# Maximizing Synergy among Goals and Targets through SDGs Interlinkage Analysis



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### Ghana: Infrastructure Development and SDG Interlinkages



Infrastructure relates to Goal 9 (4 targets) and another 19 targets under 9 Goals linking with more than 130 targets.



9.1 Sustainable infra. (8)

9.4 Upgrade infra.

9.a Sustainable infra. in developing countries (15/3)

9.C Access to ICT in LDCs (7/2)



2.a Rural infra. (2/1)



7.1 Access to energy (21/7)

7.2 Renewable energy

7.a International cooperation for Energy infra. (8/3)

7.b Energy infra in LDCs (7/3)



4.a Education facilities (10/1)

3.8 Health coverage (15/2)



11.1 Housing and slums

11.2 Transport

11.a Urban-rural linkage (7/3)

11.c Sustainable buildings



5.4 Public infra.



12.4 Chemicals management 12.5 3Rs



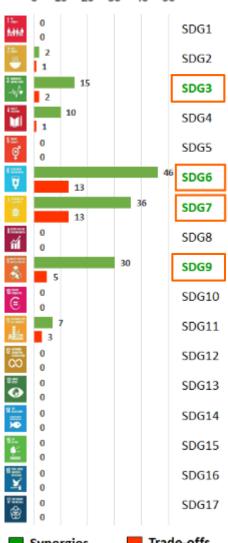
6.1 Drinking water (22/6) 6.2 Sanitation (24/7)

0.3 wastewater

6.5 Cross-border water



13.1 Climate resilience



Ghana's infrastructure

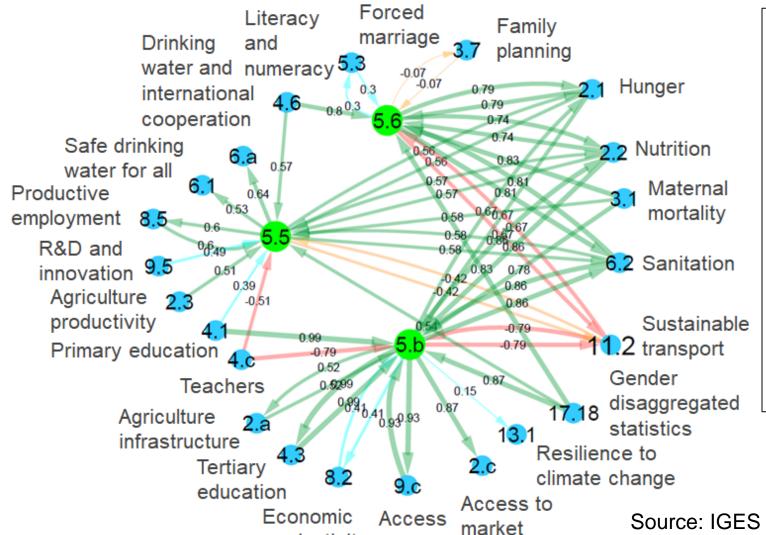
Synergies

Trade-offs

# Ghana: Gender Inclusiveness in Urban-Rural Linkages based on the Network Analysis

information





productivity to ICT

- OGender-inclusive measures, particularly 5.5 and 5.6, generating multiple positive impacts on many social and economic targets, can be used as a leverage point.
- Existing state of transport system and associated infrastructure may constrain further enhancement of gender inclusion should be addressed urgently.

\*Black lines: Synergies;

\*Red lines: Trade-offs.

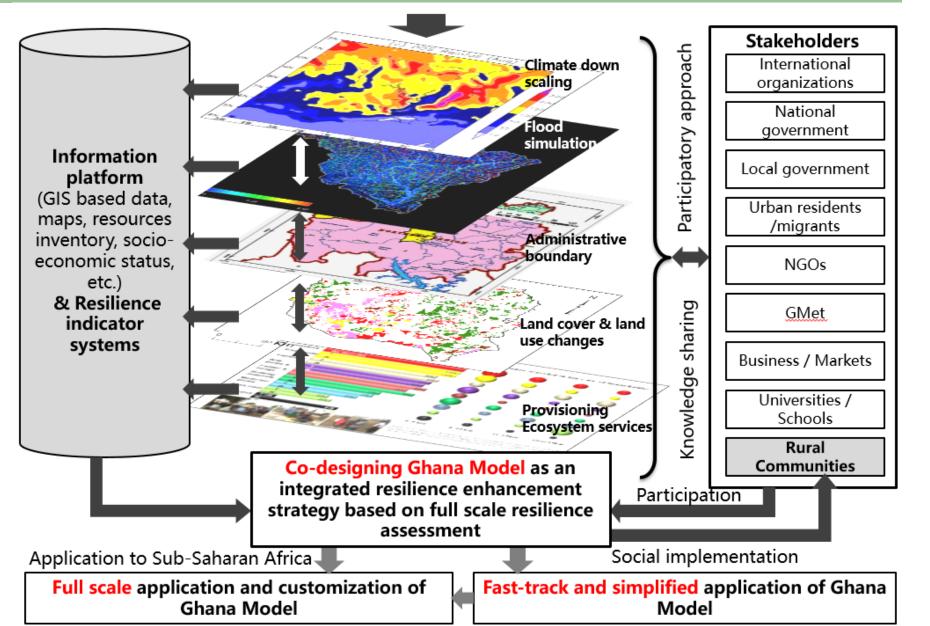
Source: IGES SDG Interlinkages Web Tool

(https://sdginterlinkages.iges.jp/visualisationtool.html).



#### Major Drivers in Sub-Saharan Africa: Climate, Ecosystem, and Socio-Economic Changes

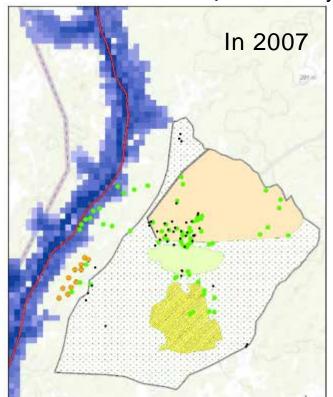




#### Major Drivers in Sub-Saharan Africa: Climate, Ecosystem, and Socio-Economic Changes



Estimated Inundation Area under Current Climate Simulation (After 8 days)



Human settlements Dry fields Rice\_fields Black volta river Chietanga boundary Vegetation Drought prone Grazing area Mango plantation Inundation depth [m] 0 - 0.10.1 - 0.5

Estimated Inundation Area under Pseudo

Global Warming Experiment (After 8 days)

Inundation area (water depth more than 0.1m) expands by 1.89 from 45.6km<sup>2</sup> under the current climate to 86.1km<sup>2</sup> under Pseudo Global Warming experiment

#### Possible Countermeasures

- Change to flood tolerant crops: sorghum (Sorghum bicolor) mix-cropped with rice (Oryza spp.)
- Design temporal flood protection levee by sandbag
- Slight shift of houses to the higher field

## Top 5 Solutions for Urban-Rural Linkages in Ghana



#### based on stakeholders ranking questionnaire survey (n=20)

- Gender inclusiveness
- Investment in basic and economic infrastructure
- Promotion of modernized and sustainable agriculture systems
- Promotion of effective decentralized system
- Innovative financial inclusion systems (including crop insurance, innovative sustainable credits, etc)



Accra Workshop, Ghana (15-16th, August 2018)



#### Gender inclusiveness

E.g. Training rural women, such as those involved in groundnut and shea butter processing, soap making, and smock weaving, on value addition and marketing of their produce, will improve income generation.