Strengthening National Comprehensive Agricultural Public Expenditure in Sub-Saharan Africa

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DIAGNOSTIC REVIEW OF PUBLIC EXPENDITURE IN THE AGRICULTURAL SECTOR IN CÔTE D'IVOIRE

Period 1999–2012

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ACRONYMS AND ABBREVIATIONS

AAGR	Average Annual Growth Rate
AC	Assumed Cost
ACP	Africa, Caribbean, and Pacific
ADDR	Disarmament, Demobilization, and Reintegration Agency (*Autorité pour le Désarmement, la Démobilisation, et la Réinsertion*)
ADP	Agricultural Development Plan
AGDP	Agricultural Gross Domestic Product
AIPH	Interprofessional Palm Oil Association (*Association Interprofessionnelle de la Filière Palmier à Huile*)
ANADER	National Rural Development Support Agency (*Agence Nationale d'Appui au Développement Rural*)
ANOPACI	National Association of Professional Agricultural Organizations of Côte d'Ivoire (*Association Nationale des Organisations Professionnelles Agricoles de Côte d'Ivoire*)
APE	Agricultural Public Expenditure
APROMAC	Natural Rubber Professionals' Association (*Association des Professionnels du Caoutchouc Naturel*)
AU	African Union
CAADP	Comprehensive Africa Agriculture Development Program
CAGR	Compound Annual Growth Rate
CAISTAB	Stabilization Fund (*Caisse de Stabilisation*)
CFA	African Financial Community (*Communauté Financière Africaine*)
CFAF	CFA Franc
CNP	National Monitoring Committee (*Comité National de Pilotage*)
CNRA	National Center for Agricultural Research (*Centre National de Recherche Agronomique*)
COFOG	Classification of the Functions of Government
DAAF	Directorate of Administrative and Financial Affairs (*Direction des Affaires Administratives et Financières*)
DGBF	Directorate General of the Budget and Finance (*Direction Générale du Budget et des Finances*)
DGE	Directorate General of the Economy (*Direction Générale de l'Économie*)
DP	Development Partner
DPP	Directorate of Planning and Programming (*Direction de la Planification et des Programmations*)
ECOWAP	West African Economic Community Agricultural Policy
ECOWAS	Economic Community of West African States
EU	European Union
FAD	African Development Fund (*Fonds Africain de Développement*)
FAO	Food and Agriculture Organization
FC	Financial controller
FIMR	Rural Investment Fund (*Fonds d'Investissement en Milieu Rural*)
FIRCA	Interprofessional Agricultural Research and Advisory Fund (*F***onds I***nterprofessionnel pour la Recherche et le Conseil Agricole*)
FTE	Full-Time Equivalent
GDP	Gross Domestic Product

GIZ	German Development Aid (*Gesellschaft für Internationale Zusammenarbeit*)
HDI	Human Development Index
INS	National Statistical Institute (*Institut National de la Statistique*)
IPRAVI	Inter-professional Poultry Breeders' Organization (*Interprofession Avicole Ivoirienne*)
LCCI	Ivorian Cotton Corporation (*La Compagnie Ivoirienne du Coton*)
MC	Ministry of Trade (*Ministère du Commerce*)
MDG	Millennium Development Goal
MDP	Ministry of Planning and Development (*Ministère du Plan et du Développement*)
MEF	Ministry of Economy and Finance (*Ministère de l'Économie et des Finances*)
MESRSCI	Ministry of Higher Education and Scientific Research (*Ministère de l'Enseignement Supérieur et de la Recherche Scientifique*)
MI	Ministry of the Interior (*Ministère de l'Intérieur*)
MINAGRI	Ministry of Agriculture (*Ministère de l'Agriculture*)
MINEF	Ministry of Water Resources and Forests (*Ministère des Eaux et Forêts*)
MIRAH	Ministry of Livestock and Fishery Resources (*Ministère des Ressources Animales et Halieutiques*)
MTEF	Medium Term Expenditure Framework
NAIP	National Agricultural Investment Plan
NDP	National Development Plan
NEPAD	New Partnership for Africa's Development
NGO	Non-Governmental Organization
OCAB	Pineapple and Banana Producers and Exporters Central Organization (*Organisation Centrale des Producteurs-Exportateurs d'Ananas et Bananes*)
OCPV	Food Products Marketing Support Agency (*Office d'Aide à la Commercialisation des Produits Vivriers*)
ONDR	National Rice Development Agency (*Office National de Développement de la Riziculture*)
PDDA	Framework Agricultural Development Plan (*Plan Directeur de Développement Agricole*)
PEMFAR	Public Expenditure Management and Financial Accountability Review
PIP	Public Investment Program
PNASA	National Agricultural Services Support Program (*Projet National d'Appui aux Services Agricoles*)
PNGTER	National Project for Land and Rural Equipment Management (*Projet National de Gestion des Terroirs et de l'Équipement Rural*)
PNR	National Rice Program (*Programme National Riz*)
PNRC	National Plan against Climate Change (*Plan National contre le Réchauffement Climatique*)
PRSP	Poverty Reduction Strategy Paper
ReSAKSS	Regional Strategic Analysis and Knowledge Support System
RSD	Relative Standard Deviation
SIGFiP	Integrated Public Finance Management System (*Système Intégré de Gestion des Finances Publiques*)
SNDI	National Data-Processing Development Agency (*Société Nationale de*

	Développement Informatique)
SNDR	National Rice Development Strategy (*Stratégie Nationale pour le Développement de la Riziculture*)
SODEFOR	Forestry Development Agency (*Société de Développement des Forêts*)
STABEX	Export Revenues Stabilization Mechanism (*Système de Stabilisation des Recettes d'Exportation*)
UNDP	United Nations Development Program
VC	Variation Coefficient
WAAPP	West African Agricultural Productivity Program
WAEMU	West African Economic and Monetary Union
WECARD	West and Central African Council for Agricultural Research and Development

EXECUTIVE SUMMARY

Introduction

This diagnostic review of basic public expenditure in the agricultural sector in Côte d'Ivoire forms part of the World Bank's assistance to Côte d'Ivoire through its Strengthening National Comprehensive Agricultural Public Expenditure in Sub-Saharan Africa Program. This program, which is backed by the Bill and Melinda Gates Foundation, was developed to support the implementation of the Comprehensive Africa Agriculture Development Program (CAADP) in the context of the commitment made by African heads of state in Maputo in 2003 to allocate at least 10% of their national resources to agriculture with a view to attaining agricultural growth of at least 6% per year. It encourages governments and development partners (DPs) to target public expenditure in the agricultural sector as the most efficient way to stimulate growth in the sector and thereby reduce hunger and poverty.

Drawing on empirical data, this basic diagnostic review lays the foundations for a potential series of more in-depth studies and for the implementation of a medium-term expenditure framework.

This review sets out to:

1. Undertake a detailed examination of basic public expenditure in the wider agricultural sector in Côte d'Ivoire;
2. Issue recommendations based on observation data with a view to improving the efficiency and fairness of public expenditure;
3. Build capacities to enable the relevant personnel to subsequently undertake examinations of public expenditure thanks to the development of a database and cooperation with the corresponding teams.

The agricultural sector is defined here according to the Classification of the Functions of Government (COFOG) established by the New Partnership for Africa's Development (NEPAD). The agricultural sector includes agriculture in the broad sense (plant and livestock production), forestry, and hunting and fishing. However, the COFOG definition excludes some of the activities of the key ministries concerned (in particular feeder roads) but includes those activities of other ministries that support the sector (including research and trade) and off-budget expenditure. The study covers a 12-year period (1999–2010).

Two consultants were assigned to assist an Ivorian technical team made up of representatives from the ministries concerned, the agricultural sector, and the subsectors. Two junior consultants assisted in data collection. The Ministry of Agriculture (MINAGRI) oversaw coordination of the technical team as well as of the entire study.

Context

By chance, the initial study covered the period of unprecedented socio-political crisis in Côte d'Ivoire that lasted from 1999 to 2010 and that came to an end in May 2011. A cursory study of the period 2011–2012 was requested by the Government and subsequently included in the review.

The Ivorian economy, which had posted stellar growth from 1960 to 1980 on the back of the development of agribusiness export sectors (coffee, cocoa, bananas, timber), has experienced difficulties since 1980, with per capita gross domestic product (GDP), which had doubled between 1960 and 1980, declining considerably and falling lower in 2011 than in 1960. As the Government withdrew from economic production by privatizing productive subsectors, public investment in the sector declined substantially.

The strategies implemented during the period under review therefore sought to increase agricultural productivity, promote the sector's diversification, and build capacities among small-farmers' organizations.

Database

The database created as per the terms of reference originated from four sources: (i) data from the Ministry of Economy and Finance (MEF) via the Integrated Public Finance Management System (SIGFiP); (ii) off-budget expenditure; (iii) national statistics; and (iv) international statistics.

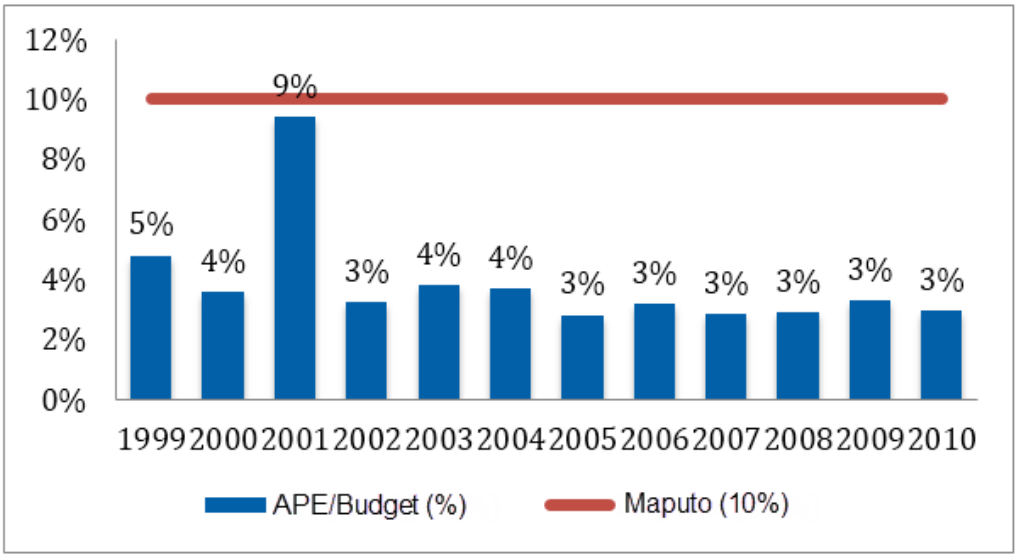
The SIGFiP database, which is the most reliable, comprises eight (8) data series formed by four groups and two categories of expenditure. The groups are distinguished: by ministry, region, industry, and public or private good, while the categories include financing sources and types of expenditure. Each series covers both the allocated (or current) budget and committed or (assumed) expenditure.

Levels and Trends

Levels of agricultural public expenditure (APE) give an indication as to the priority the Government gives to the agricultural sector and to the stance the country has adopted in this area compared to other countries over similar periods.

Côte d'Ivoire spent on average only CFAF 51.97 billion (or 4% of national resources) on agriculture over the period 1999–2010, well below the 10% Maputo target (Figure 1). In fact, the Maputo target has proved very difficult to meet: since 2003, only seven African countries have met or exceeded it: Burkina Faso, Ethiopia, Guinea, Malawi, Mali, Niger, and Senegal. Moreover, the exclusion of some expenditures such as feeder roads from the COFOG definition makes this target even harder to meet.

Figure 1: Average level of APE as percentage of the national budget, 1999–2010

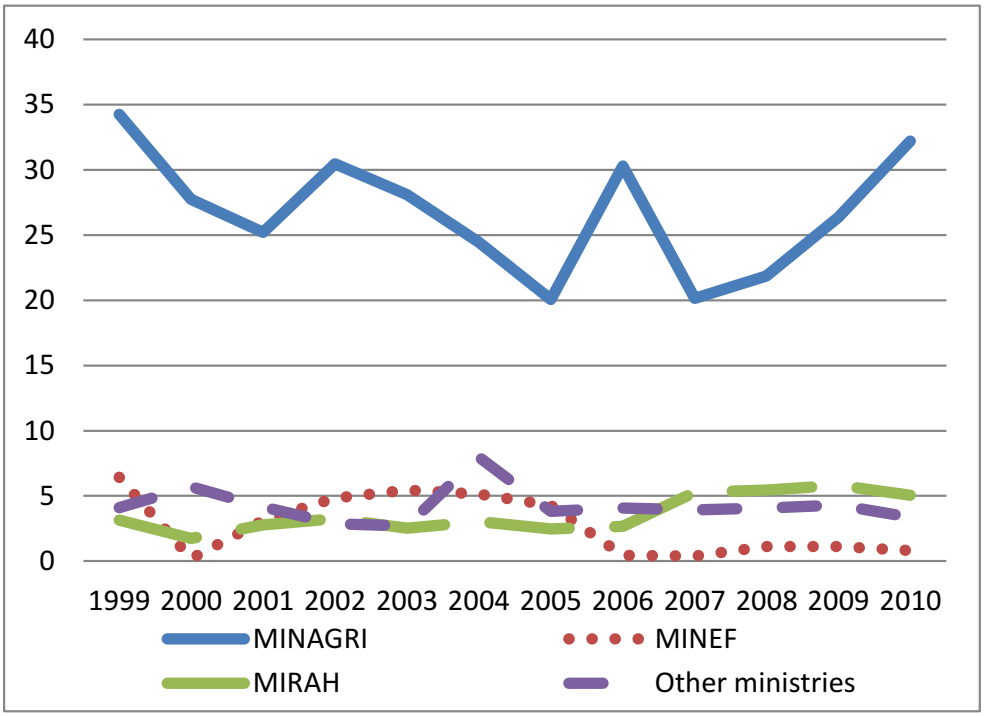


Source: SIGFiP, consultants' research

Off-budget expenditure plays an important role (28% of total APE) in meeting the Maputo target. However, this role is difficult to estimate and this study recognizes not only that are these data not as reliable as the SIGFiP source but they are also incomplete as the European Union (EU) and the Food and Agriculture Organization (FAO) are the only development partners (DPs) with this type of expenditure that have provided data for the period 1999–2010. (The 2001 peak stems from large EU contributions toward coffee and cocoa price STABLEX stabilization). Although their inclusion skews the trend, their exclusion would have been just as arbitrary. Better knowledge of off-budget data is crucial for planning sector support.

The evolution of expenditure by the dominant ministry, MINAGRI (Figure 2), suggests a marked deterioration in APE from 1999 to 2005 (average annual growth rate of -9%) and a slow improvement from 2006 until 2010 (growth of 2%). The first sub-period was marked by the 1999 coup followed by disputed elections in 2000 and an armed rebellion in 2002. Donors suspended their support for the country for a period between 2002 and 2006.

Figure 2: Trends in APE by ministry, 1999–2010 (CFAF billion)



Source: SIGFiP, consultants' research

We note that the agricultural sector was not a government priority from 1999 to 2010, in light of: (i) levels and trends in APE; (ii) its share of the national budget, national GDP, and agricultural GDP (AGDP); (iii) its low level; (iv) its very thin distribution in terms of constant APE among the rural population (CFAF 4,200 per person per year); and (v) international comparisons with other countries.

Functional Composition

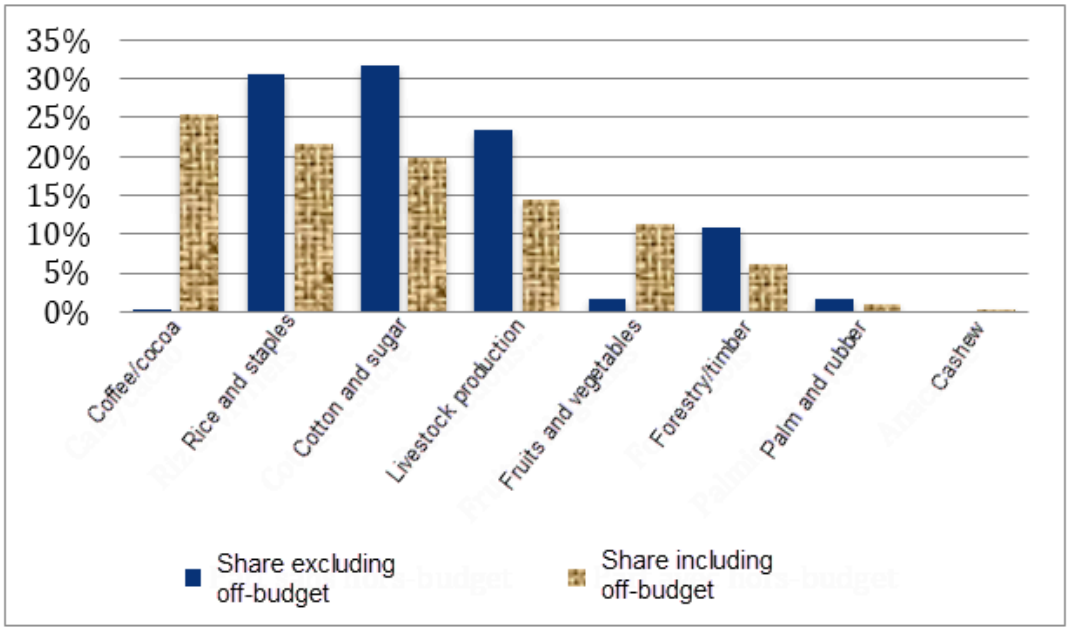
The breakdown of APE shows priorities within the agricultural sector, i.e., the allocative efficiency of APE. The question posed is the following: Through its budget allocations, what priorities does the Government implicitly assign to the different ministries, the main subsectors, the regions, and public goods versus private goods? The quality of actual expenditure is reflected by the types of expenditure (wage, non-wage) underlying these priorities.

Relative to the other ministries, MINAGRI overwhelmingly dominated APE throughout the period, with an average share of 72% of the budgeted total (i.e. SIGFiP data excluding off-budget expenditures). In fact, that dominance was even greater if we also take into account off-budget expenditures, which is almost exclusively allocated to plant production. This dominance seems excessive in light of the goal of diversifying the agricultural sector even though ecological conditions in Côte d'Ivoire are much more conducive to plant production than to livestock or

aquaculture production.

Over the period, total allocations of agricultural expenditures to the subsectors of the three key ministries represented CFAF 172 billion, or 28% of total APE including off-budget expenditure, of which CFAF 99.47 billion was budgeted and CFAF 72.23 billion was off-budget. In fact, off-budget expenditure tilts the order of priorities given to the subsectors heavily. Agribusiness priorities dominated these allocations at the expense of staple crops, which in terms of budgeted APE were the second priority after cotton, which the government felt forced to support vigorously in light of the damage suffered by this industry (Figure 3). This shows once again the importance of considering off-budget expenditures in budget allocations.

Figure 3: Average allocation of actual APE by subsector in 1999–2010 (%)



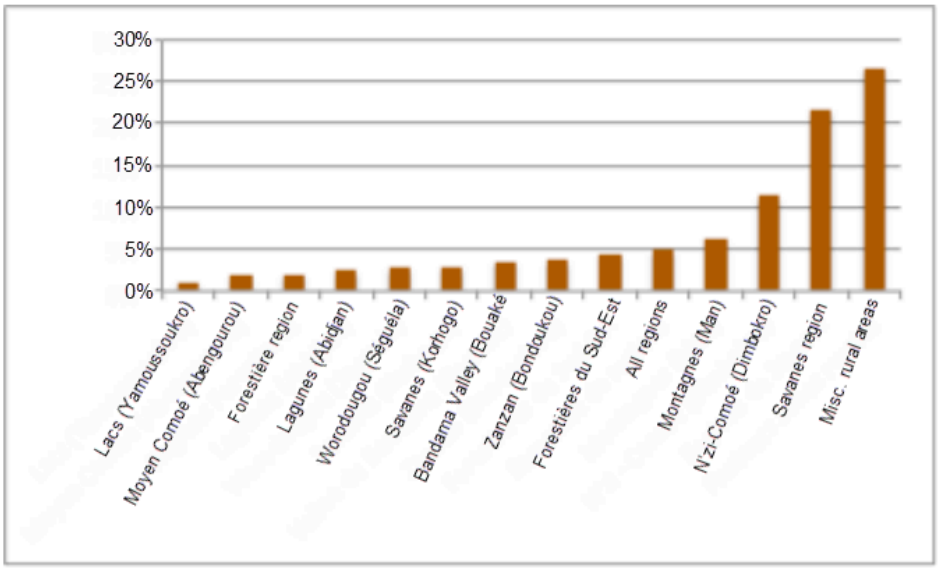
Source: SIGFiP, consultants' research

The performance of each subsector was inconsistent with these levels of expenditure over the period under review. The best-performing crops were cashew (21% growth rate), papaya (11%), and rubber (7%). The worst performances were recorded by bananas (-2%), cotton (-5%), coffee (-10%), and pineapple (-13%). Yet cashew, of which Côte d'Ivoire is the largest African producer, and papaya were neglected by public expenditure (Figure 3).

Budgeted regional allocations from the ministries supporting the agricultural sector amounted to CFAF 126.9 billion, which represented 28.7% of total actual APE excluding off-budget expenditures. This amount also excludes activities deemed to be of "national interest," which encompass anything that cannot be attributed to a region or constituent part. The Savanes region, long-considered abandoned, received relatively more resources (25% of expenditures if we

consider the geographical region rather than the more confined administrative regions) followed by Nzi-Comoé (11%) in the center of the country and Montagnes (6%) in the west (Figure 4). Unfortunately, it was not possible to identify in the SIGFiP data the activities financed in these regions.

Figure 4: Average allocation of APE by region, 1999–2010 (%)



Source: SIGFiP, consultants' research

Capital transfers by the ministries concerned (especially MINAGRI) to the departments and municipalities in support of decentralization have been budgeted since 2003. They were modest (CFAF 5.7 billion, or 4% of total regional allocations) but are set to grow as a result of the new decentralization policy announced in 2011 (with 30 regions and two autonomous districts set to replace the 19 former regions). The largest share went to the Lacs region (home to Yamoussoukro, the capital), with Nzi-Comoé coming ahead of Lagunes, where Abidjan is located. Unfortunately, there has been no follow-up in either the SIGFiP database or the ministries to determine how these transfers were used.

Economic Composition of APE

What agricultural public expenditure is used for has a decisive impact on the quality of this expenditure. The key is to analyze the balance between capital expenditure and recurrent costs (wage and non-wage).

Budgeted APE was primarily (80%) used to meet recurrent costs (wage and non-wage) on average over the period. The share of wages was 48%, while non-wage expenditure accounted for 32% and investment 20% on average. As regards the allocated budget, intentions (which are ineffectual in times of crisis) seemed to strike a better balance, with a larger share apportioned to

investment (36%) followed by non-wage (33%) and wage expenditure (31%). Note that off-budget expenditure is included under investment.

However, the reverse is the case when we analyze the economic composition of APE allocated to the subsectors. Broadly speaking, spending more on wages than on investment in the development of subsectors, which have been severely neglected since 1989–1090, does not constitute good use of public resources. The data indicate that on average, the share of wages was 16%, or half that of investments (33%). However, with non-wage expenditure outweighing the two other categories combined, the recurrent costs of sectoral allocations represented over three-quarters of budgeted APE. If off-budget expenditure were taken into account, the share of wages would have been much smaller, but non-wage expenditure and investment would have been difficult to distinguish.

Research, outreach, inputs, and feeder roads are limiting factors in agricultural growth. Although feeder roads are excluded from the NEPAD COFOG definition, they are vital for getting agricultural produce to market and for the supply of inputs and therefore deserve particular attention. Research, outreach, and feeder roads are public goods, the creation of which is in principle the reserve of Government but which the private sector can also satisfy in partnership with the Government. Although inputs are private goods, the Government may be led to subsidize them under specific circumstances.

Input subsidies represented 9% of APE (excluding off-budget expenditure) over the period 1999–2010. Almost all (around 98%) of these subsidies financed inputs for plant subsectors (primarily pesticides: 68% of subsidies), mainly to protect cotton and cocoa crops, followed by staple seeds (29%), whereas inputs for livestock production (vaccines and animal pharmaceuticals) received only around 2% of these subsidies.

The level of input use remains well below the country's potential needs. Barriers to accessing inputs remain primarily financial, although technical know-how should not be overlooked. Over time, support for the organization of the subsectors should lead them to totally (or partially) manage inputs themselves.

Total public expenditure on research over the period came to CFAF 60.12 billion (83% of which was met by the Treasury), or the equivalent of 10.7% of MINAGRI expenditure, 8% of APE excluding off-budget expenditure, 0.43% of actual national expenditure, and 0.23% of AGDP, which falls short of the NEPAD target for national investment in agricultural R&D (at least 1% of GDP).

The National Center for Agricultural Research (CNRA), the leading institution for agricultural research, is largely dependent on the private sector, with 68% of its funding provided by the InterProfessional Agricultural Research and Advisory Fund (FIRCA) and 10% by the West African Agricultural Productivity Program (WAAPP).

In broad terms, scientific research and technological innovation in Côte d'Ivoire are characterized by: (i) a lack of a framework law guiding scientific research and technological innovation; (ii) a low level of funding for research activities (around 0.05% of GDP); and (iii) a lack of researchers.

The restructuring of agricultural outreach and research services in the 1990s gave rise to the creation of the National Rural Development Support Agency (ANADER), the CNRA, and FIRCA, which was created in 2003 and introduced reform of outreach, a public good, with market-oriented privatization under public-private partnership.

The lion's share of ANADER's resources over the period 1999–2010 was provided by the Government (87% of its CFAF 126.35 billion in funding). Over the period, the Government paid CFAF 109.40 billion to ANADER, or 27% of APE for all three ministries. In the past three years, ANADER has mobilized slightly more than 20% of its funding. This was the case in 2002–2010, when it raised a total of CFAF 10,290,853,069 over 417 agreements identified. FIRCA remains the agency's leading partner (12%).

