

Complying with the Maputo Declaration target:

Trends in public agricultural expenditures and implications for pursuit of optimal allocation of public agricultural spending

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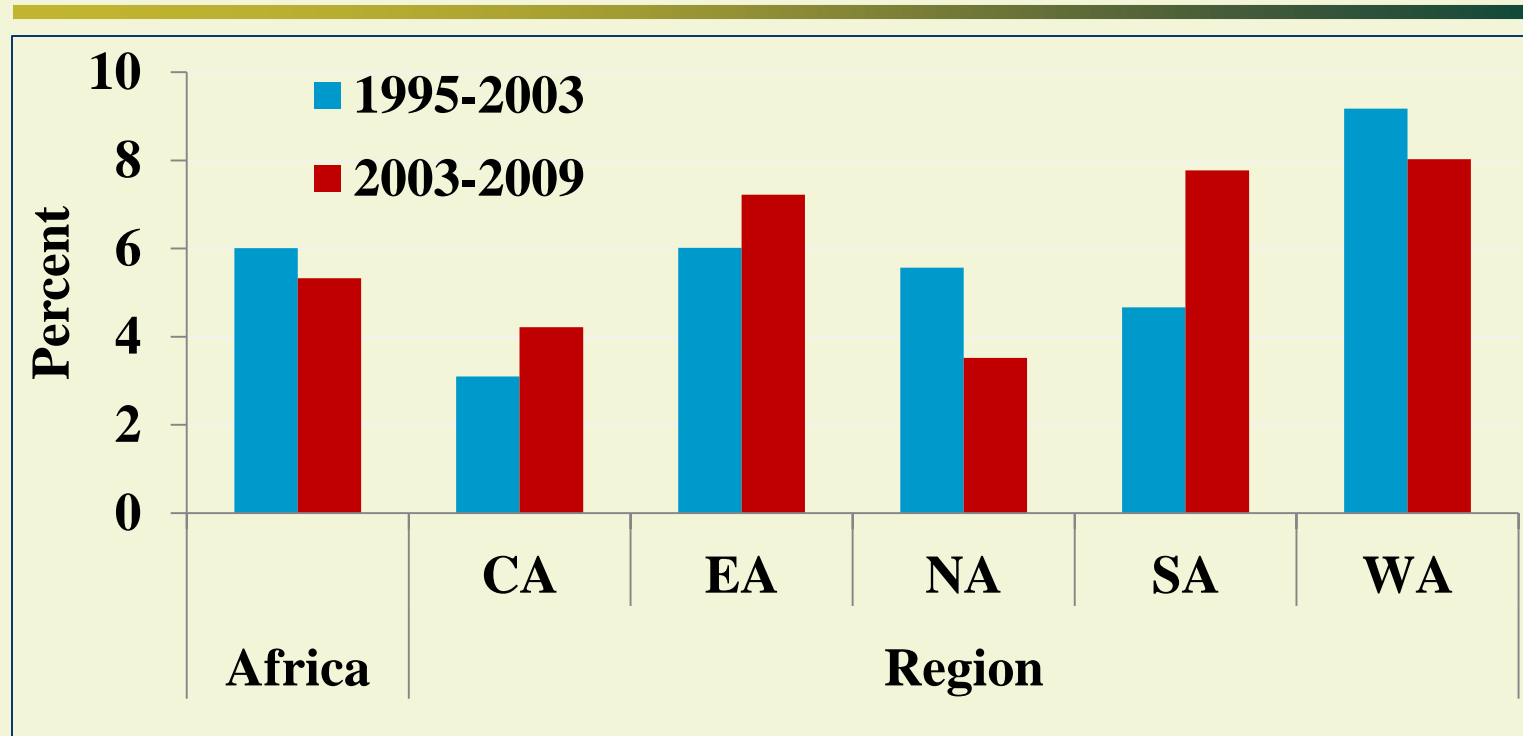
Background and Motivation

- In 2003, African governments adopted the Comprehensive Africa Agriculture Development Programme (CAADP) with two key targets
 - » Achieve 6% ag GDP growth rate per year
 - » **Spend 10% of national expenditure on agriculture – Maputo Declaration**
- Public spending (fiscal policy in general) in agriculture is a key instrument for most developing country governments to achieve national development objectives:
 - » Most of the poor work in the agriculture sector and in rural areas
 - » Sector employs 65% of the labor force and accounts for 32% of GDP
 - » Evidence that public agriculture investment (particularly in R&D) has large poverty-reducing effects
 - » Experience of Green Revolution (especially India and China)

Objectives and outline of presentation

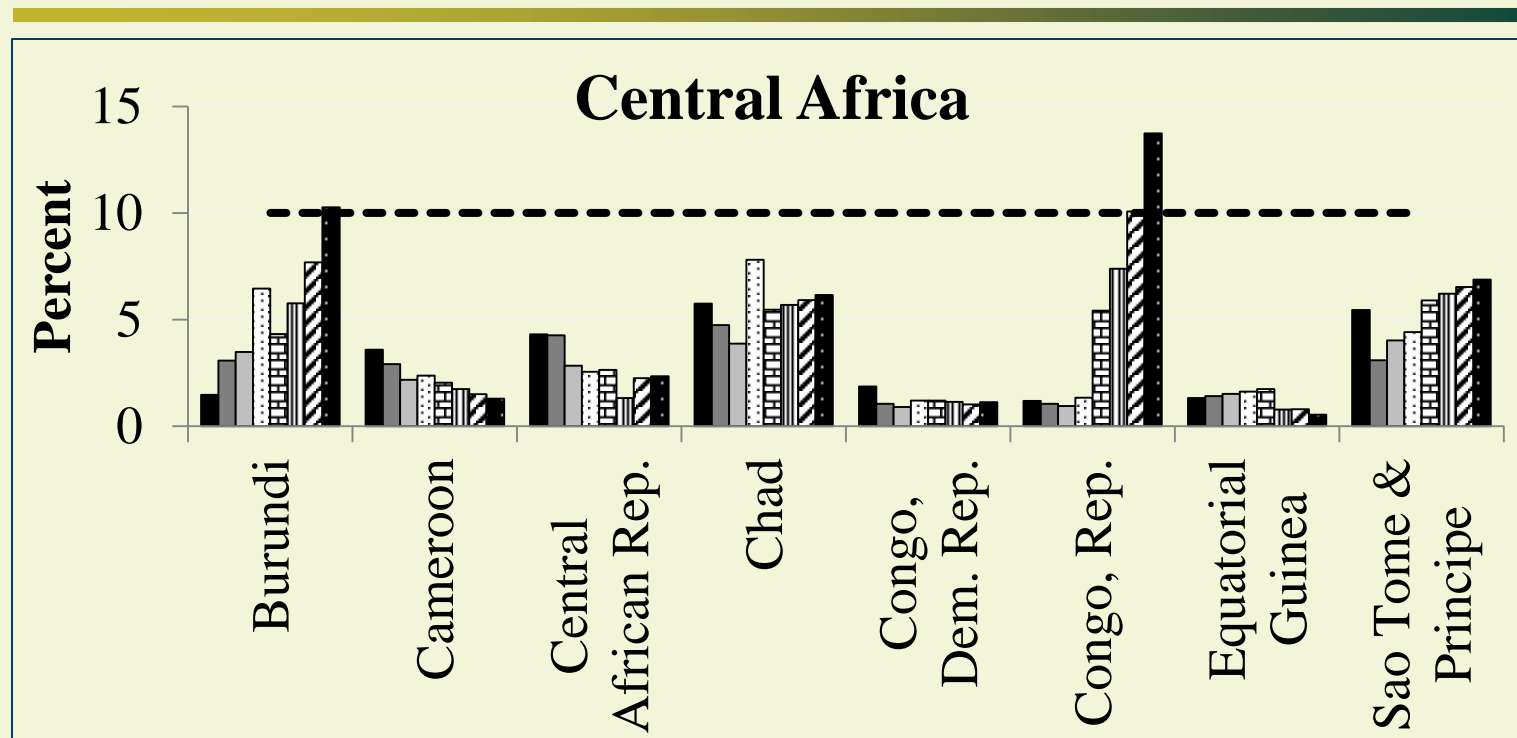
- Present patterns and trends in public agricultural expenditure (PAE) in Africa
- Assess progress in achieving the Maputo Declaration target of spending 10% of national expenditures in the agriculture sector
- Draw implications of the Declaration on spending behavior and optimal PAE allocation
- Assess PAE data requirements for the joint agriculture sector reviews (JSRs)

