



## **Current state of food security in Africa and the Africa–EU partnership on the Millennium Development Goals**

***Paper for Second Joint Experts Group Meeting, Africa-EU  
MDGs Partnership, Sub Group on Priority Action 2: Accelerate  
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Steve Wiggins

Sharada Keats

Future Agricultures Consortium & Overseas Development  
Institute, London

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## **Summary**

This paper has been drafted to summarise the current state of food security in Africa and relate this to activities that form part of the EU-Africa partnership on the Millennium Development Goals, that would allow key gaps in the programme to be identified.

### ***The recent record on hunger and malnutrition***

FAO (2008) estimates that in 2003/05 the number of Africans who were *undernourished* was around 217M, out of 848M inhabitants, about one quarter the population. While since the early 1990s the proportion of people living in hunger has fallen — for Sub-Saharan Africa, the fraction has been reduced from 34% to 30% — absolute numbers have been rising. Progress towards meeting Indicator 5 of the MDGs, halving the proportion not getting an adequate intake of food, has been minimal.

That said, there are great variations across the regions of the continent and between countries.

- North Africa and West Africa have markedly lower prevalence of undernourishment than other parts of the continent, with fractions below 5% and at 14%, respectively in the most recently reported period;
- Prevalence has been rising in Central Africa and, fractionally, in North Africa. Elsewhere prevalence has fallen since the early 1990s;
- The only part of Africa that has reduced prevalence at the rate necessary to meet the MDG target for 2015 is West Africa,

Looking at the *nutrition of infants*, seen in stunting levels in national surveys since 1990, the record shows much variation. In general, however,

- For the 27 countries for which statistics exist, 17 show lower rates of stunting for the most recent survey compared to the earliest, while only 10 show a deterioration. Overall it seems, nutrition is improving; but,
- Levels of stunting are often high, at rates of one third or more. Even when surveys showing falling levels of malnutrition, improvements are often small. Hardly a single country — Senegal may be an exception — looks as though it will halve the level of stunting seen in the early 1990s by 2015.

*In sum*, the picture is diverse. In the broadest terms, both series of statistics tend to show an improvement in undernourishment and stunting; but generally the rate of progress has been slow and well behind that needed to meet the MDG targets.

There is, however, great diversity of experience across countries suggesting that the most reliable insights may only apply in national analyses.

### ***Factors influencing hunger and malnutrition***

Statistics have been collected to examine the three sets of factors expected to affect food security: food availability, access to it, and utilisation of food.

*Availability* per capita of staple food — cereals, roots and tubers — in Africa has been rising since the mid-1990s. With more than 2,500 kcal available per person, there is enough to feed everyone adequately — Africa rates more highly than South Asia on this measure.

There is much variation in both the levels of food availability and trends since 1990 across regions and between countries. Generally, Northern and Western Africa show higher levels and rising trends: performance in the rest of the continent is more variable.

As proxy indicators for *access to food*, the record on economic growth per capita, the value of agricultural production against rural population as a rough measure of rural incomes, and reported poverty rates were examined.

Again, there is much variation across regions and countries, but in broad terms the indicators suggest that access is improving and particularly since 2000. The exceptions arise for those countries affected by serious economic shocks and conflict. Poverty levels remain, however, high at 30% or more in most countries outside of North Africa.

Key factors affecting the *utilisation of food* lie in the health environment and care. On the former, statistics on access to clean water and sanitation show improvement across much of the continent. Taking the under-five mortality rate as a measure of the health environment — a statistic that internationally correlates strongly with stunting — shows that rates are falling in most areas. Levels of infant and child mortality, however, are often very high at 150 per thousand or more. It is likely, then, that a substantial part of malnutrition in Africa comes through the ill health of young children — from water-borne disease, malaria, acute respiratory conditions, etc. Poor health means that the children lose the value of the food they get.<sup>1</sup>

### ***Food crises***

In addition to chronic hunger and malnutrition, parts of the continent have been hit by sudden crises that create, temporarily, much higher levels of hunger. Harvest failures arising from droughts, floods, and pests; epidemic disease; and conflict are typical triggers behind such crises.

Over the last ten years there have been approximately 100 events recorded by FAO (GIEWS) as food crises requiring external assistance (49 between 1999 and 2003, 51 between 2004 and 2008). In any given year up to twenty million people may be affected in the Horn of Africa region alone.

The frequency of these events does not seem to be declining: 23 countries were affected in either 2007 or 2008, the same number as seen in 2000 and 2001.

### **Relating the Africa-EU partnership to the food security**

The main initiatives under the Africa-EU partnership were compared against four areas of concern for food security: the food availability, access and utilisation that underlie chronic hunger; and the shocks that drive temporary food insecurity. The mapping suggests that:

- To some extent, key points are covered. Indeed, the impression is that there are concerted efforts underway that did not exist a decade or more ago. There are no clear gaps. Any concerns are thus matters of degree and emphasis.
- Much is being done that could alleviate the conditions that cause chronic hunger. There seems to be a reasonable balance of attention with the temporary shocks that often have higher visibility, and rightly attract political attention, in comparison to chronic problems.
- The strong emphasis on boosting domestic food production is justified: it matters for both food prices and poverty. Investing in agricultural research promises high returns. Initiatives to improve agricultural policy making look appropriate: there is much variation in agricultural performance between countries that are otherwise similar, suggesting that (a large) part of the difference arises from policy choices. Some countries in Africa may have something to learn from better-performing African countries.
- The activities designed to deal with risk, either by providing earlier warning, less vulnerability (e.g. irrigation), or by providing insurance or transfers to cope with the effects of hazards, are justified. Many of the poor in Africa have livelihoods that are

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<sup>1</sup> Further evidence for the importance of disease can be found when comparing states of adult with infant nutrition. It is rare to find surveys of adults that show more than 10% with low body mass indices. The difference is that adults who have survived childhood are less prone to the diseases that affect their children.

vulnerable to natural hazards that are predictable in their incidence, if not in their timing.

- Particularly pleasing to see are the efforts to improve collection, analysis and communication of statistics and information. This potentially has the benefits of allowing better tracking of progress, the success of measures taken to deal with hunger, as well as keeping the issues high on the agenda of policy makers and the public.

If there is an under-emphasis, it probably lies with care and health. They may well be dealt with in other areas of the partnership, but there is the danger that the nutrition and food security benefits of improvements in these areas are under-appreciated. It would be unfortunate not to devote enough effort to improvements in water and sanitation, primary health care for infants and their mothers, and on female education. In this respect, it is good to see that the Social Policy Framework urges the spending on such programmes to be classified as investments that will generate benefits, rather than being seen only as costs.

### **Conclusions**

Given the recent progress in improving food availability in Africa, largely from domestic production, and the strong emphasis on this in the Partnership, there are grounds for qualified optimism that food production will rise to meet the needs of the current and future population. If the less successful agricultural sectors could perform anything like as well as the more successful ones, food supply would be assured.

It is less clear that rapid progress will be made to reduce malnutrition. Recent improvements have generally been slow and hesitant. This may be because some of the health and care factors have not been sufficiently addressed; it may be that the benefits of economic growth seen since the turn of the new century have not been well distributed.

The data necessary to understand better what is happening is neither plentiful nor necessarily of good quality. But bringing together the data used in this report has been instructive and suggests that more analysis of this — using multivariate methods — might pay off. There are anomalies in the record that warrant further investigation. Senegal is a case in point: its agricultural performance over the last fifteen years or more has been one of the most disappointing in West Africa, but nevertheless the reduction in stunting reported in surveys is remarkable. There is apparently a success story here that potentially has lessons for other countries.

## **1. Introduction**

This paper has been drafted to summarise the current state of food security in Africa and relate this to activities that form part of the EU-Africa partnership on the Millennium Development Goals, that would allow key gaps in the programme to be identified.

The specific aims from the Terms of Reference are to:

- produce a short summary of the current state of food security in Africa, with particular reference to the priority action of the EU Africa MDG Partnership '*Accelerate the achievement of the food security targets of the MDGs*', and the agreed Activities within this; and to,
- facilitate discussion of this priority action at the Joint Experts sub Group meeting on food security, on 24 March 2009 in Pretoria, where the summary paper will be used as a basis for discussion.

What follows is a rapid analysis of data on food security and nutrition in Africa and on those factors expected to influence food security and a mapping of activities under the partnership to the key concerns and their causes.

Data has been taken from public sources, primarily those of the WHO and UNICEF for nutrition and health; FAO for estimates of undernourishment, agricultural production and trade; the World Bank for economic growth, poverty, and water and sanitation; and UN OCHA and FAO for food crises and emergencies.

Prepared at short notice, the analyses here are somewhat preliminary. There is a wealth of data of varying quality and with varying degrees of coverage for the fifty-plus countries that make up Africa. From the work done for this report, it is likely that more insights could be derived from the data given more time.

The rest of this paper sets out concepts about food security, presents the evidence on food insecurity and malnutrition, reviews causal factors, examines the record on food crises, maps the concerns to activities of the partnership, and concludes. Additional technical detail appears in annexes.

## **2. Food security and nutrition in Africa**

### **2.1 Concepts and concerns**

Food security is usually defined as being about people having the food they need to live their lives.<sup>2</sup> More precisely, a much quoted definition states:

Food security exists when all people at all times have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. (FAO 1996)

A much-used framework proposes that food security will be achieved when there is sufficient food **available**, when people have **access** to it, and when it is well **utilised** — and some would add when availability and access are **reliable**.

Food insecurity results in states of hunger and malnutrition. These are captured in the indicators of the second target of the first Millennium Development Goal — to halve, between 1990 and 2015, the proportion of people who suffer from hunger. The indicators measure:

- (Indicator 4) prevalence of underweight children under five years of age, and
- (Indicator 5) proportion of the population below the minimum level of dietary energy consumption.

An additional distinction is that of the duration of hunger. Typically there is a fraction of the population, typically from amongst the very poor, that suffers over long periods from hunger as a chronic condition; while many more may be affected temporarily by acute conditions that arise from a shock such as a harvest failure. The latter tend to generate more attention owing to the numbers at risk and the shocking suddenness of their descent into hunger. Conditions of food insecurity may be further complicated by interactions with disease — as applies with the HIV/AIDS pandemic, and with political difficulties and conflict.

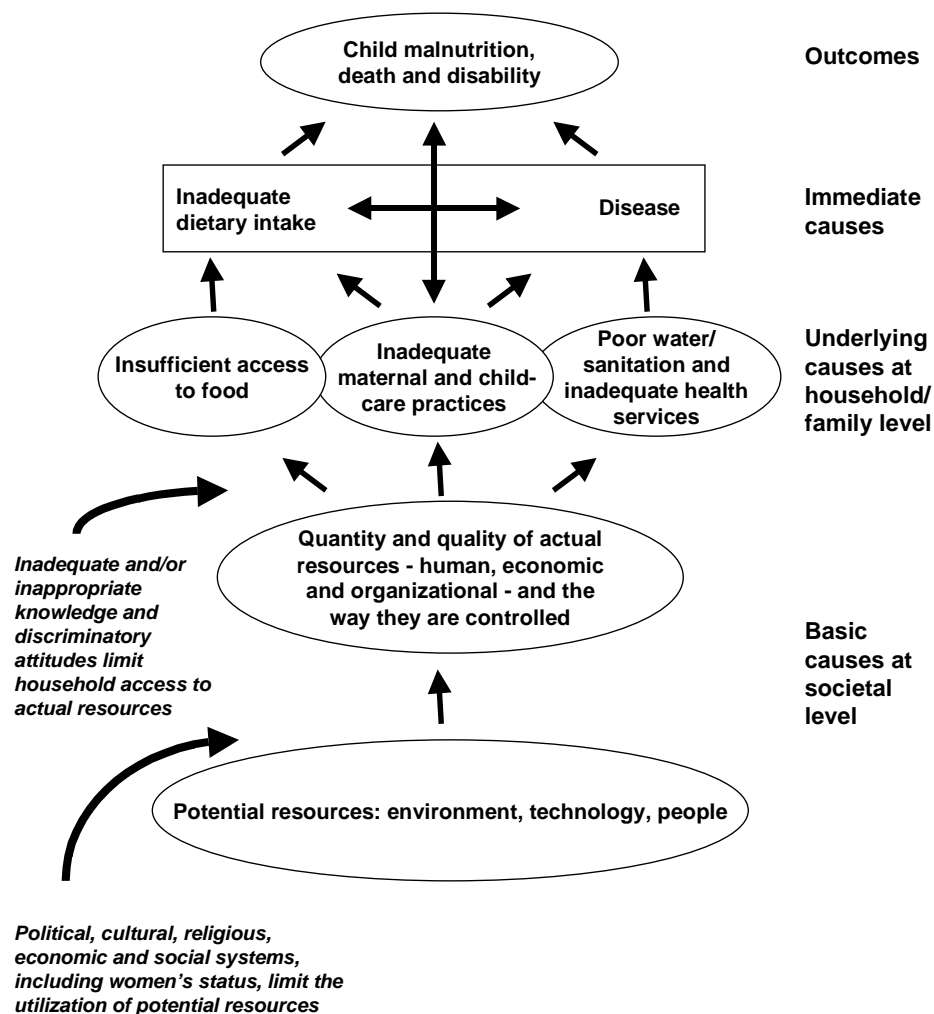
For the purposes of this paper, the UNICEF framework for considering the causes of malnutrition will be used, as shown in Figure 2.1. The main point is this is that access to food is only one part of nutrition, in combination with the care of the children and the health environment in which they live.

