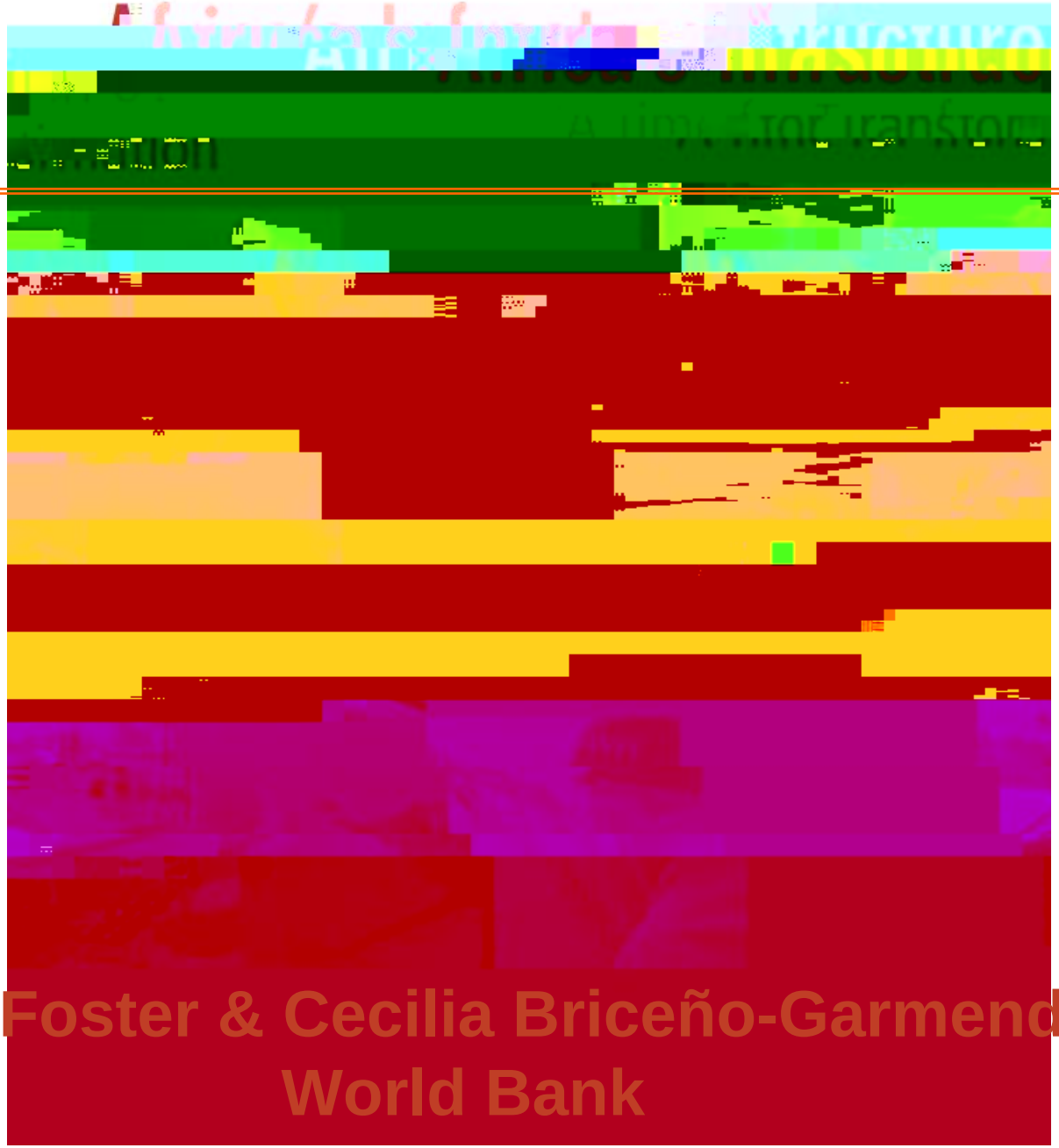
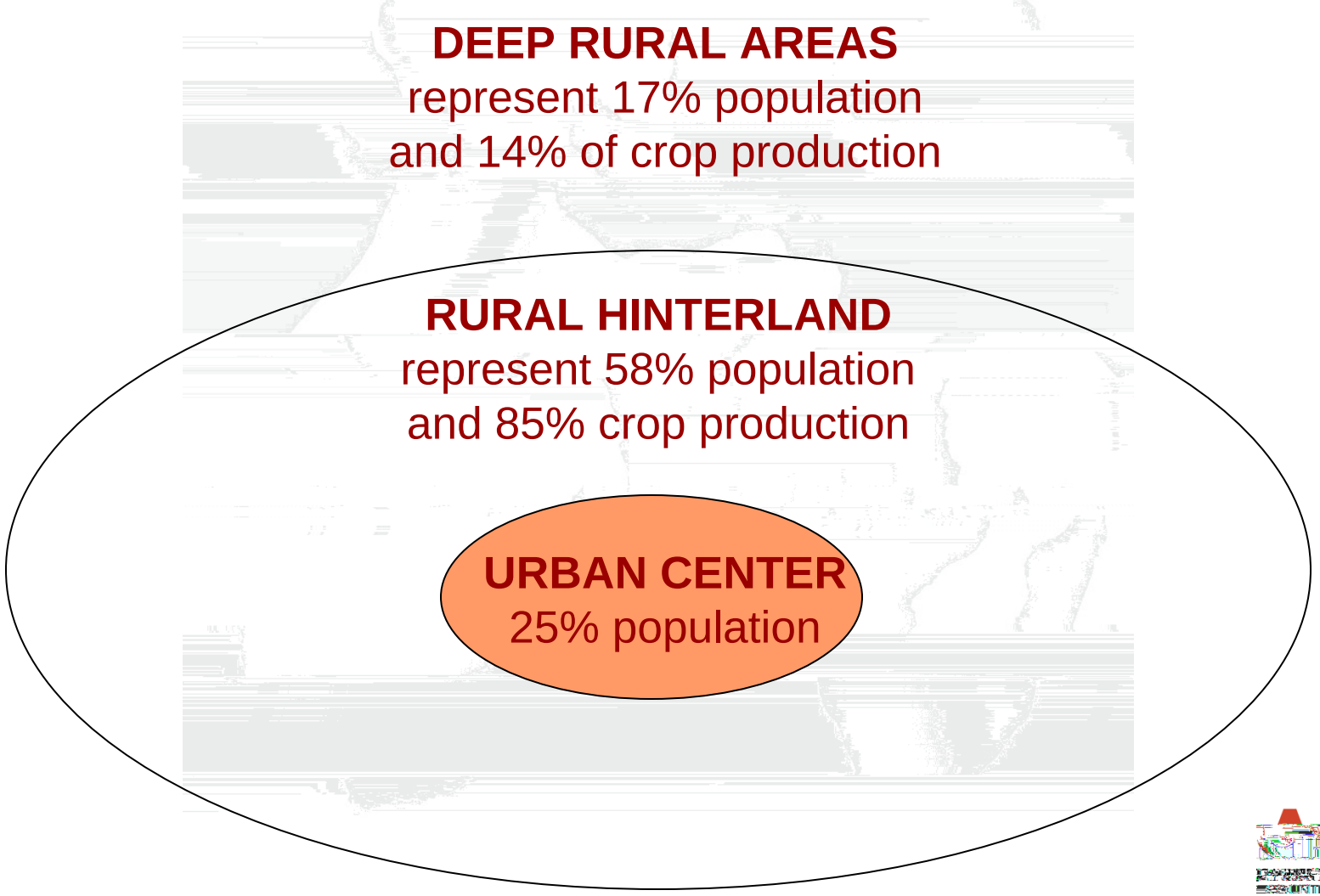


