

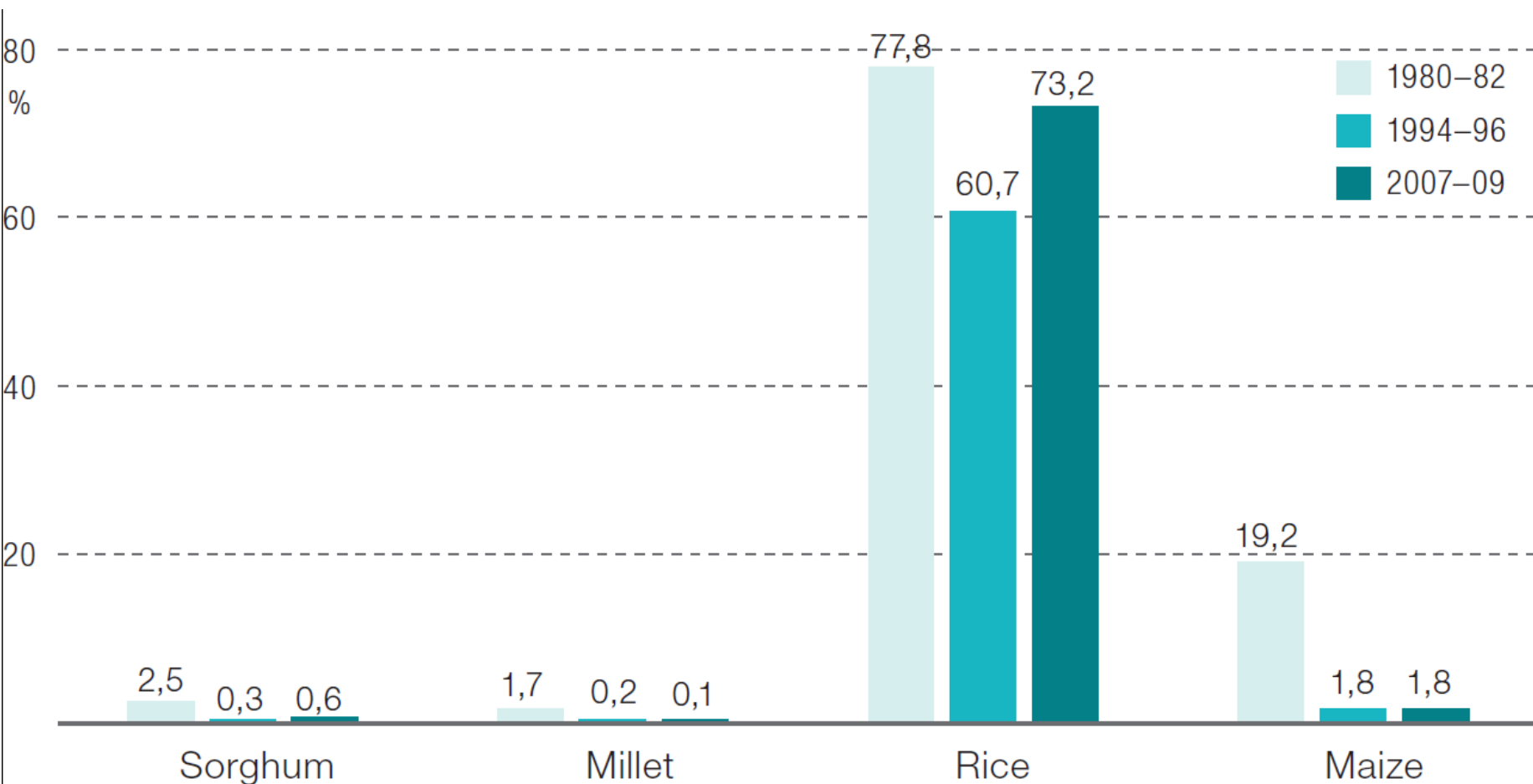
# Markets and interdependences

WAF

Sahel and West Africa Club Secretariat (SWAC/OECD)  
West African Futures: settlement, market and food security

[www.oecd.org/swac/waf](http://www.oecd.org/swac/waf)





Source: FAO 2012

## Food supply and consumption in Burkina Faso (2003)

in kg/person/year	Food Balance Sheet (FAO 2003)	QUIBB (INSD 2003)	Difference
Sorghum	89.6	75.23	+19%
Millet	72.6	72.78	0%
Maize	48.1	41.87	+15%
Rice	16.6	22.29	-26%

Source: FAO, Food Balance Sheet ; INSD, household living conditions survey; authors' calculations.