The rest of this paper will look at the evidence of chronic hunger in Africa and the factors that contribute to it and then look (briefly) at the record of acute hunger in food crises and famines.

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<sup>2</sup> Not everyone uses the same terms, however. Food security is often used as a synonym for national food self-sufficiency. It is also not always clear to what extent food security is about the availability and access to food or about its ultimate utility as a means to ensure adequate nutrition. Benson 2004, for example, writes about 'nutrition security' as separate from food security.

Figure 2.1: The causes of child malnutrition



Source: Pelletier 2002, taken from UNICEF, State of the World's Children 1998

## 2.2 Evidence: undernourishment and malnutrition

FAO (2008) estimates that in 2003/05 the number of Africans who were *undernourished* was around 217M, out of 848M inhabitants, about one quarter the population — see Table 2.1. While since the early 1990s the proportion of people living in hunger has fallen — for Sub-Saharan Africa, the fraction has been reduced from 34% to 30%<sup>3</sup> — absolute numbers have been rising. Progress towards meeting Indicator 5 of the MDGs, halving the proportion not getting an adequate intake of food, has been minimal.

That said, there are great variations across the regions of the continent and between countries. Key features include:

- North Africa and West Africa have markedly lower prevalence of undernourishment than other parts of the continent, with fractions below 5% and at 14%, respectively in the most recently reported period;
- Prevalence has been rising in Central Africa and, fractionally, in North Africa. Elsewhere prevalence has fallen since the early 1990s;

<sup>3</sup> FAO does not report undernourishment in the standard UN regional categories: no estimates for Africa are presented, only for North Africa and Sub-Saharan Africa. The definition of the former does not conform to the UN definitions, nor do those used for most of the regions within Sub-Saharan Africa.

- The only part of Africa that has reduced prevalence at the rate necessary to meet the MDG target for 2015 is West Africa; and,
- Variations between countries are great. Table 2.1 shows only the larger countries of Africa. Of these, Ghana has already reached its target. Nigeria, Cameroon, Ethiopia, Sudan and Malawi look likely to reach theirs if progress is sustained. All the rest will need to accelerate progress to hit their targets. In some cases prevalence has risen since the early 1990s, including DR Congo, Madagascar, Tanzania and Zambia.

**Table 2.1: Undernourishment in Africa from 1990/92 to 2003/05**

UNDERNOURISHMENT	% of POPULATION			ABSOLUTE NUMBERS		
	1990/92	1995/97	2003/05	1990/92	1995/97	2003/05
<b>NORTH AFRICA</b>	<b>4.0</b>	<b>4.3</b>	<b>4.6</b>	<b>4.0</b>	<b>5.1</b>	<b>6.2</b>
Algeria	<5	5	<5	0.8*	1.5	2.9*
Egypt	<5	<5	<5	1.7*	1.9*	2.1*
Morocco	5	5	<5	1.2	1.4	0.9*
Tunisia	<5	<5	<5	0.3*	0.3*	0.3*
<b>Sub-Saharan Africa</b>	<b>34</b>	<b>34</b>	<b>30</b>	<b>169</b>	<b>194</b>	<b>212</b>
<b>WEST AFRICA</b>	<b>20</b>	<b>16</b>	<b>14</b>	<b>37</b>	<b>34</b>	<b>36</b>
Burkina Faso	14	12	10	1.3	1.3	1.3
Côte d'Ivoire	15	16	14	2	2.4	2.6
Ghana	34	16	9	5.4	3	1.9
Mali	14	15	11	1.1	1.3	1.2
Niger	38	40	29	3.1	3.8	3.7
Nigeria	15	10	9	14.7	10.8	12.5
Senegal	28	32	26	2.3	3	3
<b>CENTRAL AFRICA</b>	<b>22</b>	<b>38</b>	<b>53</b>	<b>22</b>	<b>38</b>	<b>53</b>
Cameroon	34	35	23	4.3	5.1	4
Congo, Dem Rep of	29	57	76	11.4	26.5	43
<b>EASTERN AFRICA</b>	<b>45</b>	<b>44</b>	<b>35</b>	<b>45</b>	<b>44</b>	<b>35</b>
Ethiopia	71	63	46	37.4	39.3	35.2
Kenya	33	30	32	8	8.4	11
Sudan	31	24	21	8.3	7.2	7.4
Uganda	19	23	15	3.6	5.1	4.1
Tanzania, United Rep	28	41	35	7.5	12.7	13
<b>SOUTHERN AFRICA</b>	<b>45</b>	<b>43</b>	<b>37</b>	<b>32</b>	<b>36</b>	<b>37</b>
Angola	66	58	46	7.2	7.3	7.1
Madagascar	32	37	37	3.9	5.4	6.6
Malawi	45	36	29	4.3	3.7	3.8
Mozambique	59	52	38	8.2	8.6	7.5
South Africa	<5	<5	<5	1.1*	1.3*	1.4*
Zambia	40	41	45	3.3	3.9	5.1
Zimbabwe	40	46	40	4.3	5.5	5.2

Source: FAO 2008, State of Food Insecurity

Note: Numbers with asterisks computed by authors' assuming &lt;5% to be 3%.

Key		Steady improvement	Key		Steady worsening
		Ambiguous improvement			Ambiguous worsening
		No change			

The FAO estimates try to measure access to food. They have been derived from estimates of total food availability in each country expressed as available calories, with the food then being considered distributed log-normally across households — according to surveys of household income or expenditure when available (when they are not, as so often applies, the distribution is taken from neighbouring countries), and then compared to a calorie cut-off point, based on a consideration of needs of individuals by age and sex. The calculations are necessarily inexact, given the limitations of the data on food production and trade.<sup>4</sup>

The FAO estimates correspond to Indicator 5 of the MDGs. *Nutrition*, however, is another matter. To examine the record on this, we turn to the results of national surveys of children under age five as compiled by UNICEF and WHO. Representative surveys are infrequent. Since 1990 it is rare to find countries with four such surveys — only five countries, and for several there has been just one survey. So the record is patchy.

In what follows, the statistic taken is (moderate or severe) stunting — that is, the proportion of children aged five years<sup>5</sup> or less whose height for their age is more than two standard deviations below the median reference point. Stunting reflects the nutrition of the infant over the medium term: it is not much affected the events of the previous few weeks or months. It shows the extent to which the children are developing to their physical potential. Indicator 4 of the MDGs refers to underweight, a measure that captures both medium term growth with shorter run variations. It is thus more susceptible to the timing of the survey — above all whether the child was measured in the hungry season or not.

So what do the data show? Figures 2.2, a to f, show the results for countries with two or more observation points since 1990, by region. (See Annex A for the data base.) At first sight, the diversity of experiences is bewildering. Nevertheless, some features are clear:

- Taken as whole, for the 27 countries for which statistics exist, 17 show lower rates of stunting for the most recent survey compared to the earliest, while only 10 show a deterioration. Overall it seems, nutrition is improving; but,
- Levels of stunting are often high, most surveys showing rates of one third or more, and some showing rates of more than half. Even when malnutrition is falling, the improvements are often small. Hardly a single country looks as though it will halve the level of stunting seen in the early 1990s by 2015 — only Senegal seems to have the rate of decline likely to do this;

By region, **Northern Africa** shows some of the lowest levels of stunting with improvement through time. The exception here is Sudan, but there are only two observations and the most recent was in 2000.

**West Africa** has some surprising statistics: of the 10 countries shown, six show deterioration since the early 1990s. This contradicts the image of the region seen in Table 2.1 of declining undernourishment. That said, the region has some notable improvers including Ghana, Nigeria and Senegal.

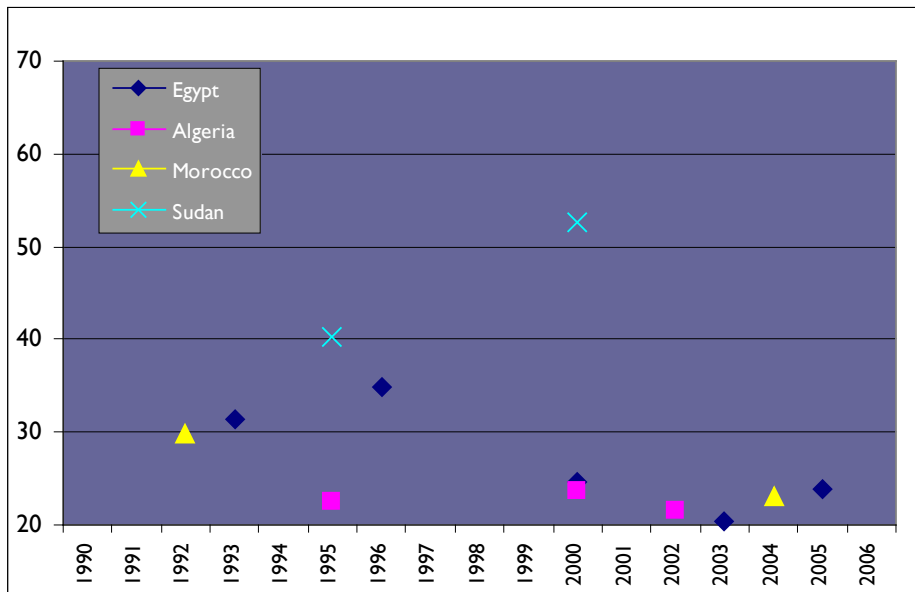
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<sup>4</sup> See Svedberg 1999 for discussion and critique.

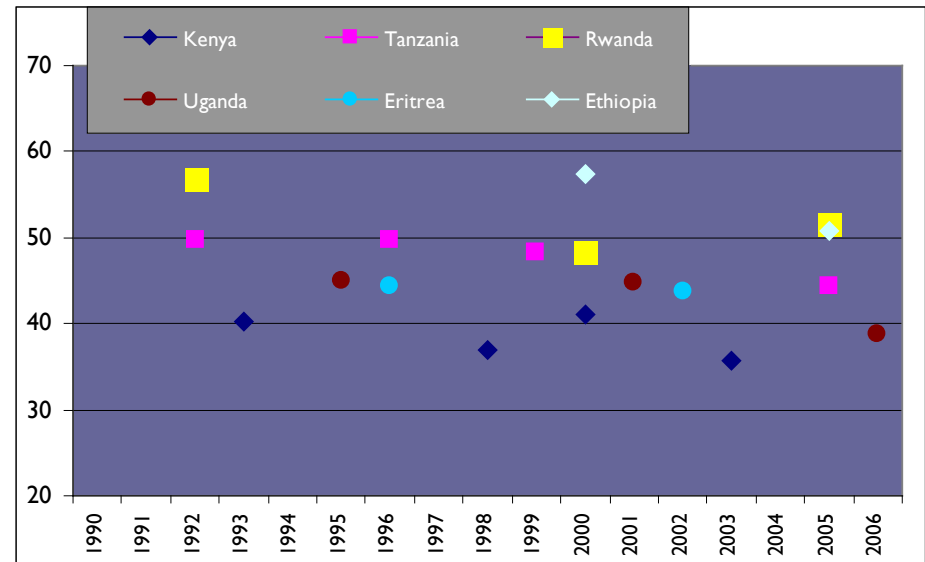
<sup>5</sup> In the data base used there are some results from surveys of infants aged three or less. These have been included to increase the number of observation points. Strictly they are not comparable, but in practice the proportion of stunted children in populations of under-five's and under-three's do not differ by much — perhaps 3 percentage points.