FIRCA's resources stem from: (i) business contributions; (ii) contributions from public, private, or external bodies; and (iii) exceptional receipts, subsidies, and financial income. The total amount of funds mobilized since business contributions began (the coffee and cocoa subsector excepted) until December 31, 2010 came to CFAF 19.601 billion, of which CFAF 18.594 billion (95%) went to the development support program for contributing subsectors and CFAF 1.008 billion (5%) to FIRCA's operating costs.

Over the period 1999–2010, total APE for outreach amounted to CFAF 545,395 million, with off-budget financing representing 124.64% of budgeted expenditure. This represented on average 1% of AGDP for expenditure excluding off-budget items and 2.13% including off-budget items.

The degraded condition of rural and feeder roads is one of the main drivers of the increase in poverty, in particular in rural settings. For example, while it took one hour in the wet season to travel the 17km of road to reach the village of Zamblekro in the 1980s, twice as long was needed in 2009. Although cocoa remains transportable, the sale of staple produce no longer makes economic sense.

Over the period 1999–2010, budgeted expenditure (excluding off-budget expenditure) on feeder roads amounted to CFAF 2.414 billion, of which 34.63% was financed by loans and 65.33% by the Treasury.

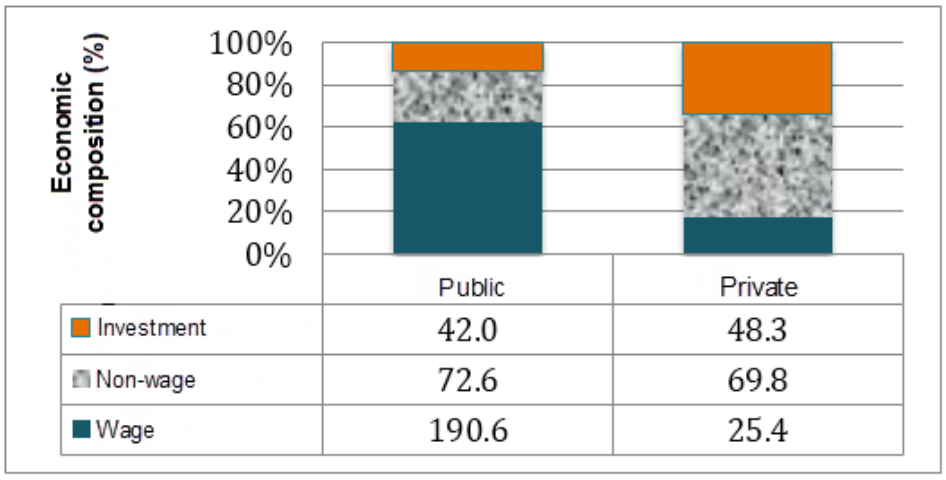
All sources combined, APE on feeder roads came to CFAF 52.581 billion, of which CFAF 22.305 billion (42.42%) was financed by the subsectors, i.e., by the private sector. The size of the contribution of the Rural Investment Fund (FIMR), which amounted to 39% of APE on roads, is especially noteworthy, as is the investment effort made by the Government over the period 2003–2006 (emergency program), subsequently extended by the subsectors and the EU between 2007

and 2010. Expenditure on feeder roads over the period accounted for 10.49% of APE (COFOG+, i.e. COFOG including feeder roads).

Regional allocations were primarily used for investment (43%), with a very small amount going to wages (15%). This economic composition should give comfort to the key ministries that support these regions, even though details of the regions' actions are lacking.

The production of public goods in budgeted APE (68%) outweighed that of private goods (32%) on the basis of a simple categorization drawn from the main SIGFiP data series (Figure 5). Fundamentally, consumption of a public good (e.g., information, outreach) by an individual does not reduce its availability to a corresponding number of others, whereas consumption of a private good (e.g. a grant) by an individual reduces its availability to everyone else. This split between public and private goods in APE is surprising because the opposite is observed in most other countries. However, this can be explained by the Government's marked withdrawal from the subsectors, as reflected by the 22% of budgeted APE that went to the subsectors (not to be confused with the allocation of 28% of total APE taking into account off-budget expenditure). The economic composition of public and private goods also seems to corroborate this finding since we note very little in the way of wages (18%) and more investment (34%) in private goods than in public goods (62% and 14%, respectively).

Figure 5: Composition of public and private goods by type of expenditure, 1999–2010 (% and CFAF billion).



	Public	Private
Investment	42.0	48.3
Non-wage	72.6	69.8
Wage	190.6	25.4

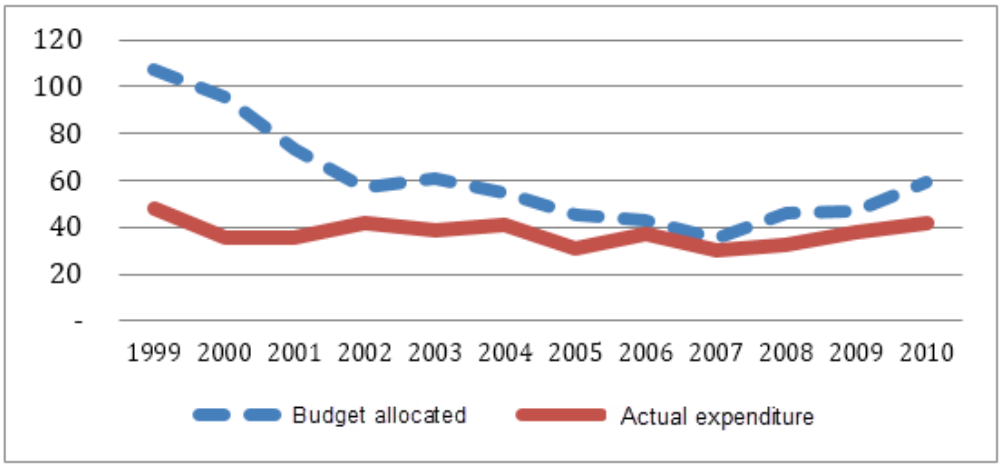
Source: SIGFiP, consultants' research

Financing Sources

An analysis of financing sources sheds additional light on the need, which is reflected in the data on the economic composition of APE, to establish a solid foundation based on own resources in order to underpin growth in the agricultural sector over the long term.

Budgeted APE fell by 40% at the onset of the crisis (before the armed rebellion) due to poor programming of Treasury funds (Figure 6) and little mobilization of external funds. Until 2002, the Government still relied on grants and loans representing at least 50% of budgeted APE. Direct grants and loans remained modest (14%) on average over the period. This ratio must have been one of the lowest in the region during that period.

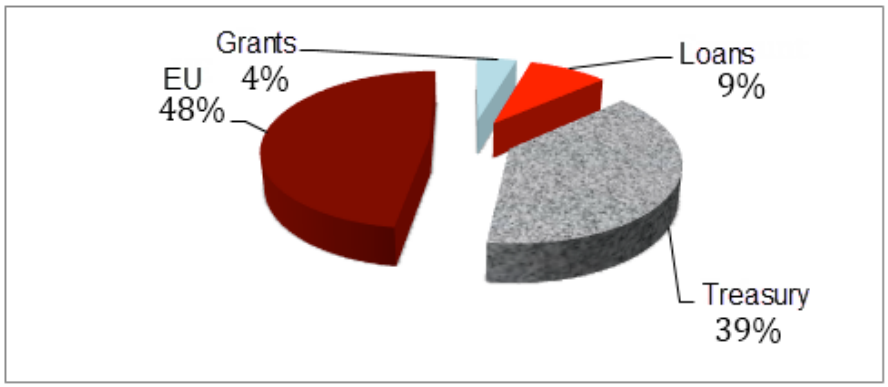
Figure 6: APE budget allocated and actual expenditure, 1999–2010 (CFAF billion)



Source: SIGFiP, consultants' research

The Treasury covered on average 87% of APE excluding off-budget expenditure and 62% of total APE if we include off-budget expenditure over the period. If we consider only off-budget EU expenditure, the Treasury's coverage of expenditure allocated to the subsectors amounted to only 40%. This reflects the importance and the preferred targets of EU resources during the study period (Figure 7).

Figure 7: Average allocation of APE to the subsectors, including off-budget EU resources, 1999–2010

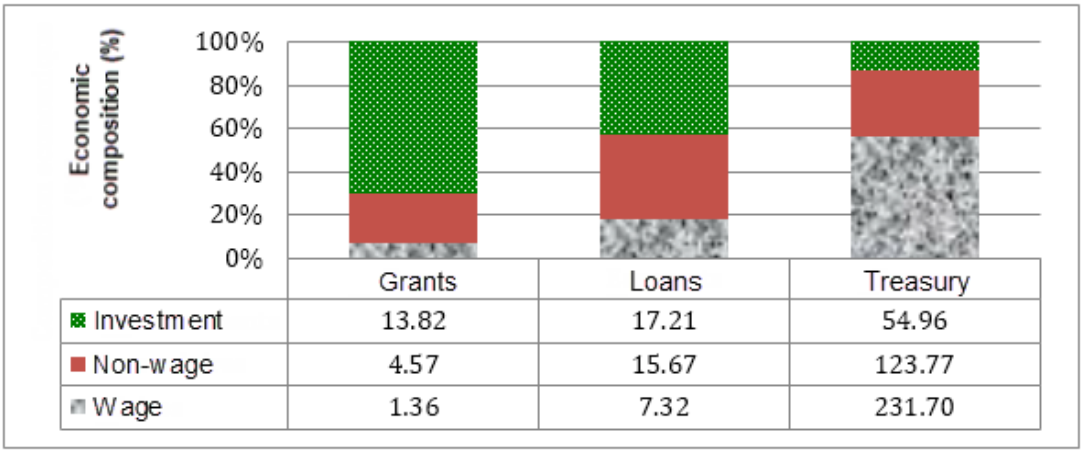


Source: SIGFiP, consultants' research

APE Financing Sources and Economic Composition

What sources of financing (grants, loans, Treasury) backed what types of expenditure (wages, non-wages, investment)? Donors are always guided by the basic principle of seeing their resources spent primarily on investment rather than on wages. A study of the data shows that though modest, grants and loans did play this role (Figure 8). Note that some investment projects can cover wages that are necessary for carrying out the investment although without necessarily changing the nature of the project.

Figure 8: Types of expenditure according to financing source, 1999–2010 (%)



	Grants	Loans	Treasury
Investment	13.82	17.21	54.96
Non-wage	4.57	15.67	123.77
Wage	1.36	7.32	231.70

Source: SIGFiP, consultants' research

The supplementary study (2008–2012) noted no significant change from the findings for the period 1999–2010. The same subsectors remained disadvantaged and the Maputo objective was far from attained. That said, any increase in the allocation to the sector should be consistent with the objectives of the National Agricultural Investment Plan (NAIP) rather than with a view to simply meeting the Maputo target.

The diagnostic review should now give way to specialized studies that require deeper investigation before an assessment of the technical efficiency of expenditure can be made. Also note that this assessment of efficiency in achieving strategic outcomes was made with the use of different tools, including surveys of public expenditure, cost-effectiveness, incidence analysis, and impact studies.

Budget Implementation and Execution

The budget implementation process contains 12 steps, which are probably necessary but contribute to making it lengthy (March–December) and prone to delays. It contains no step for

drafting a budget for the agricultural sector as a whole but for isolated budgets for its components to be drafted independently. There were long delays of up to six months in making the budget available over the period. A return to normal was observed from 2008.

The budget execution rate measures the technical efficiency of the budget's implementation. It is not surprising that execution rates were very low during the country's unprecedented crisis (Table 1). This rate was better for wages, which are a priority for the ministries, and for the Treasury, which the Government manages much better than it manages grants and loans.

Table 1: Average budget execution rate, 1999–2010 (%)

Type of expenditure	Wage	Non-wage	Investment	Total
Execution rate	90.4%	62.3%	34.9%	62.0%
Financing source	Grant	Loan	Treasury	Total
Execution rate	21.8%	23.8%	83.3%	62.0%

Source: SIGFiP, consultants' research

The budget execution rate improved considerably during the second half of the first study period. In terms of financing sources, the improvement stemmed above all from better programming of Treasury funds. However, the difficulties experienced in mobilizing grants and loans appear to have just been significantly reduced. This execution trend was confirmed after the crisis when we consider the rates for the three ministries concerned: MINAGRI, MIRAH, and MINEF (Table 2).

Table 2: Average budget execution rates, 2011–2013 (%)

EXECUTION RATES			
Year	MINAGRI	MIRAH	MINEF
2011	78.3	98.7	96.0
2012	93.4	88.3	95.7
2013	90.6	93.1	51.6

Source: SIGFiP

However, we note that in 2013, MINEF posted an overall rate of 51.6% due to a low execution rate of its investments (10.8%).

Budget execution rates are set to remain at a very high level now that the new Government has made them a priority.

A test of the public expenditure system revealed significant delays in the implementation of budget execution procedures. In a test carried out on 274 files, only 85 (31%) requests for commitment were returned within the standard timeframe (eight days). The average time for requests for commitment to be concluded is estimated at 16 days.

Although only a case study, the findings of this test suggest that these shortcomings in the

implementation of budget execution procedures had a negative impact on the overall budget execution rate.

Recommendations

Recommendations to the Ministries

Broadly speaking:

- The sector should continue with the strategy (1999–2015) aiming to develop the subsectors with emphasis on those neglected over the period: fisheries and aquaculture, sustainable livestock farming, and the restoration of forestry assets. Fortunately, as this diversification is already included in the NAIP, it is simply a question of putting it into action.

- The ministries concerned should set up with a consultation mechanism to discuss the budgeting and programming of public investment for the sector. This consultation mechanism could be set up by the secretariat of the NAIP, which would play a coordinating role in the execution of sector-wide public investment.

- The budget execution rate should be validated by a follow-up of the budget because it does not necessarily display technical efficiency even when it is correct.

- Compliance with budget execution rules must be systematically documented in order to improve budget execution. The new Time Management directive, which consists in electronically verifying files sent and dates received, should serve as a tool for estimating timeframes in budget execution procedures.

- It will be necessary to strengthen capacities for drafting and executing budgets among the agricultural administrations in order to improve sector performances.

- It will also be necessary to consider reforms to the decentralized services of the agricultural sector ministries in order to grant them allocations that are commensurate with the functions attributed to them, including agricultural research.

In terms of **inputs:**

1. To improve agricultural productivity, the level and quality of input use must be improved through measures such as:

   - Targeted subsidies for fertilizer prices;

   - Targeted subsidies for the prices of innovative small equipment;

   - The creation of a distribution network to improve the availability of inputs;

- A credit guarantee fund accessible to banks; and
- The development of skills in family farm management to help them modernize.

- Over time, support for the organization of the subsectors should lead them to totally (or partially) manage inputs themselves.

In terms of **agricultural research:**

- Budget conferences should enable consultation between the key ministries concerned and the Ministry of Higher Education and Scientific Research (MESRSCI) and its centers.
- The system designed to disburse funds must show flexibility by taking into account the fact that agricultural research (in particular in plant production) is highly weather-dependent.
- Within the framework of the NDP, the Government should increase the share allocated to agricultural research. The search for financing through regional and sub-regional programs should be encouraged (e.g., WECARD).
- Negotiations should be undertaken with industry leaders to identify a mechanism for ensuring their continued contribution.
- As the agribusiness subsector does not contribute to FIRCA, it should be called upon to do so.

In terms of **outreach:**

- Sector budgets will need to improve the share they allocate to training. It would be worthwhile to carry out an in-depth study into the decentralization of the regional directorates in order to improve their structure and equip them with the means of making a significant contribution to the system of outreach and project follow-up.

With regard to **feeder roads:**

- The involvement of the subsectors in the maintenance of feeder roads should be encouraged, in addition to government investment.
- A strategy paper should also be drafted on the maintenance of equipment and investments in general.

Recommendations for the Ministry of Economy and Finance

- **Above all, the mobilization of funds must be improved** and the cap raised or its constraints removed. This cap means that even if the budget is considered in place, only

commitments up to a very low level can be made due to a lack of funds. Splitting bulk orders that could benefit from a reduction in wholesale prices leads to delays and cost overruns.

Recommendations for the SIGFiP

- The SIGFiP should carry out validation tests of the database in order to identify the source of the data inconsistencies noted in this review. This is why series of budget allocations and commitments should be drawn separately if they are to be consistent.

- It would be timely to update the SIGFiP software in order to make it possible to export data in a more current Excel format instead of the very limited Excel 95 format.

- In terms of classification, the SIGFiP should continue to fine-tune the content of headings and subheadings while documenting the process and ensuring transparency in classification. Otherwise, it will be difficult to replicate the same analyses and obtain the same results, which remains the essential test of scientific objectivity.

- Off-budget expenditure should be included in the SIGFiP database to enable adequate analysis of it. If not, the ministries concerned and the DPs should agree on standard formats for collecting information through a tracking system that provides the level of detail required for analyzing APE.

- With regard to off-budget expenditure also, large investments have been made in the sector by the First Lady, the Disarmament, Demobilization, and Reintegration Agency (ADDR), the National Plan against Climate Change (PNRC), etc. Traceability of this financing and especially of the evaluation of its impact would improve the level of APE identified.

I. INTRODUCTION

As part of the implementation of the Comprehensive Africa Agriculture Development Program (CAADP), Côte d'Ivoire adopted a National Agricultural Investment Plan (NAIP) in July 2010 for the period 2010–2015. Drawn from the Poverty Reduction Strategy Paper (PRSP), this program aims to achieve the United Nations Millennium Development Goals (MDGs). The following is a brief extract from the NAIP.

From 1960 to 1980, thanks to significant public support for the agricultural sector that was the envy of other countries in the sub-region, Côte d'Ivoire's agricultural sector grew by 4.5%, with Agricultural Gross Domestic Product (AGDP) representing 33.78% of total GDP. However, from 1981 to 1993, agricultural growth dropped to 1.11% even though AGDP still represented 28.74% of total GDP. Over the period 1993–1998, which was marked by the devaluation of the CFA franc and the liberalization of the agricultural sector, agricultural growth resumed but then declined in 1997 due to a decrease in exports. Although AGDP grew by 4.61% annually, its contribution to national GDP fell to 24.41% (a predictable trend since the secondary and tertiary sectors grew even more rapidly). Today, Côte d'Ivoire is emerging from an unprecedented political crisis (1999–2011), the lessons of which have not yet been fully evaluated.

A retrospective review of agricultural public expenditure (APE) provides the opportunity to examine key aspects of agricultural policy over the defined period and to establish an objective baseline for the assessment of future APE. On the basis of this review, conclusions can be drawn and recommendations made to refine and update agricultural investment programs as well as the medium term expenditure framework (MTEF). The West African Economic and Monetary Union (WAEMU) has asked its member countries to set up such public expenditure planning frameworks as of 2017. Côte d'Ivoire was selected as a pilot country for initiating an MTEF for the agriculture subsector (crop production) within the framework of the WAEMU directive. This basic APE diagnostic review will allow Côte d'Ivoire to rapidly extend the MTEF to the entire agricultural sector and help the country comply with the WAEMU directive.

At its own request, Côte d'Ivoire was selected to receive assistance from the World Bank as part of the Strengthening National Comprehensive Agricultural Public Expenditure in Sub-Saharan Africa Program in order to conduct a basic APE diagnostic review.

This program, which is financed by the Bill and Melinda Gates Foundation and implemented by the World Bank, aims to improve the impact of the meager public resources devoted by the governments of Sub-Saharan African countries. It encourages governments and development partners (DPs) to target APE as the most effective way of stimulating growth in the sector, thereby reducing hunger and poverty. It is implemented as part of the CAADP of the African Union's (AU) New Partnership for Africa's Development (NEPAD), which encourages African governments to increase the share of the national budget devoted to agriculture, with an objective

of at least 10%, in order to achieve annual agricultural growth of at least 6% (Maputo Declaration, 2003).

Objectives of the APE Diagnostic Review

The objectives of the basic APE diagnostic review in Côte d'Ivoire are as follows:

4. To conduct a detailed examination of basic public expenditure for the entire agricultural sector in Côte d'Ivoire;
5. To formulate recommendations based on observation data in order to improve the efficiency and fairness of public spending; and
6. To strengthen the capacities of the managers concerned so as to enable them to carry out subsequent public spending examinations by developing databases and cooperation with partners.

Methodology

The review draws upon the following: (i) previous World Bank public expenditure studies; (ii) publications from the various directorates (budget, public procurement, economic forecasting, etc.) within the Ministry of Economy and Finance's (MEF); (iii) the National Development Plan (NDP) as well as various reports from the Public Investment Programs (PIP) of the Ministry of Planning and Development (MPD) related to the three key ministries involved in the sector, namely the Ministry of Agriculture (MINAGRI), the Ministry of Livestock and Fishery Resources (MIRAH), and the Ministry of Water Resources and Forests (MINEF); and (iv) the aforementioned ministries' strategy documents, notably the NAIP.

Interviews were held with senior members of the aforementioned ministries, agricultural industry leaders, DPs, and those in charge of operations under supervision (research, outreach, development, etc.).

Data were collected by compiling data series from the Integrated Public Finance Management System (SIGFiP) database and information provided by donors and para-public organizations. The initial study covered 12 years (1999–2010) because the SIGFiP database, the most consistent and easily accessible data source, contains no data for the period prior to its creation on January 1, 1999. The data for 2012 were not available when the study was launched, while the data for 2011, a year in which budget implementation was especially disastrous due to the crisis the country was experiencing, would not have had a significant impact on the study. Although the SIGFiP database made it relatively easy to extract detailed annual budget data for the period, off-budget expenditure from donors was provided in aggregated form based on total costs for the duration of the projects in question. A cursory study for the (post-crisis) 2011–2012 period was subsequently required to ascertain any new developments, notably implementation rates.

For the purpose of this review, two consultants were recruited to assist an Ivorian technical team that included representatives from the ministries involved in the agricultural sector and representatives of agricultural industries. Two junior consultants helped collect data. MINAGRI was responsible for coordinating the technical team and the entire study.

This report presents:

- The context of the diagnostic review at the national and sectoral level and the United Nations Classification of the Functions of Government (COFOG), which defines the agricultural sector studied here;
- An analysis of APE levels and trends;
- An analysis of APE composition and types by ministry, region, and public and private goods;
- Results of thematic studies of agricultural research, agricultural outreach and training, agricultural inputs, and feeder roads;
- An analysis of sources of funding;
- The budget preparation and implementation process;
- Conclusions and recommendations;
- Annexes.

II. STRATEGIC CONTEXT OF THE DIAGNOSTIC REVIEW

National Strategic Context

An examination of global trends in Côte d'Ivoire since independence reveals two periods: a first from 1960 to 1979, and a second from 1980 to the present. The first is considered the "golden age" of the Ivorian economy, while the second is marked by two important episodes related to the devaluation of the CFA Franc in 1994 and the significant political instability that lasted from 1999 to May 2011. The evolution of constant per capita gross domestic product (GDP) clearly illustrates these two main trends, with this rate nearly doubling from 1960 to 1979 before plummeting and ultimately falling below the 1960 level in 2011. Agricultural expenditure, which represented 24.4% of the Government's overall budget in 1981, fell to 13% in 1984, then 9.7% over the period 2002–2007, or below the Maputo threshold.

With the elaboration and implementation of the 1960–1970 ten-year outlook and the 1971–1975 and 1976–1980 five-year plans, government action was structured around strategic decisions that were well defined both transversally and vertically. Moreover, the country's leaders opted for a liberal economy that was open to the rest of the world, with economic growth relying heavily on both private and public investments and just as heavily on foreign labor.

The majority of investments were allocated to agriculture, infrastructures, and the timber industry. Thus, in the agricultural sector, export crops such as cocoa, coffee, and cotton, which benefit from natural assets (including fertile land and good rainfall), were supported by investments and technical and financial support from the public authorities. These crops represented approximately 70% of exports of goods and services, with the primary sector, which represented 35% of GDP, employing over two-thirds of the population.

Beginning in 1980, Côte d'Ivoire's dependence on world prices for these primary products and the Government's deep involvement in economic production plunged the country into a severe economic crisis. Cocoa prices fell by 40% between 1978 and 1986 and even further after 1987, whereas the processing of these products remained relatively weak. Since the economy was highly government reliant, it quickly deteriorated along with the government funding that supported it. At the same time, the country lost the support of private investors and savers. Yet Côte d'Ivoire launched vast public investment programs, even going beyond Public Investment Program (PIP) forecasts, many of which the country did not want to turn its back on (such as transferring the country's capital to Yamoussoukro). However, the loans contracted to carry out these investments led the country into over-indebtedness. In order to stabilize this ever-worsening situation, structural adjustment programs were implemented from 1981–1986, the liberalization of the economy, with saw the Government withdraw from export industries, was introduced in 1989–1990, and the CFA Franc had to be devalued in January 1994 because its overvaluation was rendering the stabilization and privatization measures ineffective.

The devaluation had a positive impact and investments as well as constant per capita GDP grew substantially from 1995 to 1998. Although a return to tighter and more transparent public resources management and the Government's disengagement from the economy in the early 1990s allowed Côte d'Ivoire to capitalize on the devaluation, these benefits quickly began to fade in 1998 as public resources management gradually deteriorated, leading to inflation. Until the early 2000s, average prices for commodity products (cocoa, coffee) gradually fell on the international market, a situation exacerbated by a steady decrease in overall productivity.

