Sierra Leone NAPA Implementation: Incrementality of Adaptation

Presented by N. Telahigue CLIMTRAIN 2nd Workshop

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Sierra Leone: Overview

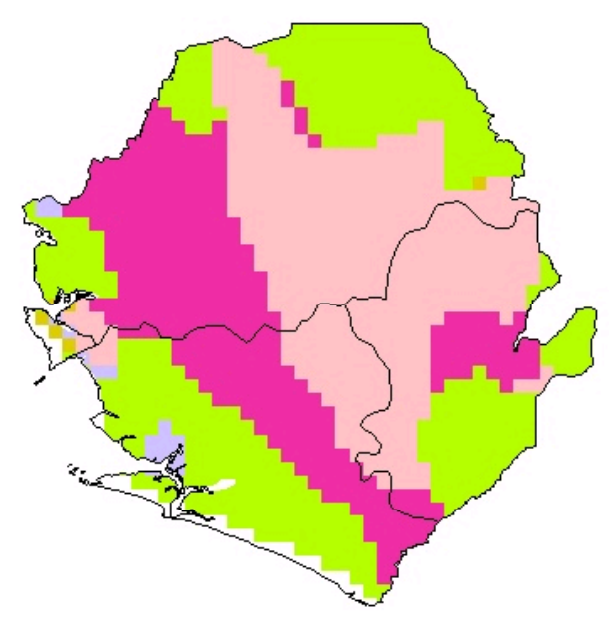
Total area 71,740 sq km

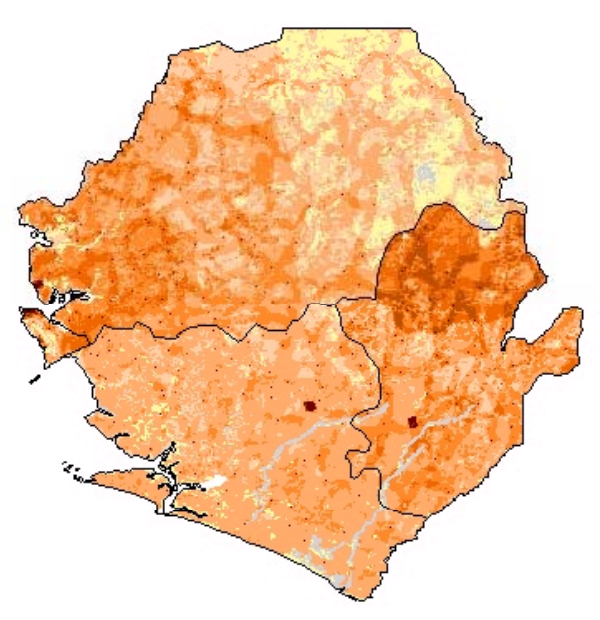
tropical hot and humid; summer rainy season (May to December); winter dry season (December to April)

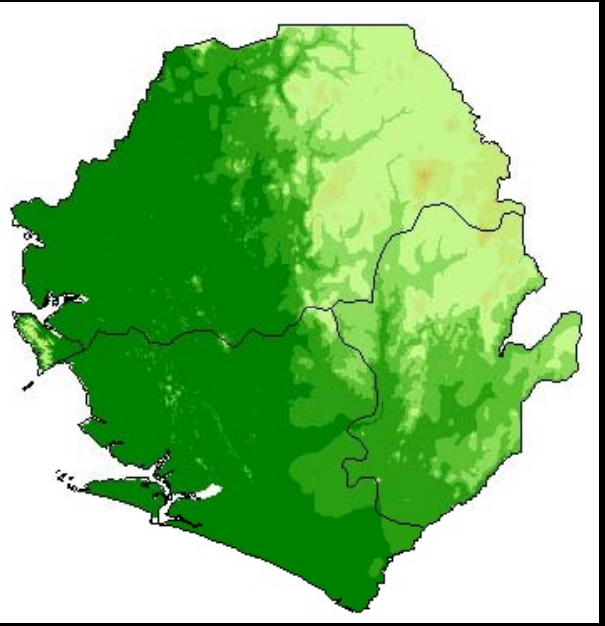
arable land: 7.95%, permanent crops: 1.05%

75% of the population work in agriculture, contributing about 45 % of GDP, but farmers are among the poorest in the country.