**Figure 2.2: Stunting, selected African countries, 1990 to 2006**

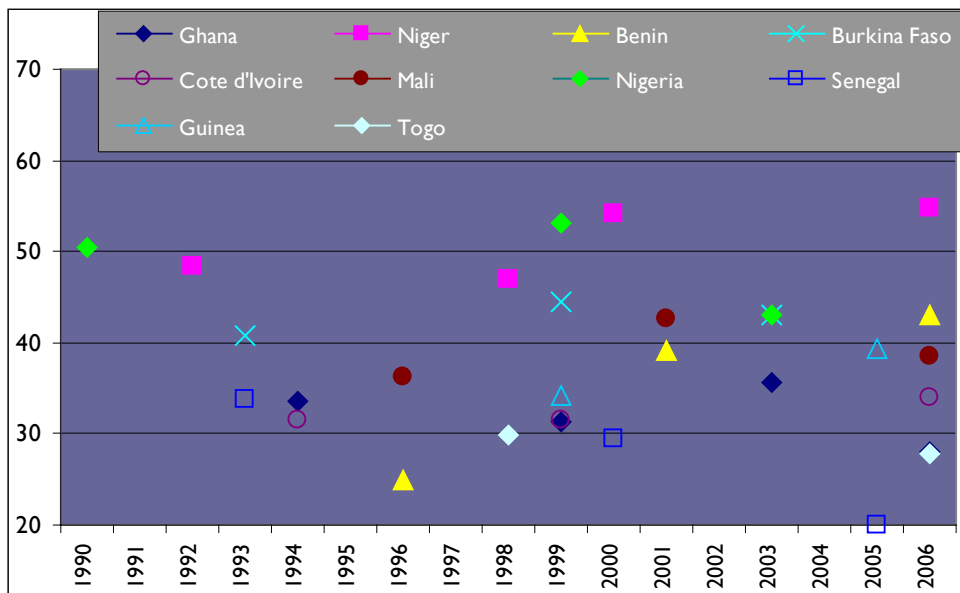
(a) Northern Africa



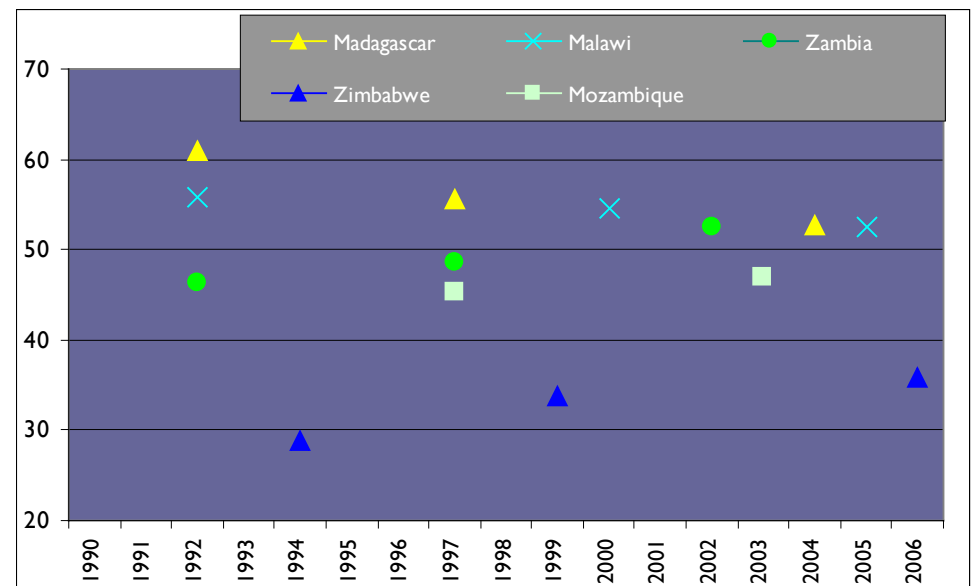
(c) Eastern Africa, northern part



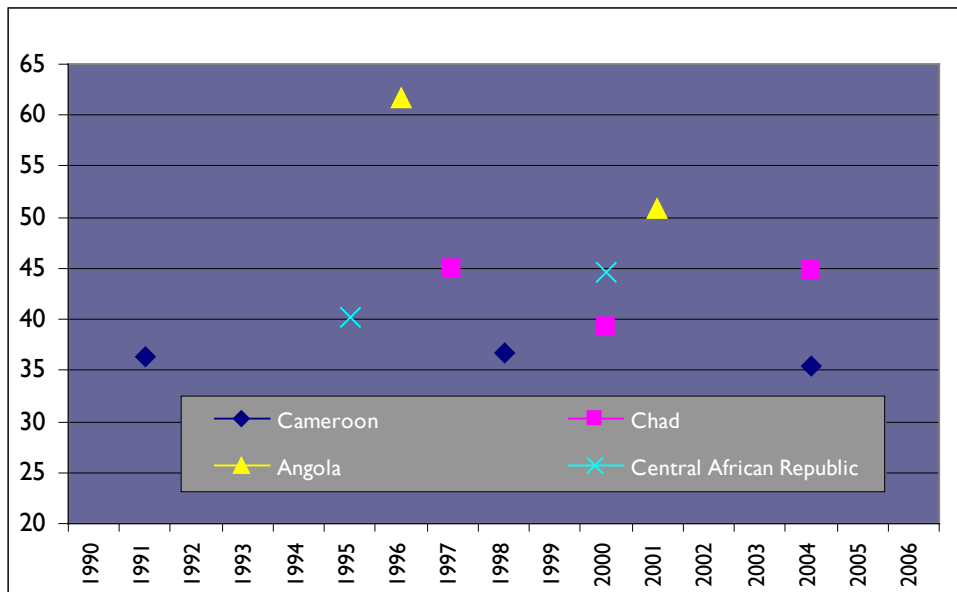
(b) Western Africa



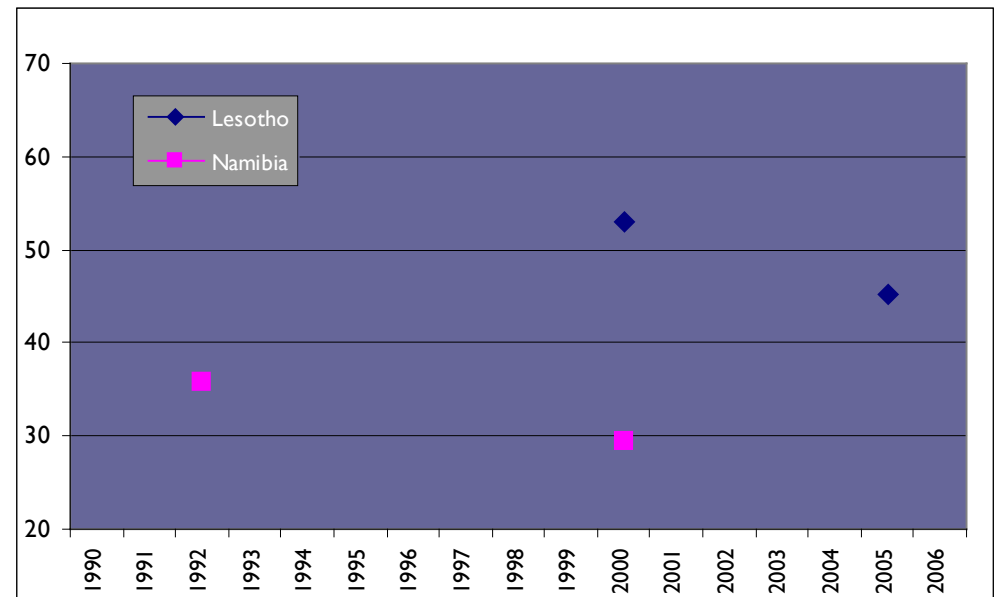
(d) Eastern Africa, southern part



(e) Middle Africa



(f) Southern Africa



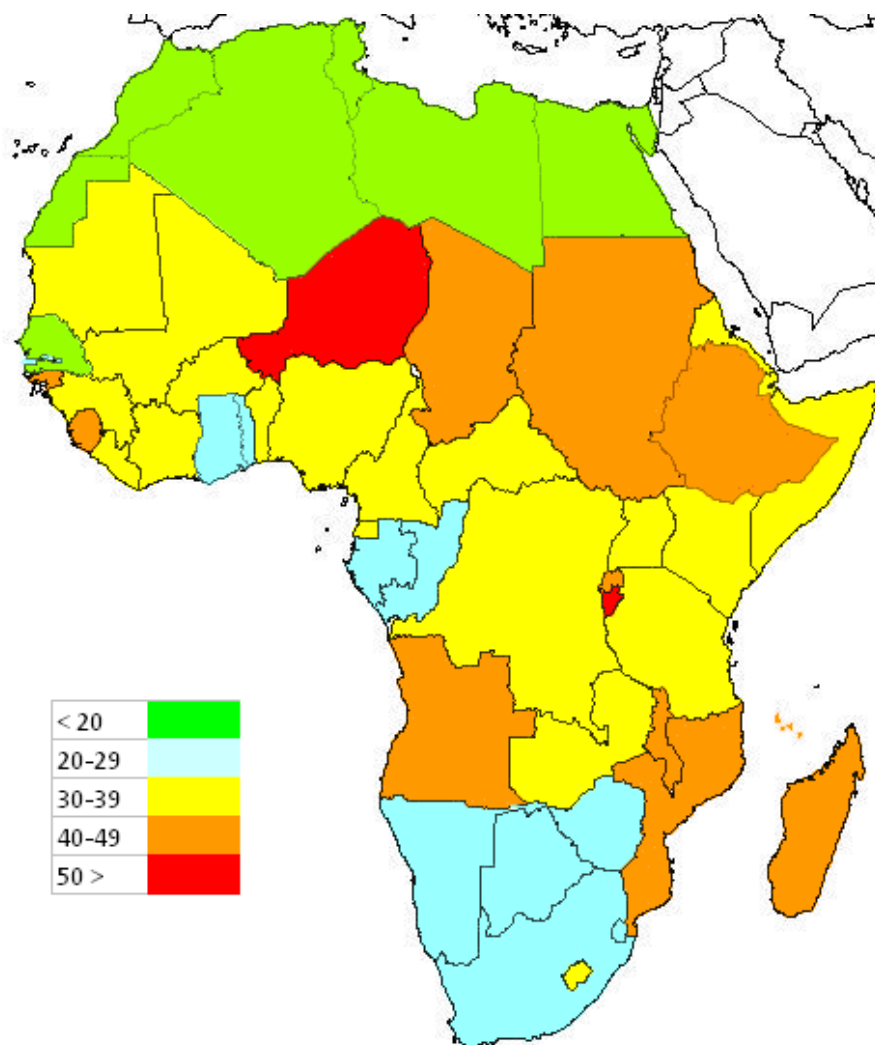
**Eastern Africa** stunting rates are falling in most countries, with only Zambia and Zimbabwe showing deterioration, but the improvements are generally small and in several countries the levels of stunting remain over 50%.

**Middle Africa** shows large improvement for Angola, albeit from a very high earlier level, deterioration in the Central African Republic, little change in Chad, and some improvement in Cameroon.

In **Southern Africa**, both Namibia and Lesotho show improvements.<sup>6</sup>

Figure 2.3 shows the geographical distribution of stunting on the latest estimates available. Much of North Africa and Senegal have the lowest rates, 20% or less. They are followed by rates of less than 30% in Ghana and Togo, Congo and Gabon, SACU except Lesotho and Zimbabwe. The areas with high levels stunting run from parts of the Sahel east to Ethiopia, in Guinea Bissau and Sierra Leone, Burundi and Rwanda, and across Southern Africa from Angola to Madagascar.

**Figure 2.2: Stunting in Africa, c 2006**



Source: UNICEF data on latest survey from State of the World's Children.<sup>7</sup>

**In sum**, the picture is diverse. In the broadest terms, both series of statistics tend to show an improvement in undernourishment and stunting; but generally the rate of progress has been

<sup>6</sup> Surprisingly there seems to be only one valid national survey for South Africa, that of 1993/94 that shows a national rate of 25% stunting. A 1999 statistic exists, showing no improvement, but apparently there were sampling problems.

<sup>7</sup> Some of the statistics reported are apparently lower than those recorded in the most recent national survey of nutrition.

slow and well behind that needed to meet the MDG targets. But it seems that there is great diversity of experience across countries suggesting that the most reliable insights may only apply in national analyses.

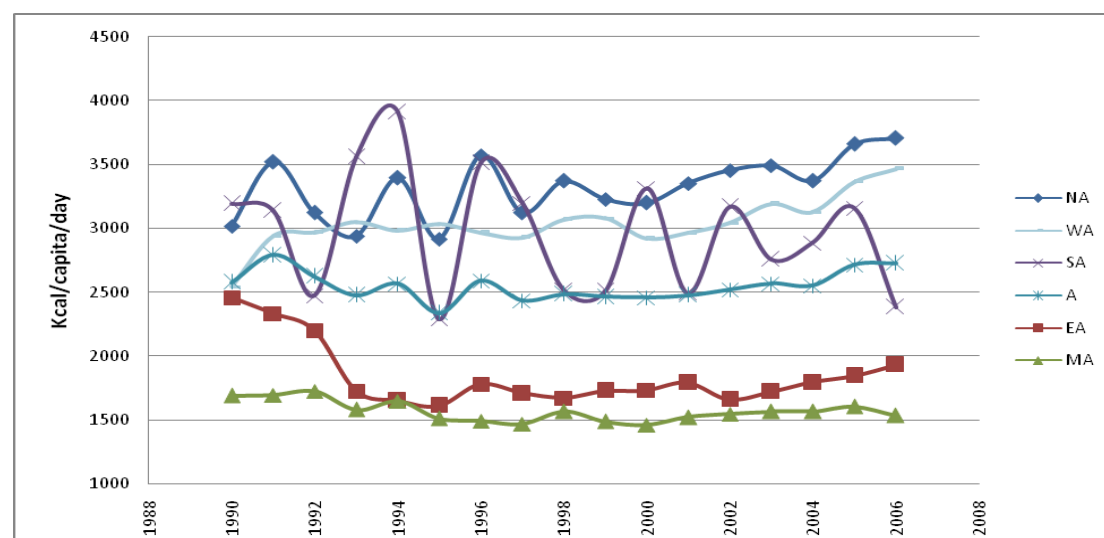
### 3. Factors influencing food security

What, however, is known about the factors that influence these outcomes? To these the paper now turns, looking for indicators that reflect trends on food availability, access to food and its utilisation.