Vivien Foster & Cecilia Briceño-Garmendia,
World Bank

Africa Infrastructure Country Diagnostic: a multi-stakeholder effort

Key Message #1

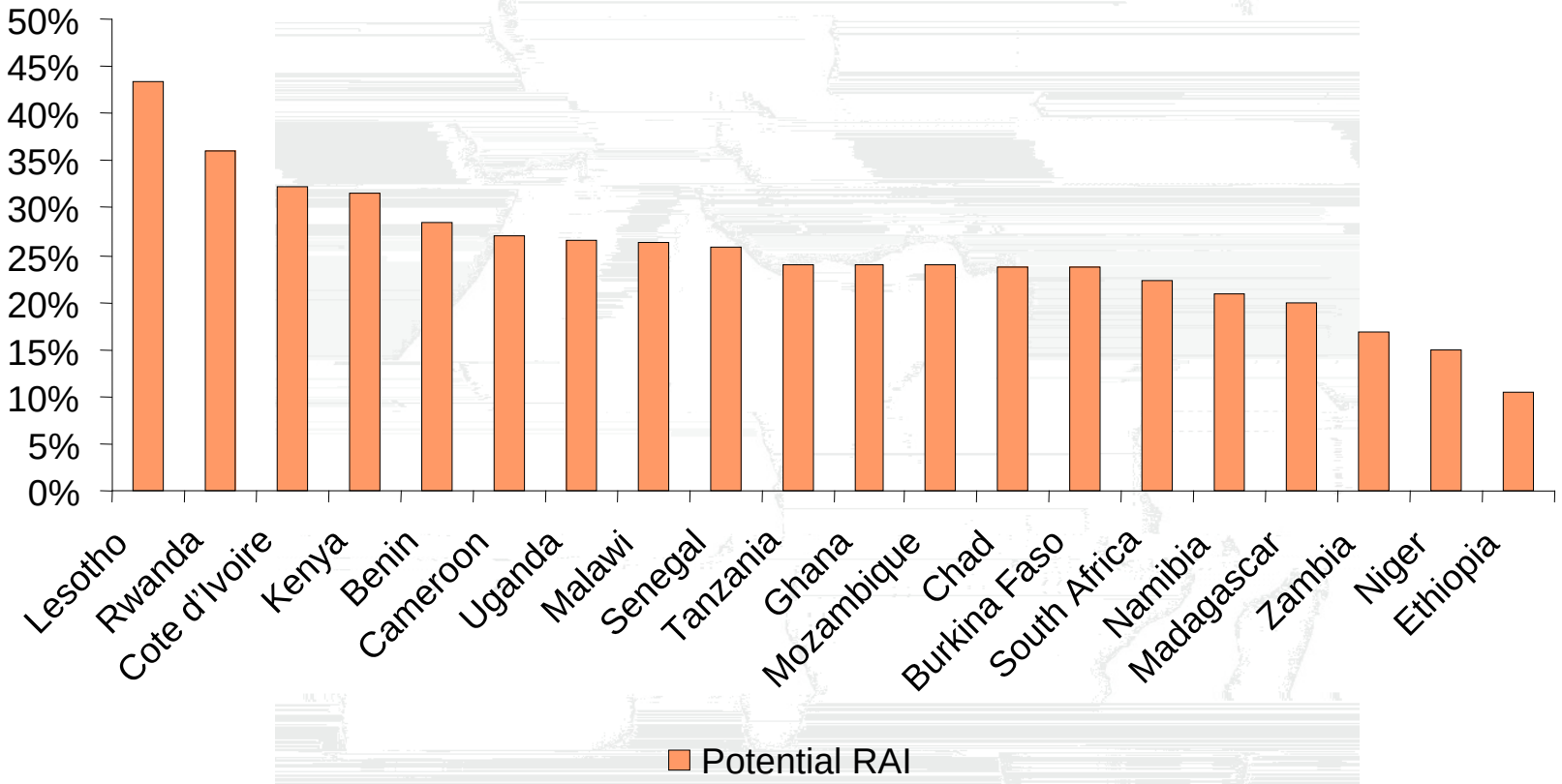
Emerging evidence of a virtuous circle linking urban and rural development