The investment/GDP ratio plummeted after 1979 (to 16%), to hold steady at the lower end (3%) of the ratio achieved in Sub-Saharan Africa, and the poverty rate increased from 10% in 1985 to 48.9% in 2008. Following the post-electoral crisis of 2011, over half of the population was living below the poverty line. It was estimated that poverty increased by three (3) percentage points each time per capita GDP growth fell by one point (elasticity of 3 compared to only 0.93 for the WAEMU zone as a whole). Despite ranking Côte d'Ivoire as a middle-income country, the UNDP Human Development Index (HDI) for the period 1980–2012 (approximately 0.4) placed it below the average for Sub-Saharan Africa, and even below the average indicating low human development.

Demographic growth, which was supported by high levels of immigration, remained strong, creating pressure on social services such as healthcare, education, and housing. The commodity-producing regions of the country benefited the most from this growth, which resulted in regional disparities in the distribution of the gains from this growth, not to mention the negative impact on the natural resources base. For example, the exploitation of forests and their precious wood was no longer sustainable, and the forest cover dropped from 70% to 30%.

The political instability that characterized the period 1999–2010 covered by this study, was marked by three serious crises: the coup of 1999 followed by the contested elections of 2000, the military-political crisis of 2002 that led to the country's partitioning, and the post-electoral crisis that lasted from November 2010 to April 2011.

Sectoral Strategies

Several strategy documents, the majority of which target the year 2015, cover the period studied and beyond in overlapping fashion.

The 1988–2015 Forestry Master Plan laid the groundwork for the Ivorian forestry sector's development after a diagnosis that revealed the deterioration of the country's forest resources as a result of the uncontrolled clearing of land for agriculture, uncontrolled bush fires, and the timber industry's systematic exploitation of forests. Its major objectives were: (i) to maintain the natural forest's exploitable potential; (ii) to restore the plant cover, with a focus on pre-forest and savannah zones; (iii) to reforest and manage land use in classified forests; (iv) to increase operating performance; and (v) to improve processing and marketing.

The 1992–2015 Agricultural Development Plan (ADP) had the following primary objectives: (i) improved productivity and competitiveness; (ii) increased self-sufficiency and food security; (iii) agricultural diversification; (iv) the development of sea and lagoon fishing; and (v) the rehabilitation of forest resources.

Under this plan, the privatization of agro-industries continued until 1999, with nearly all of the agri-food industries being ceded to the private sector. The marketing monopolies and oligopolies were dissolved. The coffee-cocoa pricing mechanism was liberalized through automatic indexation to world prices, and the same principle was applied to the majority of agricultural commodity exports. Several actions were taken to encourage agricultural modernization, the organization of agricultural stakeholders, and the implementation of more effective management tools. These actions included the elimination of the Stabilization Fund (CAISTAB), the grouping of agricultural support and outreach structures under a single National Rural Development Support Agency (ANADER), the strengthening of agricultural research through the creation of a single central entity, the National Center for Agricultural Research (CNRA), and the organization of the sector's operators and stakeholders through the creation of cooperatives and producers' associations.

The 2009 Poverty Reduction Strategy Paper (PRSP), which was drafted as part of a participatory process, was adopted by the Government on March 26 of that year and approved by the executive boards of the World Bank and the International Monetary Fund on March 27 and 31, 2009,[1] respectively. In addition to government revenues, the Poverty Reduction Strategy (PRS) is primarily funded from budget resources and support from development partners (DPs) in the form of budget support and project and program grants and loans.

Amounting to over CFAF 40.4 billion in 2009, the budget allocations for the agricultural sector dropped to CFAF 38.2 billion in 2010 and CFAF 34.2 billion in 2011. In all, for the period 2009–2011, this sector received over CFAF 112.8 billion, or approximately 3.3% of actual expenditure for the PRS. This percentage reflects how insufficient allocations for the sector were in view of the Maputo commitment.

Investment expenditures primarily targeted: (i) the West African Agricultural Productivity Program (WAAPP) for plantains, corn, yams, and traditional pork; (ii) the National Project for Land and Rural Equipment Management (PNGTER), which aimed to improve the standard of living and living conditions of rural communities by implementing a land policy that would provide greater security for farmers and facilitate the resolution of land disputes as well as land development and concerted land management by rural communities; (iii) support for small fruit and vegetable farmers; (iv) hydro-agricultural developments in the Fromager and Haut Sassandra regions; and (v) the revitalization of rice farming.[2] The implementation of NEPAD's CAADP

[1] Official declaration from the Council of Ministers dated March 28, 2012 (review of PRSP results).

[2] International Monetary Fund, 2012. Côte d'Ivoire: Poverty Reduction Strategy Implementation Annual Report.

requires each regional economic community to draft a common regional agricultural policy and each country to develop a National Agricultural Investment Plan (NAIP) through which to implement this regional policy.[3] Following the West African Economic Community Agricultural Policy (ECOWAP), which was approved by member states of the Economic Community of West African States (ECOWAS) in 2005, Côte d'Ivoire adopted its 2010–2015 NAIP in 2010, at an overall cost of CFAF 624.367 billion.

The fundamental principle underlying Côte d'Ivoire's NAIP was to define the essential development actions that would reduce poverty nationwide, beginning with a thorough analysis of the pace of economic growth in general and of the agricultural sector in particular. Seven objectives were identified: (i) improve the productivity and competitiveness of crop, livestock, and fishery productions; (ii) develop the sector's industries; (iii) improve agricultural sector management; (iv) strengthen the capacities of stakeholders involved in agricultural development; (v) strengthen the activities of the fishery and aquaculture sectors; (vi) improve the sustainable management of livestock production; and (vii) strengthen the activities of the timber and forestry sector.

The 2012–2015 National Development Plan (NDP) is the new framework for public interventions and political dialogue. For the purpose of improving the sector and reducing extreme poverty and hunger, its key measures involve: (i) the elaboration, adoption, and enactment of an agricultural framework act; (ii) the implementation of a farmer/breeder conflict prevention and resolution mechanism; (iii) the identification of farmers, breeders, fishermen, and their holdings; (iv) the implementation of a measure designed to enforce rural land law; (v) the implementation of specialized funding channels for agriculture using long-term and cost-effective resources; (vi) strengthening the technical capacities of those involved in the production chain of agricultural, food and nutrition data; (vii) the renewal of coffee and cocoa plantations and support for the creation of new intensive plantations; (viii) the revival of cotton, pineapple, cashew, and rice production; and (ix) the strengthening of the fish and tuna products export system.

The cost of funding for the agriculture, livestock, and fishery sector amounted to CFAF 940.338 billion for the period 2012–2015, or 8.49% of the total cost of the NDP (CFAF 11,076 billion). The financing package earmarked for the Water Resources and Forestry sector is CFAF 46.588 billion, or 0.42% of the total cost of the NDP.[4]

[3] Republic of Côte d'Ivoire, 2010. National Agricultural Investment Plan, final report (July).

[4] Agriculture, livestock, and fishery resources contribute to the strategic target aiming to "create national wealth," and water resources and forests contribute to the strategic target of achieving "a healthy environment and adequate living conditions." (http://www.paris21.org/sites/default/files/7_Plan_National_de_developpement_Cote_divoire.pdf)

Institutional Framework

Several ministries are directly involved in agricultural development, including: MINAGRI, which is in charge of crop production and hydro-agricultural development; MIRAH, which is responsible for livestock and fishery productions; MINEF, which is in charge of classified and unclassified forests; the Ministry of Higher Education and Scientific Research (MESRSCI), which is responsible for agricultural training and research; and the Ministry of Trade (MC), which supports the marketing of agricultural products.

In addition to these ministries, several para-public agencies, autonomous agencies, and interprofessional organizations participate in the development of the agricultural sector, including the following:

The Forestry Development Agency (SODEFOR), a State entity, is responsible for: (i) the sustainable development of all classified forests entrusted to it; (ii) forest preservation through monitoring and the involvement of local populations in forest management; (iii) replenishing timber stocks through reforestation; (iv) the development and management of these forests using their existing potential and taking all dimensions of the forest environment into consideration in their sustainable management.

The National Agency for Rural Development's (ANADER) is tasked with helping improve living conditions in rural areas by devising and implementing appropriate agricultural training tools and programs for the sector's sustainable and controlled development in order to professionalize the work of farmers and their interprofessional organizations. To carry out its actions, ANADER relies on a vast network of supervisory and rural development agents based throughout the country.

The National Center for Agricultural Research (CNRA) is the primary agricultural research agency in Côte d'Ivoire. Its mission is to: (i) group agricultural research under a single yet decentralized body in order to improve its effectiveness and bring it closer to farmers; (ii) encourage cooperation between the Government and private farmers for research orientation, management, and funding; and (iii) conduct research that reflects the concerns of Ivorian agriculture and ensure that the results are applied effectively.

The National Association of Professional Agricultural Organizations of Côte d'Ivoire (ANOPACI), created in 1998 to defend the collective interests of farmers, encompasses all industries in the agricultural sector. These are represented by: the Interprofessional Livestock and Small Ruminant Confederation, associations of hog producers and poultry farmers (IPRAVI), coffee and cocoa producers, the National Rubber Professionals' Association (APROMAC), the Interprofessional Palm Oil Association (AIPH), the Pineapple and Banana Producers and Exporters Central Organization (OCAB), non-traditional fruit farmers, cotton farmers (INTERCOTON), food producers, cashew farmers, and a microfinance institution. Agro-industrial chains such as AIPH and APROMAC have played an increasingly important role since

the liberalization of the economy, especially in terms of feeder road construction and maintenance.

The Interprofessional Agricultural Research and Advisory Fund (FIRCA), created in 2002, is a funding mechanism for agricultural and forestry research programs, agricultural advisory services, agricultural training programs, and programs designed to strengthen the capacities of professional agricultural organizations. For example, FIRCA helps fund ANADER and CNRA. In accordance with agreements with the various industries, FIRCA and the industries involved have implemented mechanisms for collecting members' dues, which appear to be functioning smoothly. According to these agreements, funds are allocated based on the nature of the programs on the one hand and the FIRCA administration on the other, with this funding varying by industry.

The National Rice Development Agency (ONDR), created in 2010, is responsible for implementing the revised 2012–2020 National Rice Development Strategy (SNDR). It follows the National Rice Program (PNR).

III. COFOG CLASSIFICATION AND THE AGRICULTURAL PUBLIC EXPENDITURE DATABASE

COFOG Classification for the Agricultural Sector

In order that comparisons with other countries can be made, the agricultural sector is defined here according to the United Nations Classification of the Functions of Government (COFOG), which forms the basis for NEPAD COFOG.[5] For that purpose, the agricultural sector encompasses agriculture in a broad sense, including crops and livestock production, forestry, and hunting and fishing. Three characteristics of NEPAD COFOG apply:

(i) NEPAD COFOG excludes some expenditure from key ministries in the agricultural sector: MINAGRI, MINEF, and MIRAH. The budgets and expenditures for the following are also excluded: the management of national parks and wildlife and plant reserves, forestry activities for non-timber forest products, police monitoring of high sea fishing operations, and feeder roads.

(ii) It includes expenditures not administered by the sector's key ministries but rather by other ministries, whose actions have the explicit aim of supporting the sector. In this case, these ministries are the Ministry of Higher Education and Scientific Research (MESRSCI – support for agricultural and fisheries research) and the Ministry of Trade (MC – actions in support of the marketing of food products).

(iii) It also includes off-budget expenditures for the production of public goods that are not recorded in the national budget but that contribute to the sector's development. The team had great difficulty collecting data about these off-budget expenditures from donors and non-governmental organizations (NGOs). These off-budget expenditures come from the European Union (EU), the Food and Agriculture Organization (FAO), FIRCA (Interprofessional Agricultural Research and Advisory Fund), ANADER (National Rural Development Support Agency), and the National Rice Program (PNR), which became the National Rice Development Agency (ONDR) in 2010. The team recognizes that the off-budget expenditures presented here are incomplete and much less reliable than those provided by the SIGFiP database.

Thus constituted, the COFOG for the agricultural sector is not presented according to the agriculture, forestry, hunting, and fishing definition but rather according to the SIGFiP classification, that is, according to the structure of the sector's key ministries and the other ministries that support it. This enhances the clarity of the analysis and allows the current ministerial structures to see how they compare with the other players in the sector. As concerns these comparisons, it is important to note that some expenditures (for feeder roads, in particular) are excluded from ministerial expenditure.

[5] NEPAD (2005). Guidance Note for Agricultural Expenditure Monitoring in African Countries.

The APE Database

The database created for this diagnostic review of basic agricultural public expenditure (APE) is composed of four elements, with the first two being more difficult to compile than the latter two: (i) data taken from the SIGFiP database; (ii) estimates of off-budget expenditures; (iii) national statistics; and (iv) international statistics.

SIGFiP is a software package that forms a network between all of the main public finance actors (expenditures and revenues) in Côte d'Ivoire.[6] It formalizes the interventions of all actors in the chain within a single framework by digitizing and integrating all levels of action in a single system consisting of authorizing officer, financial controller, and accounting officer. Each of these actors has an entry key for the software. The system ensures the coordinated management of Government revenues and expenditures. As concerns expenditure, SIGFiP makes it possible to institute a monthly expenditure regulation and planning policy, which helps keep the Government's arrears to a strict minimum.

SIGFiP uses a 15-digit nomenclature composed of the following: the two-digit section code (ministry), the nine-digit expenditure destination code (which comprises chapter and sub-chapter), and the four-digit code indicating the economic nature of the expenditure (article, paragraph, and line).

Eight (8) series are taken directly from the SIGFiP database:[7] four grouped by ministry, and four grouped by region. Each group includes the expenditure type (wage costs, non-wage costs, and investments) and the funding source (grant, loan, or Treasury) for both the allocated (or current) budget and the assumed costs (ACs) (or actual expenditure). For drawings from lines of credit using the 15-digit SIGFiP classification code, each of the eight (8) series (for the ministries concerned here) constitutes a table of over 16,000 lines and 41 columns of data. Eight (8) other series were filtered from the main series: expenditure for the sector's industries, and expenditure for public and private goods. The database thus contains all 16 data series and was also used to compile a series of expenditure types by funding source for the sector's key ministries.

The SIGFiP database made adjustments designed to take into account ministries that had been combined with others to create a "super ministry" or that had changed its name during the period studied. In addition, data regarding the Ministry of the Environment, Urban Waste, and Sustainable Development, which has existed alongside MINEF since 2008 but is not involved in the agricultural sector, had to be removed. Expenditure related to the fishing agreements established under MINAGRI was also adjusted by transferring it from MINAGRI to MIRAH. However, it was difficult to separate central administration expenditures for ministries that were split into two or merged with another ministry. While for a given ministry, the titles of some

[6] The same SIGFiP instrument is used by the other WAEMU member countries.

[7] Compiling this database took longer and was more difficult than expected due to the sophistication of the SIGFiP system, the size of the requests, and an initial lack of coherence in the data resulting from ministry name changes.

categories may have survived a merger with another ministry, the expenditures they contain may no longer correspond to its title.

Despite the great care taken to adjust the data, some data may not have been fully adjusted. While this may have a slight influence on the distribution between ministries, it should not affect the sector's total expenditure.

Data consistency was reestablished when SIGFiP treated the current budget and the assumptions of costs as part of two separate files (thus creating the 8 main series mentioned above) rather than as a single file. In the latter case, for a yet unknown reasons, the data were incoherent from one file to the next and from one adjusted file to another. For example, the total of the allocated budget by expenditure type may have been different from the total of the same allocated budget by funding source.

The collection of data on off-budget expenditures posed yet another challenge. The data from those development partners (DPs) who were able to provide their data on time were entered as total costs for the duration of the project in question. The team thus had to estimate their annual expenditure based on the project start and end dates. As concerns ANADER, FIRCA, and ONDR (ex-PNR), the team had to avoid counting again expenditure already treated by the SIGFiP database as well as expenditure already taken into account by the DPs in question, the EU, and the FAO. The team also had to ensure that it did not count the FAO's conventions with the EU twice.[8]

The national statistics were collected from the National Statistical Institute (INS) and from ministerial data. The international statistics were provided primarily by the World Bank and the FAO.

In general, the government's information system does not yet provide the means to consolidate an APE database in a clear and coherent manner. The difficulties encountered with the SIGFiP data and off-budget expenditure are a clear reflection of this position. These two aspects must be improved if the database is to provide a detailed representation of agricultural public expenditure.

[8] In accordance with COFOG, the Interprofessional Palm Oil Association's expenditure on feeder roads was excluded. Given that the project names did not always reflect their precise actions, it was difficult to distinguish between expenditure for public and for private goods.

IV. AGRICULTURAL BUDGET EXPENDITURE: LEVELS AND TRENDS

An analysis of levels of agricultural budget expenditure (ABE) shows the level of priority the Government has assigned to the agricultural sector as well as the position reached by Côte d'Ivoire in this area compared with other countries over similar periods of time. In particular, the ABE share of the national budget is an indicator monitored by the government and its NEPAD peers because in Maputo in 2003, they all committed to spending at least 10% of their resources on the agricultural sector each year. Beyond the level of these expenditures, we know that a steady rise and relative stability in ABE help encourage growth in this sector. Conversely, a negative trend and great variability in these expenditures will not promote effective planning for the sector's development. The analysis also takes these considerations into account.

Share of Agricultural Budget Expenditure in the National Budget

Table 3 shows total actual ABE data collected according to COFOG criteria but presented according to the local SIGFiP classification. As discussed earlier, the agricultural sector COFOG (CFAF 52 billion on average for the period) includes expenditures by the key ministries in the sector (CFAF 33 billion), those of other ministries that support the sector (CFAF 4 billion), and off-budget outlays (CFAF 15 billion). It should also be noted that COFOG excludes feeder roads.

Actual expenditures, or assumed costs (AC – the document uses these two terms interchangeably), consist of what the ministries and government agencies actually have available for carrying out their activities. These expenditures must be distinguished from the budget passed and allocated (or the actual budget), which can be viewed as an estimate, not all of which is always made available to the implementing bodies. NEPAD requires using actual expenditures rather than allocated budgets in calculating the Maputo indicator. These expenditures are shown in Table 3.

Table 3: Actual ABE, NEPAD COFOG classification (excluding feeder roads) 1999–2010 (in CFAF billions)

Year	Key ministries (AC)	Other ministries (AC)	Off-budget*	Total ABE (AC)	National budget (AC)	ABE/ Budget (AC)	ABE/ Budget (Allocated)
1999	43.83	4.11	1.19	49.13	1,024.37	4.80%	6.42%
2000	29.63	5.70	3.41	38.75	1,087.35	3.56%	7.33%
2001	31.10	4.15	56.31	91.56	973.40	9.41%	12.11%
2002	38.55	2.86	4.20	45.61	1,408.18	3.24%	4.48%
2003	36.06	2.68	8.03	46.77	1,232.00	3.80%	5.65%
2004	32.64	7.98	7.08	47.70	1,291.31	3.69%	4.44%
2005	26.81	3.81	7.22	37.84	1,340.74	2.82%	4.19%
2006	33.41	4.07	8.47	45.95	1,432.12	3.21%	3.59%
2007	25.83	3.94	15.49	45.26	1,595.97	2.84%	3.12%
2008	28.41	4.06	18.68	51.15	1,750.62	2.92%	3.50%
2009	33.26	4.30	25.34	62.89	1,912.80	3.29%	3.80%
2010	38.07	3.38	19.58	61.02	2,072.47	2.94%	3.71%
Average**	33.13	4.25	14.58	51.97	1,426.78	3.88%	5.19%
Share	63.8%	8.2%	28.1%	100.0%	–	–	–
CAGR	-1.27%	-1.76%	28.99%	1.99%	6.62%	-4.34%	-4.87%
RSD***	16.00%	32.95%	103.42%	27.94%	24.40%	47.14%	48.61%

Source: SIGFiP, consultants' research

Notes:

AC = Assumed costs (actual expenditure)

RSD: Relative standard deviation

CAGR: Compound annual growth rate

* Although incomplete, most off-budget expenditures were included. However, most of the ABE in the budget would still remain below 10% even if the missing data were included.

** Simple average (ABE/Budget) used to calculate the RSD.

*** Maputo Test based on allocated budgets

Over the 1999–2010 period, the share of ABE (excluding feeder roads but including off-budget expenditures) in the national budget was around 4% on average, well below the minimum 10% bar adopted by the Heads of State at the Maputo conference in 2003. In fact, Côte d'Ivoire's shortfall vis-à-vis this level actually increased after 2003. After a long period of decline, it was not until 2008 that ABE found its 1999 level, supported in that by off-budget expenditures. In contrast, the national budget underwent satisfactory, even remarkable growth (6.6%) during this period of crisis, resulting in a downward trend in the relative share of ABE in the national budget. However, it should be noted that the Maputo criterion has proved very difficult to meet ever since it was introduced. In fact, over the 2003–2010 period, only seven countries on average met or exceeded the Maputo criterion: Burkina Faso, Ethiopia, Guinea, Malawi, Mali, Niger, and Senegal (ReSAKSS, 2011, Country SAKSS report, and 2012 Plan).

It should be stressed that NEPAD COFOG considers only actual expenditure. Inasmuch as actual expenditures are generally limited in relation to allocated budgets, it is worthwhile considering the country's intentions in drafting the budget. To do this, we need to compare agricultural and national expenditures in terms of allocated budgets. (For comparative purposes, we added the same off-budget expenditures to the sector's current budget as in the Maputo test case based on actual expenditures because we do not have the off-budget forecasts.) As Table 3 shows, Côte d'Ivoire was fairly close to meeting the Maputo criterion and would easily have surpassed it in 2001. However, that was before the Heads of State took the stance they did in 2001. Moreover, it would have been based on a very large off-budget European Union (EU) project that year. Subsequently, as in the case of the level of actual expenditure, the gap increased as the study period proceeded, averaging around 5%.

Off-budget spending, which accounted for 28% of total ABE, was dominated by EU funding, which accounted for 52% of that amount over the period. According to the COFOG classification, the estimate of EU off-budget amounts did not take into account: (i) expenditures for feeder roads, or (ii) expenditures deemed to fall outside of the agricultural sector (drinking-water supply, sanitation, village infrastructure, etc.).[9] In addition, with regard to EU off-budget spending, Table 4 shows a very high peak for the coffee/cacao STABEX in 2001, representing 47% of EU expenditures. Including other EU operations, off-budget spending for 2001 accounted for over 60% of total expenditure. Although such a proportion can distort any calculation of averages and growth rates, so does arbitrarily not taking it into account. Off-budget amounts from other sources were estimated while avoiding counting EU agreements (involving the FAO and ANADER) twice as well as the national budget (ANADER, FIRCA, and ONDR). The FAO share of off-budget spending was around 21% over the period, while FIRCA's was 11%, and ANADERs and ONDR's 7%.

[9] Much more detailed data than those provided again recently by the EU might lead to a different classification of these expenditures and possibly to different amounts. The EU's average share of off-budget expenditures would be 32% rather than 52% if its 2001 contribution were arbitrarily not taken into account.

Table 4: Off-budget expenditures according to COFOG criteria (CFAF billions)

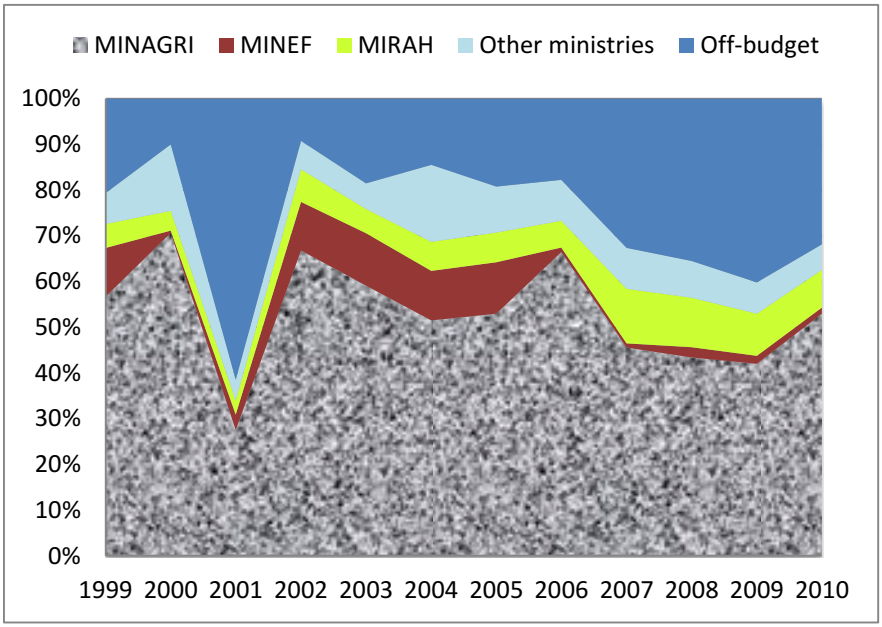
Year	EU	FAO	ANADER	FIRCA	ONDR	Total
1999	0.1	0.4	0.7	-	-	1.2
2000	0.7	0.2	2.6	-	-	3.4
2001	55.4	0.4	0.6	-	-	56.3
2002	2.7	1.1	0.4	-	-	4.2
2003	3.2	1.0	1.4	-	2.5	8.0
2004	2.5	1.0	1.1	-	2.5	7.1
2005	0.6	1.4	0.7	1.2	3.3	7.2
2006	2.2	2.0	0.5	1.9	1.9	8.5
2007	4.9	4.4	1.3	3.9	1.0	15.5
2008	4.4	7.6	2.5	4.1	-	18.7
2009	8.8	10.6	2.7	3.3	-	25.3
2010	5.2	6.2	2.4	5.3	0.5	19.6
Average	7.6	3.0	1.4	1.6	1.0	14.6
Share	51.8%	20.6%	9.7%	11.2%	6.6%	100.0%

Source: SIGFiP, consultants' research

Note: From the coffee STABEX of CFAF 43 billion, which was fully spent in 2001

The impact of the EU's 2001 off-budget expenditures can be seen in the change in ABE for the period (Figure 9). The figure also shows that over the years, MINAGRI transferred some of these expenditures to off-budget expenditures and others to other ministries included in the composition of the ABE. Of these other ministries, the Ministry of Higher Education and Scientific Research (MESRSCI) plays the key role (through specialized thematic studies) relative to the Trade Ministry (MC).