Progress at the Africa-wide level, 1995-2010



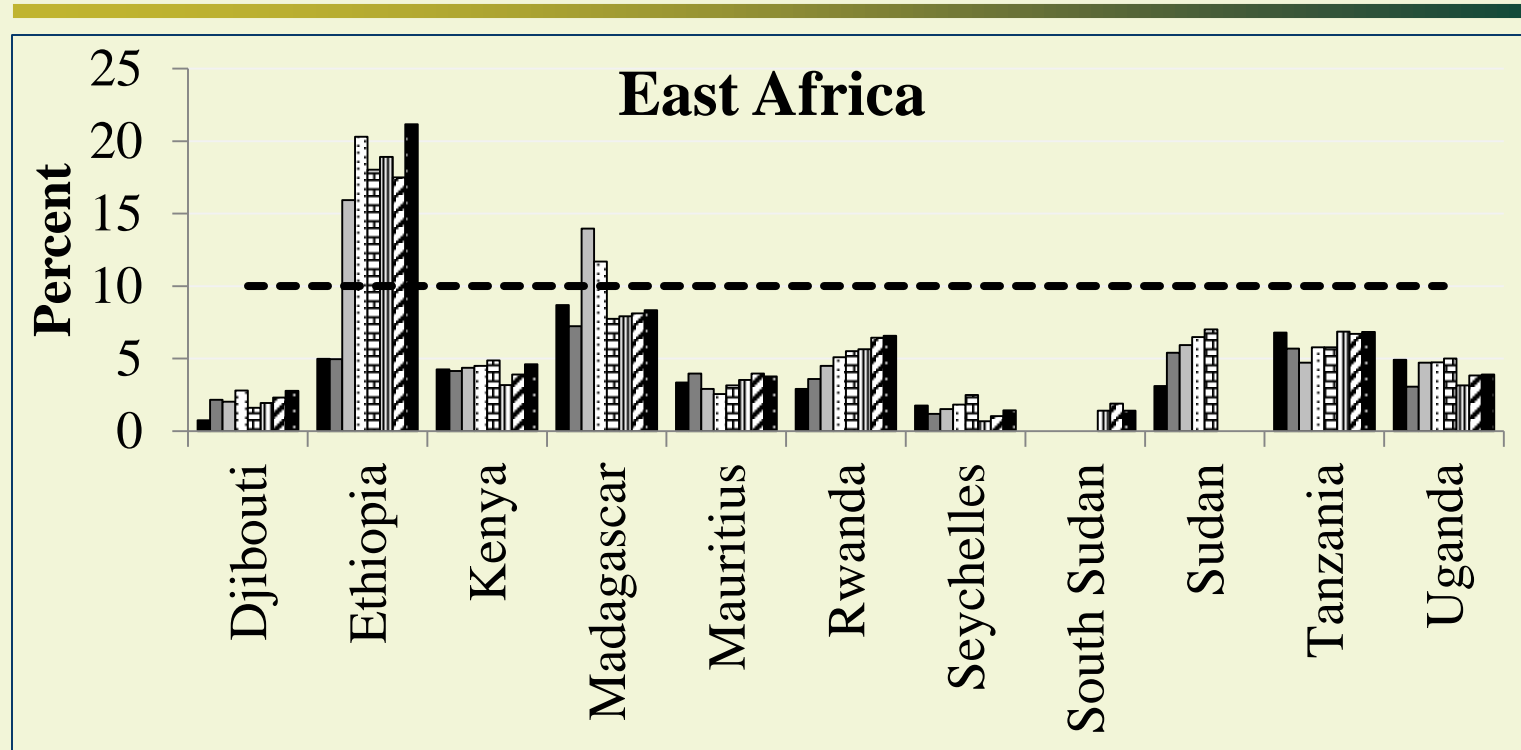
- Share of public agriculture expenditure (PAE) in total expenditures for Africa as a whole declined in 2003-09 (post CAADP) compared to 1995-2003 (pre-CAADP)
- Differences across different regions and countries

Progress in Central Africa, 2003-10



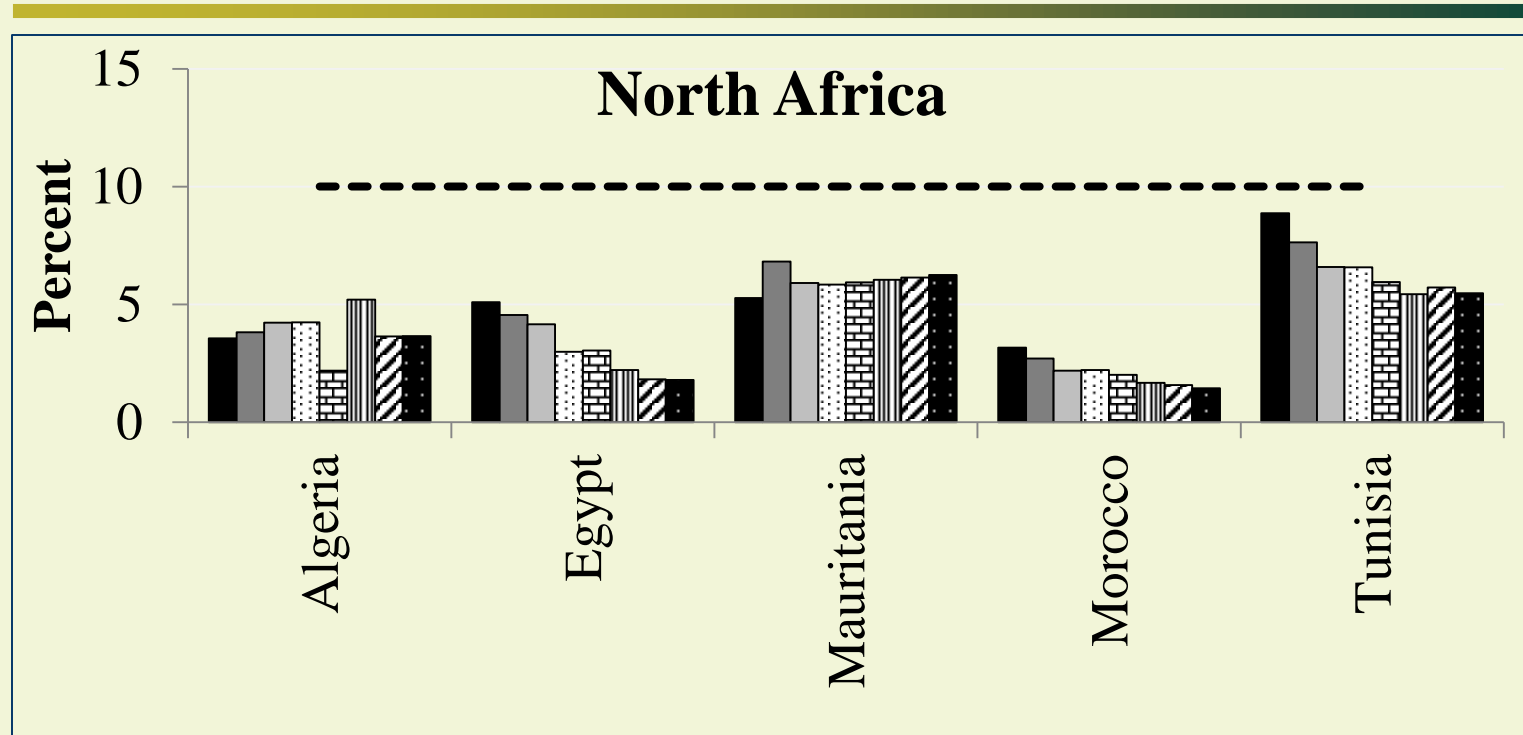
- Shares increased in Burundi, Rep of Congo, and São Tomé and Príncipe
- Shares declined or stagnated in other countries, which already spend less than 5%

Progress in East Africa, 2003-10



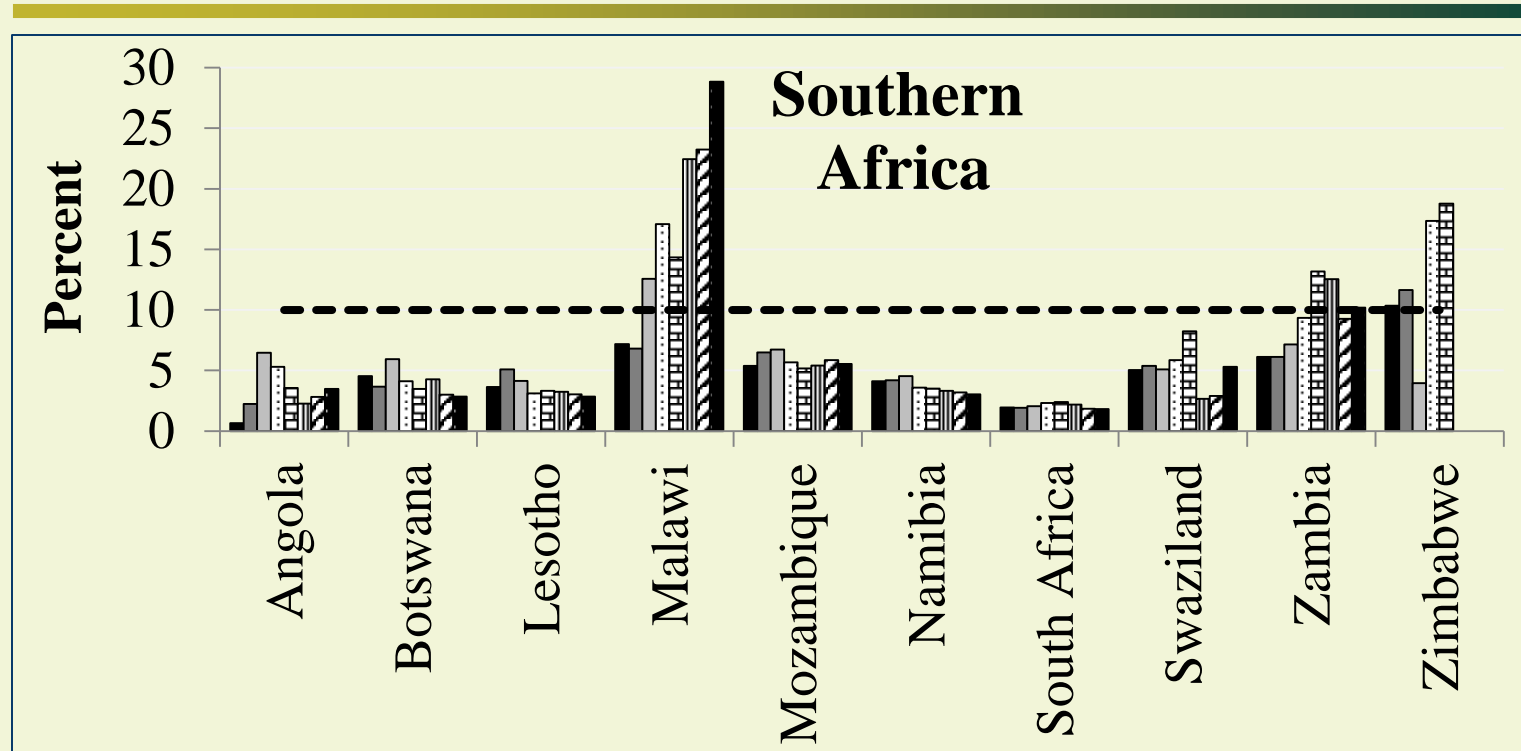
- Many countries in East Africa spend 5-10% percent of total expenditure on agriculture
- Shares have increased over time in several countries (especially Ethiopia, Rwanda, Sudan)