**Macro data**

**Micro data**

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- Sorghum: 15kg per capita = 185 000 tonnes
- Maize: 6kg per capita = 80 000 tonnes

Understanding and quantifying interdependences:

- Market functioning: prices, quantities
- Producer decisions
- Policy scope and impact

## Why Maize:

- more homogenous production and consumption patterns
- increasing share in both, cash crop and food staple
- almost no extra-regional trade flows

1. Consumption / production
2. Marketed surplus = size of market
3. Spatialisation of consumption and market surplus
4. Identification of major flows / visualisation of market sheds

Auto-consumption is a key variable, however there is no information available

What we did:

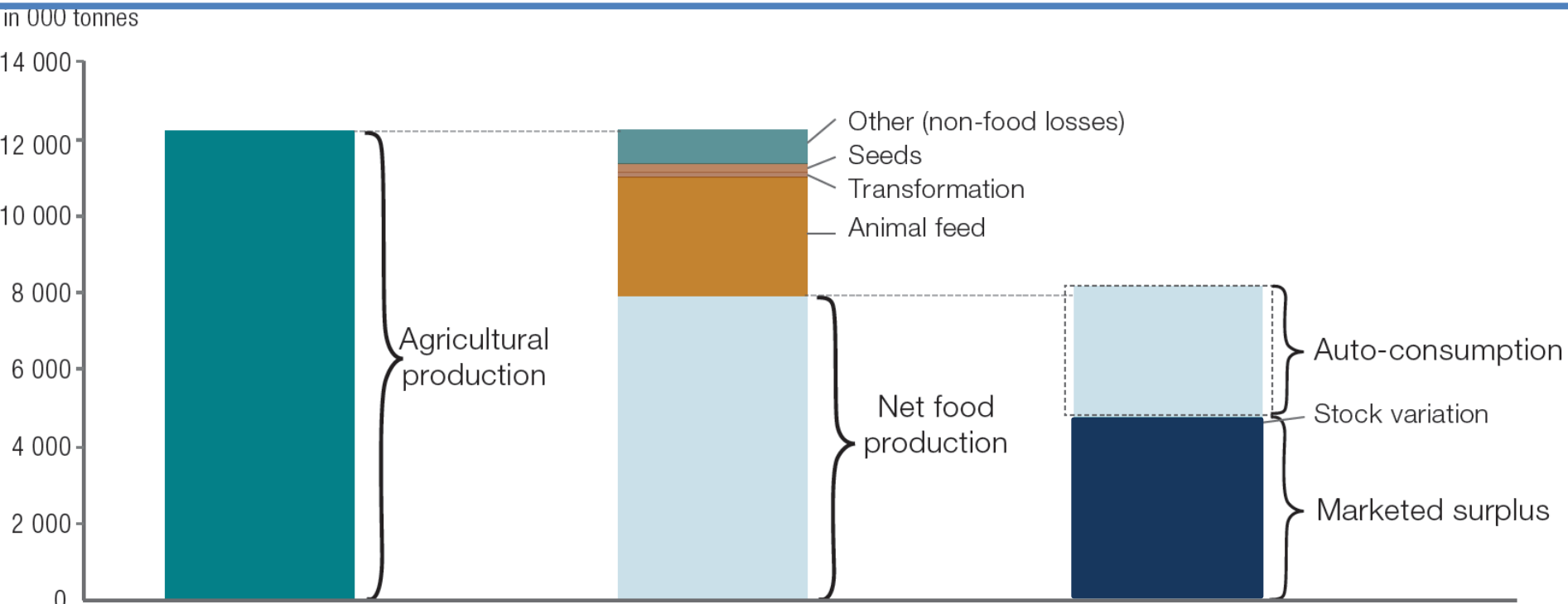
(1) Domestic (regional) food availability = regional consumption = 7.5 million tn (28kg)

(2) Urban consumption = 3.2 million tn (30kg x urban pop)

(3) Rural consumption = 4.3 million tn (7.5-3.2, 26kg)