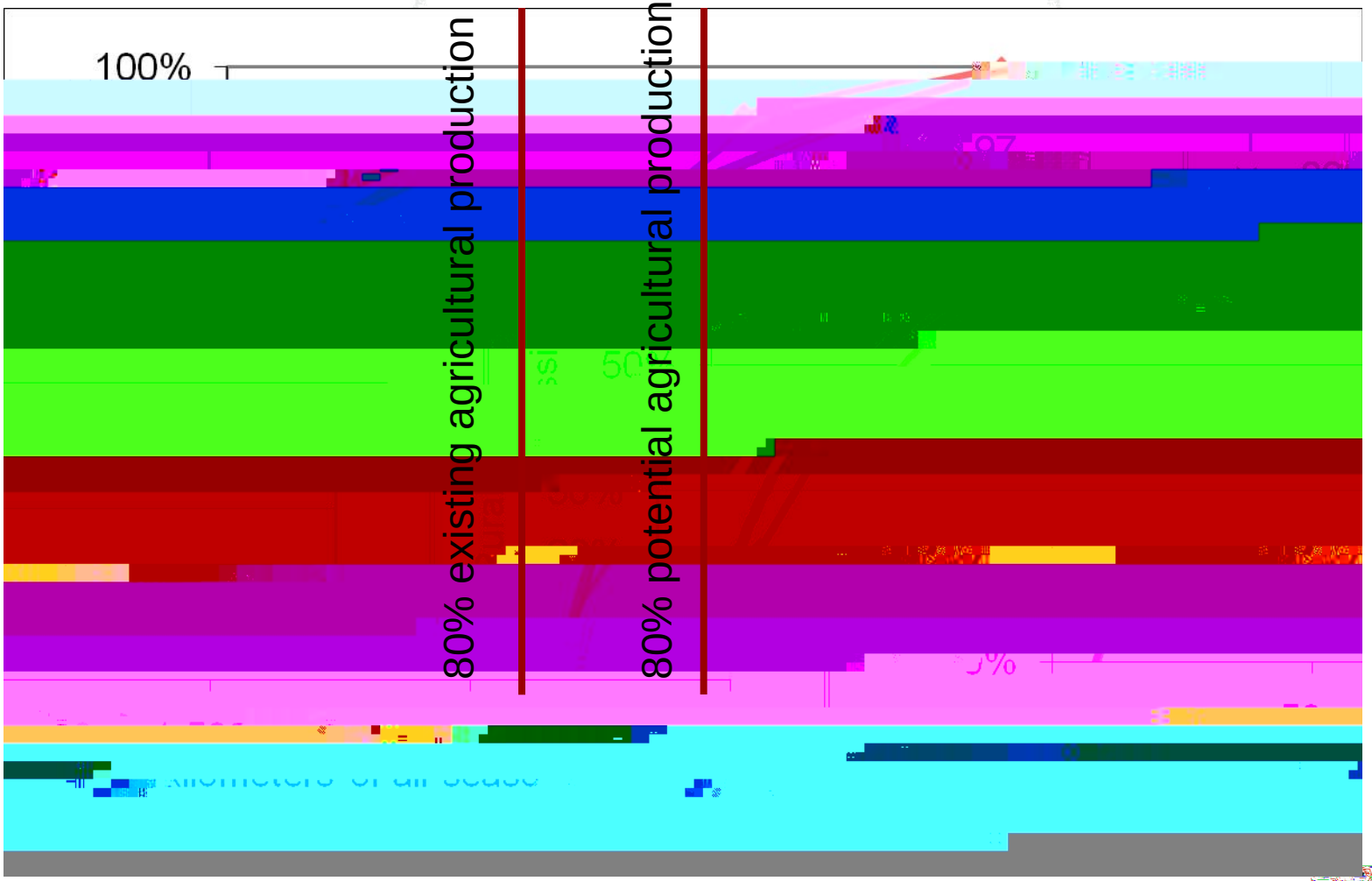
Low rural coverage reflects high cost, low affordability, and limited investment