Progress in North Africa, 2003-10



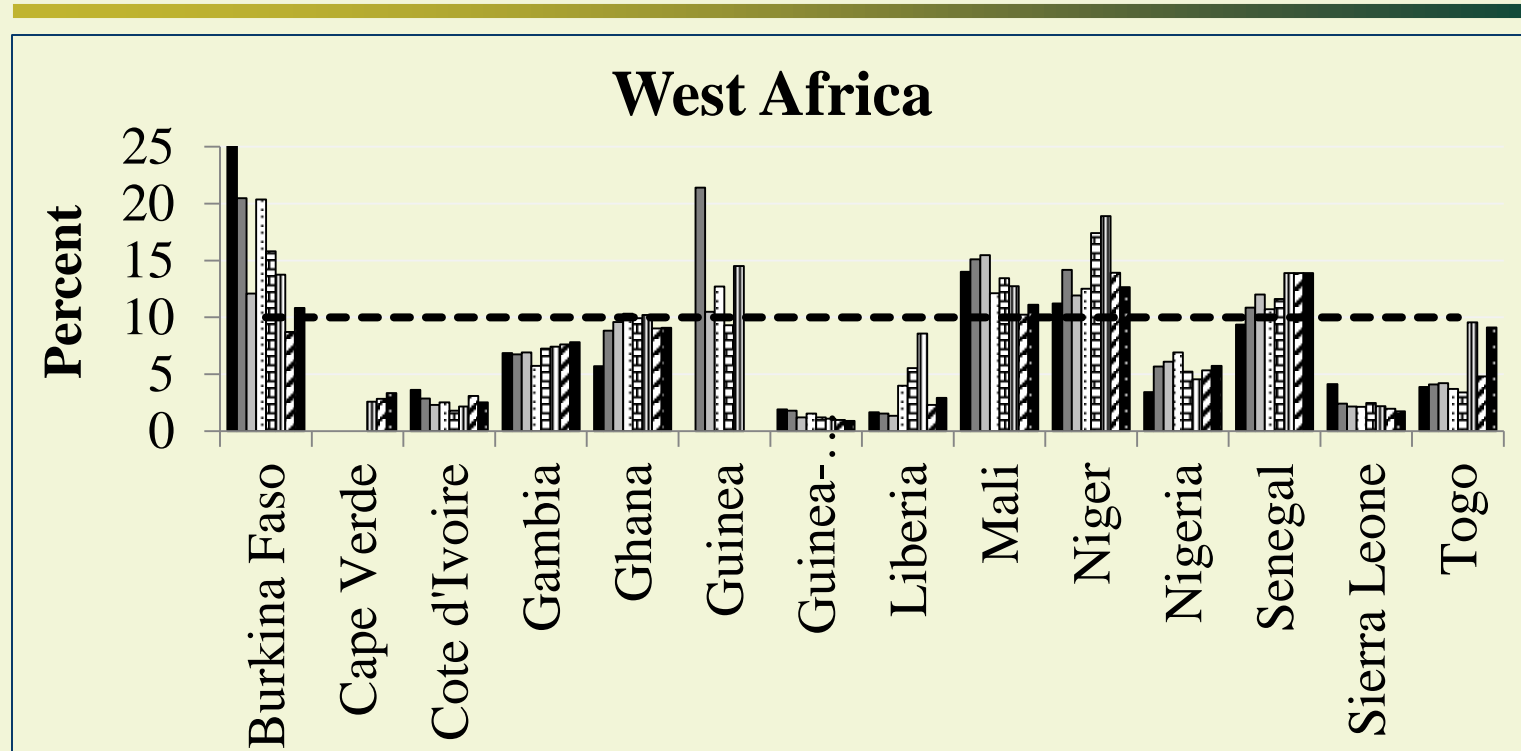
- Shares have stagnated in Mauritania and diverged downwards from the 10% target in the other countries

Progress in Southern Africa, 2003-10



- Malawi is an outstanding performer, with nearly three times the target share in recent times
- Apart from Zambia, shares have stagnated or declined in the other countries

Progress in West Africa, 2003-10



- Region where many countries have achieved target
- Shares have increased in many countries
- Burkina Faso and Mali (and Niger in recent times) have consistently cut back on the shares to the target level

Summary of progress: and key questions (I)

- Since 2003 when the declaration was made
 - » **only 13 countries have surpassed the target in any year**—Burundi, *Burkina Faso*, Republic of Congo, *Ethiopia*, Ghana, *Guinea*, Madagascar, *Malawi*, *Mali*, *Niger*, *Senegal*, Zambia, and Zimbabwe
 - » **only 7 have surpassed it in many years**
- **Where the shares have been increasing or are high:**
 - » Especially among countries in east and west Africa, is it because they have observed positive returns or because they think the 10% is optimal?
- **Where the shares have been declining:**
 - » Especially in Burkina Faso, Mali and Niger where the shares were higher than 10%, is it because they are not getting the expected returns?

Summary of progress: and key questions (II)

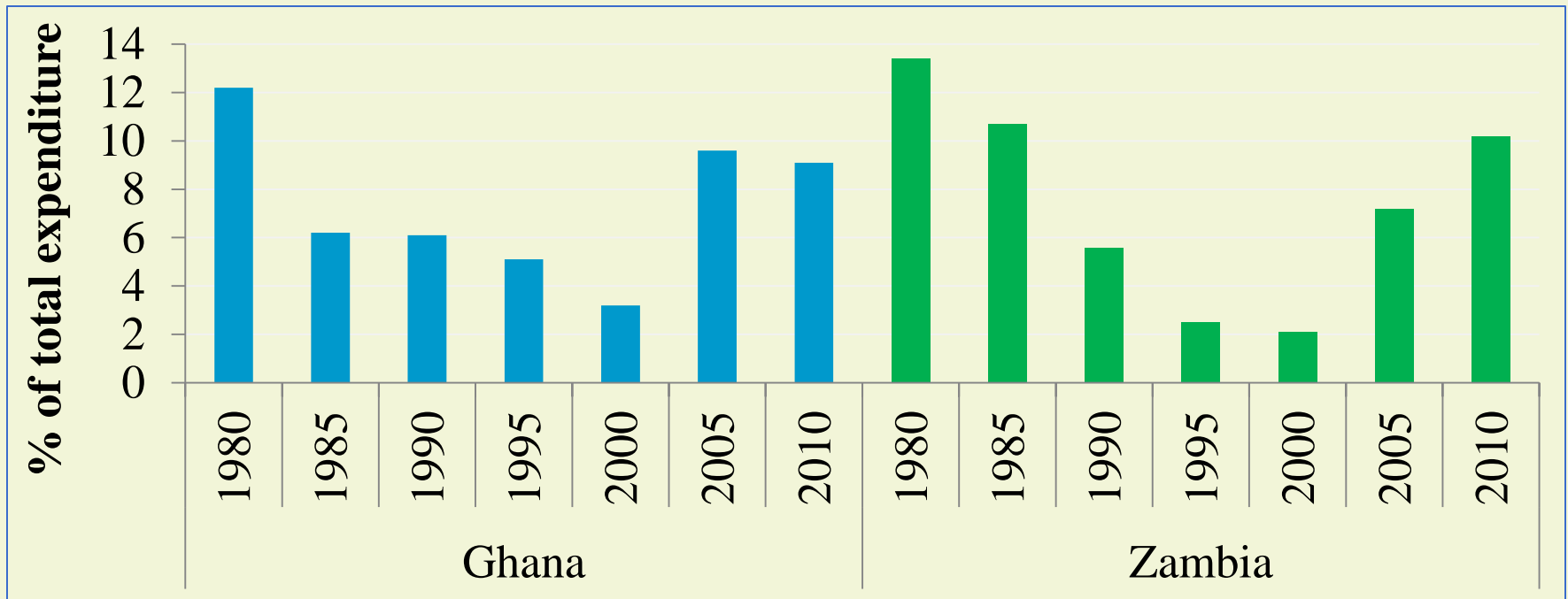
- » For middle income countries with other sources of growth and development (esp. in north and southern Africa), is it because the return from additional spending in agriculture is lower than in the other sectors?
- **Where the shares have stagnated:**
 - » Is it because they have reached equilibrium, where returns from additional spending in agriculture and non-agriculture are equal?
- These questions reflect the issue of the composition of public agriculture expenditure (PAE):
 - » **Role of government:** large variation over time reflects changing involvement of government in the sector
 - » **Accounting problem:** PAE depends of how PAE is accounted for and reported in different countries

