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**UNU-FLORES**

Institute for Integrated Management  
of Material Fluxes and of Resources



TECHNISCHE  
UNIVERSITÄT  
DRESDEN

ADVANCING A **NEXUS APPROACH**  
TO THE SUSTAINABLE MANAGEMENT  
OF **WATER, SOIL AND WASTE**



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INTERNATIONAL  
KICK-OFF WORKSHOP

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11-12 NOVEMBER 2013  
DRESDEN, GERMANY



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# Session III

## Applied research and capacity building for development: Let's talk business

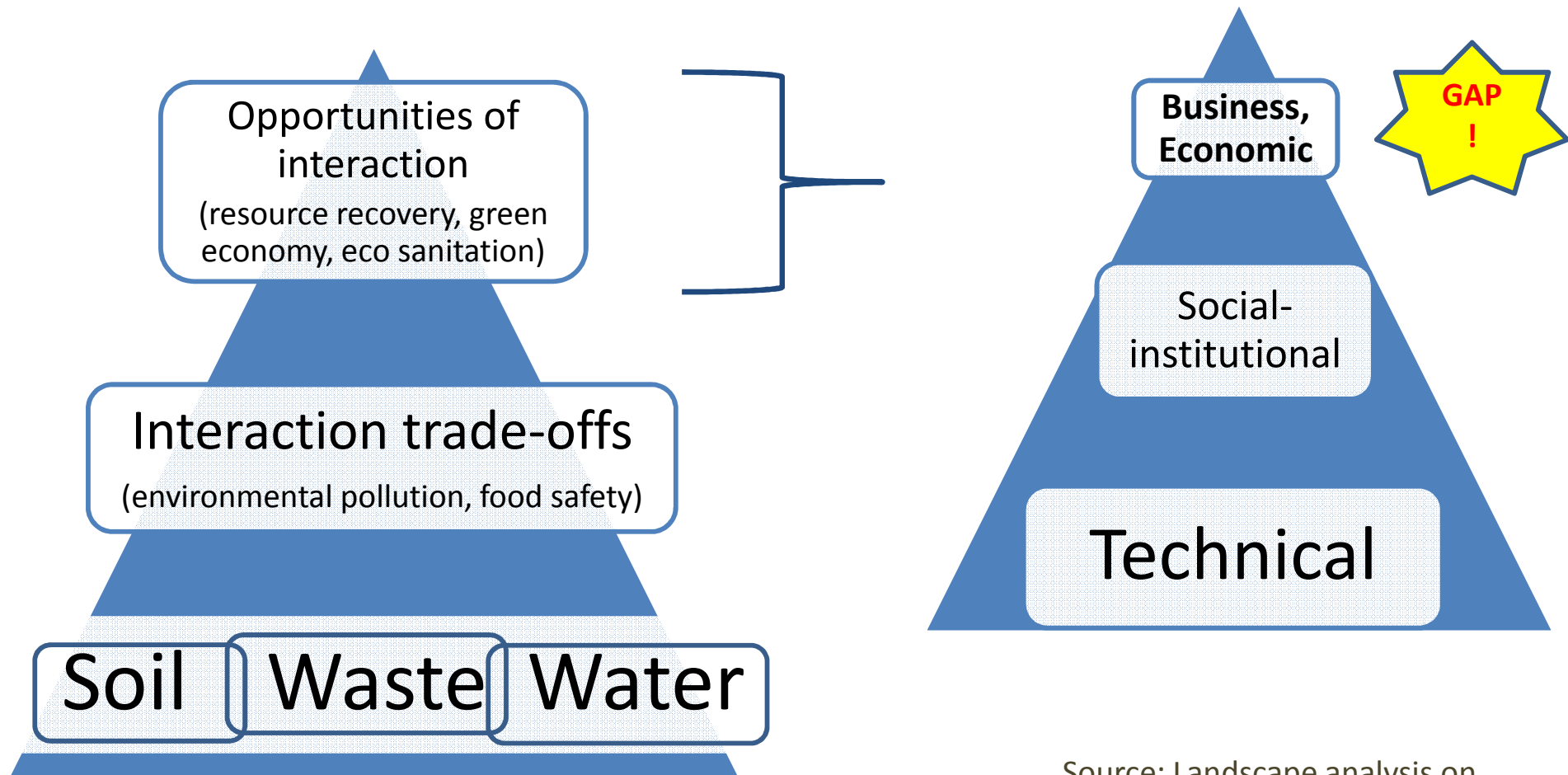