Environmental characteristics and constraints







Environmental Constraints

- Low soil suitability
- Erratic rainfall and cold stress risk
- Steep slopes and mountains
- Severe and very severe land degradation
- High climatic production potential

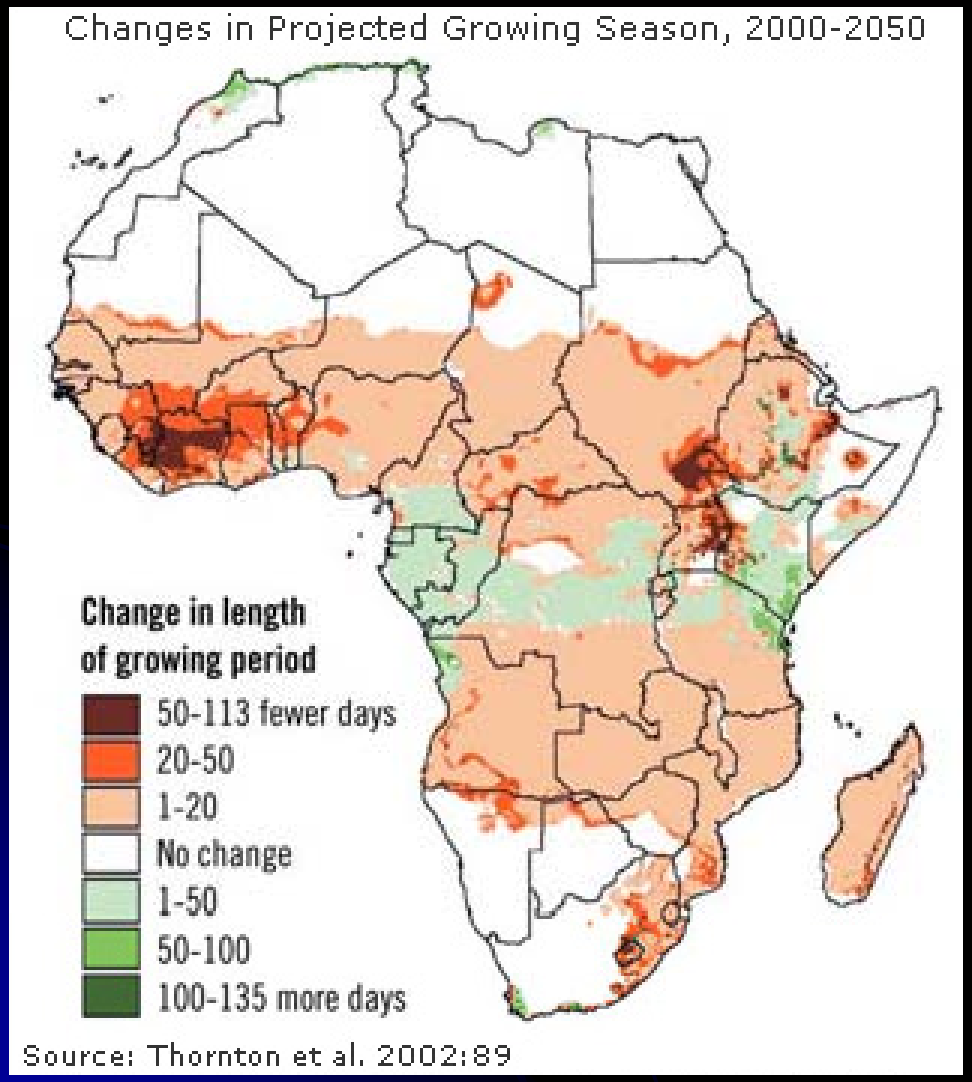
Population (People per Sq Km)

- 0 – 2
- 3 – 10
- 11 – 20
- 21 – 50
- 51 – 100
- 101 – 200
- 201 – 500
- 501 – 1000
- >1000

Elevation (Metres)

- 0 – 100
- 100 – 200
- 200 – 300
- 300 – 400
- 400 – 500
- 500 – 750
- 750 – 1000
- 1000 – 1500
- 1500 – 2000
- 2000 – 3000

