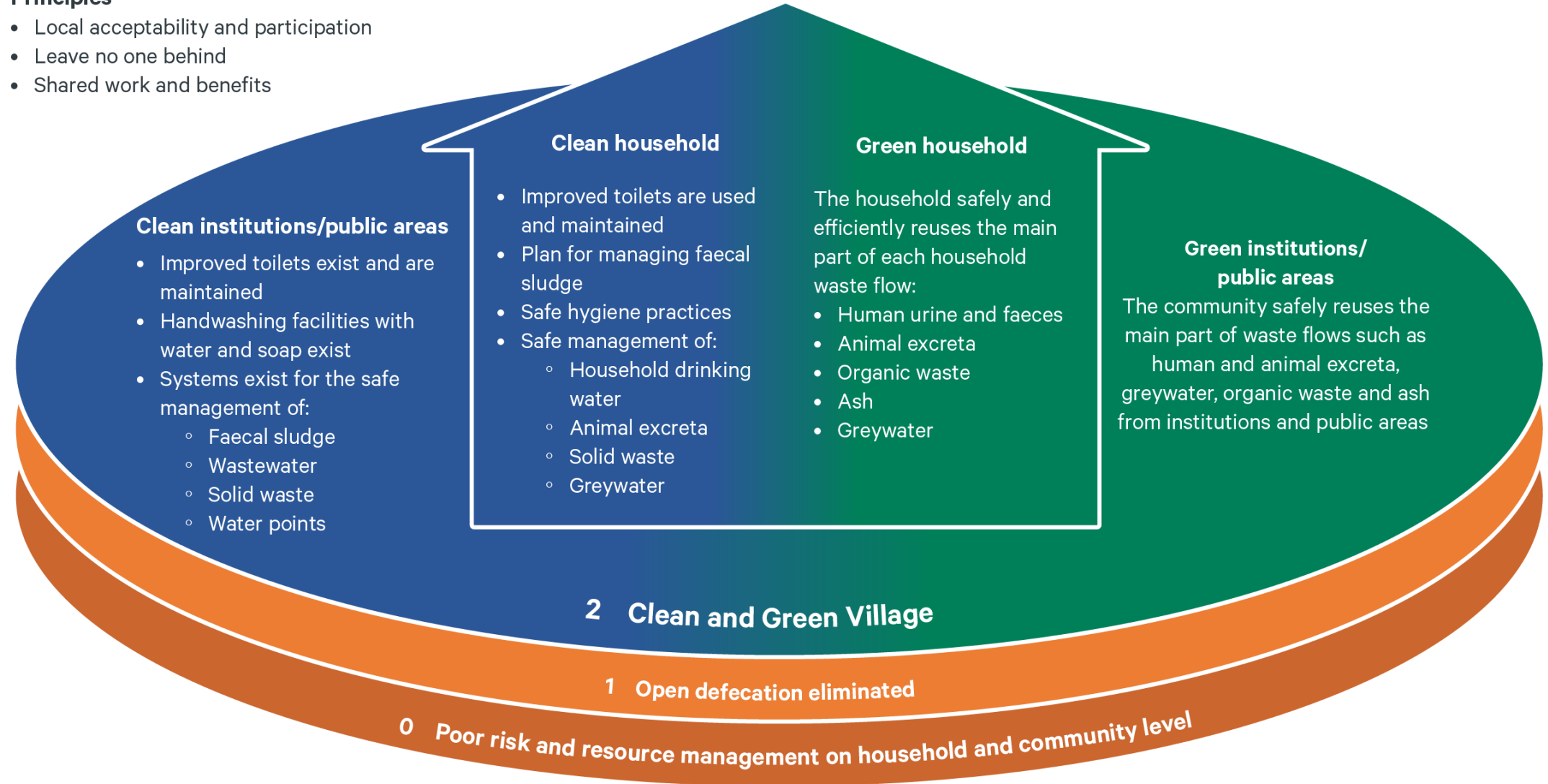
Clean and Green Village framework

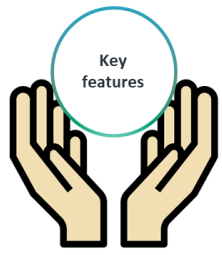
Risk management

Resource management

Principles

- Local acceptability and participation
- Leave no one behind
- Shared work and benefits





Key features of Clean and Green Framework

Integrates risk and waste resource management:

Clean and Green goes beyond human excreta to include management of a wide range of other waste flows. This multiplies the benefits and avoids fragmented efforts.