PAE trends reflect changing role of state (I)

| | PAE as percent of total expenditure | | | | |
|-----------------|-------------------------------------|------|------|------|------|
| | 1980 | 1985 | 1990 | 1995 | 2000 |
| Botswana | 9.7 | 9.8 | 6.5 | 6.0 | 4.2 |
| Egypt | 4.4 | 4.2 | 5.4 | 5.0 | 6.8 |
| Ethiopia | 6.9 | 9.9 | 6.9 | 9.1 | 10.4 |
| Ghana | 12.2 | 6.2 | 6.1 | 5.1 | 3.2 |
| Kenya | 8.4 | 10.4 | 6.0 | 5.5 | 6.8 |
| Malawi | 10.2 | 8.4 | 11.1 | 11.1 | 8.8 |
| Morocco | 6.5 | 5.0 | 5.0 | 4.2 | 3.5 |
| Tunisia | 14.5 | 8.3 | 8.5 | 8.3 | 9.3 |
| Uganda | 32.5 | 3.9 | 2.2 | 2.9 | 2.6 |
| Zambia | 13.4 | 10.7 | 5.6 | 2.5 | 2.1 |

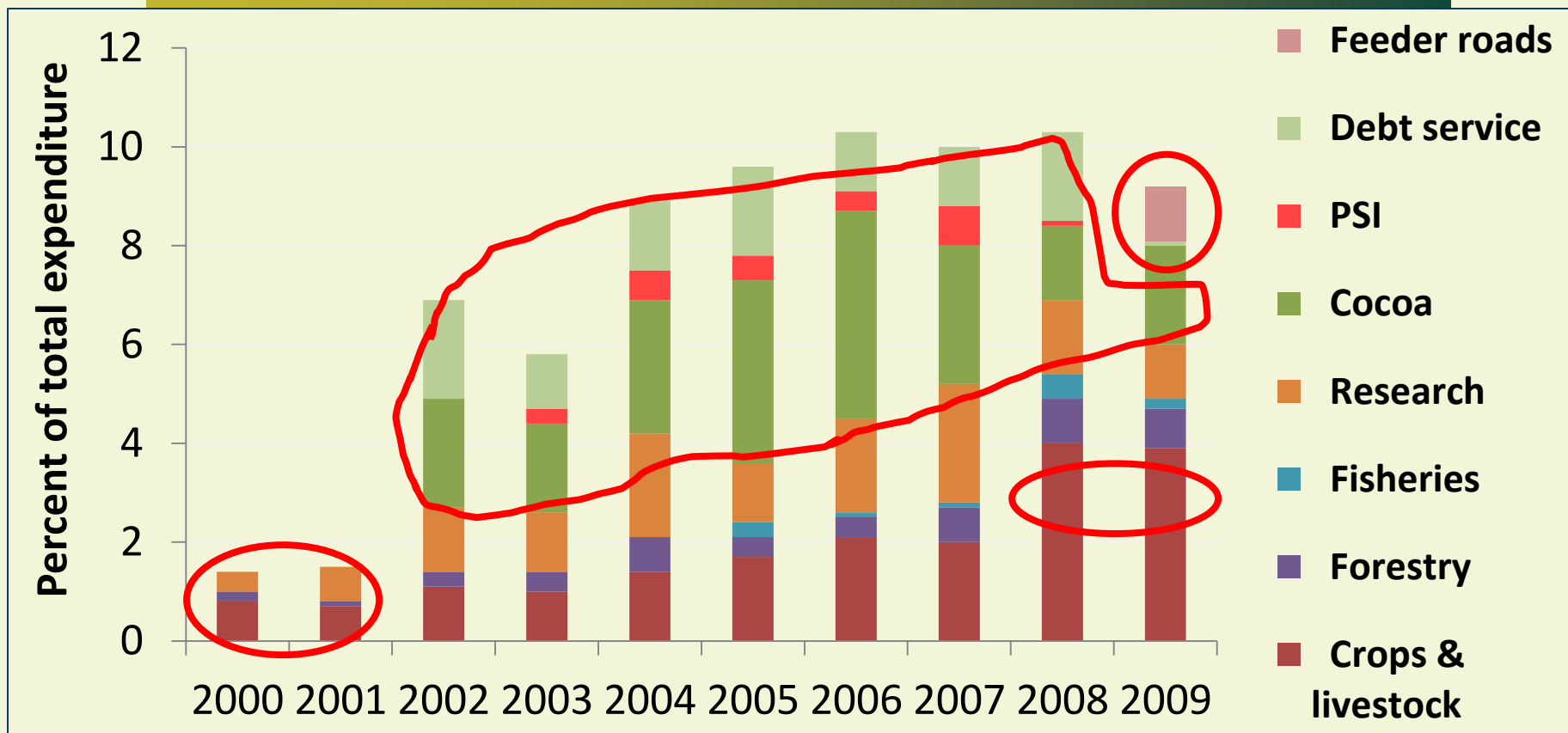
Compared to pre-structural adjustment periods, share of PAE has declined substantially. Governments were directly involved in agriculture production, cooperatives, marketing boards, etc.

PAE trends reflect changing role of state (II)



- New form of direct governmental involvement in the sector in recent times in form of heavy farm support subsidies
- Issue is extent to which these programs have been refurbished to take account of their negative experiences in the past

Accounting/Composition of PAE: Case of Ghana

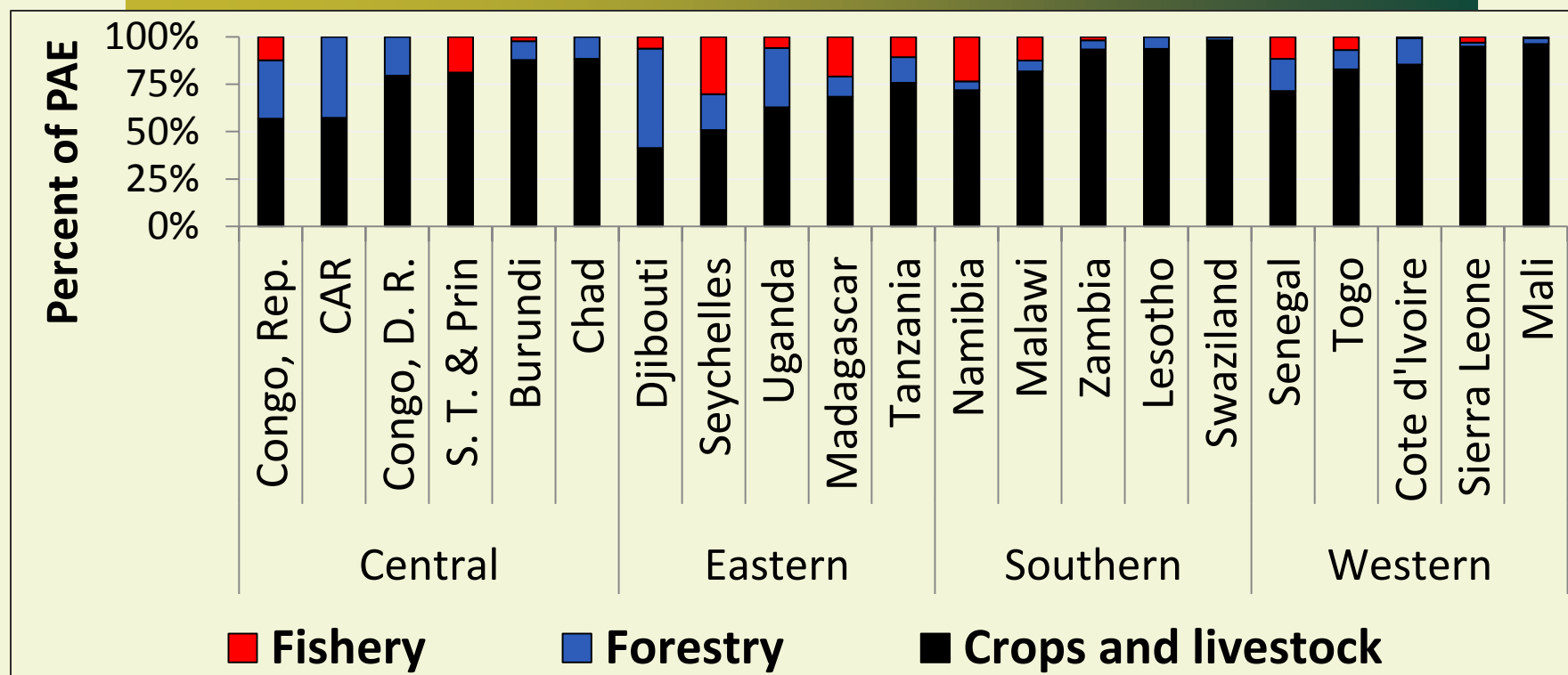


- Accounting changed over time. Is it merely to show compliance with CAADP target? Or is effectiveness of portfolio considered?
- Also reflects changing role of MDAs in the sector

How has PAE been allocated?