- Infrastructure coverage in urban areas five to ten times higher than in rural areas (but still low)
- Costs of developing infrastructure increases dramatically as population density declines
  - US$600 pc (urban) versus US$6,000 pc (deep rural)
- Even allowing for appropriate technologies, affordability of infrastructure declines dramatically
  - One annual budget (urban) versus ten (deep rural)
- One third of rural infrastructure needs rehabilitation compared with one quarter elsewhere
- Historically only about 20% of public investment in infrastructure channelled to rural space

Only one third of rural Africans has access to an all season road – less in many cases



Focus on connecting high value agricultural land keeps costs down to US$2.5 billion



Key Message #3

Economically viable to double current irrigat [area but sensitive to costs

Major increase in irrigated area desirable with small schemes playing a major role

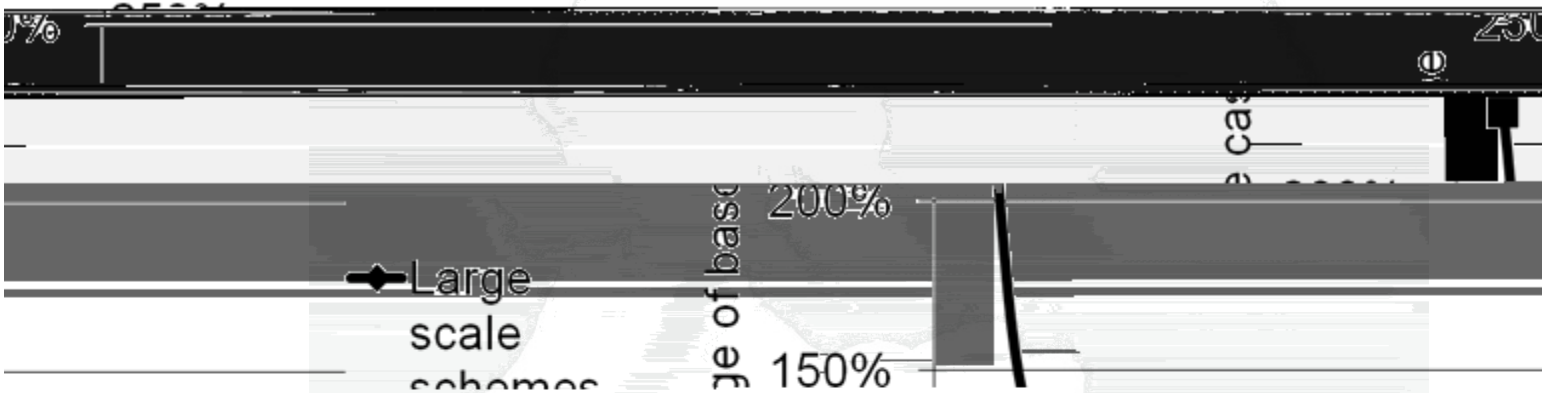
- Irrigation currently confined to handful of countries
- 4% of land produces 20% of agricultural value
- Major potential for economically viable expansion
- Viability highly sensitive to (storage) costs
- Bulk of potential lies in small scale schemes
- Investments up to 2000% agricultural spending
- Anticipated impacts
  - Dramatically reduce cereal imports
  - Prevent increases in malnutrition due to climate change

