

# DEMAND FOR AGRICULTURAL PRODUCE IN THE NILE BASIN FOR 2030

## Four Scenarios Based on the "TRADE - GOVERNANCE" Frame

### About this poster

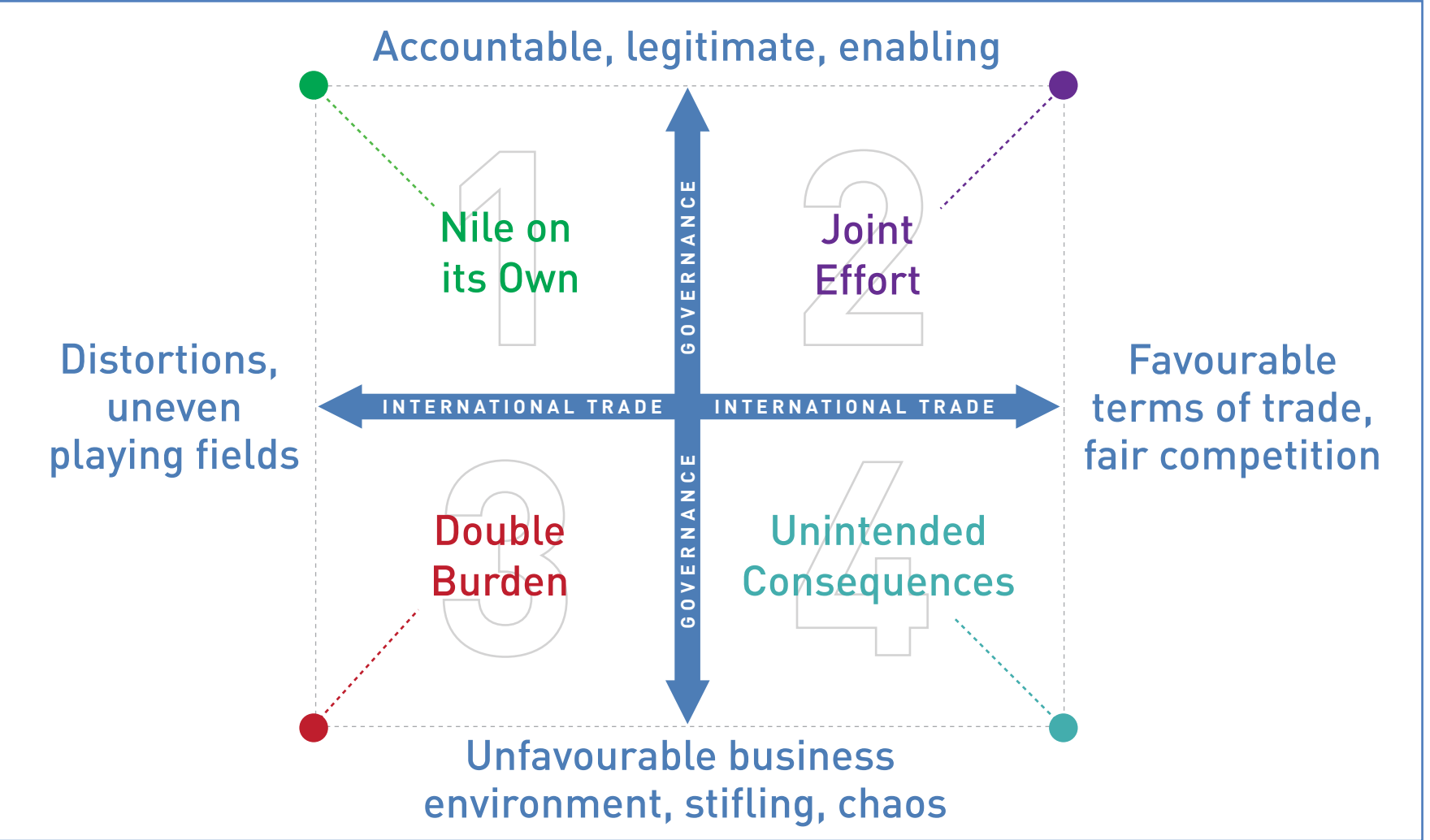
An interactive process – called Food for Thought (F4T) – was initiated in which a core group of some 25 participants from all Nile countries engaged in a joint scenario building exercise. It aimed to determine a plausible range of demand for agricultural produce in the Nile basin for the horizon year 2030. It evolved into a systematic and multi-stakeholder analysis of the complex rural development issue in the Nile region.

The F4T scenario set consists of four different stories. They were developed at the extreme corners of a two-dimensional scenario space with polar axis: 1) quality of governance, and 2) international trade regime.