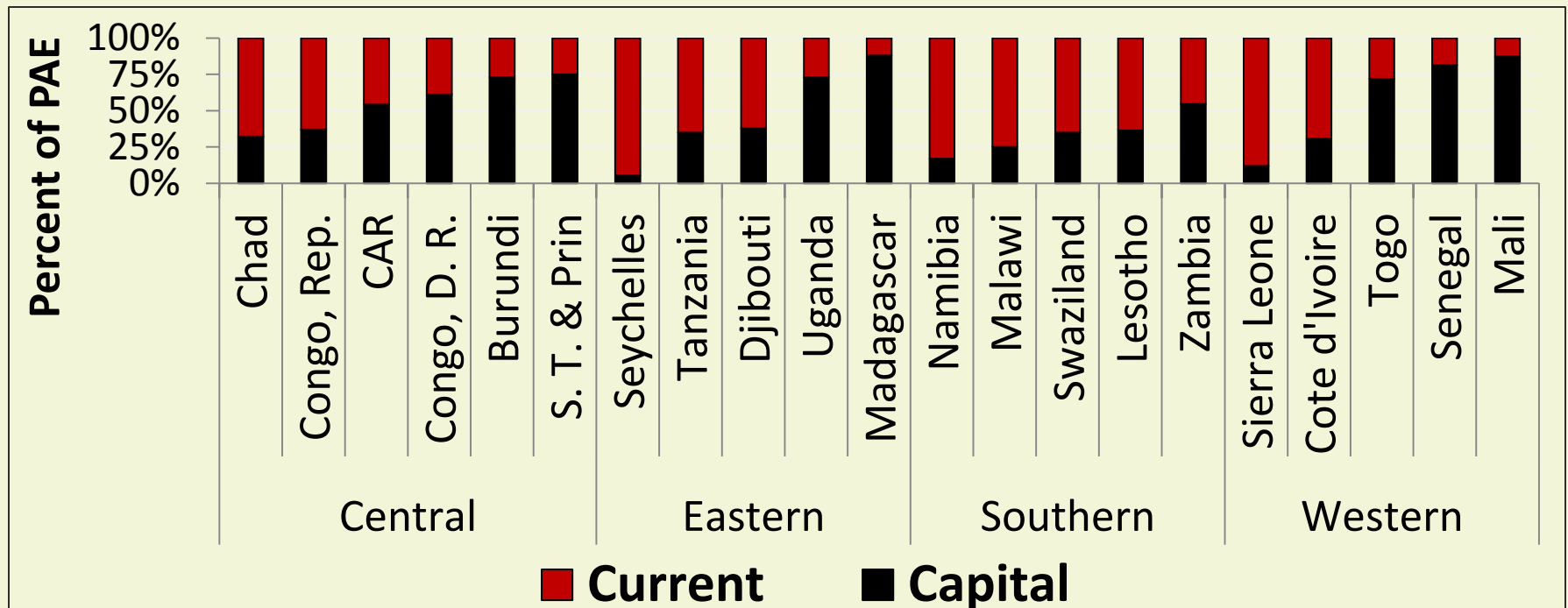
- **by sub-sector**
- **by current and investment spending**
- **by function**

PAE by subsector, annual average 2003–2007



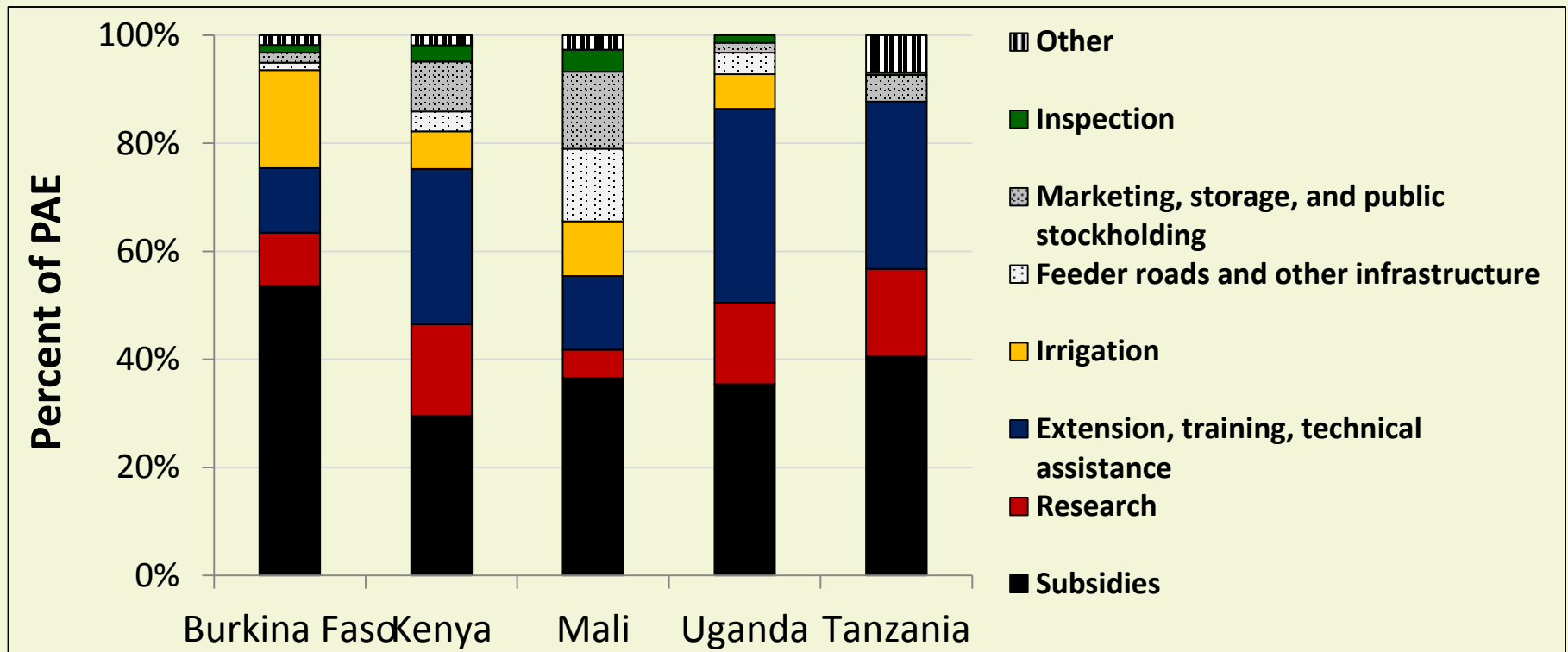
- Expenditures on crops and livestock dominate PAE.
- Share of PAE on forestry is higher in the central and eastern African countries; not surprising, given dominance of forests there.
- Share on fisheries is higher in island countries and countries with large coastlines.

PAE by current and investment spending, annual average 2003–2007



- Wide variation in share of PAE for investments—6% in Seychelles to 88% percent in Madagascar.
- Artifact of how different countries classify current expenditures and investments. In many countries, *all* of the expenditures financed by donors are classified as investment irrespective of what they are actually spent on.

PAE by function, annual average 2006–2010



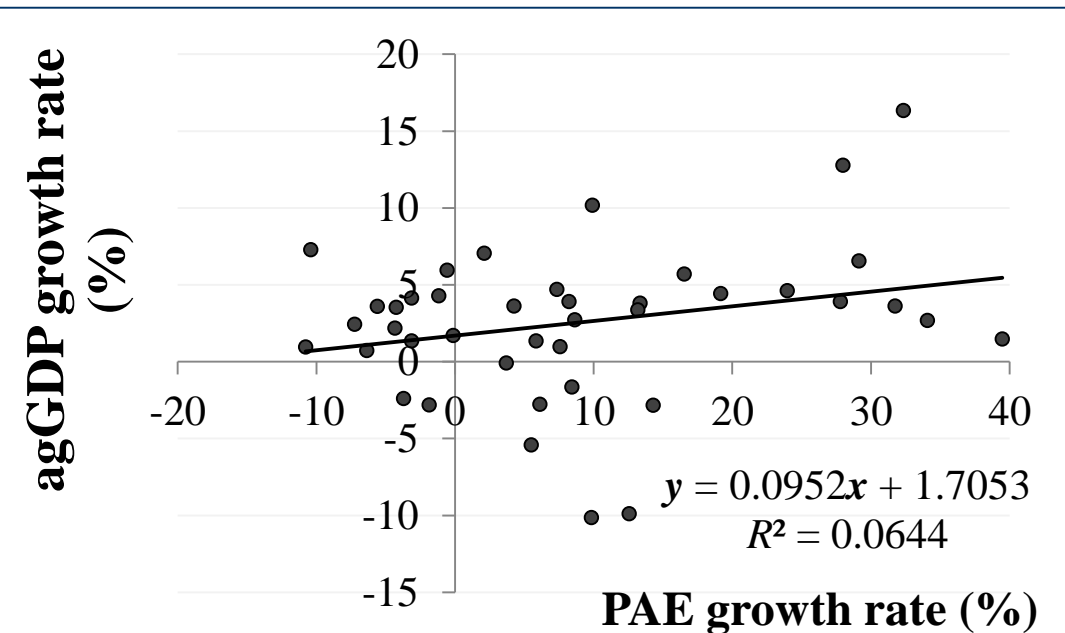
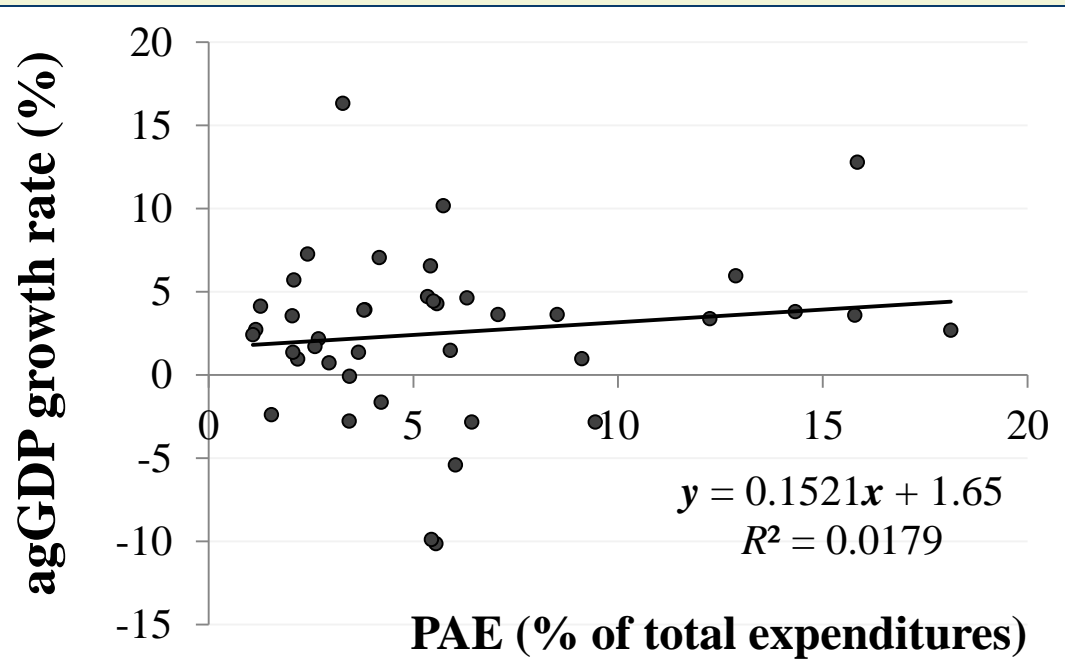
- Bulk of annual PAE was spent on subsidies.
- Share of PAE on research was moderate, at about 10–15 percent, although it was relatively low in Mali, at about 5 percent.
- Overall, the functional distribution of PAE seems to be more balanced in Mali compared to the other four countries.