About 7 million hectares of new irrigation potential – predominantly small scale

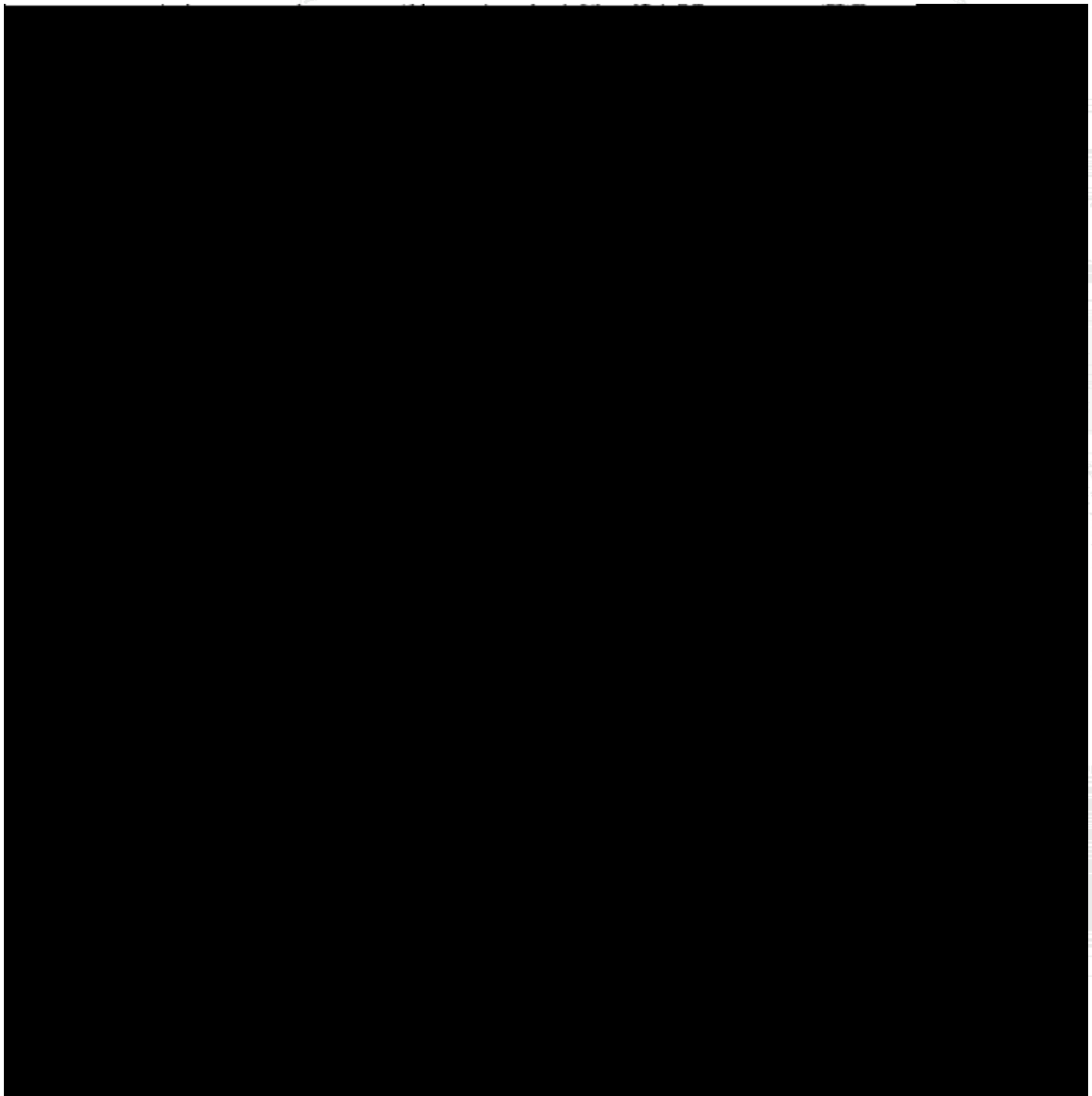
IRR threshold of 12%	Agricultural area (millions hectares)	Investment (US$billion pa)	Internal Rate of Return (%)
Small scale schemes	5.4	1.8	26
Large scale schemes	1.4	0.3	17
Total new schemes	**6.8**	**2.1**	**25**
Rehabilitating existing schemes	1.7	0.6	Na.
Total	**8.5**	**2.7**	**25**

Irrigation is mostly viable only for cash or high value food crops (horticulture) with revenues >US$2,000/ha/yr