Sustained engagement:

Recognition for progress on household and community level provides opportunities to celebrate while keeping up momentum. Certification can also be periodically reviewed and renewed.

Benchmarking potential:

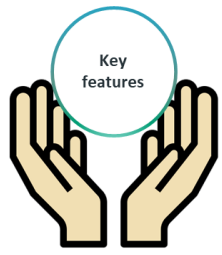
Clean and Green can stimulate friendly competition at different levels.

Locally adaptable: Clean and Green emphasizes participatory approaches to identify waste and residues relevant in the local setting.

Technology-neutral:

Clean and Green gives flexibility with regard to preferred technological solutions.

Contributes to a range of SDGs: Managing local risks and resources has the potential to contribute to multiple sustainability goals and targets



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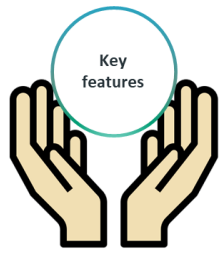
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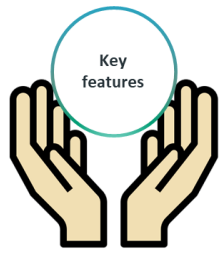
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Clean and Green pilot project within a WaterAid led WaSH program in Burkina Faso

700 villages to achieve ODF status through CLTS in three regions (2019 - 2023)

Pilot Clean and Green in 3 communities



Step 1) End open defecation

Using CLTS

Step 2) Evaluate current risk and resource management in the community

Clean Track Tools

- Rapid risk assessment
- Three pile sorting of cards
- Transmission pathways for human excreta (F-diagram)
- Transmission pathways for animal excreta (adapted F-diagram)

Step 3) Sensitization and training to improve risk and resource management

Green Track Tools

- Resource triggering event: Excreta fertilizer calculation
- Resource flow mapping
- Human excreta loop
- Farmer field schools (NGO Agro-Action)
- Exchange sessions on modes and doses

Clean and Green in Burkina Faso

**Animal excreta:
fecal-oral transmission
pathways**



	Situation 1 - Risque bas	Situation 2 - Risque moyen	Situation 3 - Risque haute
10 points	Les ménages utilisent régulièrement des latrines améliorées	Les ménages utilisent régulièrement des latrines non améliorées (ex. sans dalle cimentée)	DAL
Excréta des animaux	Les excréments d'animaux sont bien gérés. Non trouvés autour du ménage	Un peu géré, des excréments animaux autour du ménage	Pas géré. Une grande quantité d'excréments d'animaux autour du ménage
Source d'eau	Point d'eau améliorée, proximité du domicile, fiable et quantité suffisante	Source d'eau améliorée, mais pas fiable, ou d'autres limitations	Source non-améliorée
10 points			

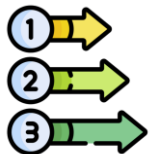
**Rapid Risk
Assessment**

**Human excreta
loop**






Farmer Field Schools






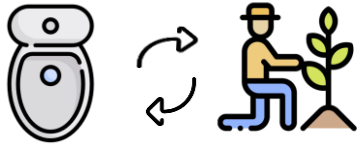


Next steps: Clean and Green in Burkina Faso

- **Digitalization** of monitoring framework for household level
- Develop **tools to visualize/communicate** Clean and Green progress on household/village level
- Elaborate **certification scheme**
- **Increase collaborations** with other researchers and NGO's

			
Clean components			
1. Toilet use and FSM (9 indicators)			
2. Solid waste mgmt. (6 indicators)			
3. Animal excreta mgmt. (6 indicators)			
4. Greywater mgmt. (1 indicator)			
5. Water mgmt. (5 indicators)			
6. Handwashing (5 indicators)			
7. Food hygiene (4 indicators)			
Summary			

			
Green components			
1. Human urine (6 indicators)			
2. Human faeces (6 indicators)			
3. Animal faeces (5 indicators)			
4. Animal urine (3 indicators)			
5. Greywater (2 indicators)			
6. Wood ash (2 indicators)			
7. Other organic waste (3 indicators)			
Summary			



Final remarks

In a climate change and resource-constrained future, management of local resources is **crucial**. The **Clean and Green framework** can empower communities to implement comprehensive sanitation strategies, safeguarding health, enhancing productivity, and ultimately contributing to **increased food** security in rural areas.

Thank you!