Vulnerability to climate change



High risks on food security of strictly rain-fed rice cultivation

Vulnerability to climate change

According to the Initial National Communication (INC), sectors that are most vulnerable to climate change are:

Agriculture, Fishery and Food Security;

Water Resources;

Forests and Natural Resources;

Land Erosion and Human Settlement;

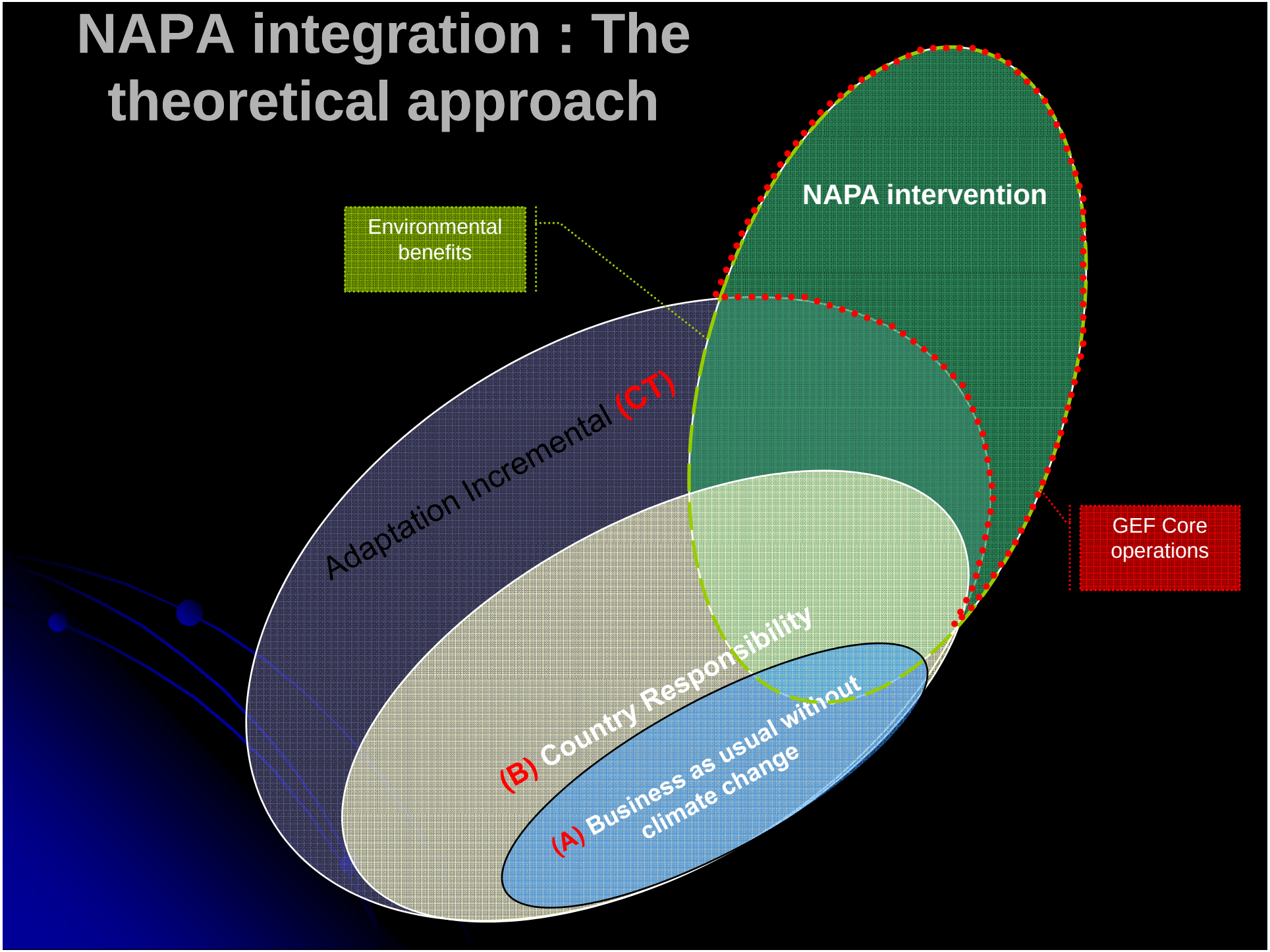
Coastal Region, and

Human Health.