How has PAE trends contributed to growth?

- **Used simple correlations to assess co-trends between PAE and agricultural GDP growth rate**
- **Results do not imply cause-effect relationships, which require detailed PAE and other data and advanced quantitative methods beyond the scope of this report**

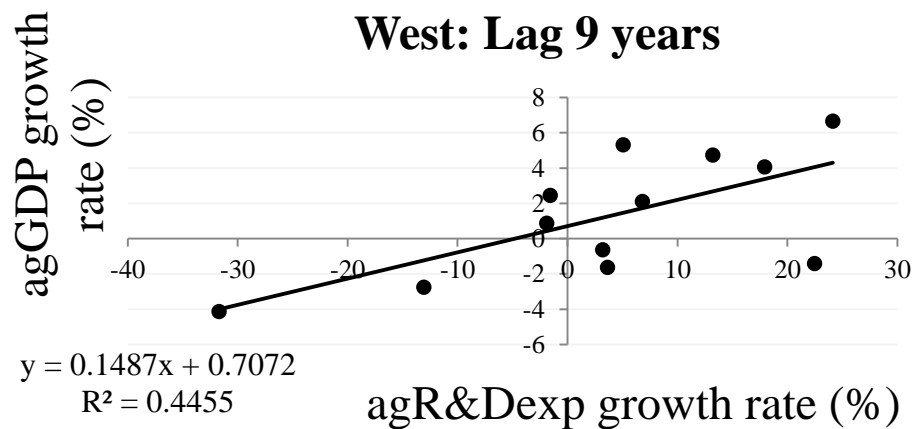
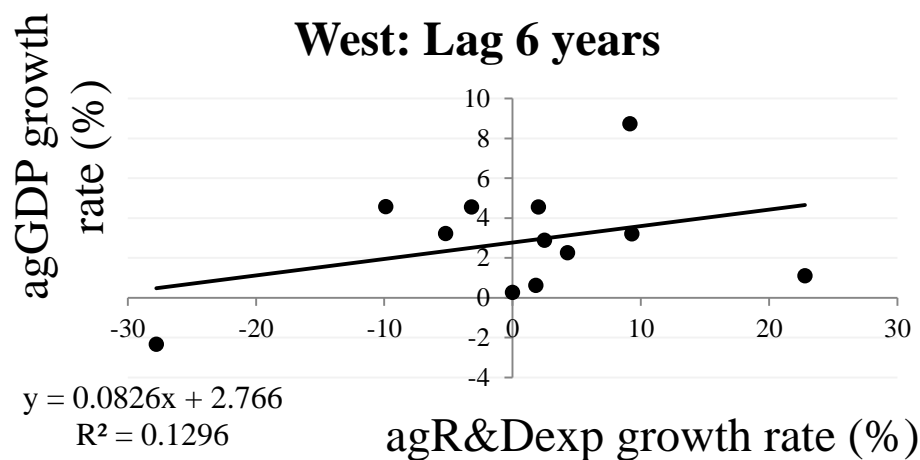
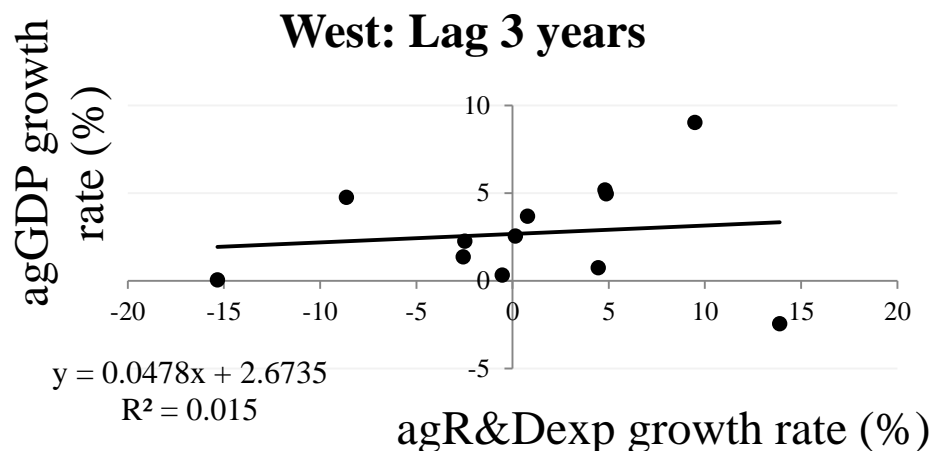
PAE and agGDP growth: Africa-wide

- Positive correlation between PAE and agGDP growth;
- Different results for different regions, with largest correlations in east Africa, which is a top performer in both indicators of PAE
- Low significance using aggregate PAE points to the importance of composition of PAE



agR&D exp and agGDP growth: west Africa

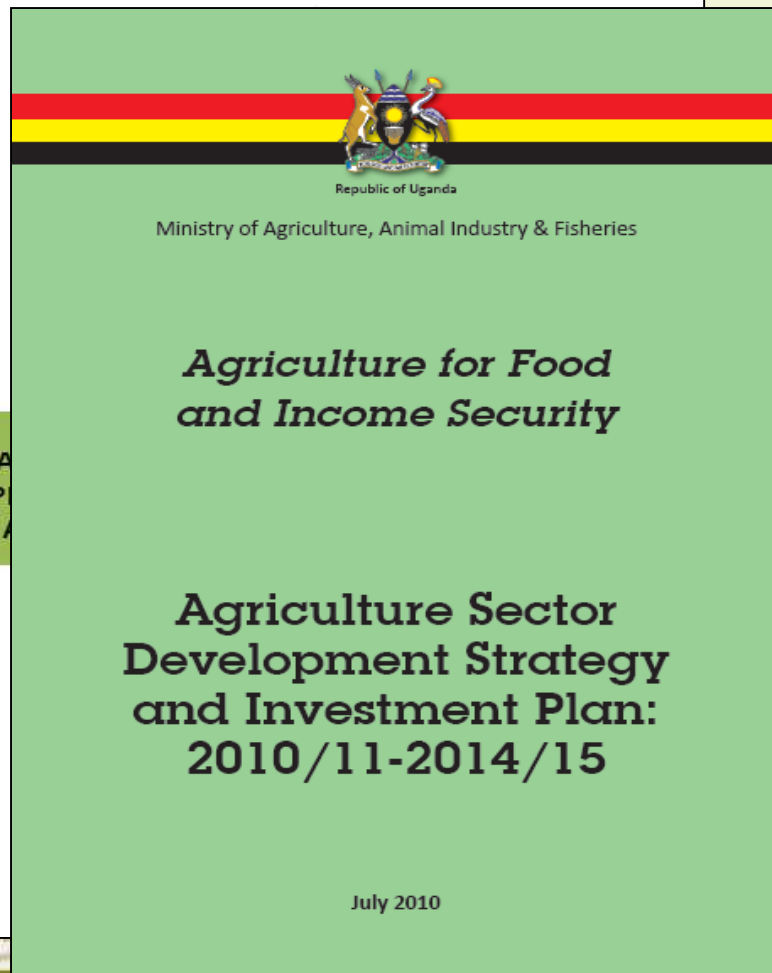
- Correlation is weak when the data for all countries are pooled in a single estimation for Africa
- Results uphold common knowledge that agR&D investments take time to manifest
- Results (magnitude of correlation, lags, and statistical significance) are different for different regions