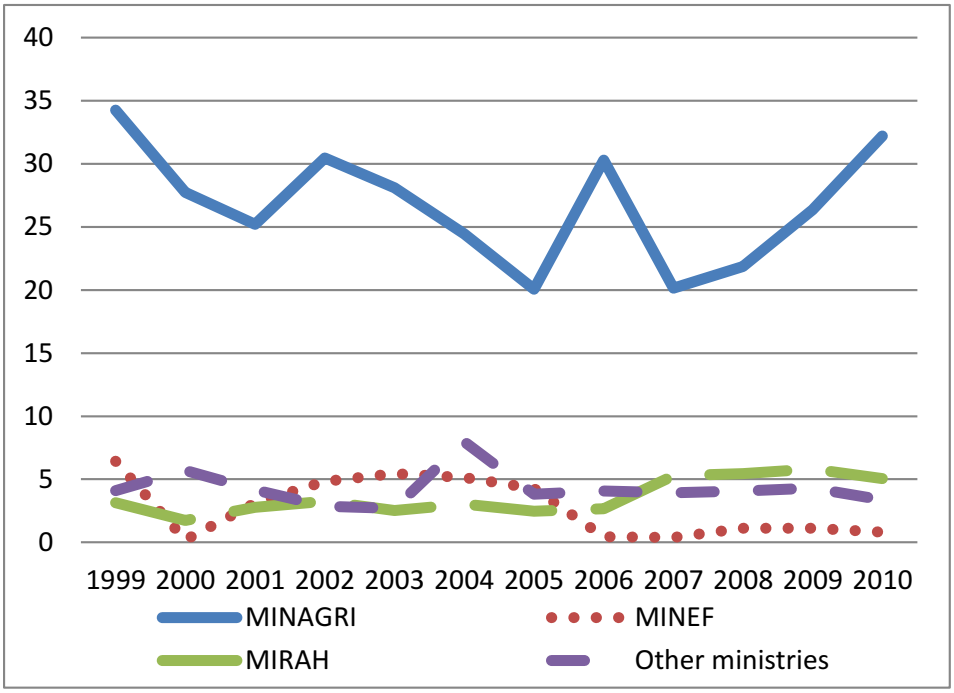
Figure 9: Changes in ABE, 1999–2010



Source: SIGFiP, consultants' research

The trend in total ABE is masked by great variability in off-budget spending (RSD: 103%). To detect this, we need to consider changes in ABE excluding off-budget spending, and especially changes in MINAGRI's spending. Figure 10 suggests a significant deterioration in ABE from 1999 to 2005 (CAGR around -9 %) and slow improvement from 2006 to 2010 (CAGR around 2%) toward the levels reached in 1999 and 2000. This could be attributable to an improvement in the crisis situation, which was marked by problems at the start of the period, including a coup in 1999, rebellion in 2002, and the Marcoussis accords of 2003, which were immediately followed by tensions. It should be noted that Figure 10 does not suggest the same trend for MIRAH, MINEF, or the other ministries.

Figure 10: Changes in ABE excluding off-budget spending, 1999–2010 (CFAF billions)



Source: SIGFiP, consultants' research

Share of Agricultural Budget Expenditure in GDP and AGDP

Table 5 compares total actual APE with national GDP and AGDP. We note the following:

Table 5: Share of agricultural budget expenditure in GDP and AGDP, 1999–2010

Year	ABE	Current GDP	Current AGDP	AGDP/ GDP	ABE/ GDP	ABE/ AGDP	Orientation index
1999	49.13	7,731.00	1,700.00	22.0%	0.6%	2.9%	0.22
2000	38.75	7,416.70	1,796.00	24.2%	0.5%	2.2%	0.15
2001	91.56	7,730.10	1,909.30	24.7%	1.2%	4.8%	0.38
2002	45.61	8,006.07	2,053.90	25.7%	0.6%	2.2%	0.13
2003	46.77	7,984.23	2,040.40	25.6%	0.6%	2.3%	0.15
2004	47.70	8,178.43	1,895.90	23.2%	0.6%	2.5%	0.16
2005	3.84	8,631.19	1,969.30	22.8%	0.4%	1.9%	0.12
2006	45.95	9,081.19	2,081.80	22.9%	0.5%	2.2%	0.14
2007	45.26	9,487.42	2,263.10	23.9%	0.5%	2.0%	0.12
2008	51.15	10,485.03	2,619.00	25.0%	0.5%	2.0%	0.12
2009	62.89	10,879.94	2,682.80	24.7%	0.6%	2.3%	0.13
2010	61.02	11,352.14	2,588.70	22.8%	0.5%	2.4%	0.13
AAGR	2.0%	3.6%	3.9%	0.3%	1.5%	-1.8%	-4.7%

Source: SIGFiP, consultants' research

The share of ABE in GDP AGDP was low (0.6% and 2.5% on average, respectively) and did not begin to stabilize until 2006 after reaching its lowest point in 2005. ABE could not be maintained at the GDP and AGDP level, as was the case in relation to the national budget. Although modest, GDP and AGDP growth rates (3.6% and 3.9%, respectively) remained above that of ABE (2.0%) over the entire period. These rates should be compared to those for growth in the national budget (6.6%), which seems to flout the GDP and AGDP growth rates despite the crisis the country was experiencing.

An international comparison of ABE (Table 6) reveals that in high-income countries with low AGDP, the share of ABE in relation to GDP is low while its share of AGDP is very high. This remains true even for middle-income countries, where the share of AGDP is moderate. In contrast, in low-income countries, which are more dependent on agriculture, the share of ABE in AGDP is low. Among these countries, Côte d'Ivoire generally ranks below its peers.

Table 6: International comparison of agricultural budget expenditures

Region/Country	Share of agriculture in GDP	Share of agricultural expenditure in national GDP	Share of agricultural budget expenditure in agricultural GDP
High-income countries			
Australia	3.0%	0.3%	10%
Canada	2.3%	0.5%	22%
EU	2.3%	0.7%	28%
Middle-income countries			
Turkey	13.0%	2.0%	15%
Mexico	4.0%	0.7%	18%
Venezuela	5.0%	0.5%	12%
China	15.0%	1.2%	8%
Brazil	9.3%	0.7%	8%
Russia	6.0%	1.0%	16%
Ukraine	11.6%	1.3%	11%
Low-income countries			
Cote d'Ivoire 1999–2010	22.9%	0.6%	2.5%
Burkina Faso 2004–2011	33%	2.7%	8.2%
Uganda	32%	1.5%	5%
Tanzania	45%	1.2%	3%
Ethiopia	44%	2.7%	6%
Kenya	29%	1.3%	4%
Togo	41%	1.9%	3.9%

Note: The data shown concern different years depending on the country, though all fall between 2002 and 2011. Sources: World Bank 2010, World Bank 2012; authors' calculations for Burkina Faso; ReSAKKS for GDP and agricultural GDP for Burkina Faso.

The agricultural orientation index also remained weak. The extent to which ABE reveals the sector's importance to the economy can be measured using this index. This standardized measure of the importance of agriculture is calculated as the ratio of the share of ABE in the national budget to the share of the agricultural sector in national GDP (Table 7). An index equal to parity would indicate that ABE reflects the agricultural sector's contribution to the national economy. Below parity, ABE is lower than its contribution, and above parity, it is more significant than is reflected by the sector's contribution to the economy. For Côte d'Ivoire, the agricultural orientation index was relatively weak (0.17 on average) and even worsened (-6.3%) over the period. This is not surprising considering the negative trend in the ABE's share of the budget, whereas the share of AGDP in GDP remained relatively steady.

However, the agricultural orientation index is used far more often to compare countries with one another rather than to necessarily indicate how the agricultural sector is treated in relation to other sectors of a country's economy. In practice, public expenditure is not necessarily allocated

to many other sectors in relation to the size of their contribution to national GDP.[10] Compared to other African countries, Côte d'Ivoire was one of the poorest-performing countries in terms of allocating public resources to the measurement of the agricultural sector's contribution to the country's economy (Table 7).

Table 7: International comparison of the agricultural orientation index

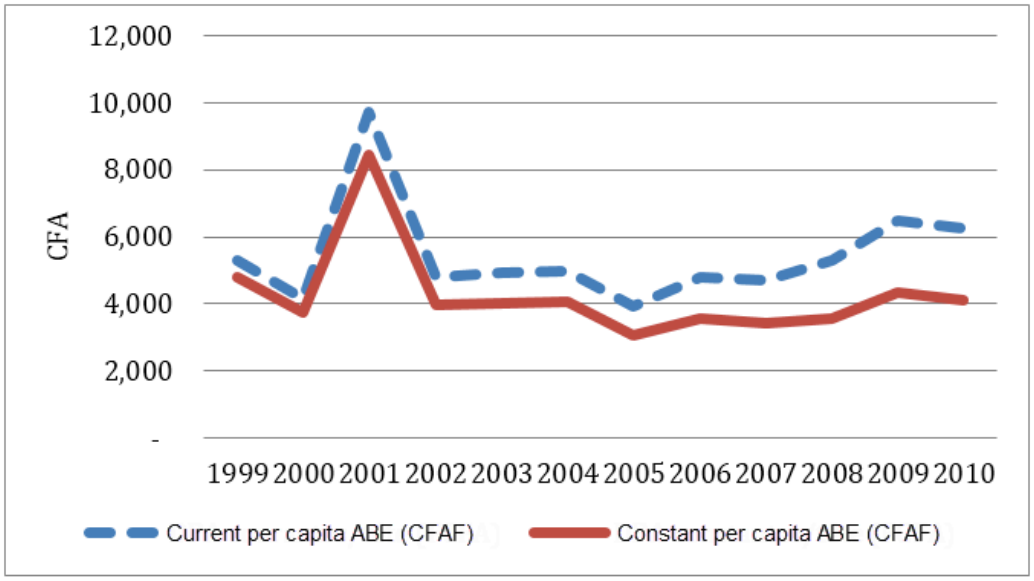
Country	Year/Period	Orientation index
Botswana	2007	1.32
Côte d'Ivoire	1999–2010	0.17
Ghana	2007	0.01
Kenya	2007	0.17
Malawi	2007	0.12
Senegal	2005–2009	0.65
Swaziland	2007	0.6
Zambia	2007	0.39
China	3007	0.5
Indonesia	2007	0.2
Egypt	2007	0.22
Morocco	2007	0.15
Tunisia	2007	0.59

Source: FAO, Analytical Review of ABE in Burkina and Senegal

Per capita ABE remained low during the period. Figure 11 shows constant actual ABE (1996 = 100) per rural resident (CFAF 4,264 per year on average) to be falling compared to the slightly upward trend seen in the distribution of current ABE (CFAF 5,445 per year). This is explained by the fact that ABE at constant prices fell (-2.6 %) while the rural population (with an average of 9,543,776) grew modestly (by 0.5%) over the period. In terms of the distribution of the total budget among the entire population for the period, the rural population still accounted for over half (54.4%) of the total population despite urban growth (3.5%).

[10] It should also be noted that if a country manages to substantially mobilize private investment in the sector, it can choose to reduce its ABE. Although it would not achieve parity in agricultural orientation, it might not suffer substantially from this choice.

Figure 11: Agricultural budget expenditures per rural resident, 1999–2010



Source: SIGFiP, consultants' research

V. FUNCTIONAL AND ECONOMIC COMPOSITION OF AGRICULTURAL PUBLIC EXPENDITURE

Expenditure levels in agriculture and trends in spending reveal the priority given to the sector by the national government relative to other sectors. Furthermore, analyzing the composition of agricultural public expenditure (APE) reveals the priorities among subsectors and makes it possible to measure the allocative efficiency of this expenditure. Functional composition in expenditure refers in this instance to allocations to subsectors such as crop, livestock, or tree production. (Spending allocated to research and development, training and outreach, inputs, and feeder roads are addressed in detail in separate studies in annex to this summary report.) Economic composition refers to spending on wages, non-wage operating costs, and investments. In examining the government's budgetary allocations, what priorities can implicitly be assigned to the various agriculture-related ministries, the major agricultural sectors (crops vs. others crops and crops vs. livestock), the country's various regions, and the creation of public goods relative to private goods? In addition to analyzing spending levels, the quality of these expenditures can also be assessed by reviewing what these funds actually bought. Data revealed that the largest share of expenditure paid for operational or recurring costs (especially wages). The fact that investments received the smallest share is worrisome since this points to a weak foundation for future growth.

Subsector Allocation

In this report, the subsector analysis did not take into account off-budget expenditure since these data were not broken down by the Ministry in comparable detail as in the SIGFiP data. This will be discussed later. Table 8 presents APE for the period under review for each key ministry and for ministries with an ancillary role in agriculture.

Table 8: Executed expenditure by ministry, 1999–2010 (CFAF billions)

Year	MINAGRI	MINEF	MIRAH	Other ministries	TOTAL
1999	34.26	6.43	3.14	4.11	47.94
2000	27.73	0.18	1.72	5.70	35.34
2001	25.20	3.12	2.79	4.15	35.25
2002	30.47	4.84	3.24	2.86	41.40
2003	28.09	5.44	2.53	2.68	38.74
2004	24.46	5.14	3.04	7.98	40.62
2005	20.07	4.28	2.47	3.81	30.62
2006	30.29	0.45	2.67	4.07	37.48
2007	20.15	0.40	5.28	3.94	29.77
2008	21.85	1.11	5.44	4.06	32.47
2009	26.35	1.11	5.80	4.30	37.55
2010	32.21	0.80	5.05	3.38	41.45
Average	26.76	2.77	3.60	4.25	37.38
Share of total	71.6%	7.4%	9.6%	11.4%	100.0%
VC	17.3%	84.2%	38.7%	33.0%	13.8%

Source: SIGFiP, consultants' research

Over the period under review, MINAGRI dominated APE by a wide margin, accounting for 72% of total expenditure on average. The other key sector ministries (MIRAH and MINEF) had far smaller shares of total expenditure. This unequal distribution is not wholly surprising given that environmental conditions in Côte d'Ivoire are far less favorable to livestock production than to cultivation, the latter having severely encroached upon forested land. A review of the executed budget of the three key ministries shows that MINAGRI's share of total APE was 81% on average over the period compared with 8% for MINEF and 11% for MIRAH. In fact, at the time of budget allocation (current budget), the share earmarked for MINAGRI was even higher (83%), even though MINAGRI's share of expenditure fell following budget execution. This issue will be addressed later in this report.

Off-budget expenditure was included in the sector analysis in order to provide a more complete picture of spending. Although off-budget expenditure was not fully detailed, it was known, for example, that the National Rice Development Agency (ONDR) provides assistance to the rice sector and therefore contributes to MINAGRI's activities. A review of funding from the European Union (EU) also showed that these funds were directed by and large to crop production (98%), with a much smaller share going to livestock production (2%). In terms of funding from the United Nations' Food and Agriculture Organization (FAO), the National Rural Development Support Agency (ANADER), and the Interprofessional Agricultural Research and Advisory Fund (FIRCA), it was estimated that 80% went to crop production and the remaining 20% to livestock production. The trees and timber sector received substantial support from the Forestry

Development Agency (SODEFOR), whose funds were estimated at over CFAF 120 billion for the period. However, since these funds consist of the gross revenues of a private firm, they were not taken into consideration.[11]

Functional Composition by Sector

Executed expenditure allocated to sectors represented a total of CFAF 99.4 billion during the period, or 22% of total executed APE and 25% of expenditure by key ministries. These budgetary allocations (excluding off-budget expenditures, which will be discussed later) were intermittent. This appeared to reflect a policy begun in 1989–1990 of government divestment from major traditional export sectors as much as a lack of funds. While the coffee/cocoa sector received allocations for the 1999–2002 period and the rubber sector received allocations for the 1999–2000 period, the pork/poultry sector received allocations in 2004 and 2009 only, and the cotton/sugar cane[12] sector received relatively large allocations during 2002–2006 and 2008–2010 (with cotton receiving the bulk of these). Only the rice, food crops, trees/timber, beef, veterinary health and reproduction, fishing and aquaculture, and palm oil sectors received allocations over the entire period under review. The cashew sector, of which Côte d'Ivoire is now the leading African producer, was strikingly absent from the inventory of sectors that received public funding. Dedicated surveys should seek to understand the factors behind private sector-led growth in certain agricultural industries.

To better capture the priorities given to the sectors, it is useful to compare planned expenditure (allocated budget) to actual expenditure (executed budget). Table 9 shows that over 75% of the allocated budget was earmarked for funding four sectors: over 28% for the rice sector,[13] followed by the food crops, cotton, and cattle sectors (in descending order). As a whole, although these sectors received an allocated budget (76%), the order of priority changed in execution, with the cotton sector overtaking the food crops sector as top recipient. In fact, food crops production fell to last place, behind the livestock sector.

Contrary to planned expenditure, the cotton and sugar cane sectors were prioritized because they were considered distressed and required assistance if they were to recover. The Ivorian Cotton Corporation (LCCI), which managed the cotton sector, had gone bankrupt and had thus placed the financial situation on the worst footing, and the government wanted to help the sector recover with assistance from donors, including the EU.

[11] Note that direct transfers from the Government to SODEFOR are accounted for in SIGFiP data and are therefore taken into consideration in this report. However, this report does not track down any possible transfers from SODEFOR to the Government in order to calculate net transfers, as directed by the NEPAD COFOG methodology.

[12] Curiously, these two products are grouped in SIGFiP, as are palm oil/coconut and all fruits and vegetables.

[13] At one point, a case study of irrigation in agriculture was planned but was abandoned for lack of time. Such a study would have been useful for understanding changes in expenditure allocated to rice.

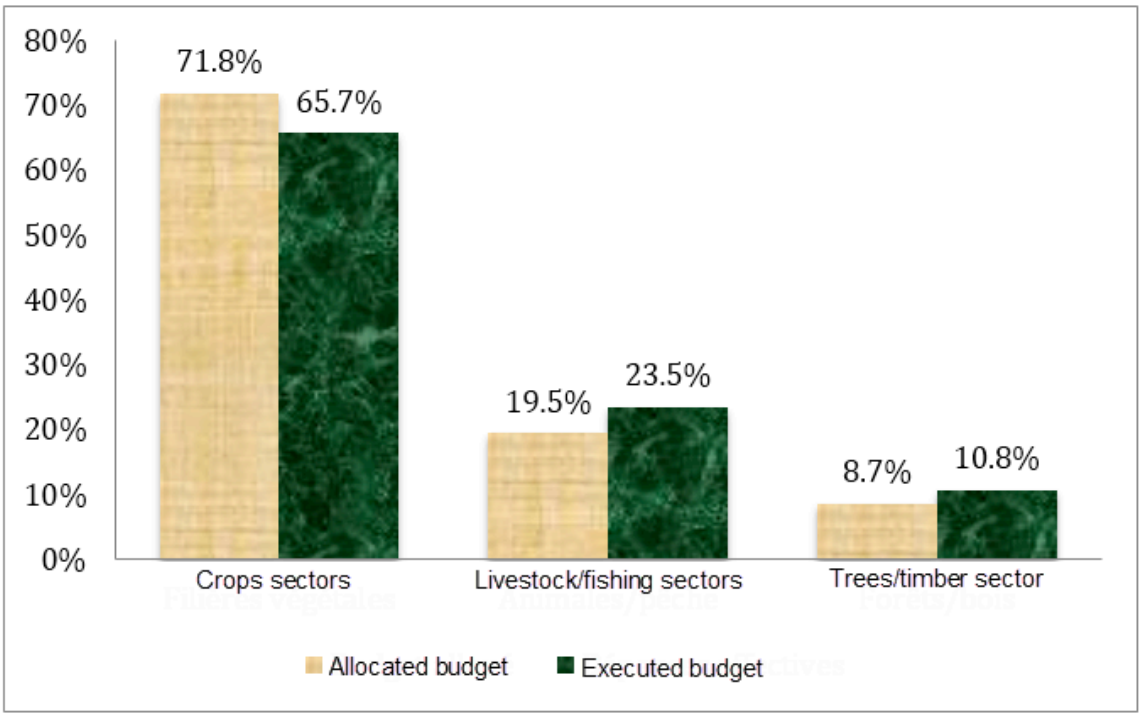
Table 9: Average share of allocated and executed budget, 1999–2010

Sectors	Allocated budget	Executed budget
Rice	28.3%	18.4%
Food crops	18.2%	12.1%
Cotton/Sugar cane	17.9%	31.8%
Cattle	10.7%	13.8%
Trees/Timber	8.7%	10.8%
Pineapples, bananas, citrus	6.6%	1.6%
Veterinary health and nutrition	3.6%	4.1%
Fishing and aquaculture	3.4%	3.3%
Dairy	1.1%	1.1%
Palm oil/Coconut	0.6%	1.3%
Small ruminants	0.6%	1.0%
Pork/Poultry	0.2%	0.2%
Rubber	0.1%	0.3%
Coffee/Cocoa	0.1%	0.2%
Total	100%	100%

Source: SIGFiP, consultants' research

A comparison of allocated budget with executed budget shows that only the share of expenditure for the crops sector fell despite considerable spending in the cotton sector. However, lower expenditure in the crops sectors corresponded to higher expenditure in the livestock and fish sectors rather than in the trees/timber sector (Figure 12). While the crops sector continued to dominate expenditure, the other sectors received more than marginal shares of expenditure during the 1999–2010 period, at least from the perspective of allocated budgets.

Figure 12: Share of allocated and executed expenditure by sector, 1999–2010.



Source: SIGFiP, consultants' research

Off-budget expenditure funded by the EU was primarily directed to specific sectors, and these additional resources must be taken into account if we are to attain a more complete picture. Of the CFAF 85 billion[14] disbursed by the EU to the agricultural sector in Côte d'Ivoire for the period, almost 84% consisted of direct support to agricultural sectors. This direct support amounted to CFAF 72.2 billion, and accounted for almost 73% of the government's total allocations to agricultural sectors. As noted in the analysis of expenditure levels and trends, a lack of time prevented the consultants from reviewing in detail the CFAF 43 billion disbursed under the STABEX coffee/cocoa heading. These funds represented over half of the EU's contribution to agricultural sectors. Among the other programs financed by the EU, priority was given to revitalizing the distressed cotton sector and the struggling banana and sugar cane sectors.

The technical support from the EU directed at the cotton sector sought to improve its financial health (e.g., paying arrears due to LCCI producers, providing liquidity, reviving the seed propagation, reviving draft animal power in agriculture, restoring producers' organizations, and rehabilitating the cotton fiber classification premises). For the banana sector, as for the sugar cane sector, the objective was to increase competitiveness, with the longer-term goal of

[14] It should be noted that these sums exclude funds for feeder roads and some rural development projects that are not strictly agricultural, such as water supply projects.

eliminating preferential treatment by the EU (e.g., lower tariffs and no quotas) for former colonies in Africa, the Caribbean, and the Pacific (ACP), especially relative to Latin American countries.

If off-budget EU-funded expenditure is taken into consideration, and especially funding directed at the coffee/cocoa sectors, the order of priority changes in comparison to ranking sectors by ministry expenditure alone (10). Not only did the crops sectors dominate allocations to the agricultural sector, absorbing close to 80% of the total, but within the crops sector itself, priority allocation favored traditional export sectors, including coffee/cocoa, bananas, cotton, and sugar cane at the expense of rice production and other food crops sectors (Table 10).

Table 10: Agricultural public expenditure allocated to sectors, excluding and including EU-funded off-budget expenditures, 1999–2010 (CFAF billions)

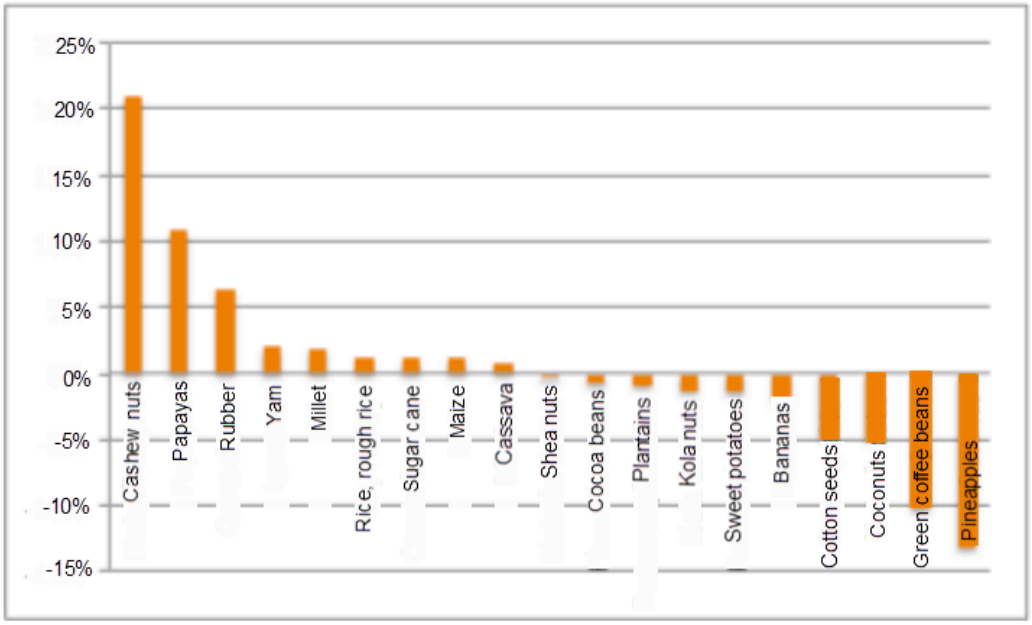
Sectors	EU funds	Budgeted APE	Total APE	Sector share
Coffee/Cocoa	43.38	0.20	43.59	25.4%
Rice and crops	6.74	30.34	37.08	21.6%
Cotton and sugar cane	2.53	31.63	34.16	19.9%
Livestock	1.40	23.41	24.81	14.4%
Fruit and vegetables	17.69	1.63	19.32	11.2%
Trees/Timber	0.00	10.70	10.70	6.2%
Palm oil and rubber	0.00	1.57	1.57	0.9%
Cashew nuts	0.48	0.00	0.48	0.3%
Total	72.23	99.47	171.70	100.0%

Source: SIGFiP, consultants' research

However, performance in agricultural sectors during the period under review was not in line with the level of expenditure[15] (Figure 13). The sectors that saw the most growth over the 2000–2009 period were the cashew nuts sector, with an annual average growth rate of 21%, followed by the papaya sector (11%) and the rubber sector (7%). None of the remaining sectors had an annual average growth rate of more than 5%, indicating that the agricultural sector as a whole did not meet expectations during the period. Of the sectors that received the most funding, only the rice, food crops, and sugar cane sectors saw positive (albeit weak) growth. Other sectors, such as pineapples, bananas, and cotton, were among those that contracted during the period.