#### 3.1 Availability of food

Staple food availability in the broadest sense of sheer calories present for every person in a given country can be tracked by summing domestic production of staples and staple imports. Converting to caloric content and dividing by population gives a crude measure of kilocalories available per capita—an accessible basic indicator for comparing trends across regions and countries. Figure 3.1 displays food availability by regions of Africa from 1990 to 2006.

**Figure 3.1. Staple food availability (kcal/capita/day) by UN region in Africa<sup>8</sup>**



Source: Constructed using data from FAOSTAT

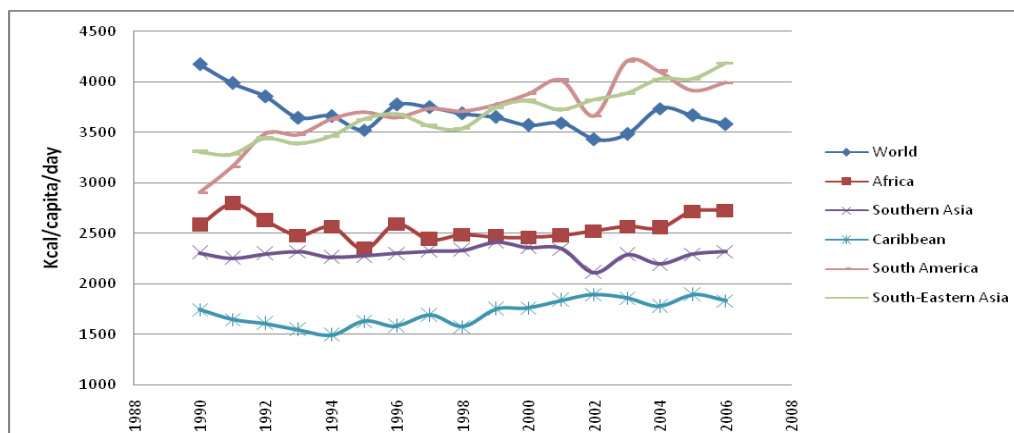
Naturally the energy requirement of a person varies by age, size, and degree of activity. FAO estimates of average requirements across national populations are in the range of 1,800 to 1,900 kcal per capita per day. For a moderately active adult, the daily requirement is around 2,500 kcal. Africa on aggregate hovers around the 2,500 kcal per capita per day mark. Northern Africa is the region with the highest levels of food available, showing a clear increasing trend from the year 2000 and rising to 3,700 kcal per capita per day in 2006. This is followed by West Africa, which also shows a clear upward trend from the year 2000—and an overall increase of about 36 percent from 1990 to 2006. Eastern Africa too appears to be improving after diving from the early to mid 1990s (from 2002 to 2006 it increases by about 16 percent). Middle Africa displays the worst availability with no sign of improvement at the regional level. Surprisingly high volatility is the most remarkable feature of Southern African

<sup>8</sup> **Eastern Africa:** Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Mayotte, Mozambique, Reunion, Rwanda, Seychelles, Somalia, Uganda, Tanzania, Zambia, and Zimbabwe. **Middle Africa:** Angola, Cameroon, Central African Republic, Chad, Congo, Dem Rep of the Congo, Equatorial Guinea, Gabon, Sao Tome and Principe. **Northern Africa:** Algeria, Egypt, Libyan Arab Jamahiriya, Morocco, Sudan, Tunisia, Western Sahara. **Southern Africa:** Botswana, Lesotho, Namibia, South Africa, Swaziland. **Western Africa:** Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Saint Helena, Senegal, Sierra Leone, Togo.

availability. From 2000 to 2006 it bounced between nearly 3,500 and less than 2,500 kcal per capita per day, owing to large swings in cereal production.

To put this in a global context, Figure 3.2 shows how Africa as a whole compares to the total world production per capita of cereals, roots and tubers, as well as the production of cereals, roots and tubers plus imported cereals in a selection of developing world regions by UN classification.

**Figure 3.2: Staple food availability (kcal/capita/day) across a selection of regions<sup>9</sup>**



Source: Constructed using data from FAOSTAT

Although Africa as a whole clearly has not been performing on aggregate as well as South America and South-Eastern Asia, availability is still far better than in Southern Asia and the Caribbean.<sup>10</sup>

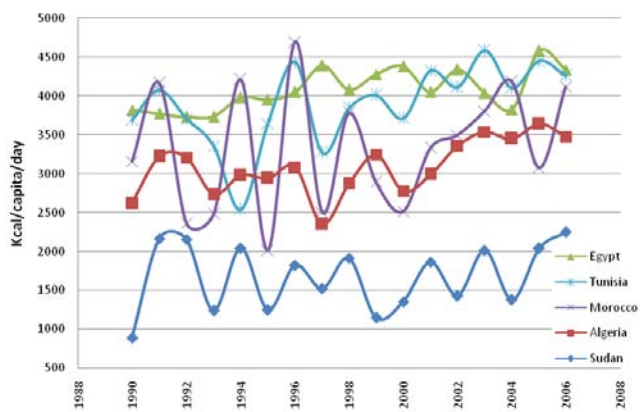
Returning to the story of Africa's staple food availability, regional variation is great, but disaggregating within regions (Figures 3.3 to 3.5) shows an even more complex, country-level picture. This analysis focuses on countries expected to influence regional trends—defined as those with populations exceeding 10 million.<sup>11</sup>

**Figure 3.3: Staple food availability (kcal/capita/day) in large Northern African countries**

<sup>9</sup> **Southern Asia:** Afghanistan, Bangladesh, Bhutan, India, Iran, Maldives, Nepal, Pakistan, and Sri Lanka. **South America:** Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Falkland Islands, French Guinea, Guyana, Paraguay, Peru, Suriname, Uruguay, and Venezuela. **South-Eastern Asia:** Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Timor-Leste, and Viet Nam. **Caribbean:** Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, British Virgin Islands, Cayman Islands, Cuba, Dominica, Dominican Republic, Grenada, Guadeloupe, Haiti, Jamaica, Martinique, Montserrat, Netherlands Antilles, Puerto Rico, St Kitts and Nevis, St Lucia, St Vincent and Grenadines, Trinidad and Tobago, Turks and Caicos Islands, US Virgin Islands.

<sup>10</sup> Availability looks very low here—likely because measures of cereal imports are not capturing imported processed foods.

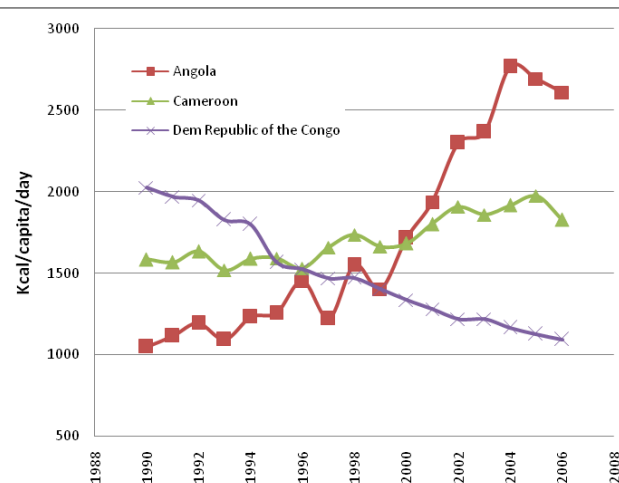
<sup>11</sup> In Northern Africa this includes Algeria, Egypt, Morocco, Sudan, and Tunisia. In Western Africa; Burkina Faso, Côte d'Ivoire, Ghana, Mali, Niger, Nigeria, and Senegal. In Middle Africa; Angola, Congo DR and Cameroon. In Eastern Africa; Ethiopia, Kenya, Madagascar, Malawi, Mozambique, Uganda, Tanzania, Zambia, and Zimbabwe. South Africa is the only large country in the Southern Africa grouping by this definition.



Source: Constructed using data from FAOSTAT

Egypt is the strongest of the **Northern Africa** group, showing improvement over the series. Volatility is remarkable in Morocco and Tunisia. Algeria follows a slow upward trend. Availability in Sudan is well below the regional average and quite volatile.

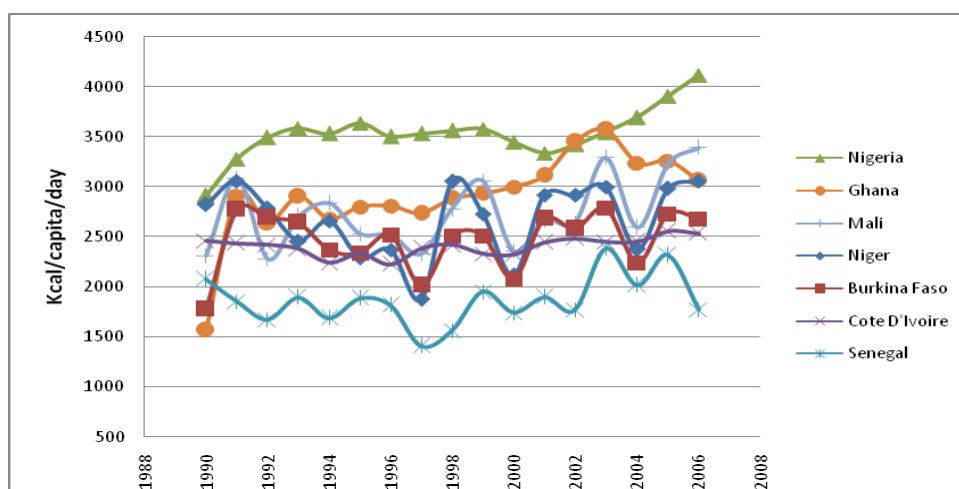
**Figure 3.4** Staple food availability (kcal/capita/day) in large Middle African countries



Source: Constructed using data from FAOSTAT

The steadily declining performance of the populous conflict-affected Democratic Republic of the Congo explains the stagnant trend recorded for **Middle Africa** on the aggregate level in Figure 3.1. Performance in Angola increased from very low levels rapidly, although it declines after 2004. Cameroon is making progress, but slowly, and aggregate availability is well below ideal levels.

**Figure 3.5** Staple food availability (kcal/capita/day) in large Western African countries



Source: Constructed using data from FAOSTAT

In absolute terms, Senegal is the weakest performer in **Western Africa**, and quite volatile. Nigeria is the strongest—showing marked acceleration between 2000 and 2006. From the

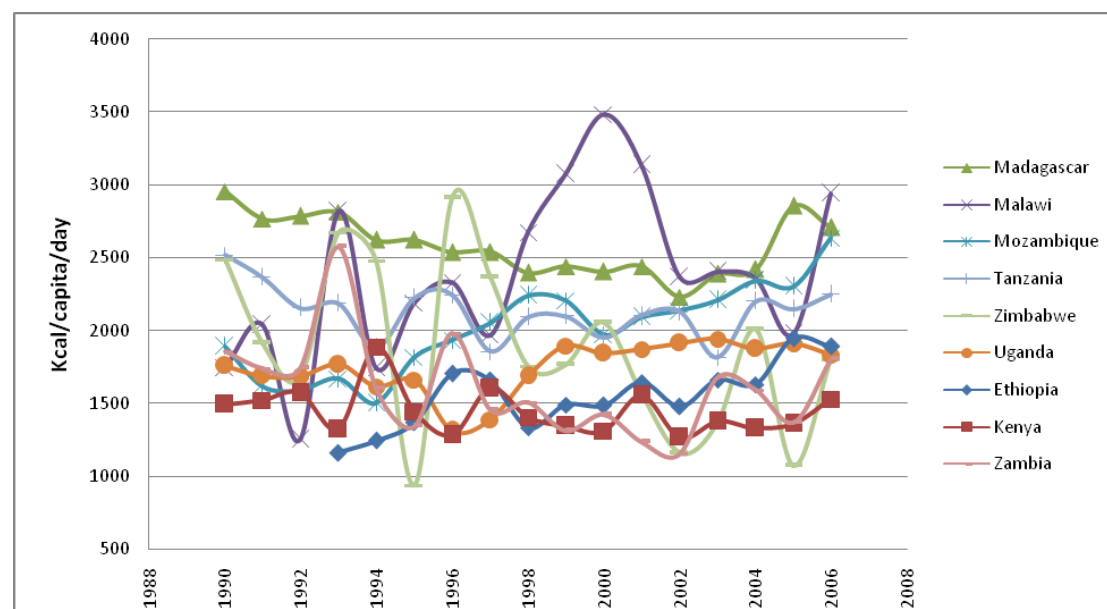
beginning of the series to the end it grows over 40 percent. Ghana too follows a mostly upwards trend, almost doubling between the start and end of the series.