PAE data challenges and requirements for JSRs

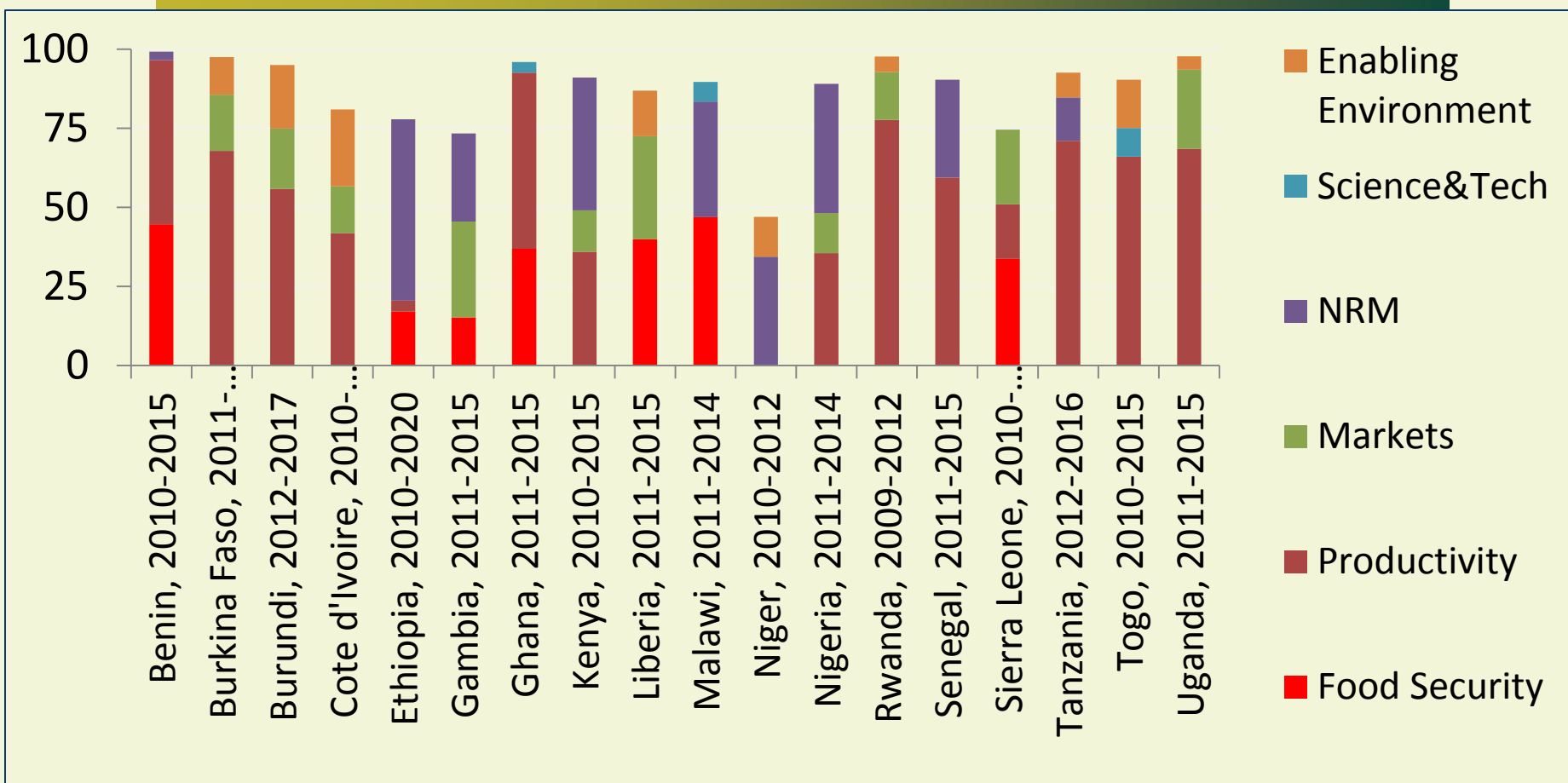
- To answer the questions posed earlier in a comprehensive manner is very challenging; it is virtually impossible with existing data for many countries
- Some analysis on the efficiency and effectiveness of PAE exists in a handful of countries only
- We are faced with PAE measurement problems
 - » **Most of data are at higher aggregate level**
 - » **Data systems reflect outlays associated with organizational structures of governments rather than objectives sought and functions performed**
 - » **Several PAE undertaken outside traditional ag MDAs**
- We need to do better data collection and management for successful JSRs

NAIPs and implications for PAE data and analysis



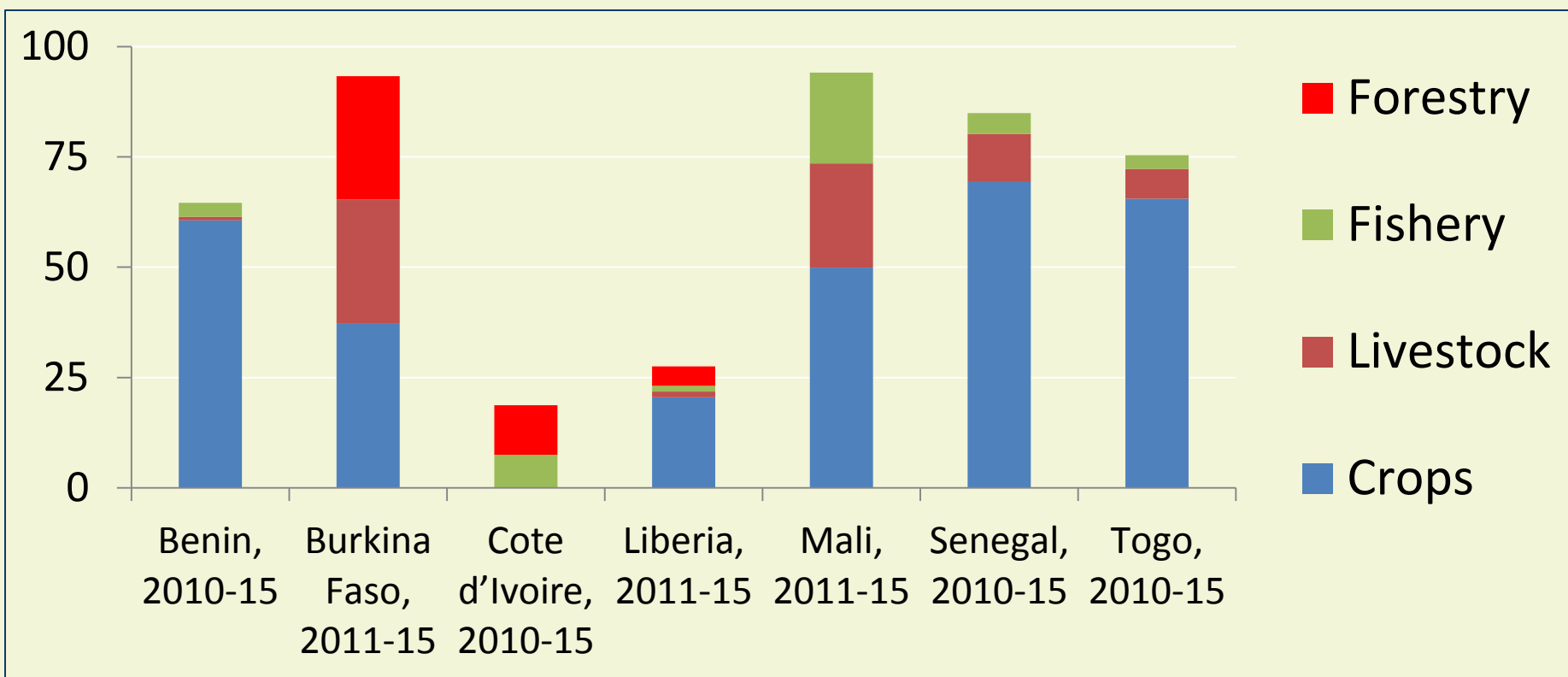
- NAIP budget allocated:
 - » Objectives and programs
 - » Sub-sector
 - » Commodity and commodity groups
 - » Economic use and functions
 - » Target population
 - » Sources of financing
- Need PAE data accordingly: for review, learning, and further planning

% of NAIP budget by top 3 objectives/programs



- Food and nutrition security and increasing productivity dominate planned expenditures in many countries
- Improving markets and sustainable NRM also take a large share