[15] Note that this indicator remains imperfect. Lacking complete information, the consultants were unable to calculate the ratio of each sector's share of public expenditure to the sector's contribution to agricultural GDP. A ratio that is greater than one suggests that the sector in question receives funding in excess of its contribution to agricultural GDP, all other factors being equal.

Figure 13: Annual average growth rate of crops sectors, 1999–2010



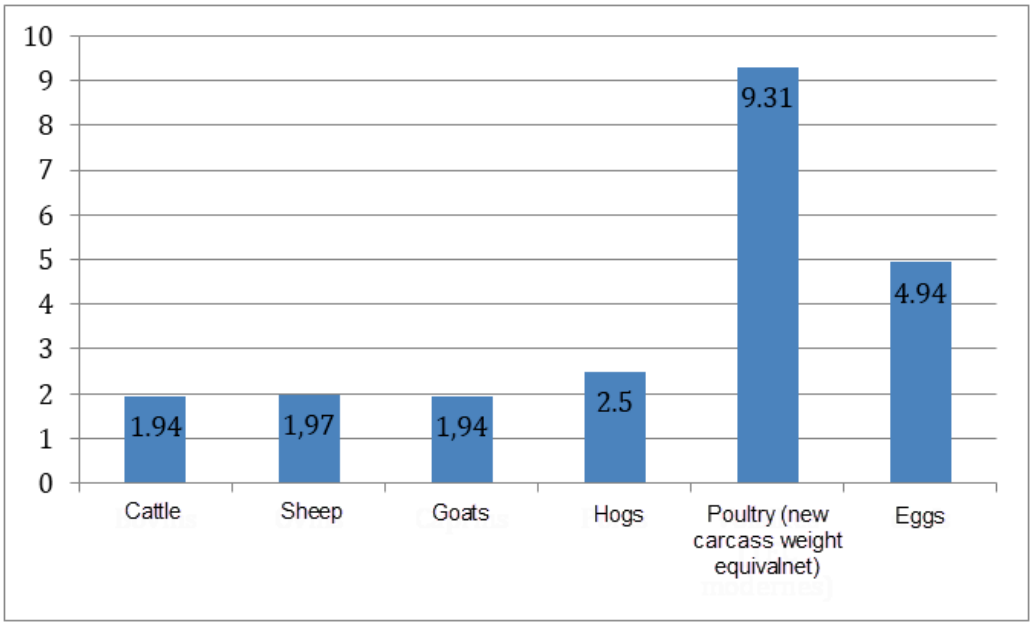
Source: SIGFiP, consultants' research

The two sectors that saw the largest gains received no (or very little) direct public assistance. (Note that although the papaya sector is included in the fruits and vegetables group, it was not targeted by any projects.) Growth in these sectors was therefore the result of private investment alone (or mostly) over the period. However, it should be noted that cashew nuts production was first introduced using government funds between 1960 and 1970 in line with an environmental policy promoting reforestation and soil erosion control. Between 1972 and 1989, the economic benefits of cashew nuts production were championed with the creation in the north of the country of a state-owned corporation (which is no longer in existence) for developing the industry. Cashew nuts production also benefited from infrastructure projects originally intended to improve access to cotton-producing regions and from investments by cotton producers seeking to diversify their activities following a slump in that sector. Various studies specifically evaluating funding for research and development, outreach, and feeder roads, showed the considerable contributions of private firms made through FIRCA to the sectors in which they operate (coffee, cocoa, rubber, palm oil, etc.) in producing public goods that are normally the purview of the government.

Growth in livestock production was modest during the 2000–2010 period (Figure 14), with the exception of egg and poultry (broiler and cull) production, which grew by almost 5% and over 9%, respectively. Poultry production saw the largest gains when compared to all livestock production. Fast-growing livestock production (namely in the poultry and pork sectors) received direct public funding only in 2004 and 2009. However, these sectors benefitted from high tariffs

on imported poultry meat (CFAF 1,000 per kilo) the industry managed to have implemented in order to protect the domestic sector.

Figure 14: Growth rate in livestock sectors (%), 1999–2010



Source: MIRAH/DPP

Agricultural Inputs, Research, Outreach, and Feeder Roads

Research, outreach, inputs, and feeder roads are among the factors that have a direct impact[16] on agricultural growth. Although the provision of these public goods falls in principle to the government, these goods can be provided by the private sector in partnership with the government. Although research and outreach, for example, are funded by the government, an increasing share is being funded by FIRCA. Created by the government, FIRCA is a private-sector agency whose recurring costs, (especially wages) and a share of its investment budget are funded by the government. FIRCA also generates its own funds through voluntary dues paid by those doing business in the industry. This private revenue source allows FIRCA to fund research conducted by the National Agricultural Research Center (CNRA) as well as ANADER's agricultural advisory services for the benefit of producers. Feeder roads, which are also considered public goods, are essential for transporting agricultural products to market and for the distribution of inputs and therefore deserve special attention even if they are excluded from the NEPAD COFOG methodology. For their part, although inputs are private goods, their purchase can be subsidized by the government in specific circumstances. When the government decides to

[16] Although irrigation is another relevant factor, time limitations prevented the consultants from including it in this report.

do so, the relevant agricultural ministry (MINAGRI in the case of fertilizer and MIRAH in the case of veterinary vaccinations) is charged with procurement and timely delivery.

Allocations for these inputs can be indicative of the role of APE in raising agricultural productivity. The results from the series of studies conducted on these factors are presented below.

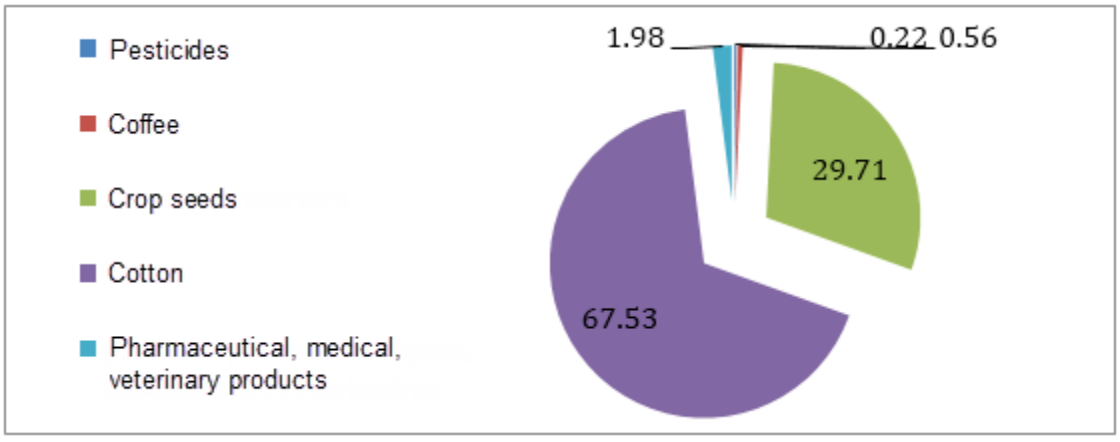
Agricultural Inputs

Reflecting its size relative to the other agricultural sectors, crop production received the lion's share (approximately 98%) of publicly subsidized inputs when compared with the other two subsectors of water and forestry and livestock and fisheries. Nevertheless, the level of inputs being used still falls short of the country's potential need by a wide margin.

Constraints on accessing agricultural inputs were essentially of the financial kind, although technical knowledge on how best to use inputs should not be underestimated.

For the period, public spending captured by the SIGFiP database indicated that crop production accounted for the largest share (Figure 15). Input subsidies represented 9% of APE for the crops sector. Subsidies are mainly directed at plant health and pest control (approximately 68%) for cotton and cocoa production and seed for food crop production. The cotton sector led the consumption of both simple and compound fertilizer (57%), followed by other cash crop production (cocoa, pineapples, palm oil). However, all fertilizer consumption combined represented only 2% of potential consumption in the country.

Figure 15: Spending on inputs as share of agricultural public expenditure, 1999–2010 (%)



Source: SIGFiP

Certain conditions with respect to inputs are necessary if agricultural productivity is to be raised:

Input Conditions

1. **Improve access to inputs** by modernizing the production of improved seed in farming communities, introducing innovation in financing methods for farmers' associations, and providing access to technical and trade information for distributers and purchasing advisors. This requires direct collaborative effort by producers' organizations, input distributors, agro-industrialists, and the financial sector;
2. **Improve the cost-effectiveness of inputs** by revising technical recommendations that take into account production systems and the cost of inputs and by encouraging the integrated management of soil fertility and predators. The reliable support of research and outreach agencies is also necessary;
3. **Improve the regulatory and fiscal environment** in the sector by applying community regulations and fiscal provisions, which would make the production and free circulation of quality inputs in the Economic Community of West African States (ECOWAS) zone easier. It is also essential to direct support toward government structures and professional associations overseeing the sector in close collaboration with regional institutions.

Financing of Inputs

The success of a program in improving agricultural productivity depends in part on the amount and quality of inputs. Modernizing family farms and sustainably scaling up production systems are recognized as essential for the development of the sector.

On this subject, the Abuja declaration (June 12, 2006) recognized that support for modernizing family farms and sustainably scaling up production systems must occur through a system of regional co-financing in order to achieve growth in agriculture. This regional co-financing mechanism consists of a number of actions member states can choose to implement with support from regional ECOWAS co-financing. It includes four (4) actions that aim to address the following challenges:

- Reduce the cost of fertilizer through targeted subsidies;
- Reduce the cost of innovative small equipment through targeted subsidies;
- Improve the availability of inputs by creating a distribution network; and
- Improve access to credit through guaranteed funds accessible by banks.

To these actions should be added the development of management skills on family farms so as to effectively contribute to their modernization. Over the long term, support directed at sector organization should result in the sector managing its own inputs partially or completely.

Agricultural Research

A review of the 1992–2015 (2008) agricultural development plan concluded that the scaling-up of agriculture was far from being achieved in Côte d'Ivoire, the framework structures had not significantly improved sector performance, agricultural financing remained a major constraint, and synergy between research and development remained too low.

Today, the CNRA, which was formed through the restructuring of research and management arrangements in Côte d'Ivoire (PNASA, 1994) and accounts for over 66% of the country's full-time equivalent (FTE) researchers, produces the bulk of agricultural research in the country.

Principal sources of financing for agricultural research in Côte d'Ivoire are the following: (a) government funding; (b) sale of products and services; (c) research contracts; and (d) donor funding.

Public funding sources during the 1999–2010 period broke down as follows: the Treasury covered 82.76% of research spending, while loans (16.8%) and grants (0.37%) constituted a modest share of external financing.

While the government's contribution was considerable, amounting to a total of CFAF 60.2 billion over the period, research is also privately funded. For example, the CNRA's activities are financed in large part through private funding. In 2012, it raised CFAF 3.91 billion from the private sector, compared to CFAF 5.01 billion received through public funding on average per year over the 1999–2010 period. For its part, FIRCA accounted for 68% of this private funding from its own resources and 10% through funds sourced from WAAPP, which is funded by donors and which FIRCA coordinates.

For the 2004–2007 period, the planned budget for the CNRA was CFAF **21.63 billion**. However, according to SIGFiP data, it received only CFAF 14.35 billion (of which half consisted of arrears from previous years), or 66.34% of program costs. For the remainder of its budget and to the extent possible, the CNRA financed itself.

FIRCA is a unique and exemplary financing system in Africa. Created by decree No. 2002-520 of December 11, 2002, it is an instrument whose design was inspired by the provisions of Bill No. 2001-635 of October 9, 2001 relating to the Agricultural Development Fund (ADP). It improved demand-oriented research, and its solidarity mechanism enables it to guarantee the availability of research funds to support production sectors for which membership volume in FIRCA is weak.

On December 31, 2011, the share of allocated and executed expenditure in research represented 17.44% of available funds, compared with 60.82% for agricultural advisory services. The coffee, cocoa, and rubber sectors were the largest recipients of this funding.

An analysis of budget sub-headings and budget lines for the three key agricultural ministries (MINAGRI, MIRAH, and MINEF) and the Ministry of Higher Education and Scientific Research (MESRSCI) reveals the share of expenditure devoted to research activities. Public expenditure over the period broke down as shown in Table 11.

Table 11: Distribution and trends in public expenditure (coverage) on research at the four ministries (MINAGRI, MIRAH, MINEF, MESRSCI), 1999–2010 (CFAF billions)

Year	Wage expenditure	Non-wage expenditure	Investment expenditure	Total	Change (%)
1999	1.78	1.03	2.37	5.18	
2000	1.66	0.92	3.85	6.42	23.81
2001	1.75	0.85	1.94	4.55	-29.16
2002	2.16	0.61	0.70	3.46	-23.79
2003	2.17	0.71	0.53	3.41	-1.59
2004	2.19	0.93	6.02	9.14	168.11
2005	3.07	1.64	0.37	5.08	-44.43
2006	2.64	1.94	1.30	5.87	15.62
2007	2.61	1.62	1.44	5.67	-3.51
2008	1.85	0.95	0.94	3.74	-34.08
2009	0.76	2.37	0.95	4.08	9.21
2010	0.87	2.00	0.66	3.52	-13.72
Total	23.51	15.57	21.04	60.12	

Source: SIGFiP

Despite the relatively balanced distribution of expenditure (39.11% for wage expenditure, 25.89% for non-wage expenditure, 35% for investment expenditure), the downward trend and annual variation point to inconsistent funding for research programs. For the period, investment spending contracted by 3.4% on average per year.

Over the period, total public expenditure on research amounted to CFAF 60.12 billion. This figure represented 10.7% of MINAGRI's total expenditure, 8% of the agricultural sector's expenditure (excluding off-budget expenditure), 0.43% of the government's overall executed expenditure, and 0.23% of agricultural GDP. However, this last figure falls short of NEPAD's national investment objective for agricultural research and development (at least 1% of GDP).

Generally, **scientific research and technological innovation in Côte d'Ivoire** are characterized by:

- A lack of policy on scientific research and technological innovation;
- Low levels of funding of research activities (around 0.05% of GDP); and
- Insufficient numbers of researchers.

In the past years, the uncertainty caused by the suspension of foreign aid and deteriorating public finances have seriously reduced spending in agricultural research in the country. As a result of long-term instability, privatization targets agreed under the National Agricultural Services Support Program (PNASA II) were not achieved, and the CNRA, the principal institution for

agricultural research, continued to depend financially on government funding and commercial revenues from its own products.

Even with new prospects, forecasts for the financing of scientific research under the National Development Plan (PND) for the 2012–2015 period represented only 0.76% of the cost of the NPD. The share of agricultural research will be even smaller.

Funding for agricultural research has not been consistent with the objective defined in the 1992–2015 Framework Agricultural Development Plan (PDDA), which was to develop applied research.

Nevertheless, during the period under review, these sectors played an important role in funding research through dues payable to FIRCA. However, as sector revenues are dependent upon global prices, there is no guarantee that dues will constitute a long-term funding source.

The principal research institutions fall under the administrative control of the Ministry of Higher Education and Scientific Research (MESRSCI). Budget conferences should allow for consultation between key sector ministries, MESRSCI, and these institutions.

Administrative monitoring of agronomic research could be transferred to MINAGRI for improved performance of value chains.

As agricultural research, especially in crop production, is highly dependent on the climate, arrangements for implementing funding should allow for flexibility in taking this constraint into consideration.

Outreach

Since 1992, the Ivorian government has worked to reform the provision of agricultural services through PNASA, a large-scale project undertaken with support from development partners (DPs), especially the World Bank. Launched as part of a structural adjustment policy, this initiative seeks to correct weaknesses revealed by prior analysis. PNASA's medium and long-term objective is to implement viable, demand-oriented structures for research and outreach, with the beneficiaries contributing significantly to the funding of services and the government emphasizing the strengthening of competencies and the provision of public services (Doumbia, 2009). Its implementation was organized into two phases as two separate projects: PNASA I and PNASA II.

ANADER

The reorganization of agricultural outreach services and research was finalized in 1998 and resulted in the creation of the National for Rural Development Support Agency (ANADER) and the CNRA. Originally, PNASA was designed as a long-term program to be implemented over an 11-year period. However, following the December 1999 coup, the World Bank, the main donor,

withdrew from the project. ANADER then became a public limited company with capital of CFAF 500 million distributed between the government (35%) and professional farming families and related private companies (65%). Its objective is to contribute to promoting rural communities through the professionalization of agricultural producers (crops, trees, livestock, fish farmers, and fishermen).

Since 2011, ANADER has focused on the following objectives: (i) adapting and strengthening its capacities; and (ii) implementing a sector-based approach as a strategy for providing advisory support to producers.

Over the past several years, outreach has undergone adaptations so that this public good now makes use of market-oriented approaches. In the agricultural sector, FIRCA constitutes the exemplary model of this process.

FIRCA

Created by decree No. 2002-520 of December 11, 2002, FIRCA is an instrument whose design was inspired by the provisions of Bill No. 2001-635 of October 9, 2001 relating to the Agricultural Development Fund.

The government and industry professionals collaborate through FIRCA, namely in: (i) evaluating producers' needs for agricultural services; (ii) encouraging growth of a range of services; and (iii) monitoring and assessing programs, services providers, and agricultural professions.

An example of private sector involvement in outreach is the agreement between FIRCA and the National Rubber Professionals Associations (APROMAC).

Non-Governmental Organizations and Consultancy Firms

Non-governmental organizations (NGOs) and consultancy firms are also involved in agricultural outreach. INADES-Formation Côte d'Ivoire is involved with promoting family farms, mobilizing internal financial resources, and encouraging decentralization and local development with the financial support of DPs.

SIGFiP data can be used to track changes in APE in training, decentralization, and various programs and projects (Table 12).

Table 12: Changes in agricultural public expenditure on outreach (training, administrative decentralization, programs, and projects), 1999–2010 (CFAF millions)

Year	Training	Decentralization	Programs and projects	Total expenditure (excluding off-budget)	Annual change (%)	Change relative to 1999 (%)
1999	779	161	26,542	27,482		
2000	541	71	17,457	18,068	-34.25	-34.25
2001	498	133	16,373	17,004	-5.89	-57.99
2002	491	203	23,,62	24,056	41.47	-20.14
2003	532	168	21,186	21,886	-9.02	-23.26
2004	663	196	17,200	18,059	-17.48	-43.05
2005	667	137	13,198	14,003	-22.46	-74.64
2006	484	220	22,525	23,229	65 89	-30.37
2007	179	473	13,731	14,383	-38.08	-56.39
2008	598	779	14,930	16,306	13.37	-77.70
2009	616	927	20,508	22,051	35.23	-33.30
2010	662	927	24,669	26,258	19.08	-5.55
Source:						
Grants	1.29%	0.00%	2.52%			
Loans	0.00%	0.00%	17.35%			
Treasury	98.71%	100.00%	80.13%			
TOTAL	6,710	4,393	231,682	242,785		
%	2.76	1.81	95.43	100		

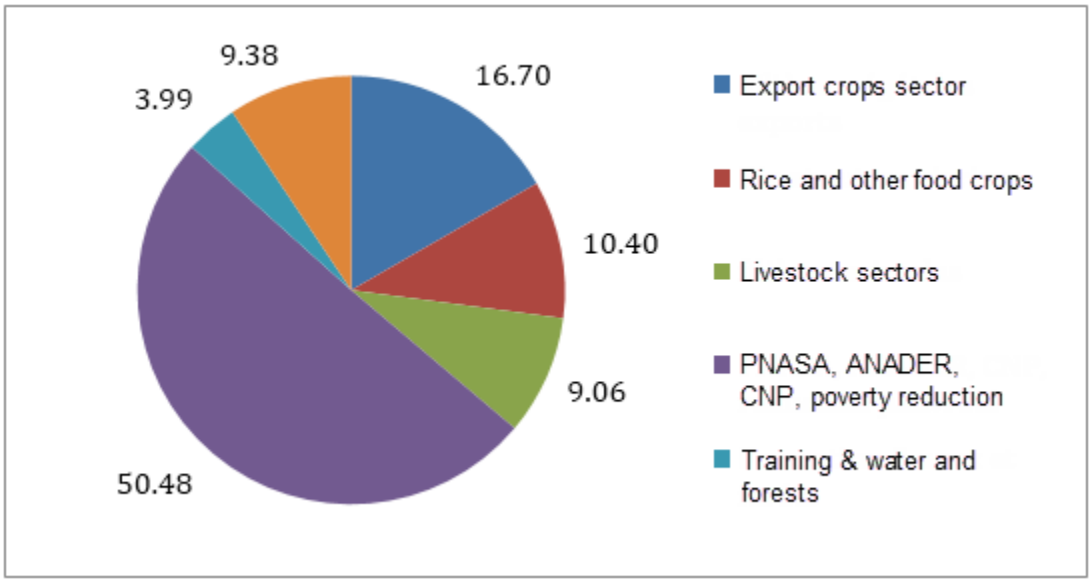
Source: SIGFiP

For the period under review, the main source of funding was the Treasury. Training received only minimal funding from outside sources, whereas decentralization was funded entirely by the Treasury. Up to 20% of projects and programs were funded by grants and loans. The world economic crisis that took place during the period resulted in a significant reduction in APE on outreach in comparison with 1999.

Limited funding resulted in reduced expenditure on training, especially on the regional directorates and decentralized services of the three key ministries. The share of spending on outreach remained above 50% for the period under review (the average for the period was 60%). Despite this downward trend, funding was prioritized for specific projects and programs.

SIGFiP data show relatively abundant funding for the reorganization of outreach services and ANADER (50.48%), as shown in Figure 16.

Figure 16: Distribution of agricultural public expenditure between subsectors (%)



Source: SIGFiP, consultants' research

ANADER's Funding Sources

By and large, the government provides most of ANADER's funding. From 1999 to 2007 (excluding 2000), ANADER received 87 to 94% of its budget from government funding. Recent trends indicate that in the past three years, ANADER generated a little over 20% of its funding through the sale of various services.

For the period, the government transferred CFAF 109.4 billion to ANADER, or 27% of the three ministries' public expenditure on agriculture. While this amount is significant, ANADER's managers noted that disbursements were often very late.

ANADER seeks to increase its revenues by signing research agreements with partners. For the 2002–2010 period, it signed 417 agreements with fifteen (15) different entities worth a total of CFAF 10,290,853,069. While the number of clients points to a prudent diversification of funding sources, it also represents a challenge in maintaining a timely outreach schedule.

FIRCA remains ANADER's leading partner, accounting for 12% of total contract value.

FIRCA Funding Sources and Sector Financing

FIRCA's funds are composed of:

- Professional agricultural subscriptions paid according to legal requirements by producers in the crops, trees, and livestock sectors, agro-industrialists, and other first-stage processing industrialists in various sectors;

- Contributions, whether public, private, or from external organizations intended to fund applied research and professional agricultural advisory and support organizations; and
- All extraordinary revenues, subsidies, or financial instruments.

Limiting the analysis to the ten (10) sectors participating formally in FIRCA's professional subscription mechanism (except for the coffee/cocoa sector), the total amount of funding generated from December 31, 2011 to date was CFAF **25.573 billion**, of which CFAF 24.064 billion (95%) was earmarked for the development of subscribing sectors and CFAF 1.310 billion (5%) for FIRCA's administrative costs.

At least 75% of the total subscriptions collected in a given production sector was allocated to financing programs that benefit that sector. The remainder was used in large part to fund solidarity initiatives and to a much smaller extent FIRCA's administrative costs. Overall, this distribution has remained steady.

Funds for solidarity initiatives are intended to finance programs designed for production sectors for which the volume of subscription is weak or for which the structure is not conducive to the setting up of direct debits. A financial reserve is constituted from FIRCA's annual revenues.

Share of Off-Budget Funding for Outreach

Table 13 shows the changes in the composition of funding for outreach, including and excluding off-budget expenditure.