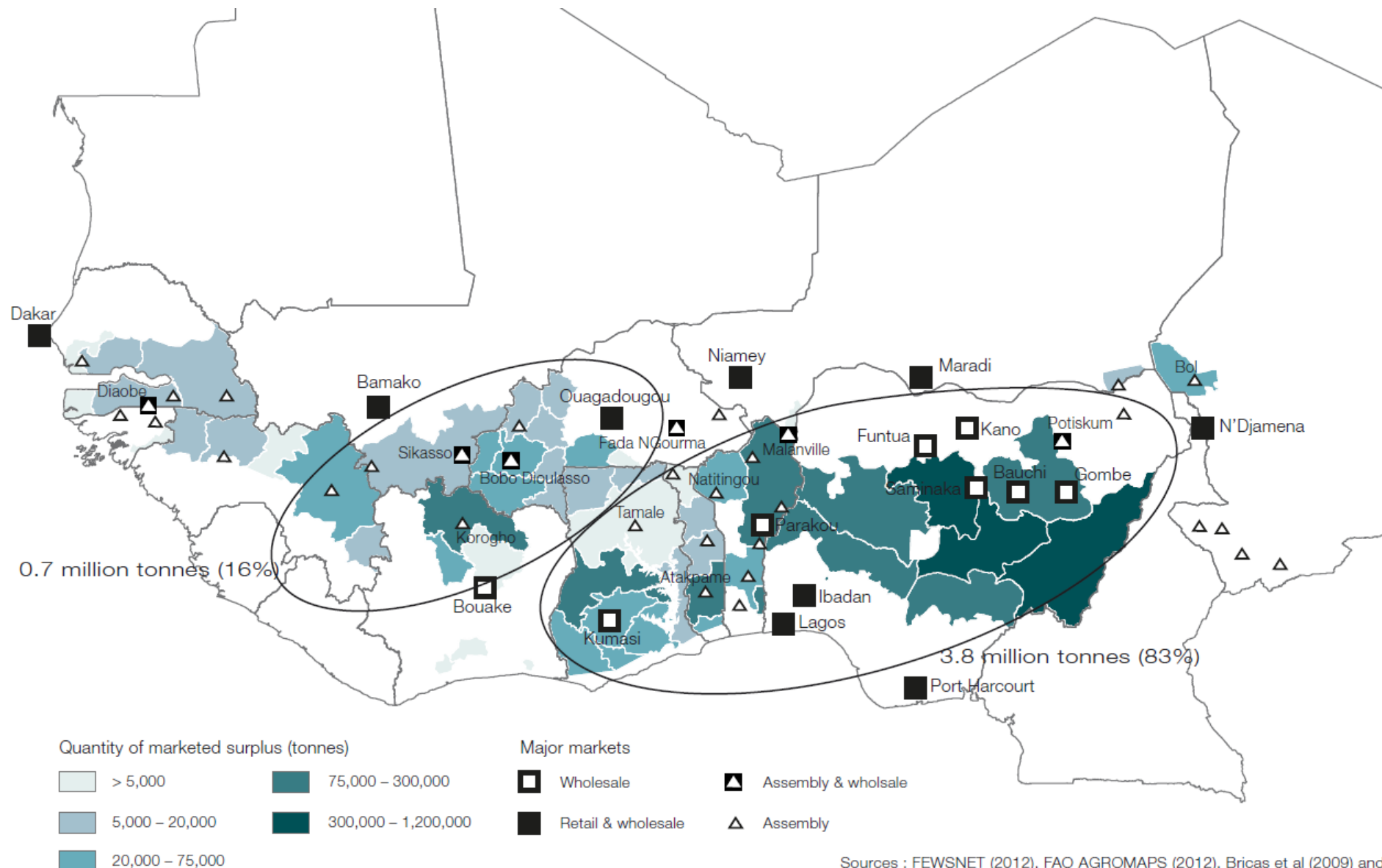
(4) Producers auto-consumption = 27kg, of which 90% auto-consumption = 24kg = 3 million tn