Pay Drechsel

Head, RRR - CGIAR WLE





## Which are the research topics to be addressed?





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## What are best practices in establishing integrated and inter- disciplinary research programmes?

**Example:**



RESEARCH  
PROGRAM ON  
Water, Land and  
Ecosystems

Subprogram on Resource  
Recovery & Reuse (RRR)

**Flagship project funded:** SDC, IFAD, BMGF

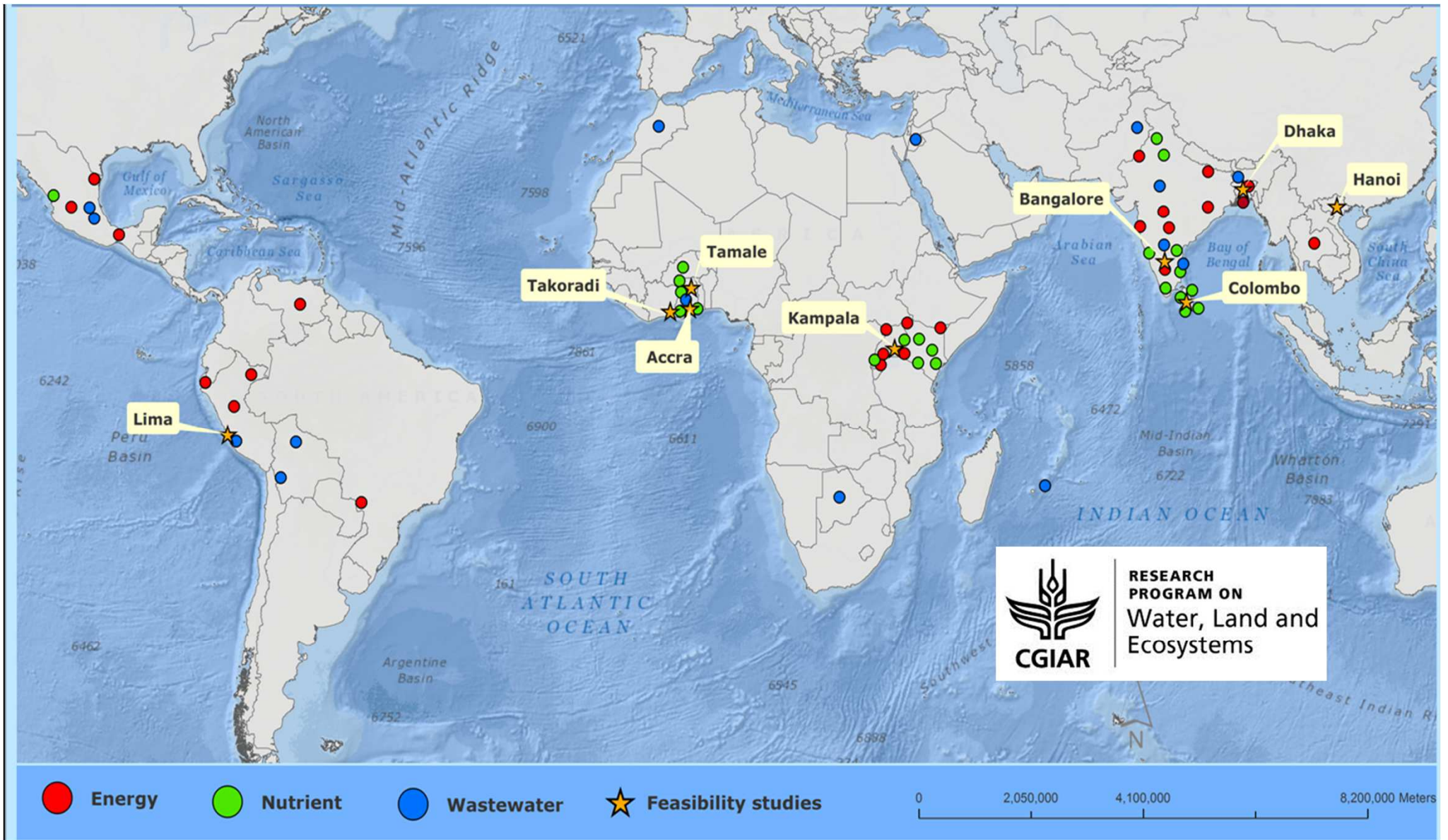
**Objective:** To learn from successful business cases of nutrient, water, & energy recovery and reuse from domestic & agro-industrial waste.