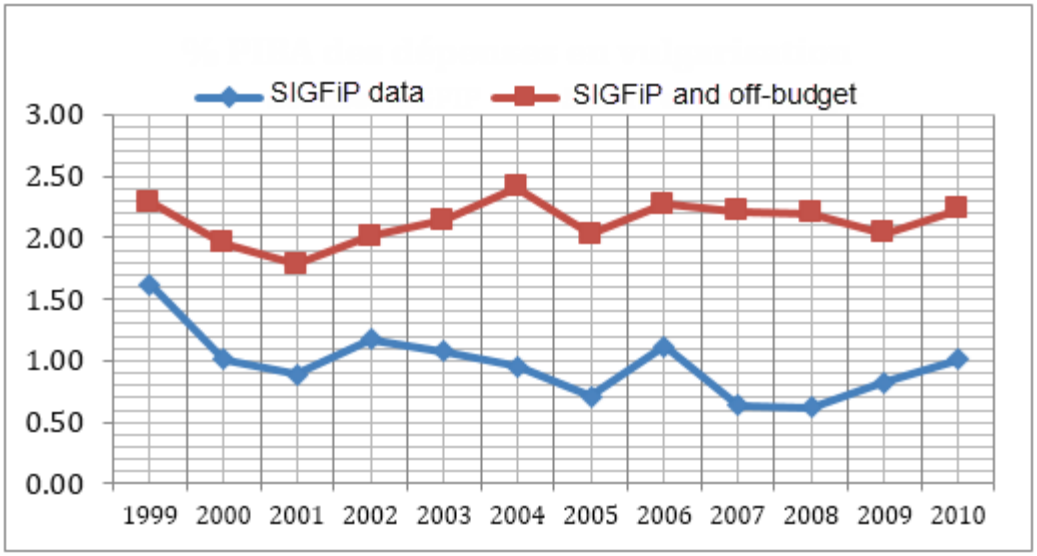
Table 13: Agricultural public expenditure on outreach (including and excluding off-budget expenditure), 1999–2010 (CFAF millions)

Year	Outreach expenditure (excluding off-budget expenditure)	Outreach expenditure (off-budget expenditure)	Total outreach expenditure
1999	27,482	11,342	38,824
2000	18,068	17,069	35,138
2001	17,004	17,039	34,043
2002	24,056	17,223	41,279
2003	21,886	21,814	43,699
2004	18,059	27,526	45,585
2005	14,003	25,959	39,962
2006	23,229	23,956	47,184
2007	14,383	35,724	50,108
2008	16,306	41,135	57,441
2009	22,051	32,450	54,501
2010	26,258	31,374	57,633
TOTAL	242,785	302,611	545,395
AVERAGE	20,232	25,218	45,450

Source: SIGFiP

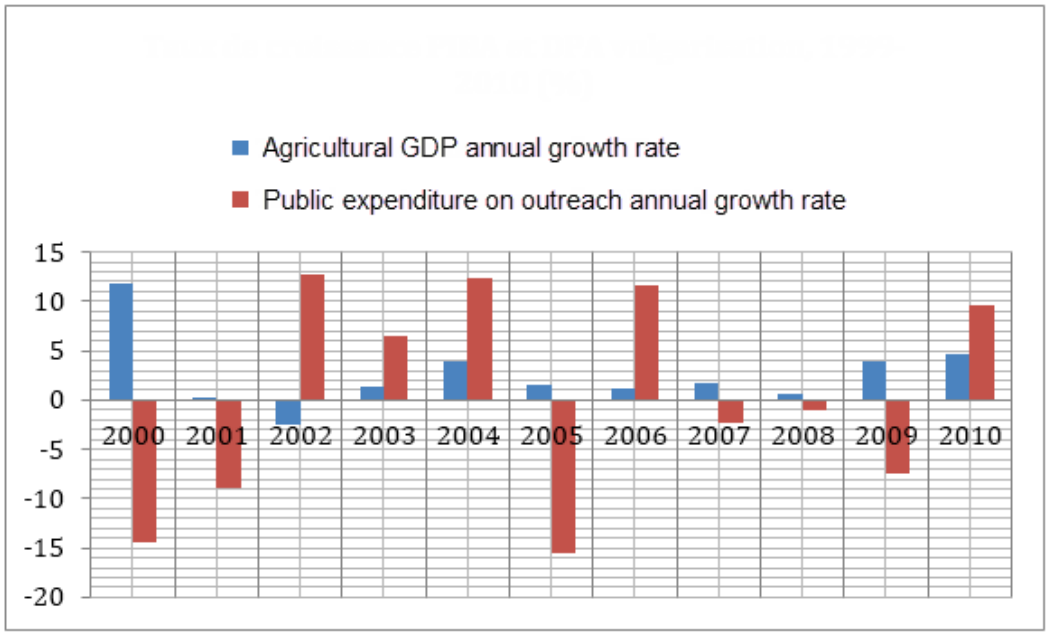
For the period, off-budget funding (CFAF 25,218 billion) represented 124.64% of APE calculated based on SIGFiP data. The data showed that APE (excluding off-budget funding) for outreach fell in 1999. Including off-budget funding into the calculations results in relative stability in expenditure over the period.

Figure 17: Spending on outreach as share of agricultural GDP



For the period, spending on outreach represented on average 1% of agricultural GDP excluding off-budget expenditure and 2.13% if off-budget expenditure is included (Figure 17).

Figure 18: Growth rate for agricultural GDP and public expenditure on outreach, 1999–2010 (%)



There was no clear correlation between spending on outreach and growth in agricultural GDP (Figure 18). However, it would be premature to conclude that causality does not apply. Instead, the lack of correlation suggests possible hypotheses that will require further analysis of the impact of research on sector development.

Feeder Roads

The poor condition of roads is one of the main reasons for rising poverty, especially in rural areas. The lack of road infrastructure providing access to villages and newly farmed land has severely slowed agricultural development, constraining these populations to subsistence agriculture. The situation is exacerbated by the slump in sales of agricultural products and falling farmgate prices. Poor roads directly correlate with a reduction in rural populations' principal sources of income. "In the 1980s, it took 1 hour to travel the 17-km road to the village of Zamblekro during the rainy season. In 2009, it takes more than 2 hours. Cocoa can still be transported, but the sale of food crops no longer makes business sense."[17]

[17] François Ruf and Roger Tanoh. Malédiction cacaoyère et une difficile diversification des revenus en Côte d'Ivoire. *Grain de Sel* 45 (December 2008–February 2009).

Agricultural Public Expenditure on Feeder Roads by Funding Source

For the period, SIGFiP data on feeder roads for various projects indicate that CFAF 2.414 billion was spent on feeder roads, of which 34.63% was funded by loans and 65.33% by the government.

Table 14 summarizes the off-budget funding sources.

Table 14: Other funding sources (CFAF billions)

Sources		2003–2006	2007	2008	2009	2010	Total 2003–2010
Sectors	Rubber sector APROMAC					0.150	0.150
	Palm oil AIPH					2.105	2.105
	Coffee cocoa: FIMR support			8.42	8.90	2.733	20.05
Donors	Cotton sector: EU support		1.361	2.891	2.891		7.144
	FAD					4	4
Government	Emergency program	20					20
	TOTAL	20	1.361	11.311	11.791	8.988	50.167

Source: SIGFiP, consultants' research

With all funding sources combined, APE on feeder roads reached CFAF **52.581 billion**, of which CFAF 22.305 billion was provided by the sectors (42.42%). The Rural Investment Fund's (FIMR) significant contribution represented 39% of this expenditure.

Feeder roads represented 10.49% of APE for the sector (COFOG+) for the period under review. This sum includes expenditure by the government during the 2003–2006 period (emergency spending) and subsequent expenditure by the sectors and the EU between 2007 and 2010.

Regional Allocation of Agricultural Public Expenditure

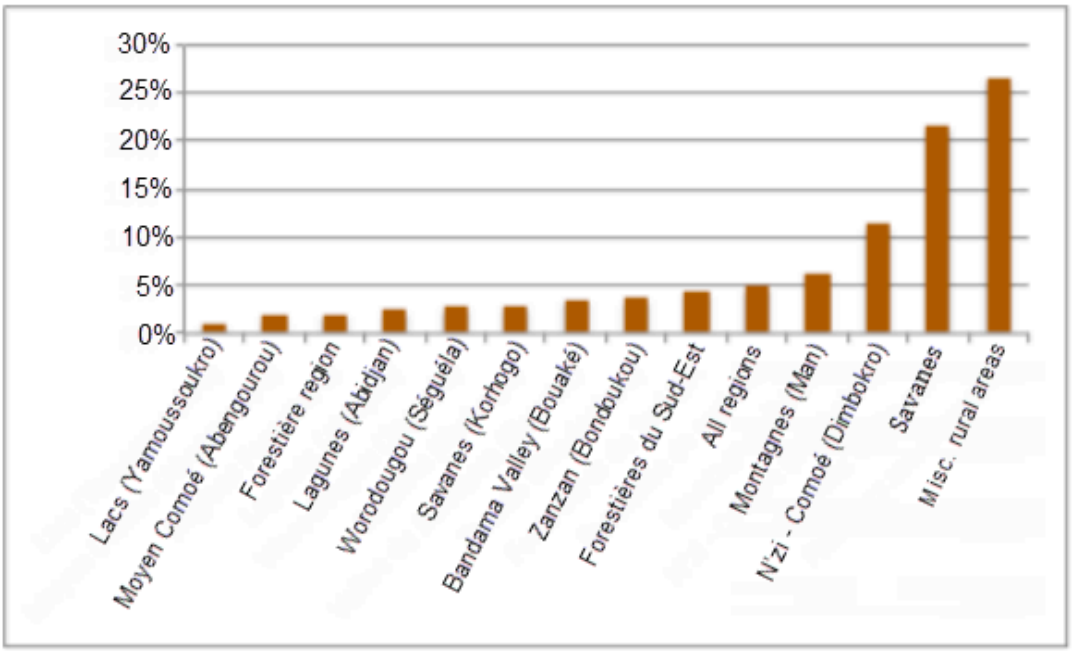
Regional allocation of APE should reflect in part the government's regional priorities in terms of agricultural policy. However, these allocations may or may not reflect allocations to sectors since some regions are characterized by dominant sectors while others host a diversity of sectors. For agricultural production found across several regions, there is no direct relationship between allocation by sector and allocation by region.

The category of operations deemed to be of “national interest,” which represented on average 71% of executed APE, contains information concerning allocations to sectors. Unfortunately, it is difficult to break down these expenditures by region. The remainder of expenditures was

distributed among the country's 19 regions (which were the administrative divisions in effect during this period) and among the major regions, an even older categorization that included the Savanes, Côtière, and Forestière regions.

Regional allocations examined in this report relate to spending that does not fall under the heading of "national interest operations" and excludes national representation expenditures, which can be considered as placeholder sums so as to arrive at the same total regardless of categorization (by ministry or region). These regional allocations amounted to CFAF 126.92 billion, representing 28.7% of total executed APE (excluding off-budget expenditure) for the period. In the interest of readability, Figure 19 shows only those regions for which the share of expenditure was equal to or greater than 1% of this total. The results suggest that priority in funding was given to Savanes region (22% of total expenditure), followed by Nzi-Comoé (11%), and Western Montagnes (6%). In fact, the geographical region of Savanes includes Korhogo, Bafing, and Zanzan and encompasses around a quarter of the country. The region was for a long time considered neglected, and this explains its relative importance in regional allocations today.

Figure 19: Share of total agricultural public expenditure by region, 1999–2010



Source: SIGFiP, consultants' research

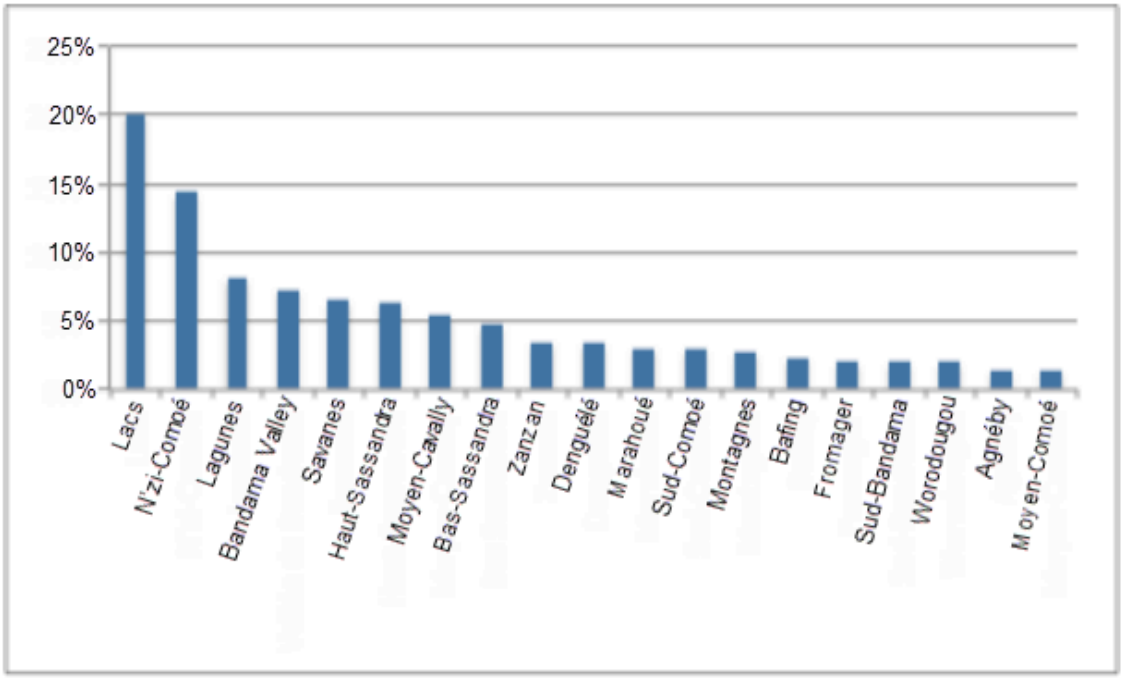
Regional allocations also included expenditure on regional projects as well as decentralization, which began during the period under review. At the time, the country was divided into regions, departments, municipalities, districts, and general councils.[18] The transfer of funds from

[18] Since September 2011, the country has been divided into 30 regions and 14 districts (of which 2 are autonomous).

ministries' budgets to departments and municipalities began in 2003. Totaling CFAF 5.7 billion, or 4% of total regional allocations, these transfers were modest. However, they are expected to increase with the implementation of the new decentralization policy announced in 2011.

The Lacs region, which includes the country's political capital of Yamoussoukro, and the Lagunes region, which includes the country's economic capital of Abidjan, received the most transfers of all departments and municipalities. Thus, the Savanes region (Korhogo) was not the recipient of the largest transfers. The fact that the share of Nzi-Comoé (Dimbokro) was greater than that of Lagunes was surprising. Taking into consideration regional populations,[19] the Lacs and Nzi-Comoé regions received the highest per capita transfers (CFAF 1,900 and 1,000, respectively), whereas the average per capita transfer for the remaining regions was approximately CFAF 300.

Figure 20: Allocations of agricultural public expenditure transferred to departments and municipalities



Source: SIGFiP, consultants' research

Economic Composition of Agricultural Public Expenditure

Investigating what APE purchased is crucial to assessing the quality of that expenditure. This includes analyzing the distribution of expenditure between investments and recurring costs

[19] A more detailed review of regional allocations, especially including a comparison of rural populations, would have been included if data had been available.

(wage and non-wage) given that spending on investment builds the foundation of economic growth while spending on recurring costs, if used correctly, maintains this foundation, research and outreach, and monitoring.

The best part of budgeted APE (close to 80%) was used primarily to cover recurring costs (wage and non-wage expenditure), with wages accounting for 48% on average of total budgeted expenditure. Investment in the agricultural sector received the smallest share (Table 15). Although investment expenditure on development projects also included recurring costs, it should be noted that these operational costs are often mandated, for example in the case of counterparts, to ensure that investments on projects are managed and maintained adequately. As a result, non-wage expenses can contribute to better implementation of investments when, for example, these costs cover transportation for monitoring and maintenance purposes. (A detailed analysis of categories of investment and non-wage expenditure exceeds the scope of this diagnostic review of APE).

Table 15: Agricultural public expenditure (excluding off-budget expenditure), by expenditure type, 1999–2010 (CFAF billions)

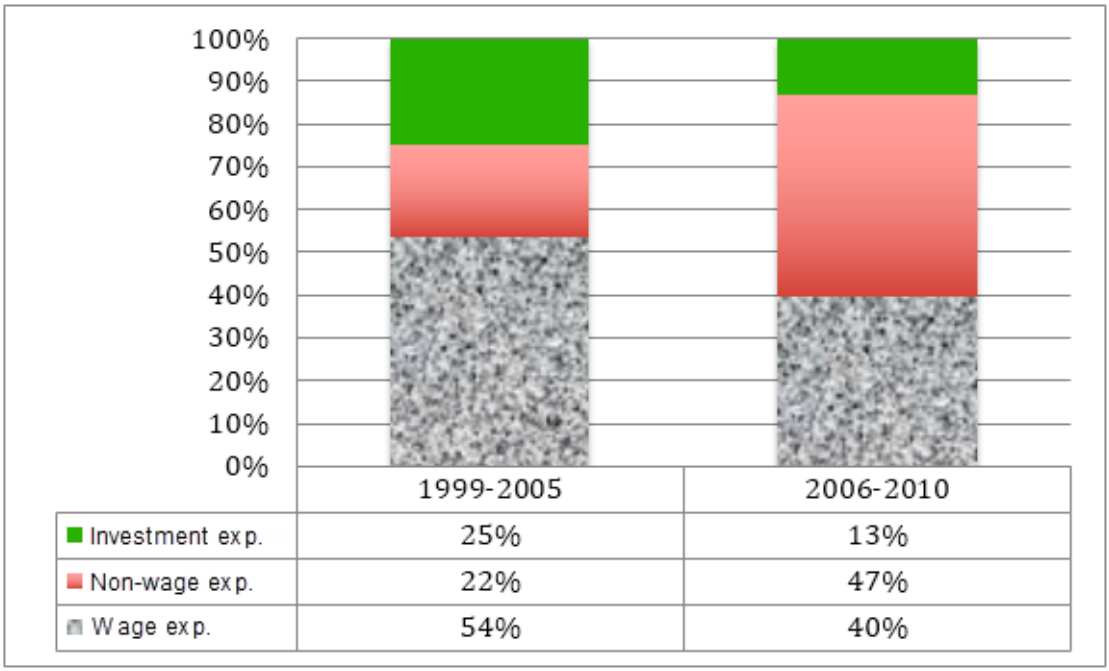
Year	Wage expenditure	Non-wage expenditure	Investment expenditure	Total
1999	19.38	9.43	19.13	47.94
2000	20.76	6.64	7.94	35.34
2001	21.02	5.51	8.72	35.25
2002	22.29	6.98	12.13	41.40
2003	20.67	13.24	4.83	38.74
2004	20.65	8.53	11.44	40.62
2005	20.27	7.93	2.42	30.62
2006	16.82	18.44	2.22	37.48
2007	17.09	8.78	3.89	29.77
2008	17.10	10.09	5.28	32.47
2009	10.01	22.46	5.09	37.55
2010	9.94	24.36	7.15	41.45
Average	18.00	11.87	7.52	37. 8
AGDP	-5.9%	9.0%	-8.6%	-1.3%

Source: SIGFiP, consultants' research

The economic composition of expenditure for the 1999–2005 period was clearly different from that for the following period (2006–2010) (Figure 21). A review of changes in the composition of expenditure shows a decrease in expenditure on wages and investment expenditure. Lower spending on both wages and investment was counterbalanced by higher spending on non-wage costs. Overall, recurring costs accounted for a greater share of expenditure relative to investment.

Figure 21: Economic composition of executed expenditure (excluding off-budget expenditure)

during the two sub-periods, 1992–2010 (CFAF billions



Source: SIGFiP, consultants' research

Table 16 highlights the recurring costs of off-budget expenditure. Including off-budget expenditure in the analysis shows that the economic composition of expenditure observed was more evenly distributed than would be suggested by a review of budgeted expenditure alone. In fact, the even distribution in terms of economic composition was what was aimed for at the time of budget allocation. The share of expenditure allocated to each expenditure type was practically the same, with the greatest share going to investment (36%) followed by non-wage expenditure (33%) and then wages (31%).

Table 16: Economic composition of expenditure (including off-budget expenditure) as investment expenditure (CFAF billions), 1999–2010

	Wage expenditure	**Non-wage expenditure**	**Investment expenditure**	**Total**
Amount	215.99	142.38	265.26	623.63
Share of total	35%	23%	43%	100%

Sources: SIGFiP, FAO, other sources

An alternative analysis considers all off-budget expenditure to be investment expenditure. In this case, recurring costs (wages, fuel, vehicle maintenance, travel costs related to monitoring, etc.) are considered an integral part of investment since they are necessary for maintaining those

investments. In fact, these recurring costs end with the completion of off-budget expenditure projects and are no longer incurred. If it is accepted that off-budget expenditure is a form of investment expenditure, then investment largely dominated APE during the period under review.

Table 17: Economic composition of agricultural public expenditure with hypothetical distribution of expenditure

Source	Wage expenditure	Non-wage expenditure	Investment expenditure	Total
APE (excluding off-budget expenditure)	215.99	142.38	90.25	448.62
EU	9.07	9.07	72.54	90.67
FAO	-	14.44	21.66	36.10
ANADER	-	6.78	10.17	16.95
FIRCA	-	7.87	11.80	19.67
ONDR		4.65	6.98	11.63
Total	225.05	185.19	213.39	6.363
Share	36%	30%	34%	100%

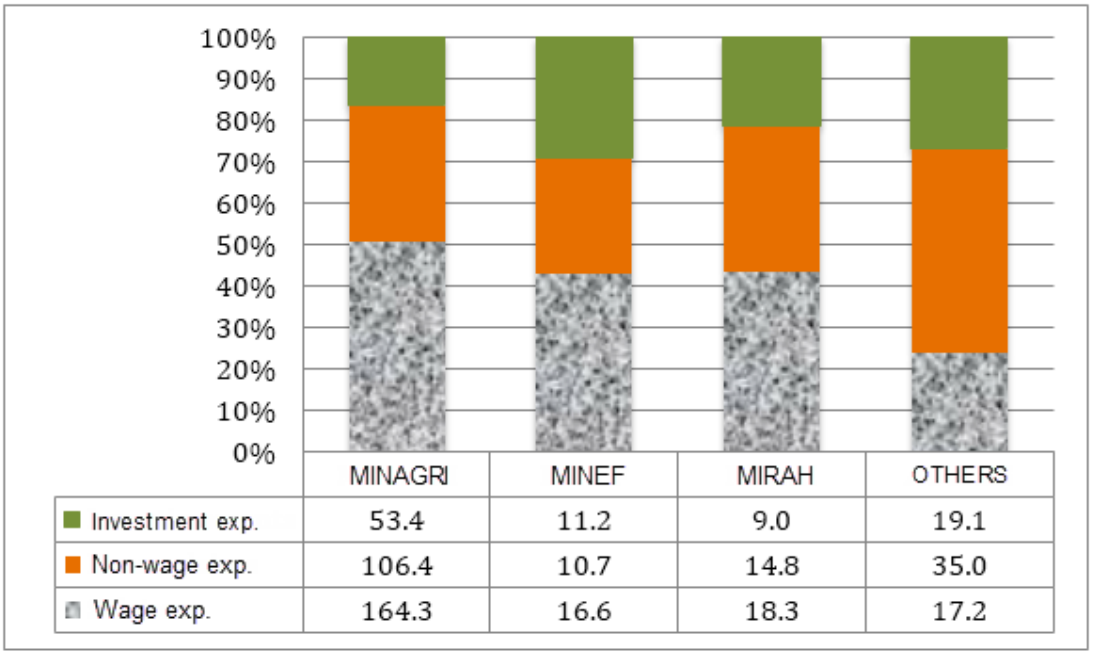
Source: SIGFiP, consultants' research

Composition of off-budget expenditure based on the following hypothetical distribution: EU (10% wages, 10% non-wage, 80% investment); FAO, ANADER, FIRCA, ONDR (wages 0%, 40% non-wage, 60% investment)

Economic Composition of Agricultural Public Expenditure by Ministry

The dominance of the wage bill in budgeted APE was especially marked at MINAGRI. This ministry had the highest expenditure, with wages representing half of that spending. As a share of total expenditure, MINAGRI also had the lowest investment (less than 20%) compared with the other ministries, where that share exceeded 20% of expenditure (Figure 22).

Figure 22: Composition of executed expenditure, by ministry



	MINAGRI	MINEF	MIRAH	OTHERS
Investment exp.	53.4	11.2	9.0	19.1
Non-wage exp.	106.4	10.7	14.8	35.0
Wage exp.	164.3	16.6	18.3	17.2

Source: SIGFiP, consultants' research

The composition of expenditure was evened out thanks to substantial EU funding. Off-budget funding of expenditure went to the development of crop sectors and thus came under the purview of MINAGRI. These allocations funded investment (if all off-budget expenditure is considered investment expenditure).

Economic Composition of Expenditure by Sector

It was expected that public expenditure on wages would be minor in the sectors that experienced privatization in 1989–1999. Consequently, public expenditure should have been allocated to investment and non-wage expenses instead. As indicated in Table 18, allocations to investment were generally twice as high as those to wages. However, in the cattle and food crops sectors, allocations for wages surpassed those for investment. These findings, which for lack of time were not analyzed in detail by the consultants, should signal to the ministries concerned that support for developing sectors should be better structured. The figures also showed that in the cotton sector, which received considerable support relative to other sectors, allocated expenditure was used solely for non-wage spending. Spending in this sector tended toward emergency initiatives designed to help this distressed sector to recover. For the remaining sectors, a share of allocations went to investment.

Allocations to sectors over the 1999–2010 period remain investment-oriented when off-budget expenditure is taken into account. As noted previously, this is related to the very nature of off-budget expenditure.