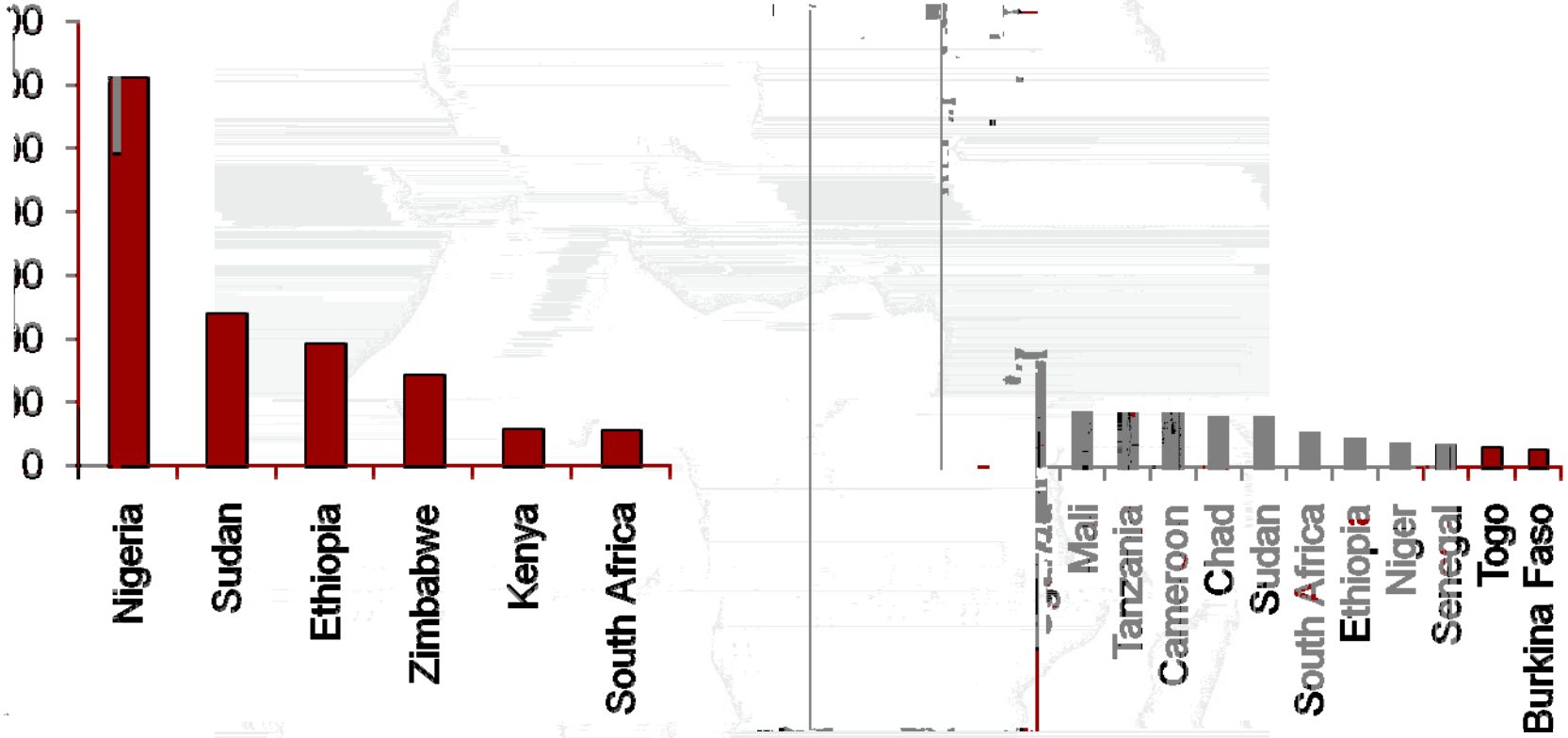
Small scale gives much higher returns, but potential area much more sensitive to cost