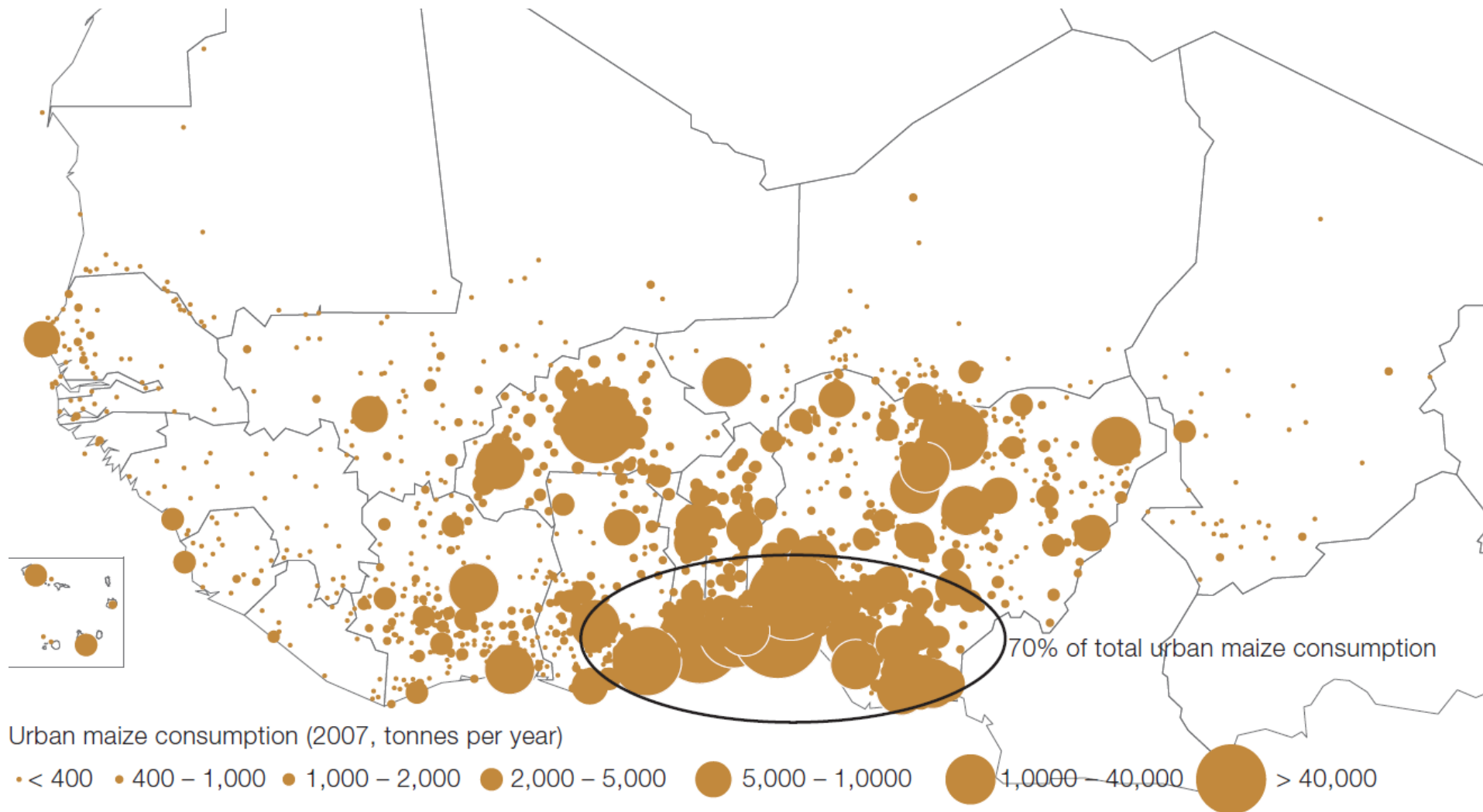


Marketed surplus = size of market

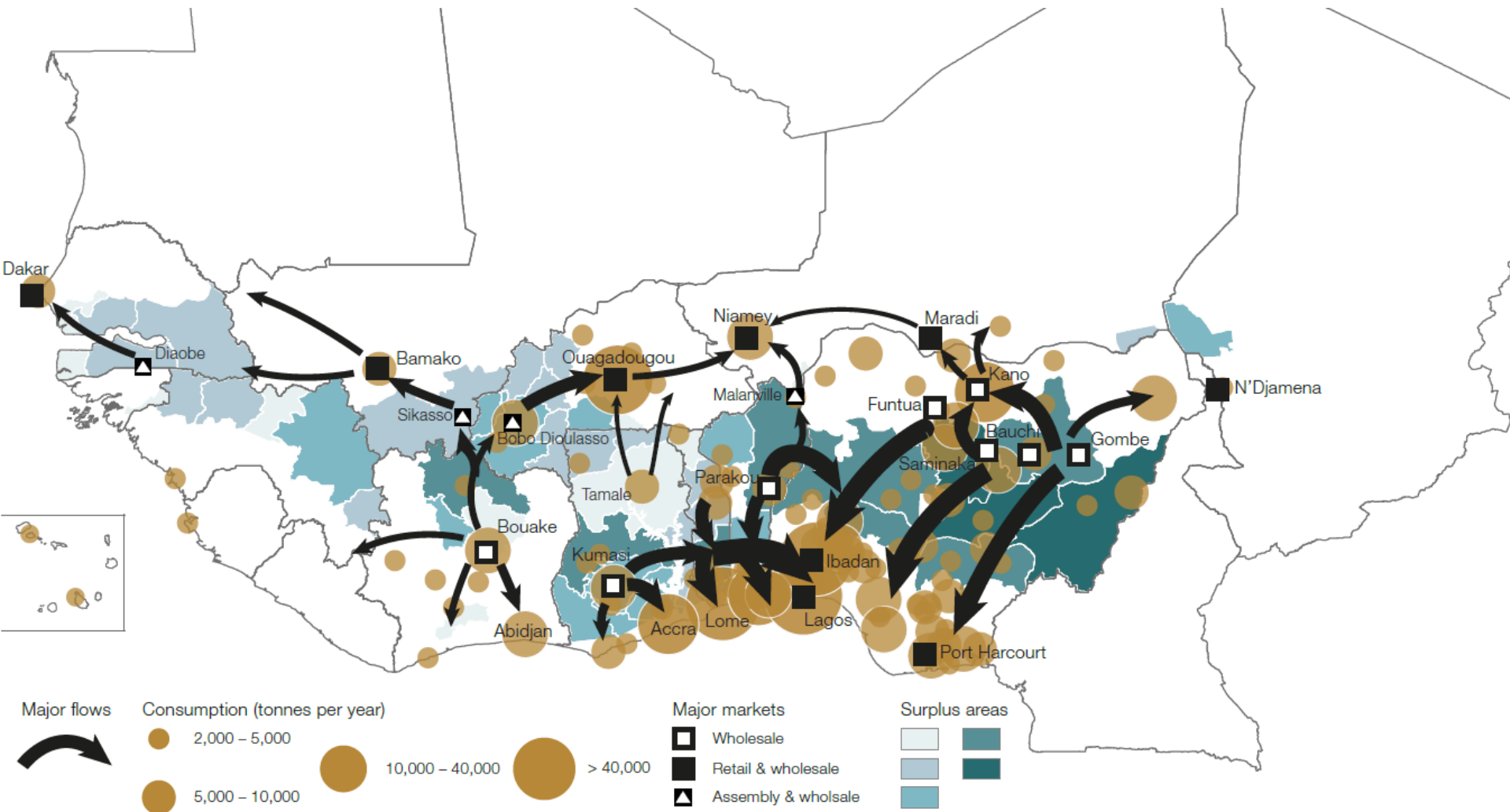
- 2007: marketed surplus = 4.8 million tonnes, 60% of net food production
- 1980: marketed surplus = 0.6 million tonnes, 35% of net food production



Sources : FEWSNET (2012), FAO AGROMAPS (2012), Bricas et al (2009) and <sup>1</sup>U



Sources : Africapolis 2008, Bricas *et al.* 2009, SWAC/OECD 2012



- With increasing concentration of production and consumption **stronger interdependences between actors and geographic spaces** are created
- **Size and direction of flows** are the result of market dynamics: quantities, demand, prices, transaction costs (information, infrastructure), substitutes, policies
- Geography of interdependences

- The importance of the regional market for food security and policy making can not be measured in quantity terms alone
- The relative size of regional flows is better captured in terms of share of marketed surplus
- For policy making to integrate the interdependences created by the regional market implies the availability of **data** > spatial, consumption, etc..