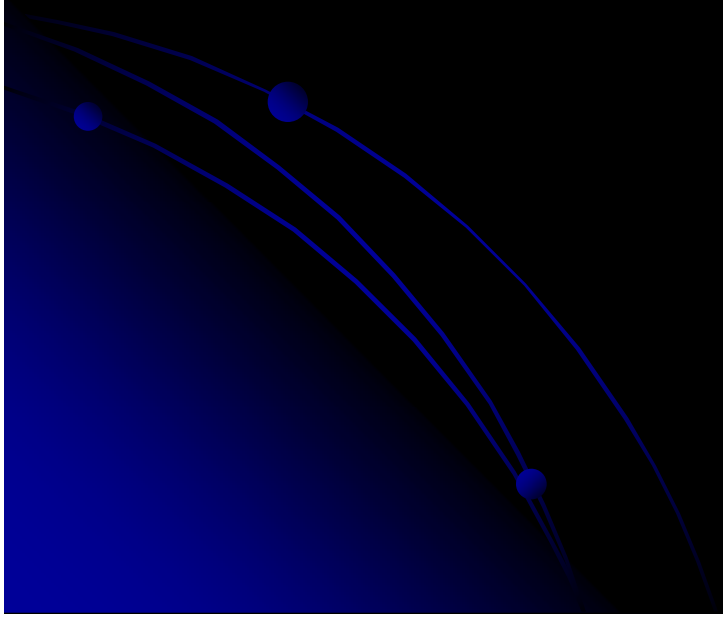
NAPA- Agriculture Sector-Selected priority adaptation activities/options

- Irrigation and land drainage system for agricultural activities.
- Improved soil management,
- Agricultural land-use and land cover management plans.
- Training on climate change and agriculture
- Improve food storage facilities and establish seed banks.
- Promote swamp land farming

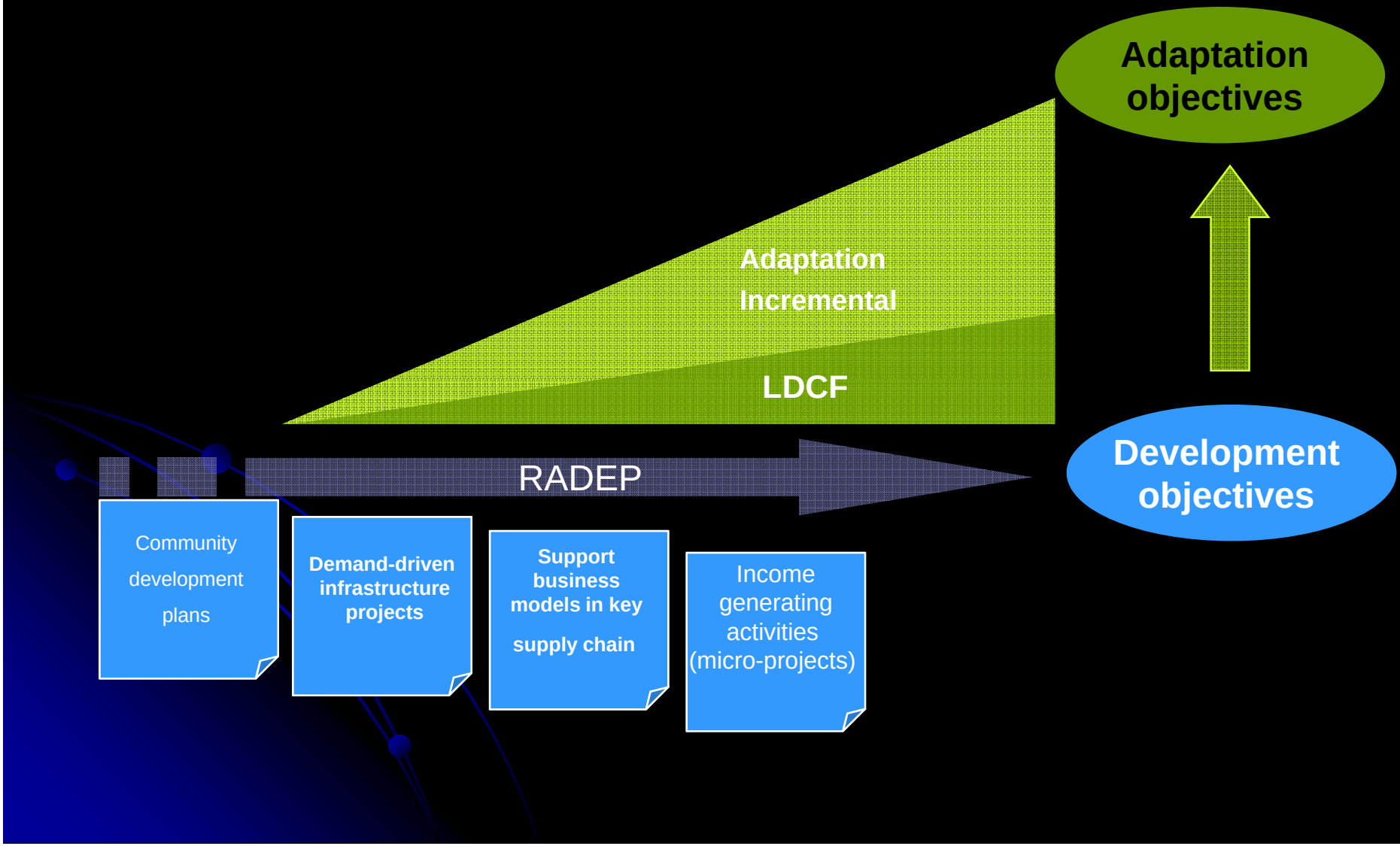
NAPA integration : The theoretical approach