Mali, Niger, and Burkina Faso are remarkable in their high volatility and close co-movement. In absolute terms Mali has the highest level of availability, but growth in Burkina Faso may have been better. Still, availability in these countries—particularly in Niger—is so changeable it is difficult to see any particular trend emerging.

The picture in **Eastern Africa** is similarly variable on the country level. Volatility and progress in absolute terms over this period are most acute in Malawi. Ethiopia too appears to be on an upward trend, although at absolute levels it remains very low. This is more difficult to see for Uganda, Kenya, and Tanzania.

A mostly declining trend in Madagascar seems to have reversed around 2002. Mozambique shows mostly steady upwards progress. Volatility is extreme in Zimbabwe and quite strong in Zambia, both of which appear to follow declining trends overall, though it is possible Zambia's downward trend began to reverse around 2002 as in the Madagascar case.

**Figure 3.6 Staple food availability (kcal/capita/day) in large Eastern African countries**



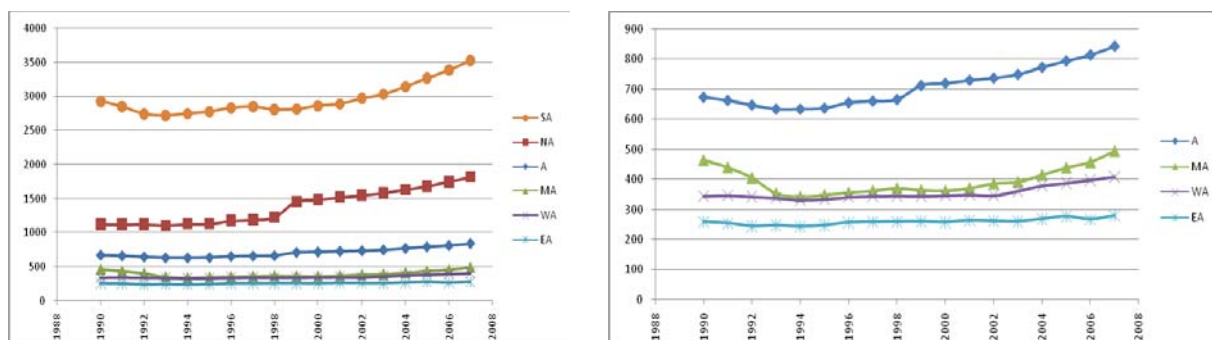
Source: Constructed using data from FAOSTAT

The picture that emerges at country level is one of extreme diversity.

### 3.2 Access to food

Food access is about consumption as opposed to production. The incidence of people going hungry in the midst of abundant harvests is well documented and vividly described in Amartya Sen's seminal 1981 work. Here we examine economic growth, agricultural growth, and poverty estimates in order to draw some broad inferences about the evolution of access in Africa.

**Figure 3.7 GDP per capita (constant 2000 USD) for Africa by UN region, 1990 to 2007**



Source: Constructed using data from World Bank World Development Indicators (WDI)

Note: The slight jump seen in the Northern Africa and Africa aggregates after 1998 occurs due to Libya data entering where it was previously recorded as zero

These figures show a steady increase in real GDP per capita in Africa as a whole, as well as for Southern (mostly driven by South Africa), Northern and Middle Africa. West Africa also appears to have been following increasing trends since around 2001.

Growth rates for the period 1990–2007 and for the last seven years in the series are presented in columns A and B of Table 3.1 for Africa, its regions, and the most populous countries. Figures associated with these latter are available in Annex B. Negative rates are recorded in red, rates >0 and <2 in black, and rates >2% in green. The three far right columns show growth in gross agricultural production per rural inhabitant over the same regions—this is a proxy for growth in rural income levels.

**Table 3.1: Average annual growth of GDP per capita and agricultural production per rural inhabitant**

	<i>Growth in Incomes</i>		<i>Growth in Rural Incomes (proxied)</i>		
	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>
	1990-2007	2000-2007	1990 <sup>12</sup> -1999	2000-2005	1990-2005
<b>Africa</b>	1.57	2.28	1.38	1.90	<b>1.40</b>
<b>Northern Africa</b>	3.29	2.85	2.52	3.07	<b>2.30</b>
Algeria	1.36	2.94	1.82	7.73	<b>2.91</b>
Egypt	2.51	2.56	2.42	0.95	<b>1.82</b>
Morocco	2.02	3.67	1.38	6.39	<b>2.18</b>
Sudan	3.58	4.80	4.72	2.61	<b>3.77</b>
Tunisia	3.32	3.76	1.80	4.13	<b>1.38</b>
<b>Middle Africa</b>	0.68	4.35	-1.10	0.50	<b>-0.48</b>
Angola	2.86	9.44	2.29	5.89	<b>4.19</b>
Cameroon	0.56	1.22	2.58	2.60	<b>2.53</b>
Dem Rep of Congo	-4.37	1.88	-5.14	-2.55	<b>-4.22</b>
<b>Western Africa</b>	0.93	2.62	2.95	2.66	<b>2.36</b>
Burkina Faso	2.52	2.49	1.69	4.51	<b>1.92</b>
Côte d'Ivoire	-0.73	-1.55	1.31	-0.88	<b>0.96</b>
Ghana	2.07	3.13	5.21	3.77	<b>4.34</b>
Mali	2.21	2.25	2.07	4.08	<b>1.48</b>
Niger	-0.58	0.37	1.20	1.39	<b>1.40</b>
Nigeria	1.15	4.01	3.66	3.64	<b>2.92</b>
Senegal	1.07	1.80	0.00	-1.05	<b>0.14</b>
<b>Eastern Africa</b>	0.59	1.00	-0.09	0.65	<b>0.41</b>
Ethiopia	1.90	4.64	2.16	2.93	<b>2.31</b>
Kenya	-0.01	1.68	0.29	3.46	<b>1.41</b>
Madagascar	-0.40	0.41	-1.87	0.12	<b>-2.11</b>
Mozambique	3.98	5.42	3.81	3.54	<b>3.08</b>
Malawi	0.34	0.59	3.76	-3.43	<b>2.49</b>
Tanzania	1.80	3.95	-0.61	2.24	<b>0.60</b>
Uganda	3.07	2.29	-0.74	-2.06	<b>-0.55</b>
Zambia	0.14	3.16	-1.47	4.25	<b>0.00</b>
Zimbabwe <sup>13</sup>	-2.16	-6.61	1.72	-7.95	<b>-0.19</b>
<b>Southern Africa</b>	1.14	3.06	0.00	1.71	<b>1.09</b>
South Africa	1.00	3.03	0.29	1.81	<b>1.38</b>

Notes and sources: Columns A and B calculated using data in constant 2000 dollars from World Bank (World Development Indicators); Columns C, D, E calculated using data from FAOSTAT production indices divided by rural population. In both cases, simple linear estimates of growth have been calculated.

Both **economic growth** and **growth in agricultural incomes** have been strongest in **Northern, Southern, and Western Africa** (particularly fast in Ghana and Nigeria)—where they also appear to be, for the most part, accelerating. The exceptions here are Côte d'Ivoire and Senegal, where economic growth does not appear to be driven by the rural sector. **Middle Africa** is mixed, with good performance in Angola and Cameroon offset by negative growth in DR Congo. The overall picture of **Eastern Africa** is positive, but on the individual country level it is extremely mixed. Ethiopia's growth rates are striking—economic growth over 4% between 2000 and 2007, and agricultural incomes growing by almost 3% over the 2000–2005 period. Mozambique too shows good performance across the indicators, as do Tanzania and

<sup>12</sup> Series start in 1990 except for Ethiopia which starts in 1993

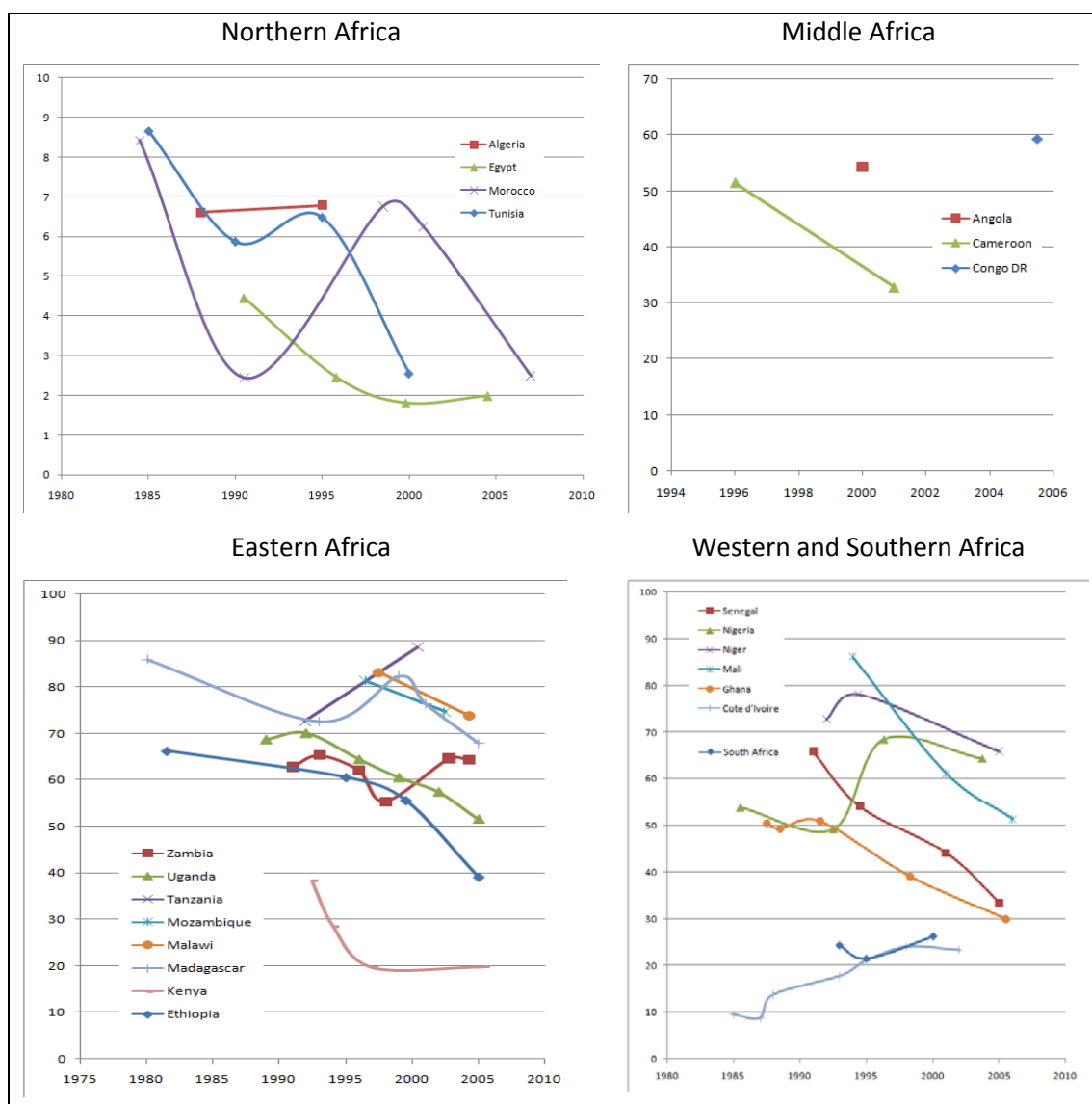
<sup>13</sup> Zimbabwe data runs only to 2005

Kenya for the most part. Uganda, despite growing economically is struggling in the agricultural sector, and the picture in Zimbabwe becomes increasingly bleak. Malawi is growing very slowly, and the rural situation declined sharply over the 2000–2005 period. Madagascar turned around its steady decline, reversing negative growth rates in the economy overall and the agriculture sector. Zambia too turned around declining trends in both areas.

Generally speaking, access appears to be improving, although at very varying rates—except in those countries experiencing serious economic shocks and conflict.

**Poverty headcounts** are the final indicator provided here to assess how access has been evolving over time. These data are fairly patchy, occasionally inconsistent, and are not available for every large country examined here, but they give a general idea of the trends in proportion of citizens living in impoverished households.

**Figure 3.8 Poverty headcounts as percentage of population in some African countries**



Source: Constructed using World Bank POVCAL data

Again the variation by country and region is immense. **Northern African** rates are the lowest (highest rates in the mid 1980s are less than 9 percent), and are declining for the most part—although data is not available for Sudan. In **Middle Africa** the rates are much higher in absolute terms, and far less data is available from which trends can be inferred. Poverty in

Cameroon appears to be heading down (decreasing almost 20 percent between 1996 and 2001).