Spatial extension of large and small scale irrigation potential identified



Irrigation potential concentrated in some 15 countries, most notably Nigeria

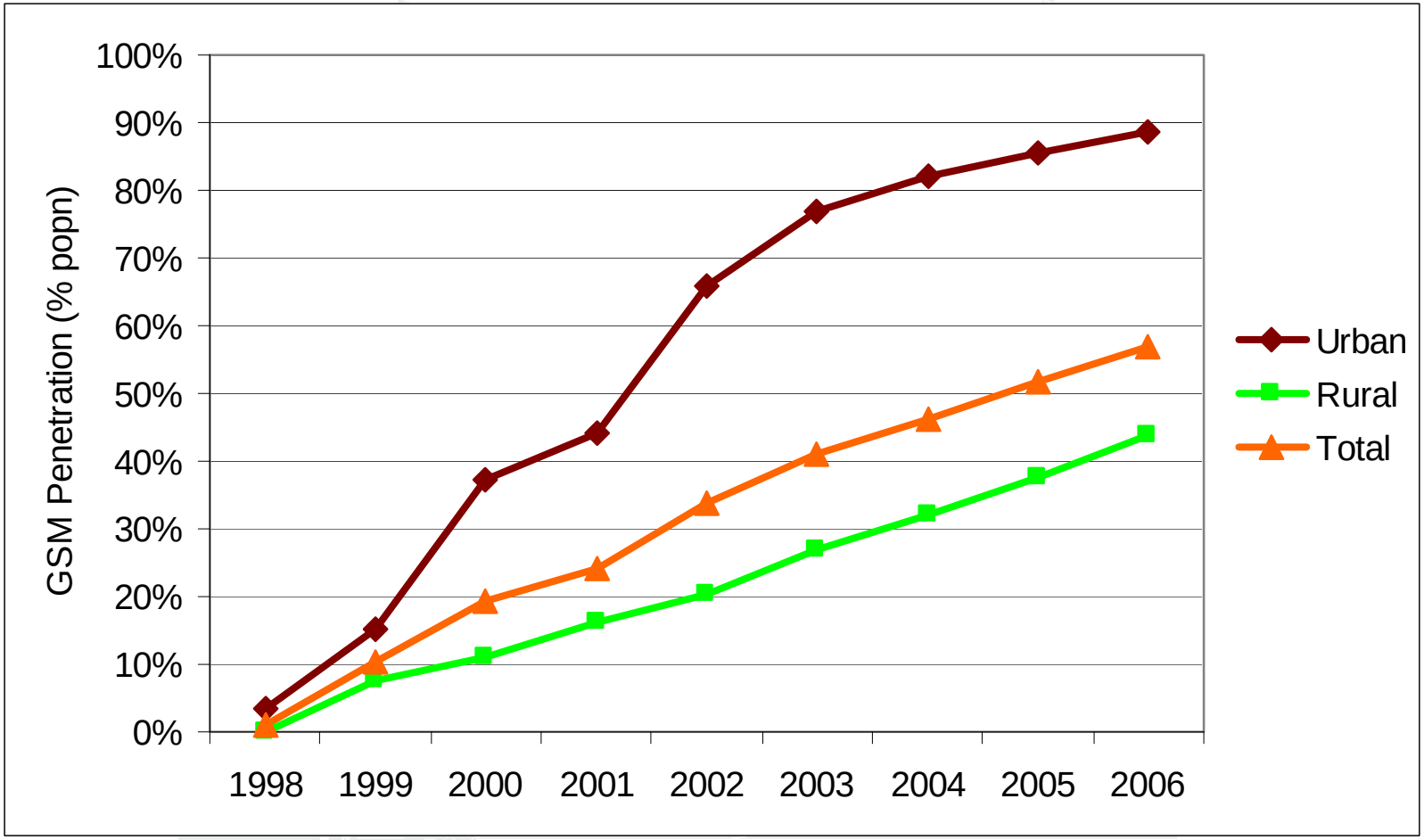


Note: graphs show all countries with more than 50,000 hectares of potential for large or small scale irrigation

Key Message #4

Rural ICT coverage is already a reality ripe for further exploitation

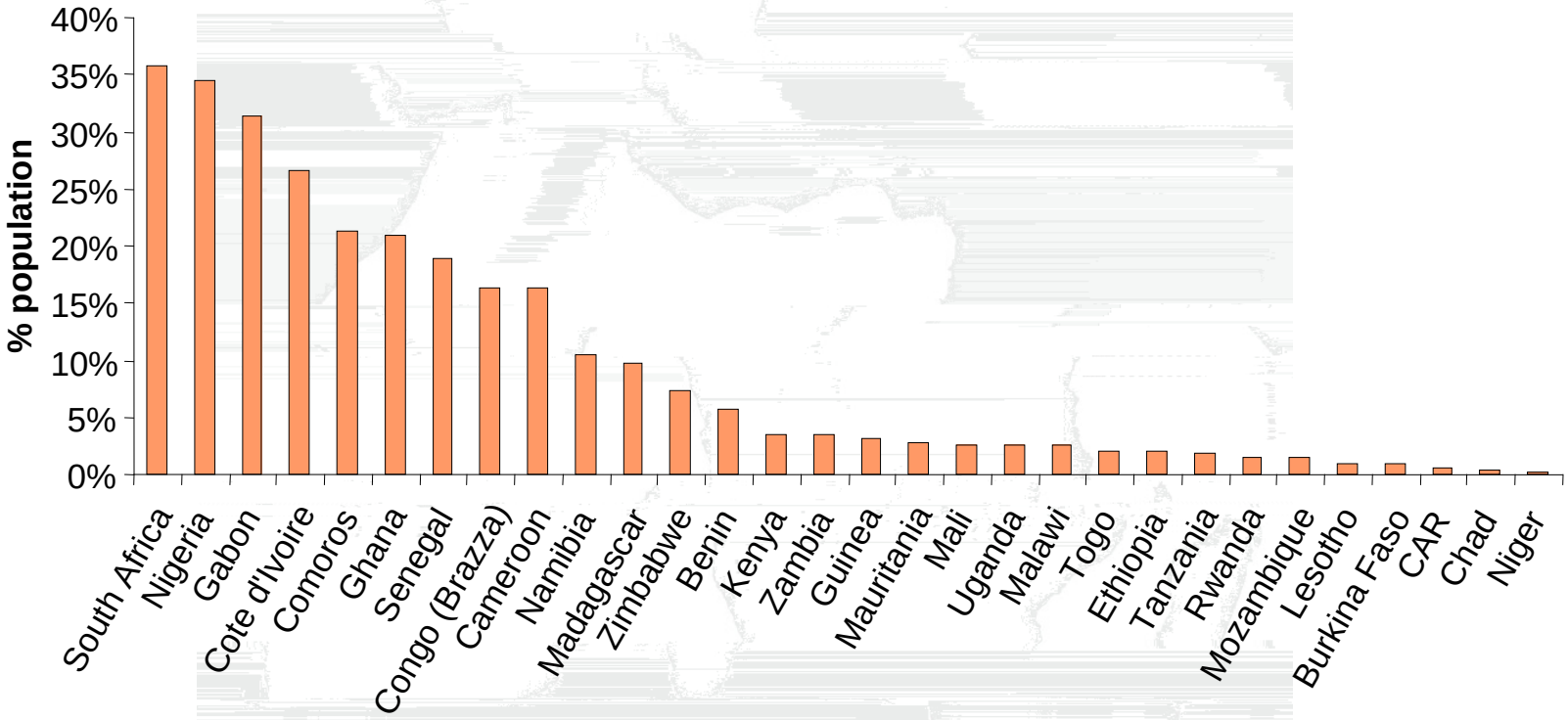
GSM footprint has come from nowhere in 1998 to reach about half rural population