The four scenario stories – presented in this poster in abbreviated versions accompanied by the related influence diagram – elaborate how the world moves from the current situation to arrive at these very different, but plausible futures. The method aims to maximize the spread of the scenario set within the plausibility space.

It is important to note that the four scenarios should be used as a set. None of them should be considered more likely than the others. The probability that a particular scenario will unfold in all details is near to zero. But as a set, they represent a good understanding of the range of future events that may unfold.

The F4T process and results are presented in a separate publication.



### 1 Nile on its Own

Regional trade grows owing to improved Nile governance and limited international agricultural trade prospects

**PRESENT DAY**

- EFFECTIVE DEVELOPMENT POLICIES**: Nile governments become increasingly effective and implement policies that support economic development. However, their desire for increased agricultural trade is met with resistance from OECD countries. Instead, new EU members pressure the union to increase farm subsidies and continue protectionist policies. Therefore, Nile governments are ultimately unsuccessful in their efforts to improve the terms of trade policies.
- DOHA FAILS AND SURPLUS CONTINUES**: Overproduction of agricultural goods continues in OECD countries and global food prices remain low.
- TARIFFS RESTORED**: In spite of the unfavourable global trade situation, Nile governments are determined to stimulate economic growth and end the dumping of food surpluses. They therefore restore tariffs on select food imports to effect stable prices for local agricultural produce.
- STABLE LOCAL PRICES**: In spite of the unfavourable global trade situation, Nile governments are determined to stimulate economic growth and end the dumping of food surpluses. They therefore restore tariffs on select food imports to effect stable prices for local agricultural produce.
- ADEQUATE SUPPORT TO FARMERS**: Farmers increase their production in response to enabling policies, stable local prices and urban demand. Nile governments remove barriers to regional trade, establish an efficient interregional transportation network, and increase regional cooperation. As a result, agricultural trade within the region grows, while rural areas generally see development and declining poverty. Nile countries achieve food security.
- INCREASED LOCAL PRODUCTION**: Farmers increase their production in response to enabling policies, stable local prices and urban demand. Nile governments remove barriers to regional trade, establish an efficient interregional transportation network, and increase regional cooperation. As a result, agricultural trade within the region grows, while rural areas generally see development and declining poverty. Nile countries achieve food security.
- LIMITED EXPORT**: However, continued surplus production and high import tariffs in OECD countries hinder agricultural export, and the development of the food processing industry is minor, mainly producing for Nile basin markets.
- RURAL DEVELOPMENT BUT NO TAKE OFF**: Without export, production for outside markets is relatively small and does not generate enough revenue to jumpstart broader economic development. Nevertheless, Nile countries experience a gradual increase in national wealth. Government policies promote distribution of wealth and there is general improvement in livelihoods across the region. Although an urban middleclass emerges, a large percentage of the population continues to live in rural areas and derive their livelihood from subsistence farming. Despite increased education, slowly increasing incomes and effective government anti-poverty campaigns, population growth stubbornly remains at medium level.
- GRADUAL ECONOMIC GROWTH**: Without export, production for outside markets is relatively small and does not generate enough revenue to jumpstart broader economic development. Nevertheless, Nile countries experience a gradual increase in national wealth. Government policies promote distribution of wealth and there is general improvement in livelihoods across the region. Although an urban middleclass emerges, a large percentage of the population continues to live in rural areas and derive their livelihood from subsistence farming. Despite increased education, slowly increasing incomes and effective government anti-poverty campaigns, population growth stubbornly remains at medium level.

**MEDIUM PATH POPULATION GROWTH**  
Anti-poverty policies have been successful and malnutrition has disappeared. Calorie intake is at the threshold of 3000 kcal/person/day. The Nile countries follow the medium demographic growth path. Export outside the region is limited.

**2030 END STATE**

- Medium variant population growth
- Calorie consumption at 3000 kcal/person/day
- More local production
- No increase in exports to OECD countries
- Increased agricultural trade in the Nile Basin
- Less food imports from OECD countries

**INFLUENCE DIAGRAM**

### 2 Joint Effort

Robust governance and improved international agricultural market opportunities propel Nile countries into the middleclass