**Status:**

- Database of 150+ inspiring businesses from low-income countries.
- Selection of 60 cases for in-depth multi-disciplinary analysis.
- So far 20 promising business models extracted.
- Feasibility studies of these models started in 9 cities.
- Business model implementation till 2015 targeting 5 cities.



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Is there a need for specific nexus education programmes or should the concept be addressed in the framework of existing programmes on water/soil/waste management?

- Ideally, the nexus should be part of existing programs to break silos in research and institutions.
- There is a need for developing a theoretical framework to the nexus concept. Once we have an understanding of the concept and **how to operationalize it**, it can be applied to different capacity building programmes incl. business schools.



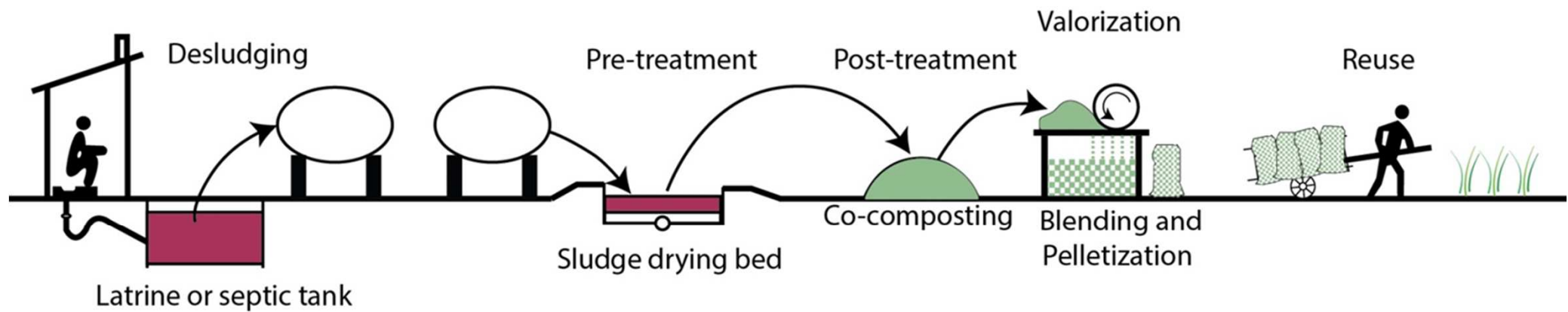
## Which key issues and topics need to be addressed in a nexus curriculum?

1. The ‘**risks**’ of *untreated waste affecting* soil and water (environmental pollution, informal wastewater irrigation, ...).
2. The ‘**benefits**’ of *treated waste supporting* soil and water management (nutrient recovery, composting, water reuse, ...) and vice versa (constructed wetlands, land based filter, ...).
3. The ‘**optimization**’ of benefits vs. risks in different settings, making the nexus technically feasible, economically viable & culturally acceptable.

**Key requirements:** inter-disciplinary, multi-criteria analysis, bio-economic simulation modeling, and skills in business planning.



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Thanks