Table 18: Economic composition of sector allocations, 1999–2010 (CFAF billions)

Sectors	Wage expenditure	Non-wage expenditure	Investment expenditure	Total	Total (amount)
Palm oil/Coconut	34%	42%	24%	100%	1.26
Coffee/Cocoa	0%	0%	100%	100%	0.20
Rubber	23%	29%	52%	100%	0.31
Cotton/Sugar cane	0%	100%	0%	100%	31.63
Pineapples, bananas, citrus	49%	41%	10%	100%	1.63
Rice	13%	24%	63%	100%	18.33
Food crops	38%	32%	29%	100%	12.01
Trees/Timber	0%	8%	92%	100%	10.70
Cattle	40%	25%	35%	100%	13.75
Dairy	30%	31%	39%	100%	1.13
Small ruminants	26%	36%	36%	100%	0.99
Pork/Poultry	7%	60%	33%	100%	0.15
Veterinary health, reproduction, and nutrition	16%	70%	14%	100%	4.11
Fishing and aquaculture	13%	68%	19%	100%	3.28
Total (amount)	15.52	51.32	32.63		99.47
Share	16%	52%	33%	100%	

Source: SIGFiP, consultants' research

Economic Composition by Categorization as Public or Private Good

Reviewing expenditure by categorization as public or private good is relevant because public spending should encourage the production of public goods for greater equity and shared development. Research[20] conducted some ten years ago in Latin America concluded that countries that allocated more resources to private goods showed worse outcomes for the agricultural sector than countries that favored public goods. A public good is for collective use (non-excludable) and is such that consumption by one individual does not reduce its availability to another individual (non-rivalrous), whereas a private good is for personal use (excludable), and its consumption by one individual reduces its availability to another individual (rivalrous). Table 19 provides a few examples of public and private goods.

[20] Ramón López and Gregmar I. Galinato. Should governments stop subsidies to private goods? Evidence from rural Latin America. *Journal of Public Economics* 91 (2007) 1071–1094.

Table 19: Categorization of public and private goods

	Excludable	**Non-excludable**
Rivalrous	Pure private goods (agricultural inputs, planted plots, agricultural equipment, etc.)	Common good (fish)
Non-rivalrous	Club or toll good (toll roads, knowledge reserved exclusively for paying subscribers)	Pure public good (research, training, feeder roads, etc.)

Public and private goods should be distinguished from public and private services. A public service can provide both a public good (e.g., training and outreach) as well as a private good (e.g., seed and fertilizer). Similarly, the private sector can provide a public good (e.g., feeder roads, agricultural research) and of course private goods. In principle, it is precisely because private initiative is unable to produce public goods in a satisfactory manner (due to the free-rider problem) that the government is forced to provide these goods.

For the purpose of this report, this analysis relied upon the relatively simple filtering of data with the aim of distinguishing between pure public goods and pure private goods. It was considered that the ministries produced no club goods and that common goods were treated as pure public goods. The development of sectors as well as subsidies for inputs or the purchase of agricultural equipment were considered private goods.[21] Public goods included administration, research, and outreach.

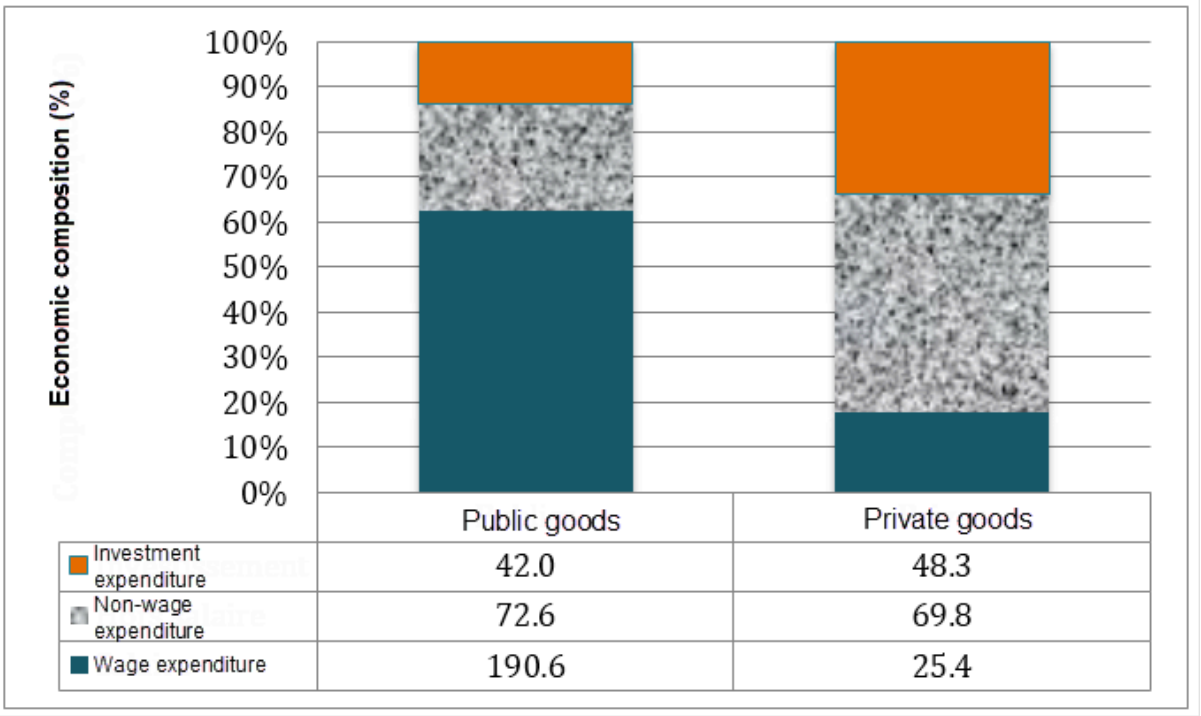
Based on the previously defined categories, the production of public goods appeared to dominate private goods based on their respective shares of the budgeted APE (68% and 32%, respectively). The same result was observed in Cameroon but not in Malawi or Zambia. Such heavier spending in the production of public goods might be explained by the fact that the government disengaged almost entirely from these sectors and that privatization is now complete. It was observed that allocations to sectors (considered private goods) in budgeted APE was only 22%. While this broad analysis should be pursued in greater detail, this question was relevant since the collection of data from SIGFiP created a data series for public and private goods that could be used and analyzed just like any other dataset.

An economic comparison of private and public goods revealed no surprises. Figure 23 shows the small share of allocations to wage expenditure (18%) compared to non-wage (49%) and investment (34%) expenditure. This economic composition is consistent with that of the spending proportions for specific sectors in the preceding sections of this report. The economic composition of public goods was as expected, with the share of wages being 62%, that of non-wages 24%, and that of investment only 14%. A smaller share devoted to wages in private goods

[21] Note that as already noted, this simplified categorization is not universally accepted.

was expected. Wages in private goods were funded by subsidies to entities such as FIRCA and accounted for over 50% of allocations received.

Figure 23: Comparison of economic composition of public and private goods, 1999–2010 (CFAF billions)



Source: SIGFiP, consultants' research

These results are also reassuring. It is acceptable that public spending be used predominantly for wages (62%) in order to produce public goods for the largest number of recipients. It would be disturbing to see wages dominating in the production of private goods, which are for the exclusive benefit of a small number of actors.

VI. FUNDING SOURCES

An analysis of funding sources sheds additional light on the perceived need in reviewing the economic composition of ABE to build solid foundations for sustaining long-term growth in the agricultural sector. The more Côte d'Ivoire generates its own resources with which to grow its agricultural sector rather than depending heavily on external resources, the more it ensures the sector's sustainable development provided these resources are properly utilized. SIGFiP data can help examine the following two concerns simultaneously: which funding sources went to support which types of expenditure?

For Côte d'Ivoire, which faced an internal conflict for most of the 1999–2010 period, we should not expect substantial foreign aid to have been granted directly to the Government. Table 20, which shows ABE excluding off-budget amounts, appears to confirm this assessment as nearly 87% of ABE on average was provided by the Treasury, with a minimal contribution from donations of around 3%.

Table 20: Sources of ABE excluding off-budget amounts (CFAF billions), 1999–2010

Year	Grant	Loan	Treasury	Total
1999	-	-	47.94	47.94
2000	1.48	8.56	25.29	35.34
2001	3.96	5.38	25.90	35.25
2002	3.84	10.17	27.39	41.40
2003	0.78	2.21	35.75	38.74
2004	0.28	8.57	31.77	40.62
2005	0.09	1.15	29.38	30.62
2006	-	0.60	36.88	37.48
2007	0.01	1.50	28.25	29.77
2008	0.31	3.13	29.02	32.47
2009	0.68	2.52	34.36	37.55
2010	0.17	4.94	36.33	41.45
Average	0.97	4.06	32.36	37.38
Share	2.6%	10.9%	86.5%	100.0%

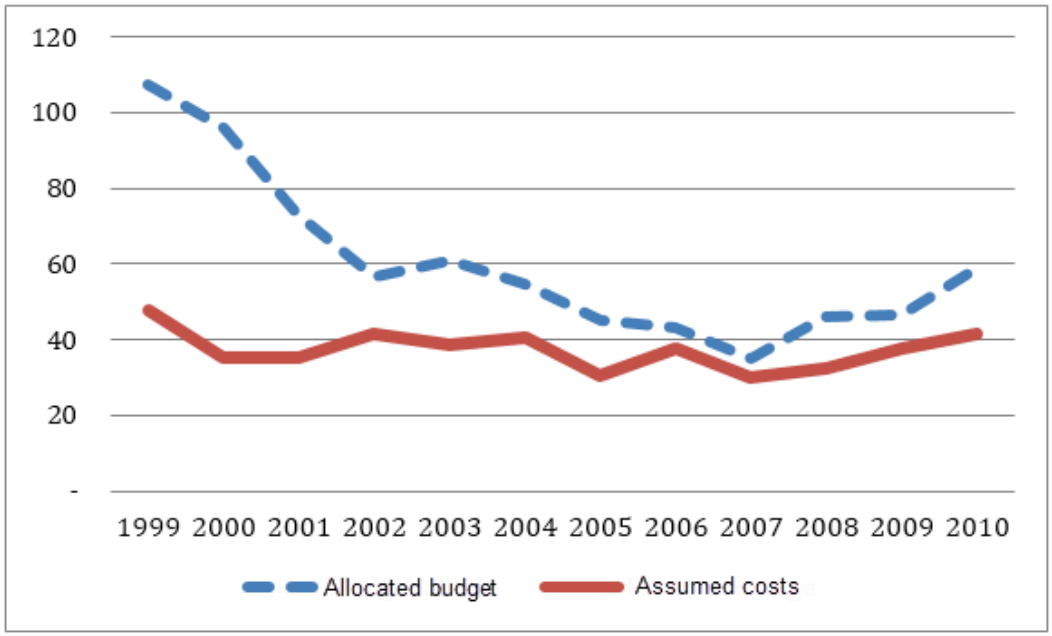
Source: SIGFiP, consultants' research

Note: The lack of grants and loans in 1999 makes it impossible to calculate the growth rate for the period.

Despite their domestic origin, grants and loans played a major role in ABE. The data collected show that external contributions kept ABE from suffering as much as expected from the sharp drop (40%) in Treasury funds from 1999 to 2002. Table 20 shows that even though budgeted external contributions were low, the total drop in ABE observed as a trend has to do mainly with the weakness in the Treasury funds mobilized to fund the agricultural sector. Even in current terms, the Treasury's contribution never again reached its 1999 level during the study period.

The huge gap between budget estimates (allocated budget) and the actual assumption of ABE (Figure 24) at the start of the crisis affected Treasury funds. It would seem that it was not until after 2006 that the Government had a better grasp of its fiscal revenues for a more realistic allocation of Treasury funds to the agricultural sector. (Examining which other sectors to which this finding might apply is beyond the scope of this study.)

Figure 24: Treasury funding for allocated budget and assumed costs, 1999–2010 (CFAF billions)



Source: SIGFiP, consultants' research

This gap would have been smaller had budget estimates for grants and loans been accurate. Undoubtedly, based on its experience before the crisis, the Government placed a great deal of hope in grants and loans. In fact, their contribution was to rise to over half of ABE until 2002, as shown in Table 21. Concomitantly with its better grasp of Treasury funding estimates, beginning in 2006, the Government took a more realistic view of contributions from donors.

Table 21: Expected contribution of grants and loans in terms of allocated ABE budget, 1999–2010

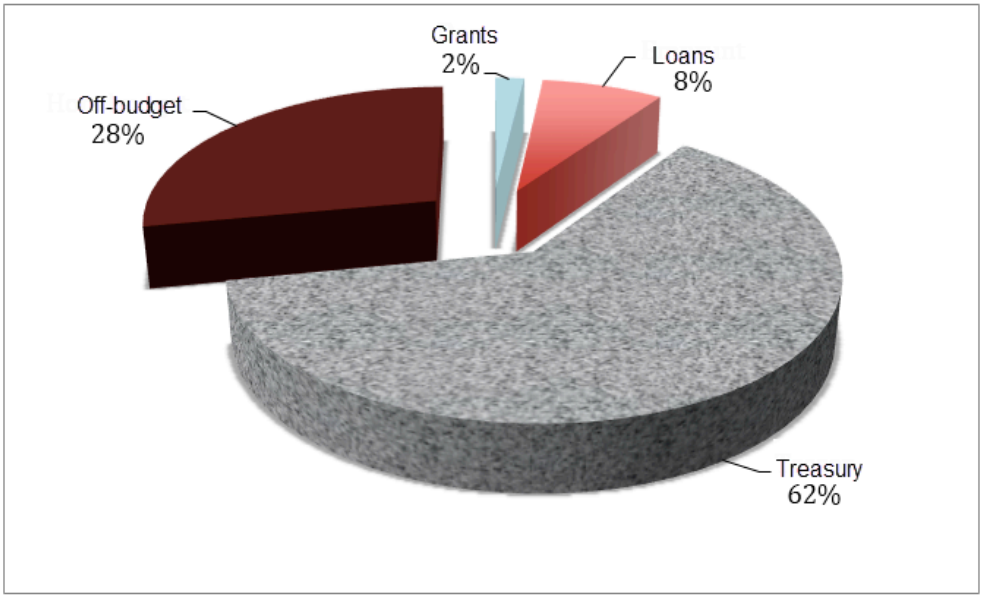
Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Grants & loans	0%	70%	60%	51%	40%	42%	35%	15%	19%	20%	23%	38%

Source: SIGFiP

No review of funding sources would be complete without the inclusion of off-budget expenditures. EU and FAO off-budget expenditures consist of external contributions equivalent

to grants, while for ANADER and FIRCA, these were drawn from domestic resources. On average, 62% of ABE was covered by the Treasury (Figure 25). This corresponds to the crisis Côte d'Ivoire was experiencing when donors repeatedly suspended their funding (2000, 2004). However, it should be noted that COFOG excludes feeder roads both in the national budget and off-budget.

Figure 25: Sources of ABE including off-budget, 1999–2010

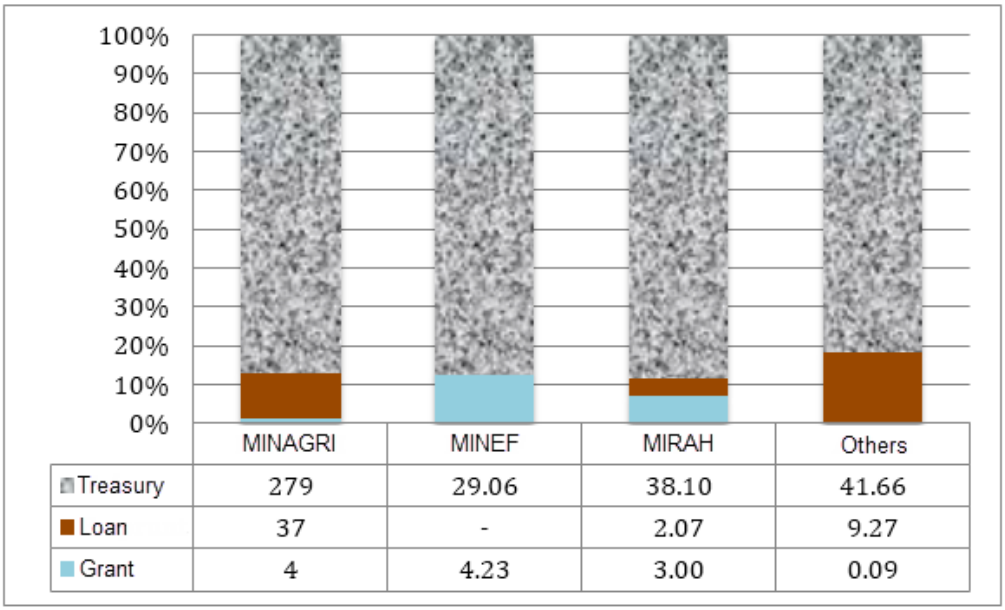


Source: SIGFiP, consultants' research

Funding Sources by Ministry

MINAGRI is the ministry that drew the most from all sources of funding for its expenditures. SIGFiP data indicate that MINEF did not receive any loans over the period and that grants contributed negligibly to the funding sources of the other ministries (Figure 26). In fact, most off-budget expenditures were used to support crop production.

Figure 26: Funding sources of key ministries



	MINAGRI	MINEF	MIRAH	Others
Treasury	279	29.06	38.10	41.66
Loan	37	-	2.07	9.27
Grant	4	4.23	3.00	0.09

Source: SIGFiP, consultants' research

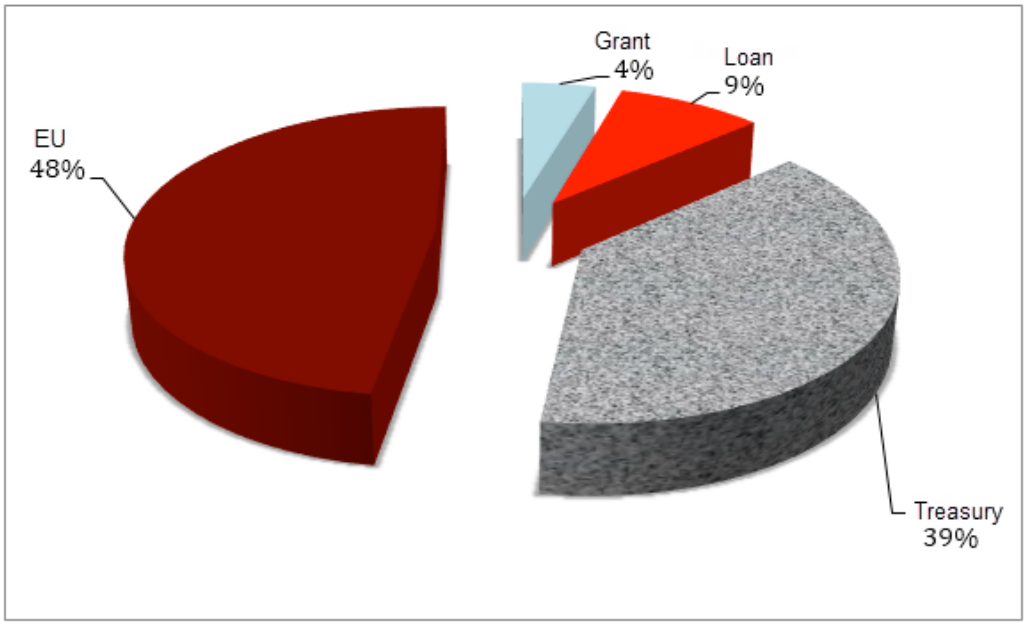
Funding Sources by Subsector

Budgeted expenditures for the subsectors came mostly from the Treasury (74%), including for cotton and sugar cane. Although fruits, vegetables, and fisheries have a coverage rate by the Treasury of less than 40% of their expenditures, the remaining subsectors have far higher coverage rates. Over the period, the total rate of coverage by the Treasury was 74%, the share of grants 9%, and that of loans 17%.

The largest source of subsector funding consisted of off-budget expenditures rather than the Treasury. If we take EU funding into account (treating it as a grant),[22] the rate of coverage by the Treasury falls to 39%, far less than the allocations of budget expenditure to the subsectors noted above (74%) and below the coverage rate for all ABE (51%). Hence we see that the subsectors owe the majority of their funding to external resources and more particularly to the EU (Figure 27).

[22] We could not verify whether the grant from Belgian Cooperation aiming to support milk production to the amount of CFAF 1.5 billion over the 2005–2008 period was taken into account by SIGFiP data.

Figure 27: Sources of subsector funding, including the EU



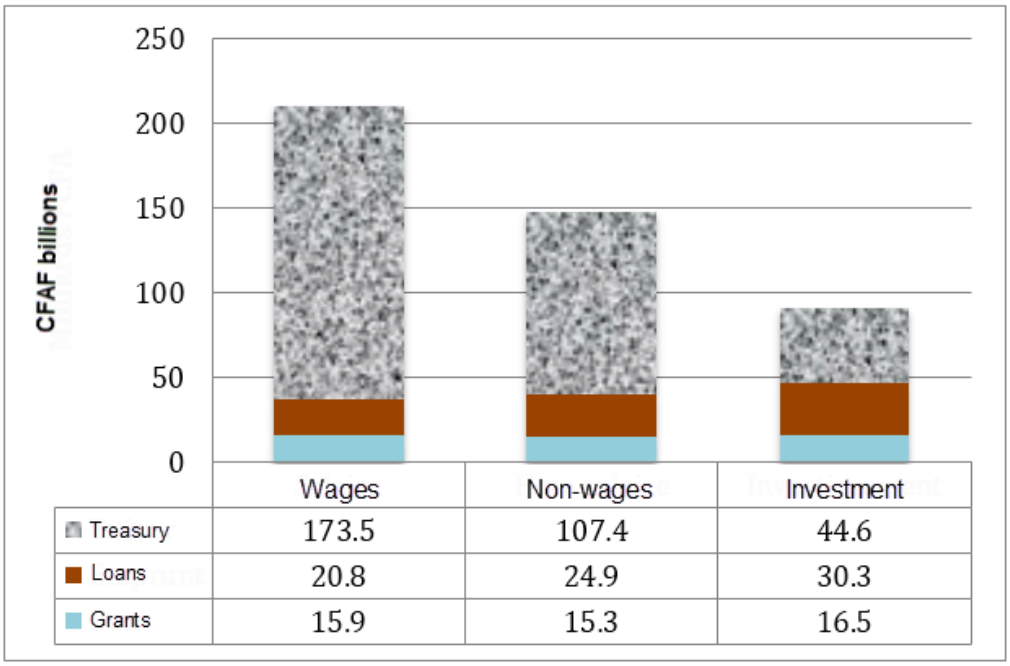
Source: SIGFiP, consultants' research

Funding Sources by Economic Composition of ABE

Here, the aim is to ascertain which funding sources (grants, loans, Treasury) contributed the most to which type of expenditure (wages, non-wage expenditures, and investments). The proper use of external resources is that they be used to support investments rather than wages. In fact, donors always make this a basic principle.

The Treasury funded almost all wages (96%) in the budgeted ABE (Figure 28). However, it also funded most other expenditures given the very low level of grants and loans mobilized directly by the country during the 1999–2010 period.

Figure 28: Funding sources by type of actual expenditure by key ministries, 1999–2010 (CFAF billions)

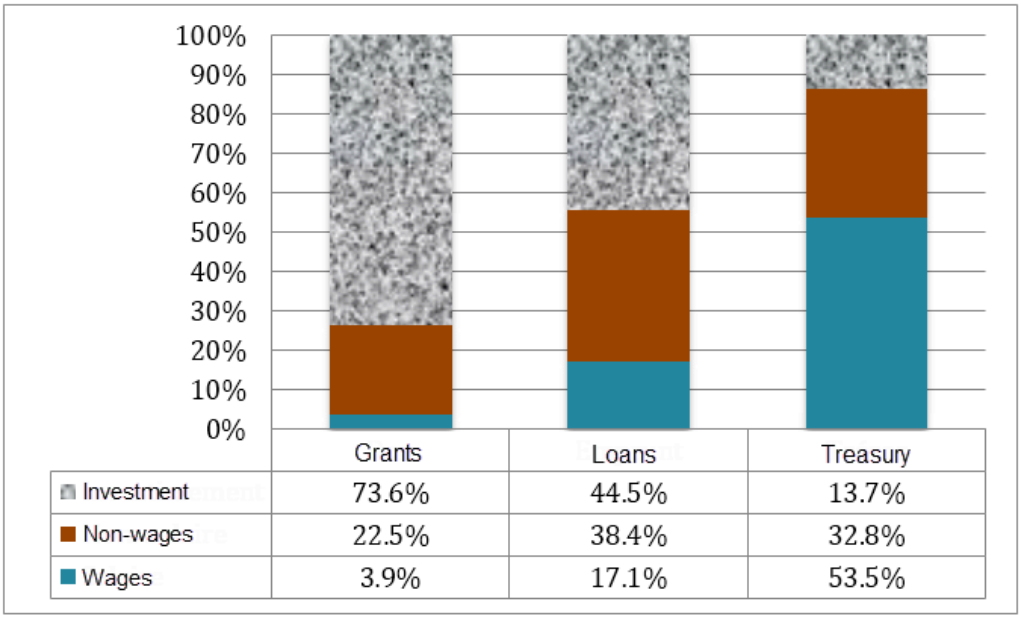


	Wages	Non-wages	Investment
Treasury	173.5	107.4	44.6
Loans	20.8	24.9	30.3
Grants	15.9	15.3	16.5

Source: SIGFiP, consultants' research

What were donors' grants and loans used for? Figure 29 approaches the question from the standpoint of expenditures by funding source. The results show that most of the grants (73%) were allocated to investments, with less than 4% going to wages. Similarly, loans were heavily allocated to investments (44%), even if more than half went to cover recurring costs (56%), with wages receiving the smallest share. As noted, Treasury resources were used mainly to pay wages (54%), with very little left over to cover investments.

Figure 29: Type of expenditure by funding source in key ministries, 1999–2010



	Grants	Loans	Treasury
Investment	73.6%	44.5%	13.7%
Non-wages	22.5%	38.4%	32.8%
Wages	3.9%	17.1%	53.5%

Source: SIGFiP, consultants' research

These findings show that overall, funding sources were used as hoped, which should be of some comfort to donors. However, it should be noted that the very small amounts represented by grants and loans for the period prevent us from drawing major conclusions in this respect.