% of NAIP budget by sub-sector



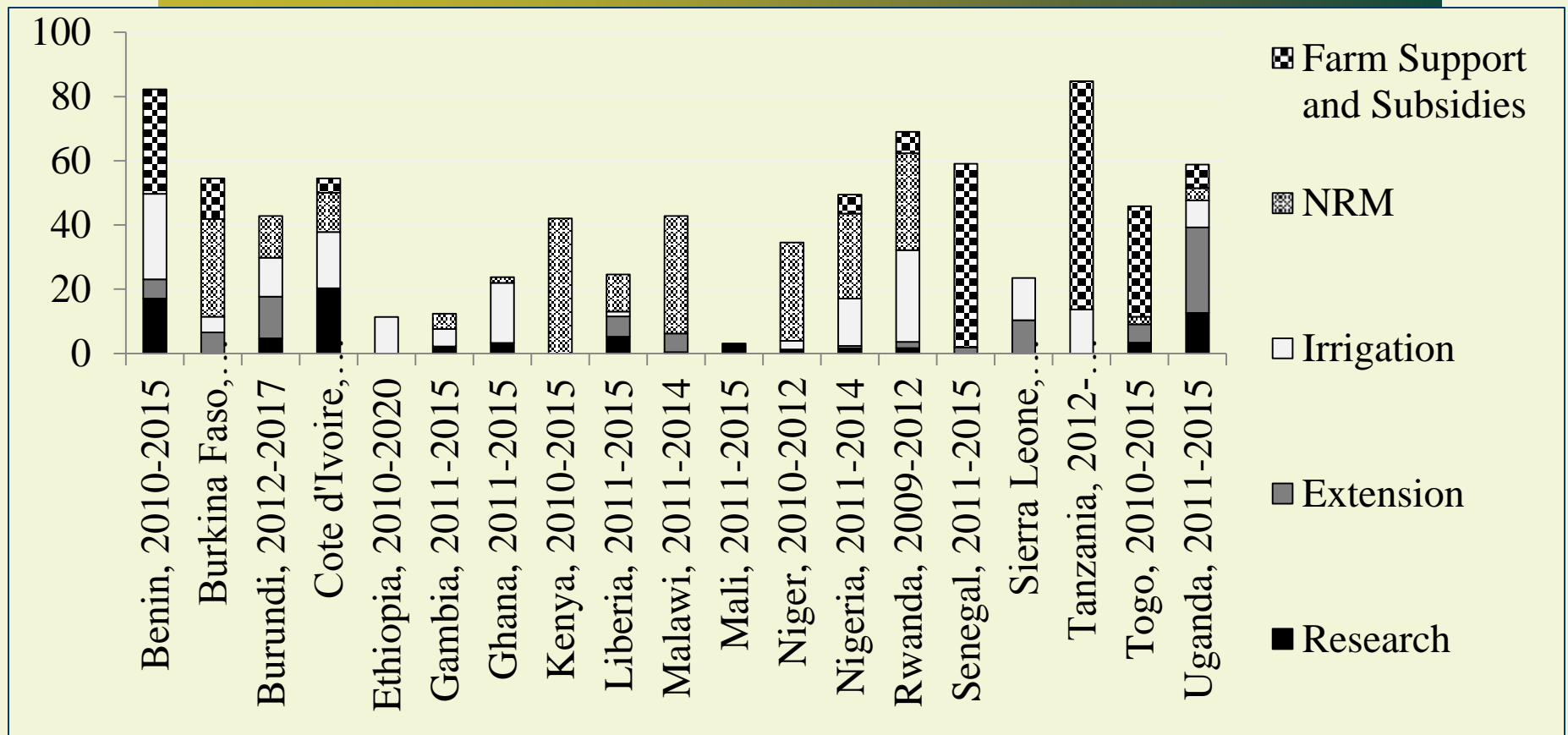
- Very few NAIPs had a breakdown by subsector, which is surprising given that PAE is typically reported by subsector
- In general, crops subsector dominates; share of other subsectors depends on country context

% of NAIP budget by major commodities

| Country, plan duration | Commodities and budget allocation |
|------------------------|---|
| Benin, 2010-15 | Rice=24.9%, Corn=18.7%, Pineapple=4.2%, Vegetables=4.1% |
| Gambia, 2011-15 | Rice=20.1% |
| Malawi, 2011-14 | Maize=37.2% |
| Mali, 2011-15 | Rice=30.1%, Corn=12.7%, Millet/Sorghum=7.2% |
| Nigeria, 2011-14 | Cash crops=13%, Rice=2.8% |
| Senegal, 2010-15 | Groundnut=8.9%, Maize=8.6%, Sorghum=4.5%, Cowpea=3.8%, Rice=1.4% |

- All the NAIPs identified specific commodities to lead overall agricultural growth and development. Only few had specific budget allocations. Maize and rice received the largest shares

% of NAIP budget by function



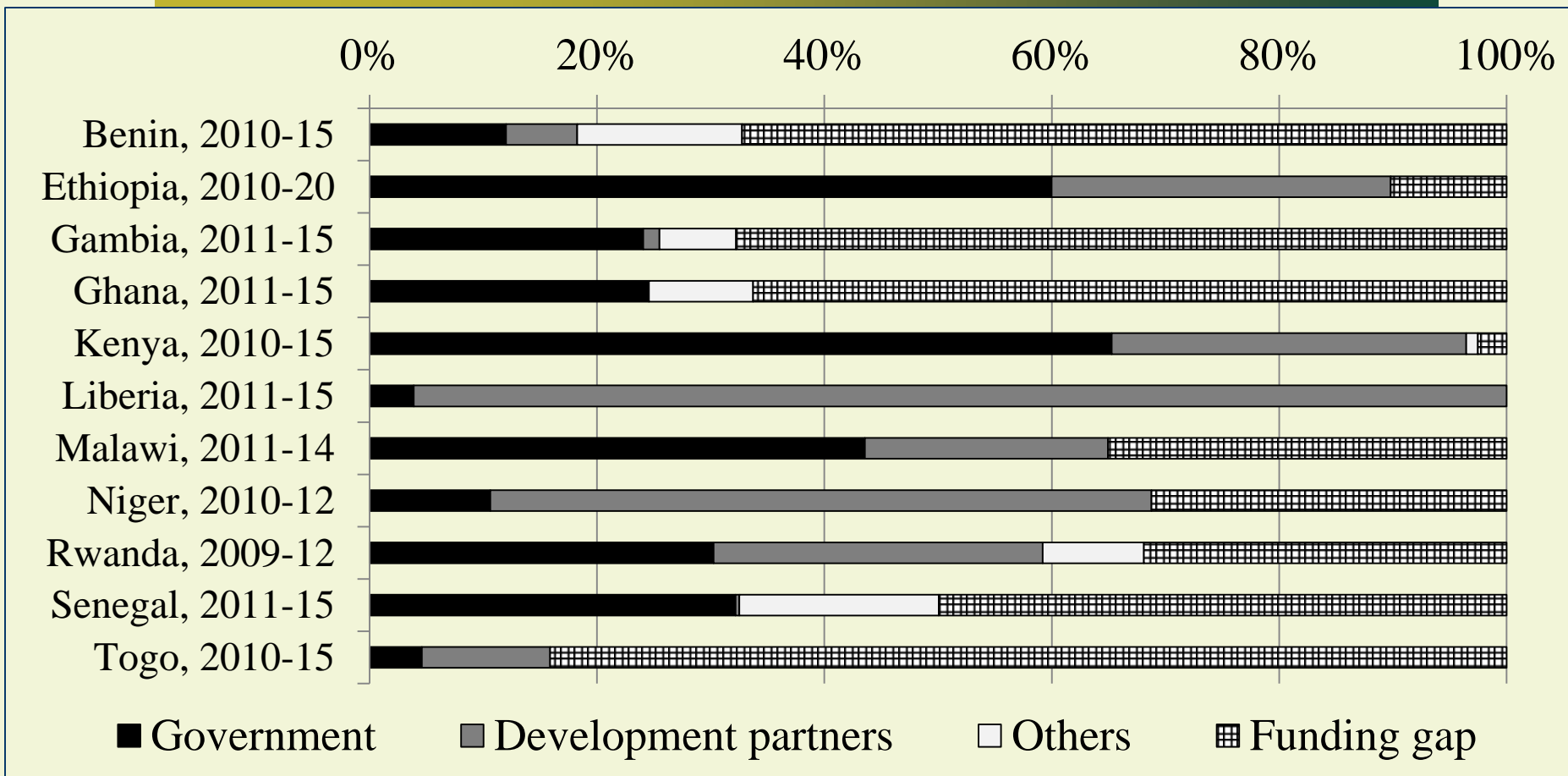
- NRM and farm support and subsidies dominate planned expenditures, followed by irrigation
- Research and extension are stated priorities with specific budget allocations in a few countries only

% of NAIP budget by target population

| Country, plan duration | Target population and budget allocation |
|------------------------|--|
| Liberia, 2011-15 | Women and youth=4.8% |
| Nigeria, 2011-14 | Smallholder farmers=35.5%, Commercial farmers=9.6% |
| Senegal, 2010-15 | Youth=48.8%, Men and women=40.3%, Women=0.6%, Men=0.2% |
| Tanzania, 2012-16 | Mainland=92.6%, Zanzibar=7.4% |
| Uganda, 2011-15 | Northern region=2.4% |

- Very few NAIPs had a breakdown of the budget by target population, even though targeting and different target groups were discussed in all of them

% of NAIP budget by source of funding



- Dependence on external sources for financing the NAIPs
- Only in a couple of countries is government financing at least 50%
- More than 50% financing gaps in Benin, Gambia, Ghana, Senegal, Togo

Conclusions and Implications (I)

- The amount of PAE in Africa as a whole increased rapidly, but at a slower pace than the growth in total expenditures resulting in a decline in the share of PAE in total expenditures for Africa as a whole
- Some governments' reports on compliance with the Maputo Declaration have generated controversy on what to count as PAE
 - » resulting in a debate that may be polarizing behavior around the fundamental issue of the investments needed to achieve development results
 - » i.e. what types of investment, how much of each type of investment, where should they be invested, and when should they be invested

Conclusions and Implications (II)

- Prioritization of investments has to be based on analysis of the efficiency and effectiveness of different types of public spending. Therefore, disaggregation of public expenditure data by type, across space, and over time is critical.
 - » Need public expenditure accounting and reporting systems with unique codes or identifiers that also reflect the objectives and functions that the outlays are undertaken for (Kenya's Open data on public expenditure is a very good example).
 - » This is important for review of the NAIPs (as in JSRs)
 - » Will enhance the political accountability of government to its citizens

Thank You