The trends in **Eastern Africa** are mixed, but appear for the most part to be coming down. Poverty rates in Madagascar move from the high 80s to the high 60s over more than two decades. In Ethiopia they improve by almost 30 percent, with the sharpest decline between 2000 and 2005, ending below 40 percent. Poverty rates in Malawi and Mozambique are among the highest, but appear to be declining. This is not the case for Tanzania, where poverty, already high, increased to almost 90 percent by 2001. Zambia too shows sharp increases in poverty. The case of Kenya is less clear; headcount poverty levels are well below the other East African countries represented, but improvements in the early to mid 1990s seem to have stagnated over the subsequent decade. Poverty rates in **South Africa** are higher than in Kenya, and increased almost 5 percent over the 1995 to 2000 period.

Finally, the picture for **Western Africa** appears mostly positive, particularly from the late 1990s onwards. Côte d'Ivoire is an exception—beginning with the lowest poverty rates but increasing over 10 percent. Performance of Nigeria too is mixed, with a sharp incline of about 20 percent from early to late 1990s. Niger turned around from the mid 1990s to 2005, decreasing over 10 percent, but the most impressive reductions occurred in Mali, Senegal, and Ghana, which saw reductions in poverty headcounts of 35 percent from 1994 to 2006, 32 percent from 1991 to 2005, and 21 percent from 1991 to 2005 respectively.

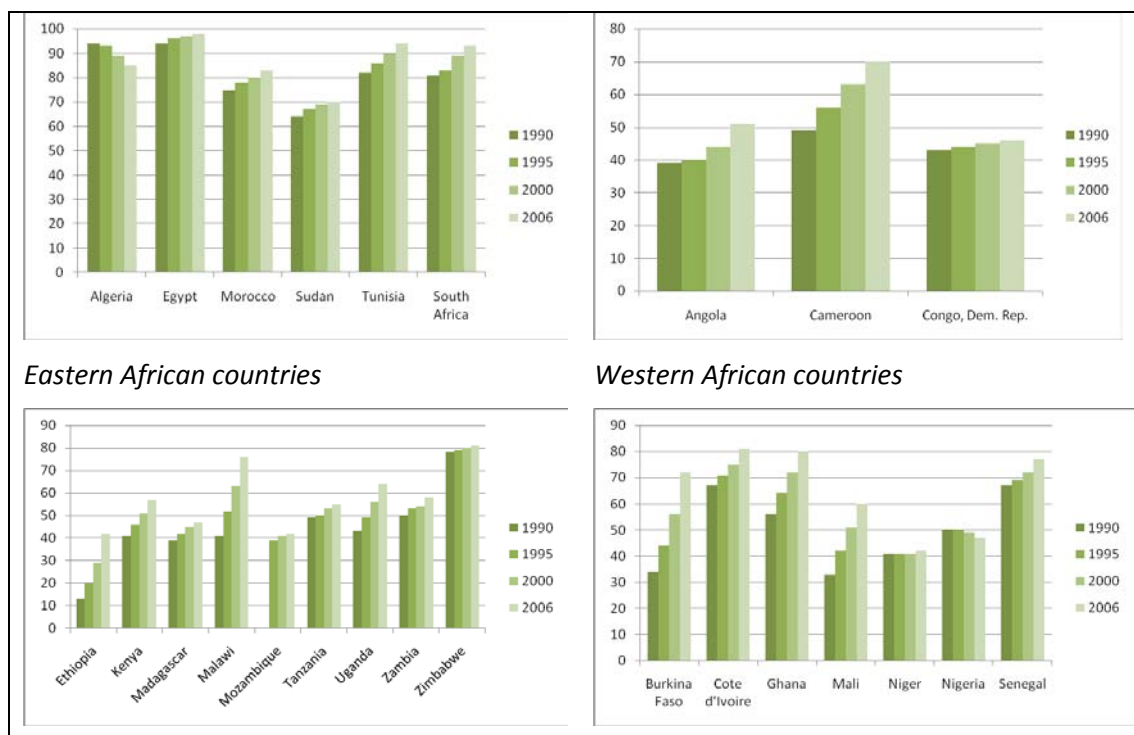
Generally speaking, levels of access—as proxied by these indicators—seem to be improving overall. There is considerable variation across countries and regions, but this improvement seems to have accelerated in the new century. Exceptions again include countries affected by serious economic shocks and conflict.

### 2.3 Utilisation factors

Food utilisation provides a measure of how well food that is available and accessed is contributing to the nutritional welfare of its consumers. Factors influencing to the utilisation of food include hygiene and health. Here we use indicators of percentage of population with access to improved water sources and improved sanitation facilities, as well as under-five mortality rates as proxies, to draw some insights into food utilisation in Africa.

**Figure 3.9 Percentage of population with access to improved water sources**

<i>Northern and Southern African countries</i>	<i>Middle African countries</i>
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Source: Constructed using World Bank data (World Development Indicators)

Immediately evident is the prevalence of positive trends in **access to improved water sources**. In **Northern Africa**, strong performers Egypt and Tunisia look close to achieving universal coverage. Sudan, the poorest performer in the region reached 70 percent in 2006. Algeria is one of very few countries on a downward trend. On this indicator **South Africa** is at a comparable level to its Northern neighbours, both in absolute terms and in rate of improvement.

The picture in **Middle Africa** is less rosy. Access is growing in the three large countries, albeit very slowly in Congo DR, but absolute levels remain relatively low. Cameroon, the best performer of this group was in 2006 at the same level as Sudan, below the level of Morocco in 1990; Angola in 2006 just topped 50 percent coverage.

Trends are positive in **Eastern Africa**, but access to improved water sources is mixed in terms of rate of improvement and absolute levels of coverage. This latter varied between around 40 and 80 percent in 2006. Of the nine countries, Ethiopia and Malawi exhibited extraordinary rates of growth, both increasing coverage by around 30 percent over the period, although in the case of Ethiopia this occurred from extremely low initial levels. Places like Mozambique and Zimbabwe in contrast grew very slowly. Absolute levels on average in this region remain fairly poor.

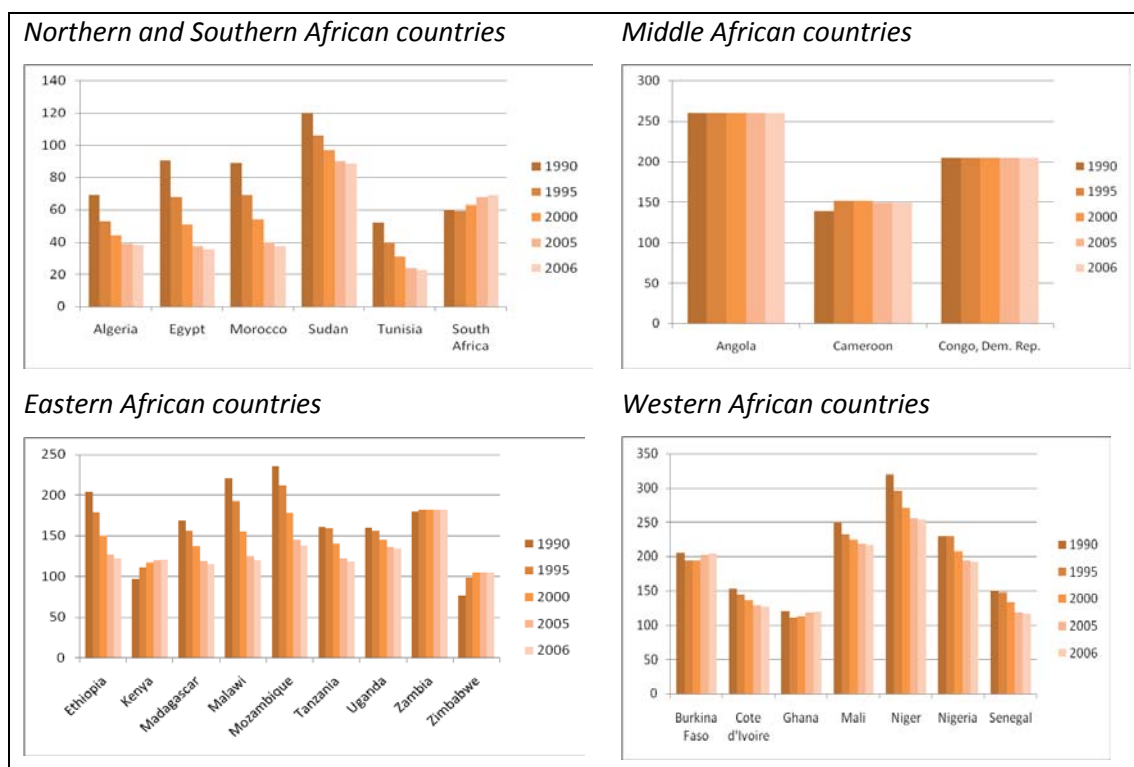
Coverage in large **Western African** countries is improving, with the notable exceptions of Niger, which appears relatively stagnant, and Nigeria, which is seeing declining rates of coverage per capita. Burkina Faso, Mali, and Ghana improved at the fastest rates. In absolute terms there is still room for improvement—coverage in 2006 varied across these countries by about 40 percent, the same degree of variation observed in the Eastern African sample.

Trends in **access to improved sanitation** (available in Annex C) paint a similar picture in the sense that overall trends are improving in each region. Still there are some marked differences, particularly in degree of coverage. Of the **Northern** countries, Sudan is improving very slowly and has not yet reached 40 percent coverage. **South African** coverage was below 60 percent in 2006. In **Middle Africa** in 2006, Angola and Cameroon were around 50 percent, and Congo DR around 30. In **Eastern Africa**, Ethiopia and Madagascar were only just above 10 percent coverage in 2006. The other countries in this region had levels of between 30 and 60 percent in 2006. Coverage in Tanzania is also shrinking slowly.

In the **Western African** region, Mali experienced the fastest improvement and the highest levels of coverage, growing from 35 to 45 percent over 1990 to 2006. Burkina Faso, Ghana, and Niger all had very low levels of access to improved sanitation—13, 10, and 7 percent respectively in 2006. Overall, levels are relatively low in the Western region, as Côte d'Ivoire, Senegal, and Nigeria were not above 30 percent in 2006.

Finally, the **under-five mortality rate** gives a good indication of how well food is being utilised by a vulnerable portion of the population.

**Figure 3.10 Under-five mortality rate (deaths per 1000 children)**



Source: Constructed using World Bank data (World Development Indicators)

Although the numbers in general are going down, the absolute levels are still very high. For comparison, Table 3.2 gives under-five mortality rates for a selection of other developing countries across the world. In contrast, the absolute numbers in Africa are striking.

**Table 3.2 Under-5 mortality rates in 2006 (per 1000 children) in a selection of developing countries outside Africa**

Cambodia	143
Haiti	120
Pakistan	99
Bangladesh	73
India	74
Nepal	74
Bolivia	65
Guatemala	43
Viet Nam	19

Source: UNICEF, 2006

**Northern Africa**, with the exception of Sudan, is the best performer on this indicator, with the under-five mortality rate in Algeria, Egypt, Morocco and Tunisia below 40 in 2006. Sudan in contrast was at almost 90.

In **South Africa**, under-five mortality is increasing.

**Middle Africa** has seen no change from extremely high levels in Angola and Congo DR. In Cameroon there has been a slight improvement from 151 in 2000 to 149 in 2006, but the 2006 number is still up on the 139 recorded in 1990.

**Eastern Africa** has seen improvements in Malawi, Mozambique, Ethiopia, Madagascar, Tanzania, and Uganda, in which under-five mortality rates have fallen by 100, 97, 82, 53, 43 and 26 children respectively between 1990 and 2006. In contrast, rates in Zimbabwe, Kenya, and Zambia increased by 29, 24, and 2 children per thousand respectively. At the level of absolute numbers, rates in large Eastern African countries are still very high, all above the rate of 100 in every 1000 children dying before the age of five in the latest year available.

In **Western Africa** the absolute numbers are worse on average. Across the 7 countries, average rate in 2006 was 176. Niger saw the biggest improvement over the period, but it is still the worst performer in absolute terms. Improvements in Ghana and Burkina Faso are minor.

Generally speaking, across these indicators—access to improved water sources, access to improved sanitation, and under-five mortality rates—utilisation appears to be increasing over time in most regions, and in most large countries within those regions. Notable exceptions are those countries where stresses from conflict or economic shocks stagnate progress. In addition, coming from relatively poor starting points on all of these indicators, particularly in Eastern, Middle, and Western Africa, much room exists for improvement.

#### 4. Food crises and famines

Reasons for countries to experience food emergencies stem from both short and long term concerns over lack of availability, access, and utilisation. **Availability crises**—exceptional shortfalls in food supply—are commonly the result of crop failures, environmental emergencies like drought or flooding, distribution bottlenecks such as import or transport interruptions, and excessive post-harvest losses owing to pest infestation and the like. **Crises of access** arise when people are unable to procure food in local markets owing to low income, high food prices, or a physical inability to access markets. Health epidemics such as cholera or HIV/AIDS influence **crises of utilisation**. Complications arising from **conflict** also feed into food crises in the forms of availability (through disruptions to rural areas at key times in the production cycle), access (through destruction of infrastructure and entrenchment of poverty), and utilisation (through poor health conditions in populations of internally displaced and refugees fleeing conflict).

