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Agriculture and Economic Growth

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Outline

- Objectives
- Methodology
- Key Government targets
- Possible areas of conflict
- Data ,capacity and model availability
- Knowledge management issues
- Conclusions



Objectives

- Document the long term objectives of the Government of Nigeria with regard to national growth, agricultural growth , poverty reduction , reduction of gender inequality and environmental degradation
- Discuss areas where trade-offs may arise in the achievement of key policy objectives.
- Discuss analysis which examine the consistency and adequacy of key policy objectives
- Assess data availability for CGE modeling with reference to 1 above
- Assess the availability of local capacity for CGE modeling and
- Discuss the issue of tracking knowledge, capacity and communication linkages

The top banner features a light yellow background with various agricultural icons in a darker yellow color. From left to right, the icons include a leafy branch, several fish, a person riding a tractor, a cow, and various plants and vegetables like carrots and leafy greens.

Methodology

- Review of government policy documents – NEEDS, Sectoral policies etc, review of analysis of growth scenarios etc
- Interviews with government officials (Agriculture, Women affairs and environment) and agricultural economists in some universities.



Key Government Targets - Macroeconomy

1. Presently the major vision in the country is that of making the economy one of the 20 largest in the world by the year 2020 – known as vision 202020.
2. Growing the economy by 10% from 2008-2011 in order to achieve 1 above
3. Effective revenue and expenditure management
4. Debt service sustainability
5. Improved value of the nations currency
6. Inflation targets of 8.5% (2007-2008); 7.5% (2008-2009) and 6.5%(2010 – 2011)
7. Narrowing the gap between lending and borrowing rates.
8. Budget deficit not to exceed 3% of nominal GDP
9. Average increase of oil production by 2.5% p.a (2007-2011)
10. Improved job creation especially in the informal sector and the small and medium scale enterprises
11. Aggregate investment to grow at an average of 8% p.a (2008-2011)
12. Manufacturing capacity utilization to increase by 60% p.a. and 70% in 2011 – in the anticipation that energy supply would be improved.
13. Agriculture, as the leading sector, is targeted to grow at two digit rates during the period
14. Financial sector to contribute more than the present 1% of GDP

NEEDS II GROWTH TARGETS

SECTOR	2008	2009	2010	2011
Agriculture	10.63	10.91	11.09	11.18
Solid Minerals	7.89	8.85	9.70	9.99
Manufacturing	12.66	13.25	13.86	14.31
Building & Construction	10.20	10.92	11.54	11.63
Transport	6.11	6.92	7.67	8.03
Communication	10.97	11.29	11.72	12.09
Government Services	9.91	10.07	10.11	10.12
Distribution	12.21	12.88	13.53	14.05
Others	14.38	17.53	20.46	19.63
GDP	9.30	10.50	11.50	11.70



Key Government Targets – Agriculture I

1. A 5-10 fold increase in yields and production under the present administration i.e. within the next 4 years.
2. Encouragement of commercial farming
3. A minimum annual growth of 10%. Crop production is to grow by 10%; Livestock production by 2.5% ; forestry by 8% and fishery by 9%
4. 5% employment generation in the agriculture sector
5. 3 billion US dollars in agriculture exports by 2011 – mainly from cassava, rice , cocoa, vegetable oil and cotton
6. Increase in cultivatable arable land by 10% annually
7. Increase in cassava production by 25% in the first two years and 50% in the years
8. Increase to at least 10 percent annually in production of Eleven select “Commerce 44” agric commodities.
9. Reduction of Food import from 5 percent of total import to ZERO percent
10. Attract annually at least 20 percent increase in properly trained new and young entrants into the agriculture profession
11. 150 million tones of cassava p.a (2007-2009)
12. 6 million tones of milled rice p.a (2007-2009)
13. 1 million hectares of oil palm during the period (2007-2009)



Key Government Targets – Agriculture II

1. .675 million of soybeans during the period (2007-2009)
2. 5 million tones of cotton seed p.a. (2007-2009)
3. 14 million metric tonnes of maize p.a.
4. Increase in rubber production by 6000 MT p.a.
5. Production of five thousand cartons of fruit juice (2007-2009).
6. promote on farm processing of agric produce from the current 0-5% of output to 30% by 2009
7. Reduce post harvest loses of non perishable and perishable commodities from the present 20% and 40% to 5% and 15% by 2009
8. Delivery of 60000 MT of fertilizer for the period (2007-2009)
9. Expand irrigated area from current low levels
10. Maintain the use of input subsidies