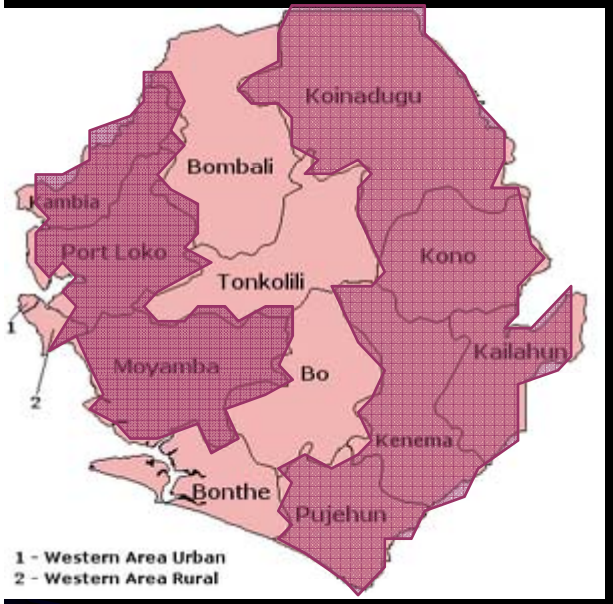
How does it translate into practice ?



Development vs. Adaptation objectives



LDCF Increment



Valley Swamp for rice production

Increased Resilience to CC

Irrigation and drainage systems

Capacity Building and Awareness Raising

LDCF Increment

- Map and characterise Highly vulnerable areas of inland swap rice production
- 100 ha of inland swamps in climate risky areas are more resilient (to produce produce rice at least 80 % of the lowest yielding limit: average - 2 t/ha)
- Rice yields increased and at least 2 crops/yr secured. Increased water use efficiency for irrigation in the uplands
- Small scale irrigation schemes promoted (100 ha in the uplands)
- Improved drainage systems and water control measures implemented in critical lowland sites (sites with high iron toxicity and low fertility)
- Advice to FBOs on sustainable water management and soil fertility/best practices Weather stations improved /established and functional in 16 stations (2 in each targeted district)
- Procurement of modern weather measurement and observation equipment for Agriculture.
- Capacity building, training and awareness raising

Expected adaptation benefits

- Climate-proofed operations under the BAU scenario
- Reduced vulnerability to climate change of rural small-scale farmers and reduced risk of food insecurity
- Enhanced complementarities of autonomous adaptation and planned adaptation
- Improved observation and monitoring of climatic variability and impact on agriculture
- Increased capacity to create a sound enabling environment for mainstreaming adaptation to climate change at different scales