To give an idea of the frequency of crises over the last 10 years from 1999 to the present, the UN OCHA documentation on Humanitarian Assistance under the Consolidated Appeals Process provides a good starting point. The following table provides a broad mapping of countries and regions in Africa that appear on OCHA's list of Humanitarian Appeals. The frequency of these events does not seem to be declining: 23 countries were affected in either 2007 or 2008, the same number as seen in 2000 and 2001.

**Table 4.1 African countries appearing in Humanitarian Appeals, 1999—2009**

	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
<b>UN Northern</b>											
Sudan		X	X	X	X	X	X	X	X	X	X
<b>UN Western</b>	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999

Benin					X						
Burkina Faso			X					X			
Côte d'Ivoire	X	X	X		X	X	X		X		
Guinea				X	X	X	X	X			
Guinea-Bissau				X							X
Ghana			X								
Liberia			X	X	X	X	X	X	X		
Niger					X						X
Sierra Leone						X	X	X	X	X	X
<b>UN Middle</b>	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
Angola					X	X	X	X	X	X	X
Central African Republic		X	X	X	X	X	X		X		
Chad	X	X	X	X	X	X					
Congo			X	X	X	X	X	X	X	X	X
Congo DR		X	X	X		X	X	X	X	X	X
<b>UN Eastern</b>	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
Burundi			X	X	X	X	X	X	X	X	X
Djibouti		X			X				X	X	
Eritrea					X	X	X	X	X	X	
Ethiopia			X	X			X	X	X	X	
Kenya	X	X		X		X			X	X	
Malawi					X	X		X			
Madagascar		X	X							X	
Mozambique			X			X		X	X	X	
Rwanda			X				X	X	X	X	X
Somalia		X	X	X	X	X	X	X	X	X	
Tanzania						X	X	X	X	X	X
Uganda		X	X	X	X	X	X	X	X	X	X
Zambia			X			X		X			
Zimbabwe	X	X	X	X	X	X	X	X		X	
<b>UN Southern</b>	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
Lesotho			X			X		X			
Swaziland			X			X		X			
<b>Other groupings</b>	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
Central Africa					X		X		X		
Great Lakes Region				X	X	X	X		X	X	
Horn of Africa			X	X					X	X	
Southern Africa Region						X	X	X			
West Africa		X		X	X	X			X		

Source: UN OCHA Humanitarian Appeals

FAO's GIEWS (Global Information and Early Warning System) reports shed further light on the frequency of food crises. On average they release

**Table 4.2 Frequency of country appearance in GIEWS tables of Countries in Crisis Requiring External Assistance**

Period →	1999-2003	2004-2009	1999-2009
<i>Northern Africa</i>			
Sudan	100	100	<b>100</b>
<i>Western Africa</i>			

about 3 to 5 publications a year (37 over the period 1999 to Feb 2009) which list 'Countries in Crisis Requiring External Assistance'. These are defined as countries reporting critical problems of food insecurity which analysts determine lack the necessary resources to mitigate these problems. Some indication of the state of food crises in populous African countries can be captured by tracking this frequency (as in Table 4.1). This is far from an exhaustive documentation of crises, but it does begin to paint a picture.	Burkina Faso	6.7	23	16
	Côte d'Ivoire	27	100	70
	Ghana	0	27	16
	Mali	0	23	14
	Niger	6.7	41	27
	<b>Middle Africa</b>			
	Angola	100	45	68
	Congo DR	100	100	100
	<b>Eastern Africa</b>			
	Ethiopia	100	100	100
	Kenya	100	100	100
	Madagascar	53	45	49
	Malawi	27	32	30
	Mozambique	67	14	35
	Tanzania	100	64	78
	Uganda	100	100	100
	Zambia	40	9	22
Zimbabwe	47	100	78	

Source: Authors' calculations from FAO GIEWS publications: *Crop Prospects and Food Situation 2009 – 2006 editions and Africa Report 1999-2005 editions*.

Countries showing no improvement by this measure from one period to the next are marked in red. Those showing improvement are in green, and those showing increases in frequency of requirements of external assistance in blue. Sudan is the only country in the **Northern Africa** group that appears.

**Western Africa** falls entirely into the increasing frequency category, predominantly because of climatic events occurring in 2004—although in the case of Côte d'Ivoire there is also the influence of conflict. Levels nonetheless remain relatively low in Mali, Ghana, and Burkina Faso. Niger's experience of frequent crisis in the second period reflects the knock-on impacts (the deeper entrenchment of poverty) following the 2004 food crisis.

**Middle Africa** is more varied—with Congo DR showing no signs of improvement but the situation in Angola getting better since the end of the conflict. **Eastern Africa** too tells a very mixed selection of country stories. Mozambique and Zambia saw marked reductions in incidence of crisis over the two periods (1999—2003 and 2004—2009). Crises in Zimbabwe are increasing in frequency. Ethiopia and Kenya are the most chronically affected, with large at risk populations

The word crisis can be misleading. Many shocks to food security in African countries arise acutely and unpredictably, but a number more closely resemble chronic and predictable stresses.

## **5. The Africa-EU partnership on the Millennium Development Goals and food security**

Table 5.1 maps the main initiatives under the Africa-EU partnership against four areas of concern for food security: the food availability, access and utilisation that underlie chronic hunger; and the shocks that drive temporary food insecurity. It gives an impression of the coverage of the issues.<sup>14</sup>

How might this be interpreted?

The first point is that to some extent, all the key points are covered. Indeed, the impression given is that there are concerted efforts underway that did not exist a decade or more ago. There are no clear gaps. Hence in what follows the judgments are those of degree and emphasis, rather than matters of absence.

Much is being done that could alleviate the conditions that cause chronic hunger. There seems to be a reasonable balance of attention with the temporary shocks that often have higher visibility, and rightly attract political attention, in comparison to chronic problems.

A strong emphasis appears on boosting domestic food production. This is justified since higher food production promises not only to help bring down food prices — especially in inland areas where imported food bears heavy costs in transport; but also should create more jobs and incomes in rural areas — both on the land and in the supply chains — that should benefit the poor, most of whom live in rural areas. Farmers will only produce more at lower prices if their input-output ratios improve, so the spending on agricultural research is welcome. The literature shows, both for Africa and internationally, very high rates of return — of 20% or more — on investments in research.

It is good to see the initiatives that aim to improve agricultural policy making. A look at the record of increasing agricultural production across countries in Africa shows great variation from country to country,<sup>15</sup> even between countries that in many other regards similar in the levels of development and their physical endowments. The suspicion is thus that part, perhaps a large part, of the difference arises from policy choices. In this regard, some countries in Africa may have something to learn from other African countries with good agricultural performance in the last fifteen or so years.

The activities designed to deal with risk, either by providing earlier warning, less vulnerability (e.g. irrigation), or by providing insurance or transfers to cope with the effects of hazards, are justified. Many of the poor in Africa have livelihoods that are vulnerable to natural hazards that are predictable in their incidence, if not in their timing.

Particularly pleasing to see are the efforts to improve collection, analysis and communication of statistics and information. This potentially has the benefits of allowing better tracking of progress, the success of measures taken to deal with hunger, as well as keeping the issues high on the agenda of policy makers and the public.

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<sup>14</sup> With more time, the resources devoted to the different activities might be mapped as well to give an indication of the depth of coverage.

<sup>15</sup> Some African countries have increased their agricultural output at rates that compare with any other country in the world since the early 1990s. Of the thirty fastest-growing agricultural sectors in the world, no less than seventeen are from Africa.

**Table 5.1: Mapping the Africa-EU partnership activities to food security concerns**

Concerns:	Chronic Food Insecurity: Undernourishment and Malnutrition			Temporary Food Insecurity: Food Crises & Famines
<b>Influencing Factors</b>	Food Availability ■ Domestic Food Production ■ Trade	Food Access ■ Incomes ■ Price of Food [nb strongly influenced by domestic production in many countries, esp. landlocked states]	Utilisation ■ Care ■ Health Environment	Shocks ■ Harvest failures — drought, flood, pests ■ Economic decline ■ Conflict
<b>Measures taken under the Africa-EU partnership</b>				
EU Agenda for Action on MDGs	Milestone: Reduce portion of under-5s underweight from 27% to 22% by 2010			
	Milestone: Raise agricultural productivity by 6% a year — CAADP target		2010 milestone: 70M more people to gain access to water & 85M to basic sanitation in Africa ‘The MDG 3 aims at the elimination of gender disparity in primary and secondary education by 2005 and at all levels of education no later than 2015. ...’	
AU Social Policy Framework:		Social protection promises to provide some purchasing power to some of the most poor and vulnerable	Social investment in education, especially of females, and in primary health care	Reduced levels of risks for the vulnerable through provision of safety nets for those affected by shocks
EC Food Security Thematic Programme	Agricultural research support through CGIAR and FARA Improved policy-making ‘... aid capacity-building at regional and continental level, and will help civil society organisations to integrate agricultural and food security concerns into national policies and strategies, and to foster improvements in governance’ Sustainable management of NR	Food reserves, futures markets	[Better information systems?]	Better information systems Risk reduction mechanisms: market-based & safety nets
Special attention to Linking Relief, Rehabilitation and Development in exceptional contexts, including countries in transition, fragile and failing states				
Rapid response to food prices facility (€IG)	Raise farm output through improved access to inputs & services; and also: ‘microcredit, investment, equipment,	Safety nets for most vulnerable		Safety nets for most vulnerable

	infrastructure and storage; as well as vocational training and support to professional groups' — regional farmers organisations 'Focus on small and medium-sized farms for family and food-producing agriculture, particularly those run by women'			
Comprehensive Africa Agriculture Development Programme (CAADP) & associated trust fund	<p>Pillars:</p> <ol style="list-style-type: none"> <li>1. Extending the area under <b>sustainable land management and reliable water control</b> — need to build soil fertility, increase irrigation (especially small-scale irrigation);</li> <li>2. Improving <b>rural infrastructure and trade-related capacities for market access</b></li> <li>3. Increasing <b>food supply and reducing hunger</b> — farm support services and supportive policy to enhance farming,</li> <li>4. <b>Agricultural research and dissemination.</b></li> </ol>	Agricultural development promises to boost incomes in rural incomes with bias towards some of the poorest		<p>Pillar 3:</p> <ul style="list-style-type: none"> <li>■ more ability to respond to disasters and emergencies,</li> <li>■ targeted safety nets</li> </ul> <p>Pillar 1: Reduced risks through irrigation</p>
European Consensus on Humanitarian Aid				More effective responses to food crises
Integrated Food Security Phase Classification (IPC)				Improved techniques for assessment of crises
Health & Nutrition Tracking Service			Better information systems, with more integration of data, its analysis and dissemination	
Action Plan on Commodities	The plan also aims to diversify around traditional commodities, which may improve local availability of more nutritionally beneficial foods	Improving farmer competitiveness particularly where there is heavy reliance on one commodity (e.g. cocoa/coffee/tea) should raise income levels. Improving access for new		Reduces vulnerability of producers to environmental crisis through risk management

		entrants to the cash crop sector (outlawing cartels, reducing discrimination, improving transparency)		
Implementation of Africa-EU partnership on the cotton sector (Special action plan on cotton)		Benefits to cotton producers and their communities. Cotton is extremely important to a number of African countries including Burkina Faso, Chad, Benin, Mali, Togo, and Somalia.		Reduces producer vulnerability to crisis
Food Aid Working Group, feeding into the Food Aid Convention	Improve availability and reliability of food aid for the hungry	Supporting best practices in procurement , including support of local markets with care for local consumers		Improving measures dealing with severe food insecurity. Food aid has a strong emphasis on crisis response
African Initiative to create a Common Market for agriculture and food	Improving availability and access through intra-regional trade liberalisation			Reduces vulnerability to crises exacerbated by trade bottlenecks
EU Support to Regional Integration through Aid for Trade, Regional Indicative Programmes and EPAs	Improving trade should lead to more predictable availability	Mainstreaming trade-related issues into national development strategies Additional, predictable finance for supporting regional economic integration , especially EPAs, should help to reduce volatility in prices and improve access		Reliable trade relationships reduce individual country vulnerability to shocks through increased avenues for buffering
<b>Other measures</b>				
AGRA	Investment in agricultural research <i>To be completed</i>			

If there is an under-emphasis here, it probably lies with care and health. They may well be dealt with in other areas of the partnership, but there is the danger that the nutrition and food security benefits of improvements in these areas are under-appreciated. It would be unfortunate not to devote enough effort to improvements in water and sanitation, primary health care for infants and their mothers, and on female education. They require fairly simple measures, they are not technically difficult — and they have clear pay-offs in future with relatively rapid impacts on malnutrition. In this respect, it is good to see that the Social Policy Framework urges the spending on such programmes to be classified as investments that will generate benefits, rather than being seen only as costs.