**PRESENT DAY**

- IMPORT TARIFFS RESTORED**: Popular desire and external pressure cause Nile governments to become more effective. Nile governments and other developing countries coordinate their efforts to improve the terms of international agricultural trade. In order to stabilize prices and stimulate local production, tariffs on imports of select food commodities are restored.
- IMPROVED TERMS OF TRADE**: OECD citizens refuse to continue subsidizing expensive domestic agricultural producers, are motivated to reduce global poverty, and demand changes in farm and trade policies. As a result, OECD countries decouple agricultural subsidies from production, reduce import tariffs on raw agricultural produce, and cut escalating tariffs on processed goods.
- HIGHER GLOBAL AND LOCAL FOOD PRICES**: With an end of enabling subsidies, agricultural production in OECD countries declines, surpluses disappear, and world food prices rise. This, combined with the restoration of tariffs, leads to higher local prices for agricultural commodities in the Nile countries.
- ADEQUATE SUPPORT TO FARMERS**: Rural development remains high priority for national governments. They spread agricultural extension services, improve transport infrastructure and extend energy supplies. Farmers increase production. This leads to increased agricultural trade at local and regional levels. Market transactions improve and rural economies deepen. Rural areas experience general development and improvement of livelihoods.
- INCREASED LOCAL PRODUCTION**: Rural development remains high priority for national governments. They spread agricultural extension services, improve transport infrastructure and extend energy supplies. Farmers increase production. This leads to increased agricultural trade at local and regional levels. Market transactions improve and rural economies deepen. Rural areas experience general development and improvement of livelihoods.
- INCREASED EXPORT**: There is significant increase of export of agricultural commodities from the Nile basin countries, especially from areas with effective transport links, and of commodities in whose production the region has comparative advantage.
- DEVELOPMENT OF PROCESSING INDUSTRY**: The end of OECD escalating tariffs on processed goods allows Nile countries to take advantage of low labor costs and increase food processing in the region. As a result, more processed goods are exported from the Nile basin, there is higher demand for some kinds of produce, and jobs are created in the farming and processing sectors.
- ECONOMIC TAKE OFF**: Export revenue and rural development stimulate economic activities in other sectors. Economic growth takes off and per capita income increases across the board. Biofuels are produced for domestic markets, emerging as yet another engine for economic growth.
- GROWTH OF MIDDLE CLASS**: Favorable economic conditions stimulate the growth of the middleclass, which tends to have smaller families. Lower population growth, increased education and higher disposable incomes set the conditions for fast and sustained economic growth. Governments have sufficient resources to maintain qualified staff and are able to respond to pressure from the growing and well-educated middleclass for improved governance.
- RAPID ECONOMIC DEVELOPMENT**: Increased local demand, increased interbasin and international trade, better management of the economy, and positive expectations for the future, accelerate economic growth. By now, poverty levels decline rapidly and more and more people enter the formal economy.
- LOW POPULATION GROWTH**: As the middle class expands and small families become the norm, Nile countries follow the lowest demographic growth path. Because of increased wealth, calorie intake per capita exceeds the threshold of 3000 kcal/person/day. High local food prices encourage production and lead to long-term food security. Exports from the Nile countries to global markets increase.

**2030 END STATE**

- Low variant population growth
- More local production
- Less imports of staple foods
- Increased demand for selected agricultural produce for local processing
- Export opportunities for areas with good transport links and, and for commodities with comparative advantage

**INFLUENCE DIAGRAM**

### 3 Double Burden

Ineffective governance and unfavourable international trade conditions conspire to impede agricultural development and keep Nile countries in poverty

**PRESENT DAY**

- DEVELOPMENT POLICIES FAIL**: The Nile region is characterized by ineffective governance, inadequate institutional capacity and dependence on external support. Governments do not have a clear understanding of the current situation or a vision for the future. As a result, development and anti-poverty policies are unclear, implemented haphazardly and doomed to fail.
- DOHA UNSUCCESSFUL**: The governments lack skills, interest and the capacity to successfully negotiate improvements in the terms of international trade. The Doha round of trade talks collapses and the EU and the US maintain subsidies and protectionist policies.
- LOW GLOBAL FOOD PRICES**: Overproduction of agricultural goods continues in OECD countries and the surpluses are dumped on the international market, where they depress world and local food commodity prices.
- LOW LOCAL PRODUCTION**: The Nile countries are swamped by the excess produce in the form of food aid, and local production of staple foods declines to low levels. Although urban dwellers benefit from low food prices, in rural areas subsistence farming dominates and living conditions remain without prospects, made worse by a heavy disease burden and degradation of the natural resource base.
- RURAL AREAS DECLINE**: The Nile countries are swamped by the excess produce in the form of food aid, and local production of staple foods declines to low levels. Although urban dwellers benefit from low food prices, in rural areas subsistence farming dominates and living conditions remain without prospects, made worse by a heavy disease burden and degradation of the natural resource base.
- RAPID POPULATION GROWTH**: Poor governance and low agricultural production maintain the status quo and keep the region in a state of perpetual poverty. With high levels of poverty and incidental occurrence of insecurity at national and regional level, people adopt a family-based survival strategy and population growth accelerates rapidly. Increasing poverty and population growth lead society into a tragic cycle of economic stagnation or even decline.
- ECONOMIC STAGNATION**: Poor governance and low agricultural production maintain the status quo and keep the region in a state of perpetual poverty. With high levels of poverty and incidental occurrence of insecurity at national and regional level, people adopt a family-based survival strategy and population growth accelerates rapidly. Increasing poverty and population growth lead society into a tragic cycle of economic stagnation or even decline.