Key Government Targets – Poverty Reduction

1. Reduce poverty by 30% by 2011 as a prelude to reducing it by 50% in 2015
2. Ensure that growth comes from agriculture, Small and medium scale enterprises and the informal sector in order to reduce poverty.
3. Use safety nets to protect those vulnerable in economic reform particularly the aged and disabled.
4. aim to reduce inequality as measured by the gini coefficient.
5. Reduce agricultural population in poverty by half each year.
6. To create jobs as follows 2 million (in 2008); 2.5 million (2009 and 2010); 3 million (2011)
7. To reduce the unemployment rate to no more than 5% by 2011.
8. Reduce poverty by 40% in 2011 and lift 30 million Nigerians out of poverty by this time



Key Government Targets – Environment

1. Reduce deforestation by 10% of the 2007 level by planting 7340 hectares of forest plantation annually
2. Control soil erosion and flood by constructing at least 30km of relevant structures annually
3. Reduce the rate of desertification by 5% annually through shelter belt establishment
4. Eliminate gas flaring by 2008
5. Reverse the loss of biodiversity by 20% each year from 2008 – 2011
6. Phase out persistent organic pollutants by 10% each year (2008-2011)
7. Encourage optimum production with land resource protection
8. encourage farming systems based on natural adaptations and maintenance of soil fertility
9. Avoid practices which encourage desertification and erosion
10. discourage cultivation of marginal lands and encourage off-farm contributions
11. Minimize agro- chemicals input by using high yield early maturing crop varieties.
12. Promote the use of manures and other soil conditioners.
13. Sustain productivity of natural vegetation
14. Protect wildlife
15. Promote rational exploitation of forest resources for both domestic and export purposes on a long term basis.
16. Promote alternative sources to wood energy use and to improve efficiency of current wood use
17. Improve the efficiency in consumption of vegetation resources through improved technology and



Key Government Targets – Gender I

1. Increase the share of women in paid employment
2. Increase the share of youth in paid employment
3. Increase the share of women and youth who have access to production factors.
4. Increase the percentage of women who have equal value for work and labour.
5. Increase the percentage of expenditure for equal employment opportunities.
6. Increase the percentage of budgetary allocation to women and youth
7. Increase the number of women and youth trained
8. Increase the number of women and youth that have become gainfully employed
9. Increase primary and secondary enrollment.
10. Increase percentage accessing vocational training



Key Government Targets – Gender II

1. Ensure equal access of men and women to formal and informal education by 2015.
2. Remove the government bias against food crop production
3. Remove barriers which deny women access and control over natural resources
4. Improve sanitary conditions and safe water supply in rural and urban slums
5. Involve women in reforestation programs and ensure alternative sources of fuel energy to replace the use of firewood so as to check deforestation
6. Reduce the number of women in core poverty group.
7. Improve domestic and international market access for women's products especially among those in the core poverty group
8. Increase the number of firms operated by women especially those in the core poverty group.
9. Improve wage equality and employment opportunity for same skill levels.
10. Review tax codes to ensure equal pay for equal work

The background of the slide features a collage of agricultural icons in a light yellow-green color. These include various types of fish, a person riding a motorcycle, a cow, and several different plants and vegetables like carrots and leafy greens.

Possible Conflict Areas - Agriculture

- Expansion of other sectors will take away labour from agriculture (Iyoha and Oriakhi [2002])
- Oil spills in the economy damage mangrove trees which serve as fuel wood source (ARD Inc [2002])
- Poorly constructed canals and causeways affect the crops, fishing grounds and drinking water supplies in the Nigerdelta. (ARD Inc [2002])
- High value of the Naira has been able to limit agricultural exports in the past by making them more expensive. (Oyejide [1986] , Olashore [1991])
- Trade liberalization , particularly , the policy of cheap imports has successfully reduced domestic agricultural production in the past



Possible Conflict Areas - Environment

1. Soil fertility loss: Reduction in the duration and frequency of fallow periods, the slash and burn methods of farm clearing, overgrazing and other poor farming techniques lead to growing decline in soil fertility in the country (ARD Inc [2002]). If the present poor farming techniques are used to meet the kind of targets described for the agriculture sector, much more loss of soil fertility and its negative effects can be expected. Soil fertility loss leads to erosion and desertification.
2. Deforestation: This is the second major impact of agricultural activities on the environment. It is caused by conversion of forest areas to agricultural land use (including plantations) and non sustainable logging and fuelwood gathering (World Bank [1990]). Deforestation leads to loss in biodiversity, increased erosion, and desertification.

