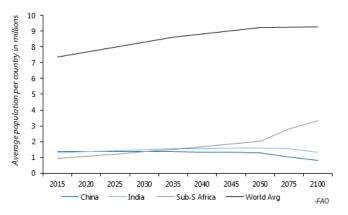


Argus White Paper Closing the Yield Gap in Sub-Saharan Africa

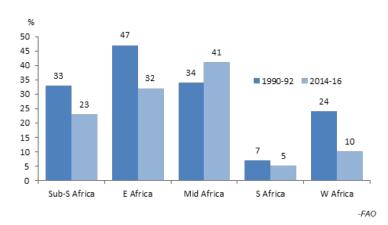
The population of sub-Saharan Africa in the next 20 years is expected to outstrip both China and India. By the end of the century, when the world will have to feed 9 billion people, sub-Saharan Africa will account for more than one third of the total global population.

FIGURE 1: POPULATION GROWTH FORECASTS



Current agricultural output in sub-Saharan Africa is not yet in a position to meet this growing demand. Food security has improved, particularly in light of millennium goals set by national leaders, but large portions of the region's population still remain undernourished, as shown by a UN comparison of progress over the last decade.

FIGURE 2: PERCENTAGE OF POPULATION UNDER-NOURISHED



The percentage of people in sub-Saharan Africa suffering from under-nourishment has reduced from 33pc to 23pc since 1992, but that still equates to one person in four. Most of the region has shown progress, but the percentage of those living with daily food insecurity has actually increased in middle African nations.

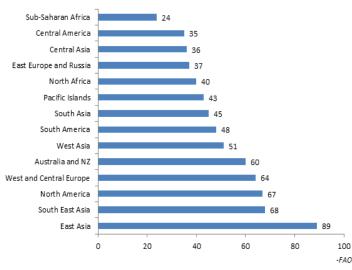
Africa is one of the few areas in the world where large tracts of land, suitable for agricultural development, remain as yet unexploited. Some of the biggest barriers to its development include:

- poor condition of soils
- poor infrastructure
- high costs

These have prevented farmers from applying sufficient nutrients and maintaining adequate soil fertility. Development of higher yielding agriculture is therefore starting from a disadvantaged position.

A comparison of crop yields between various world regions shows that a huge amount of potential is being lost. Sub-Saharan Africa's fields yield only 24pc of their potential, while best practice from around the world produces up to three times as much.

FIGURE 3: ACTUAL CROP YIELD AS % OF POTENTIAL



Fertilizer

Market Reporting

Argus White Paper

To close the yield gap, agriculture in sub-Saharan Africa requires certain key supports:

- access to finance
- access to cheap fertilizer
- adequate water supply
- good seed stocks
- improved logistical infrastructure for inputs and outputs
- balanced fertilization

Balanced fertilization (the optimum mix of macro-, secondary and micro-nutrients for crop and soil conditions) can be achieved quite readily using knowledge and best practice from other world regions, including use of soil mapping and plant tissue analysis to pinpoint areas of deficiency. Balanced fertilization in turn opens the door to increased nutrient and water use efficiency.

To achieve higher fertilizer consumption targets, sub-Saharan Africa is developing fertilizer policies and regulations, including the use of subsidies and assistance with financing. The importance of supply corridors has also taken a higher profile, using improved entry ports and logistics development to improve access for farmers to fertilizers.

The World Bank stated in 2012 that Africa has "the means and opportunities to deal with and deliver improved food security for its citizens". Closing the yield gap is likely to meet most of the additional food demands facing the region. Releasing the agricultural potential of sub-Saharan Africa will also help to release its economic and social potential.

One key to facilitating the improvement is the collection and dissemination of information about the region's fertilizer markets.

Argus FMB Sub-Saharan Africa Fertilizers

Argus Consulting Services' new report *Sub-Saharan Africa Fertilizers* has been written to help advance the dissemination of information for agriculture in Africa.

The report combines a wide overview of the sub-Saharan fertilizer market, key country studies and detailed analysis of the major players and consuming markets.

The report:

- Details key market sectors and major industry participators
- Provides information on the raw material resources available for development in the region
- Reveals local patterns of supply and demand in national and regional markets
- Analyses the development of fertilizer supply, import and trade

Who should read this report?

- Fertilizer manufacturers
- Fertilizer traders
- Equipment manufacturers
- Banks and investment funds
- Analysts and researchers

This report illuminates the dynamic and fast growing markets in sub-Saharan Africa, giving readers the opportunity to gain a competitive advantage and to develop successful investment strategies.

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