Agricultural production in the Nile region is primarily for subsistence. International food aid is needed to counter recurrent periods of famine. Calorie intake remains well below the 3000 kcal/person/day threshold. The Nile countries follow the highest demographic growth path. Export of food produce is insignificant.

**2030 END STATE**

- High population growth path
- A big disease burden
- Degradation of the natural resource base
- Calorie consumption at current or reduced levels
- No increase in exports
- No increase in local production
- No development of food processing industry

**INFLUENCE DIAGRAM**

### 4 Unintended Consequences

Nile countries suffer high food prices when they fail to increase their agricultural output after OECD countries end surplus production

**PRESENT DAY**

- NOT ENABLING**: Nile governments either pursue policies that are ineffective or implement good policies with inefficiency.
- END OF SURPLUS PRODUCTION**: But in an effort to address global poverty, OECD countries phase out domestic subsidies and open their markets to fair and competitive trade. Food production in OECD countries decreases and the end of surplus production leads to higher global prices.
- HIGHER LOCAL FOOD PRICES**: Nile countries restore tariffs on imports of select staple foods, mainly to increase revenue. Combined with higher global food prices and the end of dumping of food aid on developing countries, these policies result in higher prices for agricultural commodities in the Nile countries.
- LIMITED LOCAL PRODUCTION INCREASE**: However, governments do not implement policies that support smallholder farmers, such as extension services, seed and fertilizer distribution, loans or infrastructure improvements. Farmers are therefore unable to respond to price incentives, and do not increase local production significantly.
- EXPENSIVE IMPORTS**: Nile countries must therefore import significant quantities of food at high prices.
- LIMITED EXPORT**: Only entrepreneurs who can establish large export oriented farms are able to benefit from reduced tariffs and cheap labor in the Nile basin. Some create niche markets to supply Asia, Europe and the USA. Poor communities are marginalized further as land consolidation occurs favoring commercial agriculture.
- NO TAKE OFF**: Commercial production responds to global markets. Export profits are, however, inequally distributed and therefore, do not lead to broader economic development.
- SLOW ECONOMIC DEVELOPMENT**: Rates of population growth remain high and outpace increases in GDP. As a result, livelihood conditions slowly deteriorate, particularly those in the bottom segment of society suffer from high food prices. Economic development is slow and occasionally stagnates.
- SOCIAL TENSION**: Society is comprised of a majority of rural subsistence farmers, a growing segment of urban poor, a small middle class, and a tiny wealthy elite. The economic gaps widen between these groups. By now, the less privileged are full of resentment and demand better opportunities, better government, lower food prices, and a larger share of national wealth. Political tension is high and the overall business environment deteriorates. Foreign investors move to more stable regions and new investment declines.
- NATURAL RESOURCE DEGRADATION**: Agriculture is characterized by a small number of large commercial farms and widespread subsistence farming. And with high or medium population growth, and profit maximization of commercial farms, there is significant degradation of the natural resource base. Calorie intake remains at current levels and is well below the 3000 kcal/person/day threshold. The Nile countries follow a medium to high population growth path.

**2030 END STATE**

- Medium to high population growth rate
- Limited increase in local production
- Increased imports from commercial farms
- Degradation of natural resource base
- Significant imports at high prices
- Limited development of the food processing industry (with quick return on investment and requires very limited public infrastructure)

**INFLUENCE DIAGRAM**

## Information Products for Nile Basin Water Resources Management

GCP/INT/945/ITA

c/o FAO Representative Office in Uganda

P. O. Box 521, Kampala, UGANDA

Phone: (256) 414 321391

info@faonile.org

burundi d.r.congo egypt eritrea ethiopia kenya rwanda sudan tanzania uganda

The project is intended to strengthen the ability of the governments of the Nile Riparian States to take informed decisions on water resources policy and management matters regarding the common Nile resource. It includes a major capacity building component. The project is implemented under the umbrella of the Nile Basin Initiative.



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