Final impact → present GDP is increased at the cost of future GDP



Possible Conflict Areas - Gender

- It is important to observe whether ‘men’s’ crops are being promoted and ‘female’ crops being regarded as less important. (Akanji, B. [2004])
- Fiscal policy in the form of fuel subsidy removal increases the work burden of women as they have to spend more time to gather firewood. (Garba et al [1997])
- belt tightening economic reforms increase the use of girls as housegirls, commercial sex workers and other forms of survival strategies (Garba et al [1997])
- Increased agricultural output causes men to claim lands which women had earlier been allowed to cultivate. This occurs due to traditional practices which make it difficult for women to own land. (Garba et al [1997])
- Decreasing soil fertility and environmental degradation in general causes “more of women’s time to be spent searching for scarce fuel wood, walking further to get unpolluted water and working increasingly marginal agricultural lands to produce enough food for subsistence” (World Bank [1990]).



Consistency Models

- CEAR, NEEDS II model
- A review of available models indicates that there has not been much effort at checking the consistency of sub sectoral targets in NEEDS II nor has there been much analysis aimed at quantifying the possible gender and environmental outcomes of different growth paths.
- The challenge which presents itself is identifying agriculture led paths that will spur growth in a pro-gender and pro-environment way as well as make the meeting of sub-sectoral targets more feasible.

A decorative banner at the top of the slide features various agricultural icons in a light green color. From left to right, the icons include a leafy branch, a fish, a person riding a motorcycle, a cow, a carrot, and a plant with large leaves.

A Lesson from The Past

- “No agricultural programmes outlived the political regimes that introduced them while each new regime put in place new programs”

Source : Garba [2000] An analysis of the implementation and stability of Nigerian agricultural policies 1970-1993

- Almost certainly guarantees that any program with a long gestation period is likely to fail because it will be abandoned when a new government comes into power
- Calls for a research agenda on the political economy of agricultural policy in Nigeria in order to discover ways to ensure that policy consistency is increased.



Data Availability – Environment and Gender

- Present quality of land in each agricultural domain (including marginal lands).
- Population density in each domain.
- Present forest cover in each domain.
- Total land available in the country and its distribution by use.
- Yield of each crop.
- Estimated impact of present farming practices on soil fertility.
- Number of times a piece of land is cultivated in a year:
- Firewood as a sector.
- Proteinous foods as a sector
- Households disaggregation by gender of household head
- Sectoral labour disaggregation by gender



Capacity Availability

- Local capacity in CGE modeling is considerable – over 30 CGE studies done by Nigerians
- No CGE work with gendered models and SAMs – (to the best of our knowledge)
- No CGE work on quantifying environmental or gender outcomes of agricultural strategies.
- Some CGE work on environmental issues – deforestation, green house gases etc.

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Adequacy of Models

- Required model: many agriculture sectors, dynamic, regional, gendered and environment focused.
- No gendered analysis for Nigeria exists and available studies do not assess environmental impacts (soil fertility loss and deforestation) of agricultural growth patterns
- Available studies have not focused on assessing the internal consistency of the sub sectoral and sectoral targets in the areas of overall growth, agricultural growth, poverty reduction , gender equity and environmental sustainability.



Knowledge Management Issues – some recommendations

- To improve data dissemination for better research, ministries' data can be uploaded to their websites regularly
- The environment ministry needs to begin collecting and publishing annual data on the environment
- Specific areas of research of interest to the planning departments should be looked into.
- There is need for more regular tripartite interaction between the ministry ,farmers and research community in order to improve the supply and demand for research output.
- The agriculture and women affairs ministry would benefit from improved in-house capacity to collect and analyze data for policy making purposes. The environment ministry would benefit from an expansion of focus from project to project analysis to include national trends documentation and analysis.

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Conclusions

- A model to analyze pro-poor agriculture led growth paths with interests in gender and environmental outcomes is needed.
- It would be useful to examine the consistency of various sub sectoral targets
- Collaboration with agriculture and agricultural household models' experts is needed.
- Much work will be done in gathering environmental data and discussing with environmental experts
- A “political economy of agricultural policy making in Nigeria” research agenda is needed in order to improve the chances of success of programs and policies.

The header features a light yellow background with various agricultural icons in a darker yellow color. These icons include a fish, a tractor, a cow, a carrot, and some plants. The text "Thank You for Your Attention" is centered in a bold, dark blue font.

Thank You for Your Attention

This study was financed by the Canadian International Development Agency funded Agriculture Policy Support Facility (APSF). The author is grateful to Mbaye Yade , Xinshen Diao and Valarie Rhoe for helpful comments and suggestions. The various people, especially officials in the ministries, who made time for the interviews are also owed much gratitude.

The word "Canada" is written in a large, dark blue, serif font. A small Canadian flag is positioned above the letter 'a'.

Canada

Canadian International Development Agency