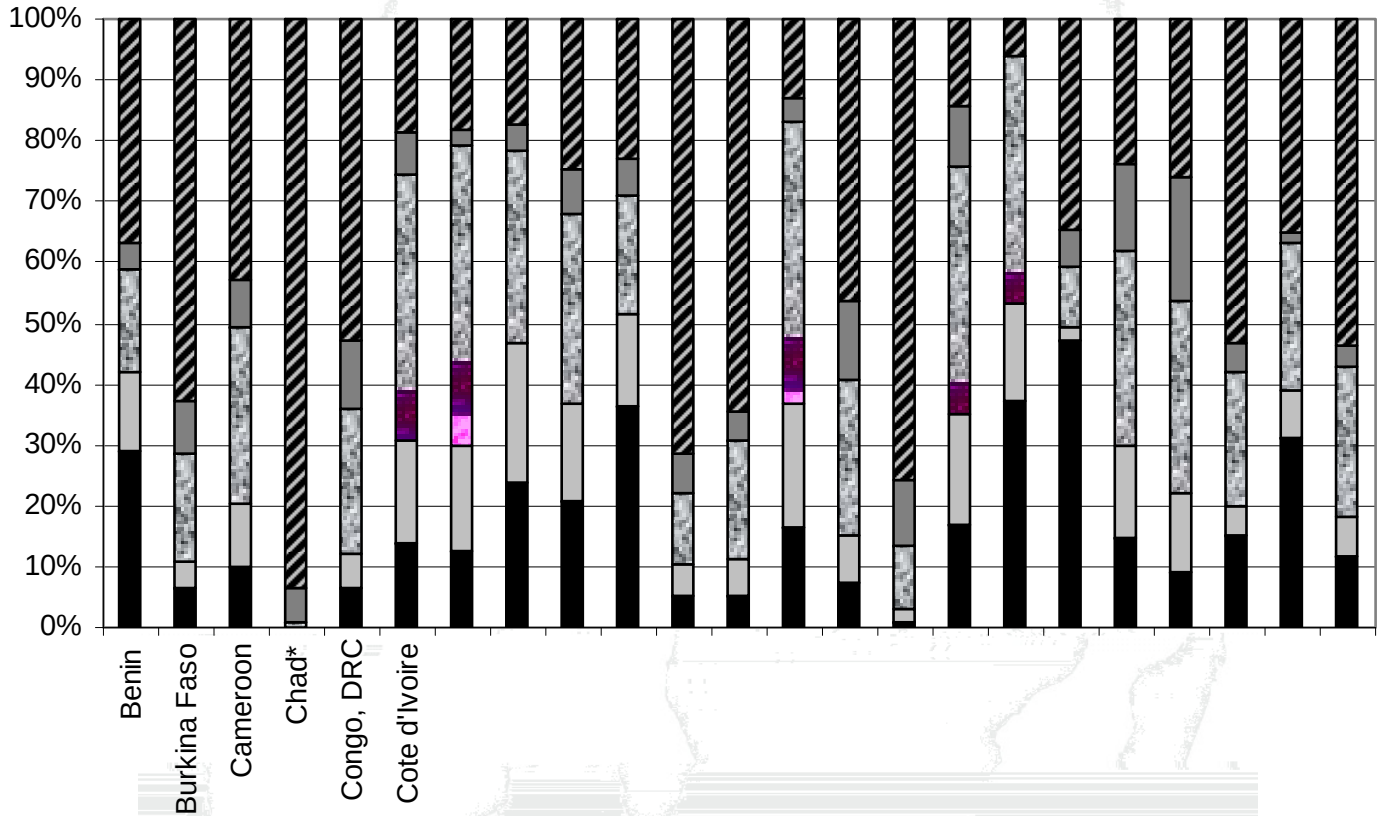
Fundamental sector issues need to be fixed before rural electrification can take-off

- Rural access to power only 12% and expanding by only 0.5% per year
- National power networks in state of crisis with supply shortages and very high costs
- Strong correlation in coverage between urban and rural areas
- In many countries half rural population lives more than 50 kilometers from sub-station
- Countries with rural electricity funds and agencies are doing significantly better on access

In many countries rural electrification rates remain below 5% population



Within range of trunk power infrastructure: only 40% rural hinterland, 10% deep rural



Key Message #6

Developing rural infrastructure platform would cost US$25bn pa for a decade

Rural infrastructure target **US$bn pa**

ICT