There is probably some scope here for some further analysis to explore what the data show about the interactions of health and care factors with nutrition. At first sight, the relationship is strong.<sup>16</sup>

## 6. Conclusions

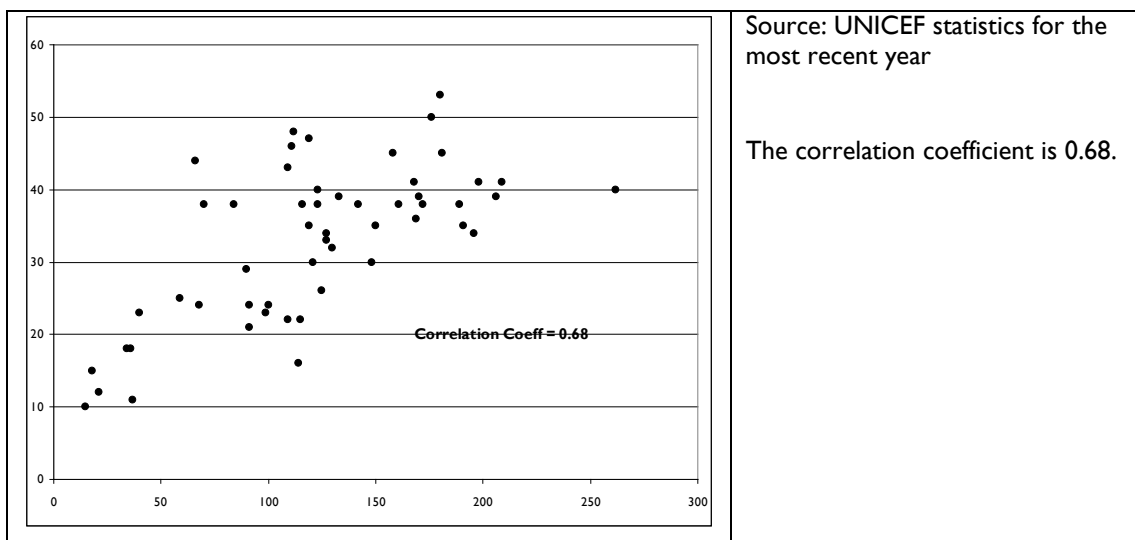
Given the recent progress in improving food availability in Africa, largely from domestic production, and the strong emphasis on this in the Partnership, there are grounds for qualified optimism that food production will rise to meet the needs of the current and future population. If the less successful agricultural sectors could perform anything like as well as the more successful ones, food supply would be assured.

It is less clear that rapid progress will be made to reduce malnutrition. Recent improvements have generally been slow and hesitant. This may be because some of the health and care factors have not been sufficiently addressed; it may be that the benefits of economic growth seen since the turn of the new century have not been well distributed.

The data necessary to understand better what is happening is neither plentiful nor necessarily of good quality. But bringing together the data used in this report has been instructive and suggests that more analysis of this — using multivariate methods — might pay off. There are anomalies in the record that warrant further investigation. Senegal is a case in point: its agricultural performance over the last fifteen years or more has been one of the most disappointing in West Africa, but nevertheless the reduction in stunting reported in surveys is remarkable. There is apparently a success story here that potentially has lessons for other countries.

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<sup>16</sup> Here is a scatter plot showing the relationship of under-five mortality to stunting, national data points across Africa.



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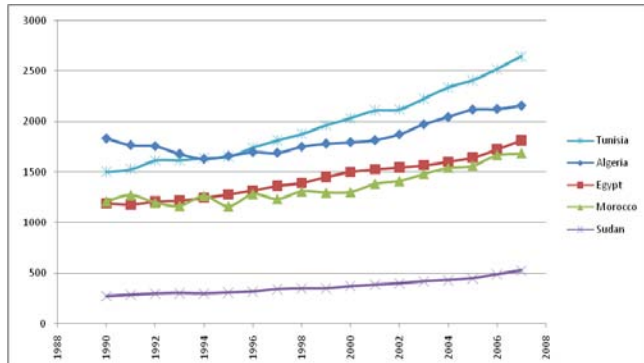


Ghana		33.5		31.3		35.6	28.1
Niger	48.3			47	54.2		54.8
Benin			25			39.1	43.1
Burkina Faso		40.7		44.5		43.1	
Côte d'Ivoire			31.5	31.5			34
Mali			36.2		42.7		38.5
Nigeria	50.5			53.1		43	
Senegal		33.7			29.5		20.1
Guinea				34.3			39.3
Togo				29.8			27.8
Gambia					24.1		
Guinea-Bissau					36.1		
Liberia					45.3		
Mauritania						39.5	
Sierra Leone					38.4		

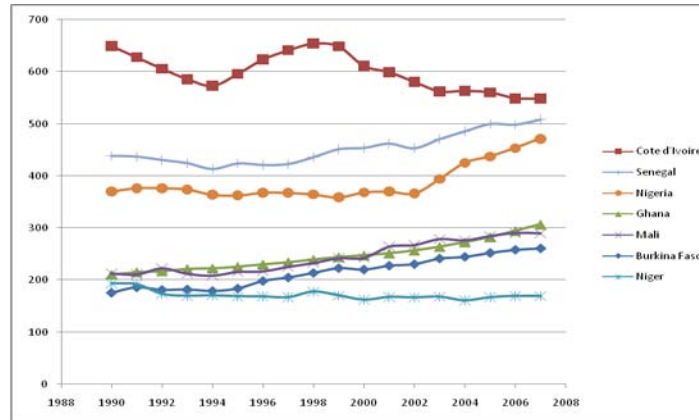
Source: WHO. SIS data base augmented by data highlighted in yellow from country records on WHO web site.

**Annex B: GDP per capita, 1990—2007**

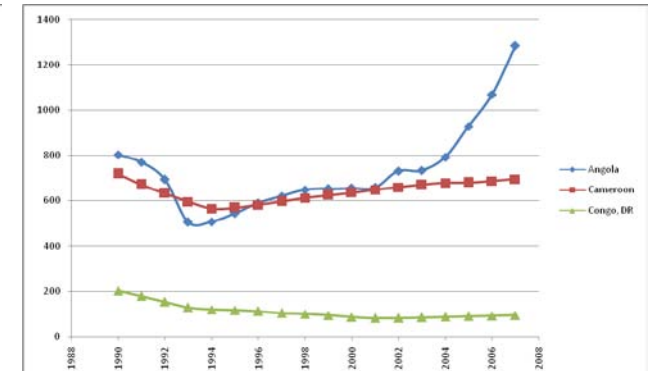
**Figure B1 GDP per capita (Constant 2000 USD) for large Northern African countries**



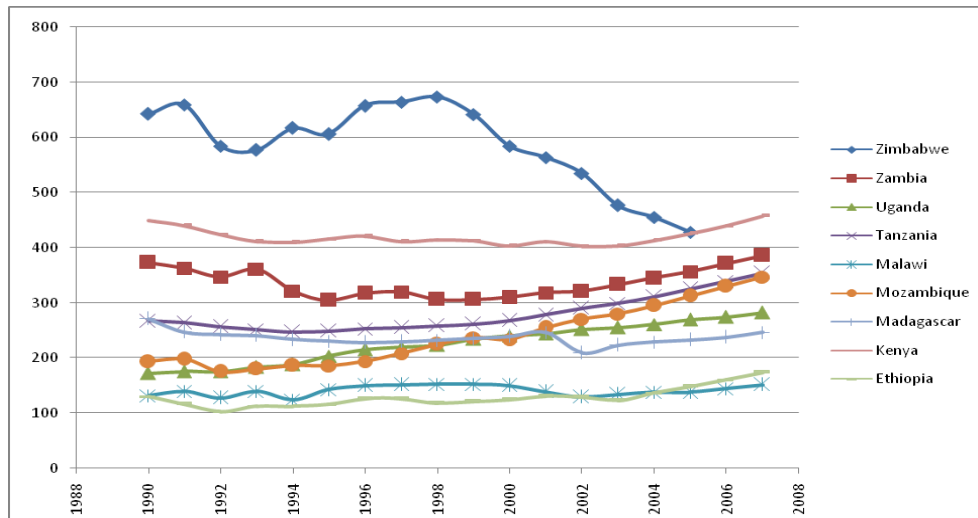
**Figure B2 GDP per capita (constant 2000 USD) for large Western African countries**



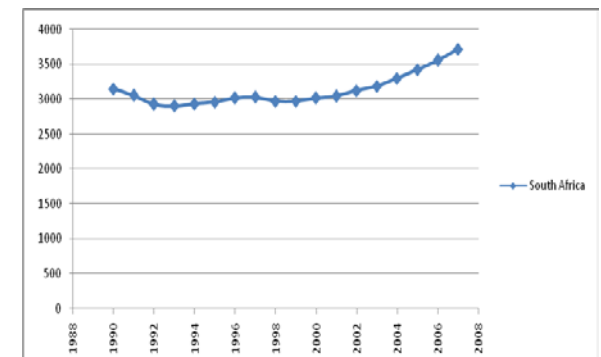
**Figure B3 GDP per capita (constant 2000 USD) for large Middle African countries**



**Figure B4 GDP per capita (constant 2000 USD) for large Eastern African countries**

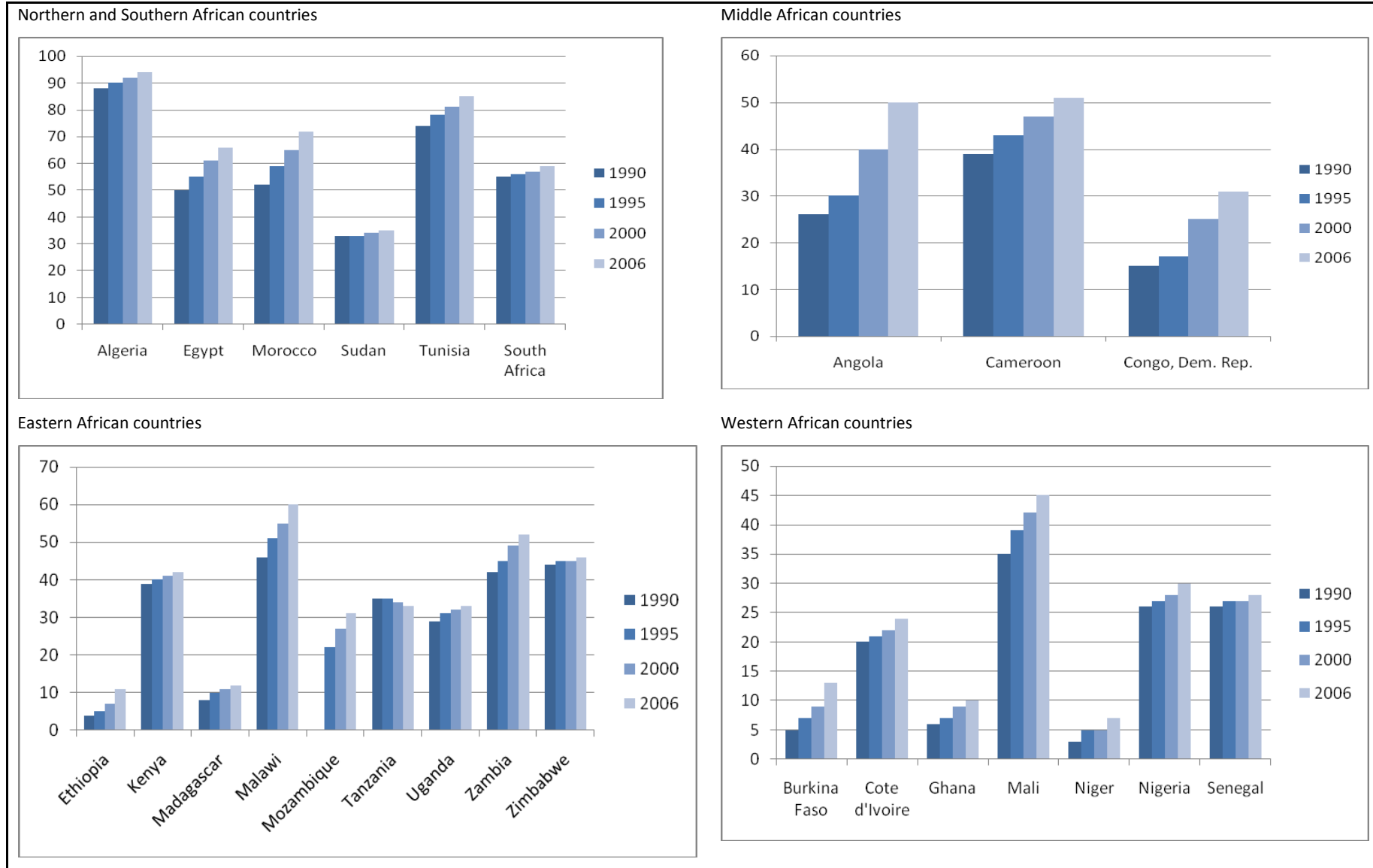


**Figure B5: GDP per capita (constant 2000 USD) for South Africa**



Source: Constructed using data from World Bank World Development Indicators

**Annex C: Access to improved sanitation (proportion of population)**



Source: Constructed using data from World Bank World Development Indicators