VII. KEY ASPECTS OF AGRICULTURAL BUDGET EXPENDITURE IN THE POST-CRISIS PERIOD

This section describes key aspects of agricultural budget expenditure (ABE) during the 2008–2012 period, covering two crisis and two post-crisis years. According to the initial study's terms of reference, as indicated in the introduction, the analytical review of agricultural expenditure covers the years 1999–2010, corresponding unfortunately to the country's socio-political crisis. However, in view of delays in the process of appropriation and finalization of the study's findings, the Ivorian authorities expressed the desire to have the post-crisis years included in order to measure any improvement in ABE performance in the aftermath of the crisis. Given the impossibility of going through the entire review again for the 1999–2012 period because of scheduling conflicts on the part of the consultants, this supplementary analysis covers the years 2008–2012.

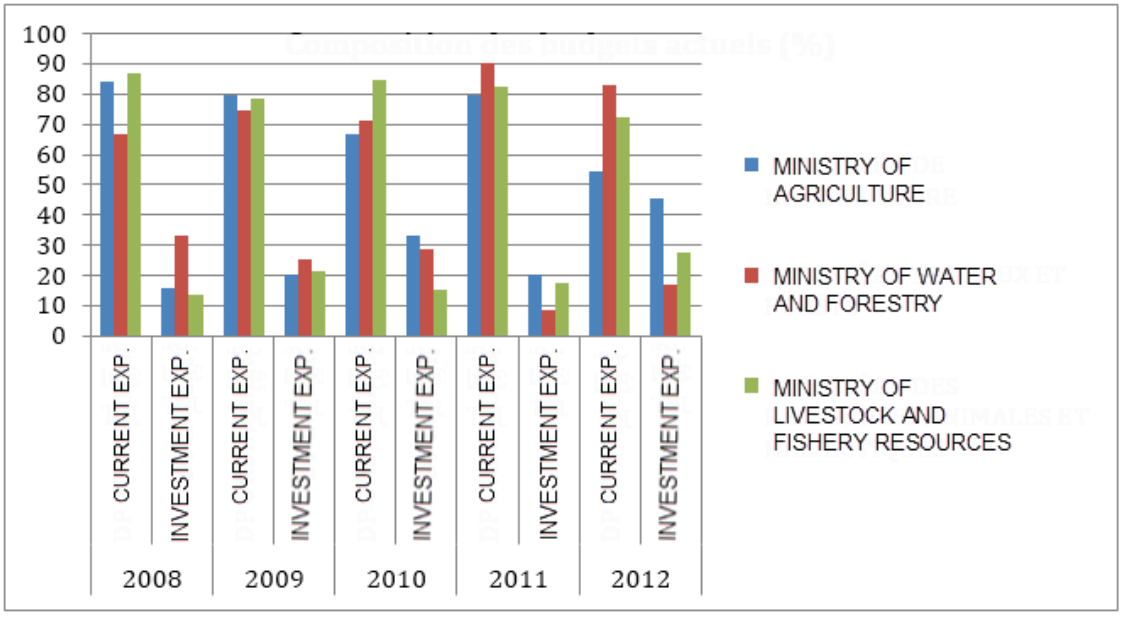
To save time in collecting data and at the request of the ministries dealing with the agricultural sector, it was decided to include spending on feeder roads in current budgets and expenditures rather than excluding them, as required by NEPAD COFOG. In addition, this analysis is based on more complete data for off-budget expenditures (as compared to the initial study) thanks to closer collaboration with the development partners (DPs). This section analyzes ABE both excluding and including off-budget expenditures based on data obtained from SIGFiP.

SIGFiP Data

Composition of Expenditures

Figure 30 shows the composition of ABE in the current budget, while Figure 31 shows that composition for the sector's three key ministries.

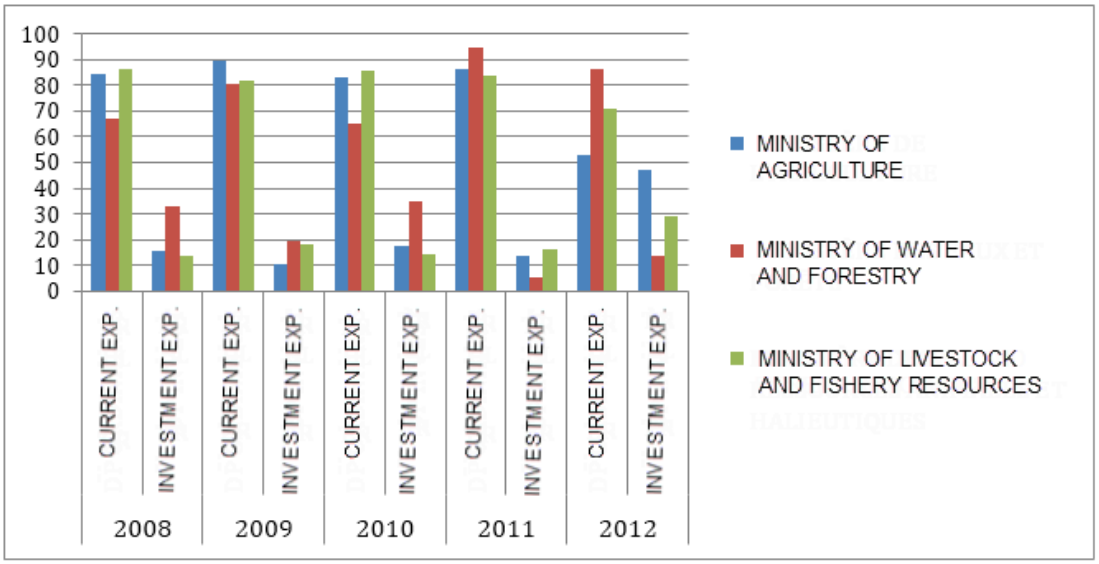
Figure 30: Composition of current budgets for the three technical ministries, 2008–2012 (%)



Source: SIGFiP

There was no real change in terms of direction as current expenditure (wages and non-wages) account for at least 60% of current budgets, even if a slight improvement in the share of investments can be seen in 2012.

Figure 31: Composition of expenditures for the three technical ministries, 2008–2012 (%)



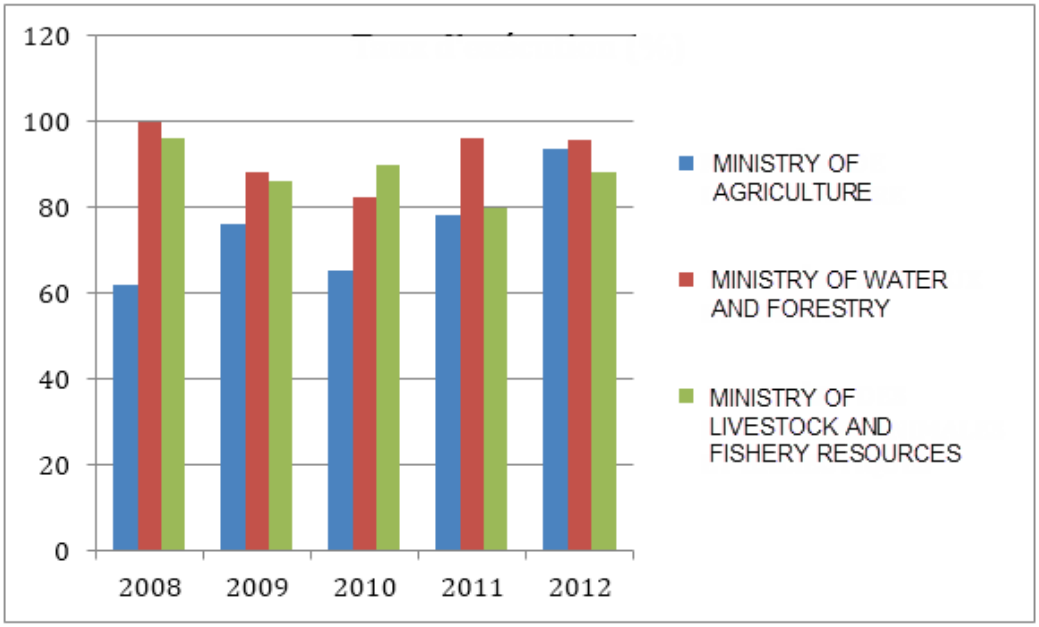
Source: SIGFiP

Actual expenditures (Figure 31) confirm the trends seen in the current budget.

Implementation Rate

Figure 32 shows the results of budget implementation by the three key ministries.

Figure 32: Implementation rate by the technical ministries, 2008–2012 (%)



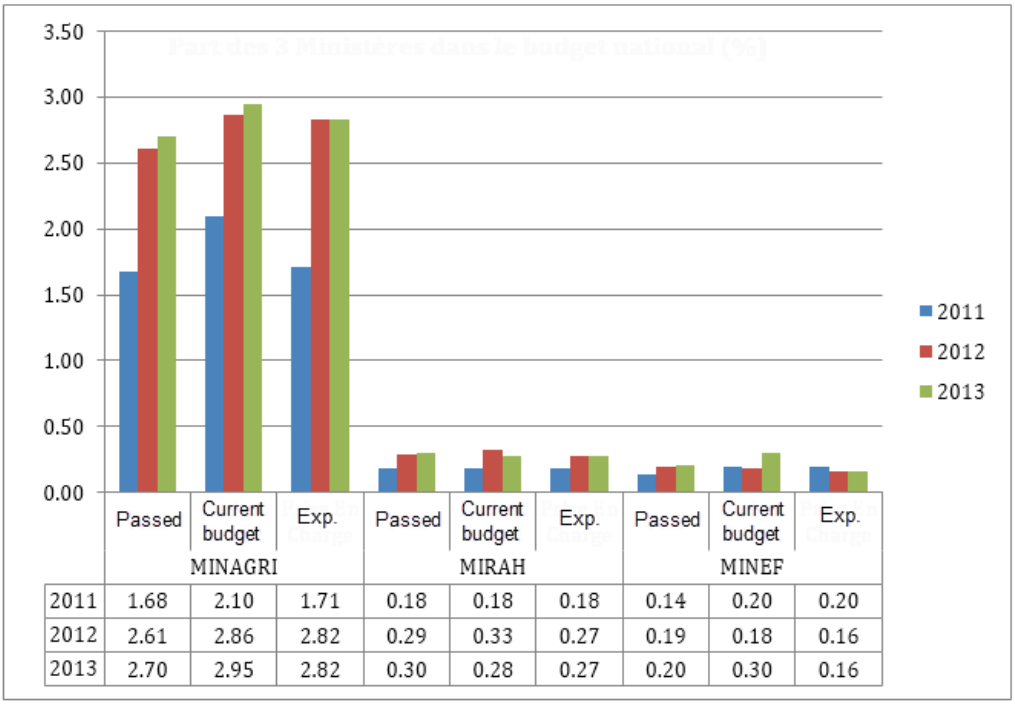
Source: SIGFiP

This figure shows a clear upward trend, especially for MINAGRI. For the most part, MINEF achieved the best implementation rate for the 2008–2012 period.

Share of the Three Technical Ministries in the National Budget

Figure 33 shows the relative importance of the three ministries measured by the share of each ministry in current budgets and cost assumptions in the corresponding national budgets for the post-crisis period only (2011–2013).

Figure 33: Share of the three ministries in the national budget, 2008–2012 (%)



	MINAGRI			MIRAH			MINEF		
	Passed	Current budget	Exp.	Passed	Current budget	Exp.	Passed	Current budget	Exp.
2011	1.68	2.10	1.71	0.18	0.18	0.18	0.14	0.20	0.20
2012	2.61	2.86	2.82	0.29	0.33	0.27	0.19	0.18	0.16
2013	2.70	2.95	2.82	0.30	0.28	0.27	0.20	0.30	0.16

Source: SIGFIP

The three ministries accounted for 3.53% of the current national budget in 2013, which represents progress, albeit modest compared to 2011 (3.08%).

Expenditures accounted for between 2.09% (2011) and 3.25% of the corresponding national budgets. Even if we include off-budget funding (see the following tables), despite a qualitative leap of around one percentage point, Côte d'Ivoire remains far short of the Maputo bar (10% of the national budget to be devoted to the agricultural sector).

Other Ministries Supporting the Agricultural Sector

Table 22 shows the distribution of current and investment expenditures outside of the three ministries participating in developing the sector. Unlike the initial study, which was based on COFOG norms, in this study, ABE includes the Rural Investment Fund (FIMR).

Table 22: Other ministries, 2008–2012 (CFAF billions)

Ministries	2008		2009		2010		2011		2012	
	CUR. EXP.	INV. CUR. EXP.	CUR. EXP.	INV. CUR. EXP.	CUR. EXP.	INV. CUR. EXP.	CUR. EXP.	INV. CUR. EXP.	CUR. EXP.	INV. CUR. EXP.
MEF			14.22	0.00	6.00		4.06	1.31		1.31
MI				0.10			0.02	0.21	0.02	0.05
MESRSCI	2.50	0.86	2.82	0.89	2.40	0.58	2.18	0.25	2.34	0.33
MC	0.59	0.11	0.58	0.00	0.38	0.02	0.35	0.00	0.40	
TOTAL	3.10	0.97	17.63	0.99	8.78	0.59	6.61	1.77	2.76	1.69

Source: SIGFiP
MEF: Food Development Fund and FIMR program
MI: OCPV/AGEROUTE; Domestic Commerce and Distribution; Feeder Road Improvement
MESRSCI: Agricultural and Oceanographic Research
MC: Distribution; Food Crops Marketing Support Agency

Off-Budget Expenditures

Based on the available data, the EU contributed 50% of off-budget support for development by all of the DPs over the 2008–2012 period (Table 23). The main beneficiaries were the banana sector in Moyen, Sud Comoé, Agnéby, and Lagunes (51%), the sugar sector in Marahoué and Bafing (11.5%), and the cotton sector in savannah regions, Worodougou, and Bandama Valley (37.31%).FIRCA channels remain the main sources of funding for this sector.

Table 23: Off-budget expenditure, 2008–2012 (CFAF millions)

	2008	2009	2010	2011	2012	TOTAL
EU	0	7,263	5,283	3,114	5,073	22,914
FAO	0	2,440	911	2,118	3,714	12,062
UNDP			18	6	20	44
GIZ		1,153	3,559	2,598	2,980	10,291
Others			18	16	12	46
Subtotal Partners	0	10,856	10,789	7,852	11,800	45,358
FIRCA	0	3,286	5,288	916	7,716	26,308
ANADER	0	2,667	2,373	1,907	5,068	14,560
TOTAL OFF-BUDGET	0	16,808	18,450	15,675	24,584	86,225

Source: Consultants' research

Table 24 shows that the Maputo commitment remained far from being reached over the 2008–2012 period despite expenditure on feeder roads as well as the more extensive coverage of the available off-budget data.

Table 24: MAPUTO criterion, 2008–2012

Year	National budget (CFAF billions)	ABE (CFAF billions)	ABE/National Budget (%)
2008	1,727	43.385	2.51
2009	1,887	68.844	3.65
2010	2,071	66.187	3.20
2011	1,721	61.281	3.56
2012	2,439	109.00	4.46

Source: SIGFIP, consultants' research

Share of Subsector Funding in the National Budget

Table 25 summarizes the distribution of ABE, excluding off-budget expenditures, by subsector. For the 2008–2012 period, rice remained heavily subsidized, to the detriment of the food crops and livestock and fishery subsectors.[23] This study found no significant change over the 1999–2010 period, with the same subsectors remaining disadvantaged and the Maputo criterion still far out of reach.

[23] The performance of recent investments in these subsectors, especially as regards rice and food crops, which could not be discussed here, should be the focus of the special studies intended to complete this analysis.

Table 25: Subsector ABE, 2008–2012 (CFAF billions)

Subsector BE	TOTAL	%
COSTS ASSUMED		
Palm and coconut oil development subsectors	1.492	1.87
Cotton and textile development subsectors – Support for sugar cane and sugar industry development subsectors	27.004	33.78
Development sectors: pineapples, bananas, citrus, and other fruits as well as vegetables and market crops	2.403	3.01
Rice-growing subsector	36.59	45.78
Other sectors related to plant production, including food crops	1.566	1.96
Fisheries	0.112	0.14
Livestock raising and production	0.397	0.50
Support for the dairy industry	10.297	12.88
Support for the raising of small ruminants (sheep and goats)	0.045	0.06
Development of short-cycle livestock husbandry (hogs, poultry, etc.)	0.014	0.02
Aquaculture	0.0141	0.02
TOTAL	**79.934**	**100**

Source: SIGFiP

This basic analysis must now give way to specialized studies requiring further investigation so as to ascertain technical efficiency in expenditure. In particular, how efficient is it to create strategic products and outcomes? Other areas to be examined are budget implementation, unit costs, and waste.

Such an assessment should be conducted using a range of instruments, including follow-up surveys of public expenditure, measures of cost-effectiveness, impact analyses, and impact studies.

The following sections refer to the initial basic analysis for the 1999–2010 period.

VIII. BUDGET PREPARATION, IMPLEMENTATION, AND MONITORING, 1999–2010

The levels of agricultural budget expenditure (ABE) actually implemented in the field depend on the process of preparing and implementing the budget. The allocative efficiency of expenditures is the result of arbitration and negotiations within and between the ministries and of the time it takes to effectively prepare the expenditures. However, the last word determining the impact of ABE comes not from the assumption of expenditures by the Treasury but rather following an assessment of expenditures in the field that can be documented only through appropriate monitoring and assessment.

Budget Preparation

The budget preparation process involves twelve steps, which are undoubtedly necessary but which contribute to the long period of time the process takes. This process includes both a technical and a political aspect.[24]

Drafting the macroeconomic guidelines: The Directorate General of the Economy (DGE) in cooperation with the National Statistical Institute (INS) prepares macroeconomic estimates for the current year. Based on these estimates and taking into account the Government's political, economic, and social policies, it generates projections for at least the next three years. Forecasts of economic growth (including agricultural growth) make it possible to forecast tax revenues, with these forecasts being then reviewed with the financial administrations.

Approval of the macroeconomic guidelines: The Government announces its acceptance of the macroeconomic guidelines, making adjustments if necessary or issuing new directions as the social, political, and economic situation evolves.

Drafting of the budget guidelines: The Directorate General of the Budget and Finance (DGBF) then draws up the budget guidelines, that is, a balancing statement that matches the Government's commitments to available resources, which consist of domestic revenues (fiscal and non-fiscal) and external contributions (loans and grants).

Approval of the budget guidelines: The Government reviews and approves the choice of expenditures and the amount of resources available. This opens the way to a distribution of allocations among the decentralized ministries, institutions, and communities.

Setting budget allocations: The DGBF translates the overall goals spelled out in the budget guidelines into sector objectives and determines the budget allocations to be made to the decentralized ministries, institutions, and communities. In making this determination, it

[24] Source: Directorate General of the Budget and Finance (DGBF).

considers: (a) the level of appropriations made available during the previous management period; (b) the level of consumption of the appropriations made during that period; and (c) new operations approved by decision of the Cabinet or by other decision-making bodies and the commitments made with the development partners (DPs).[25]

Prime Minister's budget guideline document: The Prime Minister's budget guideline document informs the decentralized ministries, institutions, and communities of the overall budget allocations being made to them. These budget allocations are then distributed by these actors according to their own needs, taking into account the guidelines set by the Government. The budget guidelines therefore represent a summary of the budget, which is composed of major government expenditures (taking into account the Government's own economic and social priorities as well as its outside commitments) on the one hand and major Government resources on the other. It serves as a frame of reference that can be readily supported by a results framework.

Internal budget conferences with DAAF: Each decentralized ministry, institution, and community holds three- or four-day budget conferences with the Directorate of Administrative and Financial Affairs (DAAF) and the technical departments to review the proposed allocations and request adjustments.

External conferences and arbitration: This step marks the end of the involvement of the technical services. The DGBF receives additional requests from the internal conferences and compiles a summary of these requests. It then holds external budget conferences involving itself and the representatives of all of the decentralized ministries, institutions, and communities for arbitration of their requests.

Drafting the budget: The DGBF then draws up a draft budget that is submitted to the Ministry of Economy and Finance (MEF), which is responsible for the budget. This step marks the end of involvement by the technical departments in the budget preparation process. After arbitration, it sets the total level of the draft budget, which is then submitted for assessment and approval by the Cabinet.

Adoption of the draft budget by the Cabinet: The Cabinet's adoption of the draft budget marks the end of involvement by the executive branch in the budget preparation process, up to this point without the contribution of the legislative branch.

National Assembly review of the budget: The National Assembly examines and if necessary amends and then approves the draft budget presented by the Prime Minister. Once approved, the draft budget becomes the Finance Bill for that year.

[25] For these reasons, major increases in expenditure from one year to the next are not automatic.

Promulgation of the Finance Bill: Once adopted, the Finance Bill for that year is promulgated by the President of the Republic, published in the Official Journal, and made enforceable. However, it can be amended by corrective Finance Bills. When the Finance Bill is adopted and promulgated, the decentralized ministries, institutions, and communities receive their budget allocations as passed.

This process calls for the following remarks.

There is no preparation of a specific budget for the agricultural sector but rather the independent preparation of isolated budgets for its component parts. The budget preparation process does not give the agricultural sector's ministries a chance to work together to prepare a budget for the sector as defined in this study. The budget conferences in which these ministries could meet to do this remain focused on the specific activities of each ministry, which in turn remains focused on its own remit when arbitration is taking place with the MEF. For this reason, the MEF has the best overall view of the agricultural sector when the budget is being prepared after negotiating with the sector ministries in succession. In view of this, this analytical review should be as beneficial to MEF as it is to the sector's ministries.

This process demands rigor in adhering to a schedule for preparing the budget. Like any precision mechanism, such an elaborate process requires special attention on everyone's part as well as stability in order to function. The process is supposed to begin in March (i.e., in the first quarter of the previous budget year) and to end with the passage of the Finance Bill in October, or no later than December (for a maximum of six months) so that the new financial year starts with implementation of a new budget.

In the past, this budget process followed the schedule quite closely, with the exception of election years, when there was often a one- to two-month delay, leading the Government to adopt the principle of budget implementation by provisional twelfth. This enables government agencies to implement essential expenditures before the year's budget is put in place. However, since 1999, social and political instability has seriously interfered with the preparation and adoption of the national budget, leading to significant delays in adopting the budget of up to six months (Table 26).

Table 26: Budget preparation dates and delays, 2000–2011

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Date preparation completed	3/28	6/14	3/15	6/7	4/15	4/27	6/14	5/31	12/28 2007	12/18 2008	11/36 2009	6/22
Delays (days)	87	164	73	157	105	106	164	153	3	12	35	172

This table shows that budget preparation was repeatedly and significantly delayed until 2007. With the process taking around nine (9) months to complete, it is remarkable that after the budget

was prepared six months late in 2007, the preparation of the 2008 budget was completed three days early in 2008. In fact, preparation times then continued to improve, which seems to indicate that the schedule has been mastered under conditions that are still less than optimal. It should be noted that the table includes 2011, which falls outside of the period studied, in order to illustrate the adverse effect of unstable situations (here, the post-election crisis of 2010–2011) on budget preparation. (That is why this exceptional year was not included in the study.)However, budget preparation does not end with the distribution of the approved budget to each ministry. Further adjustments are made to the approved budget before it becomes the current allocated budget based on which expenditures are implemented. This means there is an overlap between budget calendars, not only for budget specialists but also for the ministries and technical departments. Even as implementation begins on the budget for the current year, preparation also starts on the budget for the following year. In fact, as shown in Table 26, preparation of the budget for the year often starts before completion of the budget for the current year.

Budget Implementation

The budget implementation rate measures the technical efficiency of the budget preparation process. Referring to assumptions of costs as actual expenditures is a reminder of this feature. Despite the minutiae of budget preparation, the budget approved according to the Finance Bill and allocated after adjustments is not the budget taken over by the Treasury so that it can pay for ABE goods and services. For the 1999–2010 period, the budget implementation rate was 62% (Table 26). However, as Table 27 shows, the budget implementation rate is much higher for wage-related expenditures (90.4%) because the payroll needs to be met first regardless of problems involved. It is also higher for the Treasury as the funding source (83%) because the Government has greater control over its internal resources than it does over external loans and grants.

Table 27: ABE budget implementation rate, 1999–2010

Type of expenditure	**Wages**	**Non-wages**	**Investments**	**Total**
Implementation rate	90.4%	62.3%	34.9%	62.0%
Funding sources	**Grant**	**Loan**	**Treasury**	**Total**
Implementation rate	21.8%	23.8%	83.3%	62.0%

Source: SIGFiP, consultants' research

It is surprising (or perhaps not) to find a lack of correlation between budget preparation time and implementation rate. In fact, one would expect that the longer the preparation time, the less time the ministries will have to use up budgets completed late. However, it seems that this does not occur because at the end of the year, as in many countries and institutions around the world, explicit orders are given to spend all available[26] resources before the end of the year. However, the

[26] Excessively draconian caps to expenditures at the start of the year result in significant available funds at the end of the year.

quality of expenditures, which inevitably suffers from this haste in spending, can only be identified by tracking expenditures. Meanwhile, the level of budget implementation has improved.

In fact, the budget implementation rate improved markedly toward the end of the period studied. From 54.7% during the 1999–2005 sub-period, which corresponded to the height of the crisis prior to 2011, it rose to 77.7% during the 2006–2010 period as the new Government made improving the budget implementation rate a priority. Table 28 shows the results of the complementary study covering the 2011–2013 period.

Table 28: ABE budget implementation rate in the three technical ministries, 2011–2013

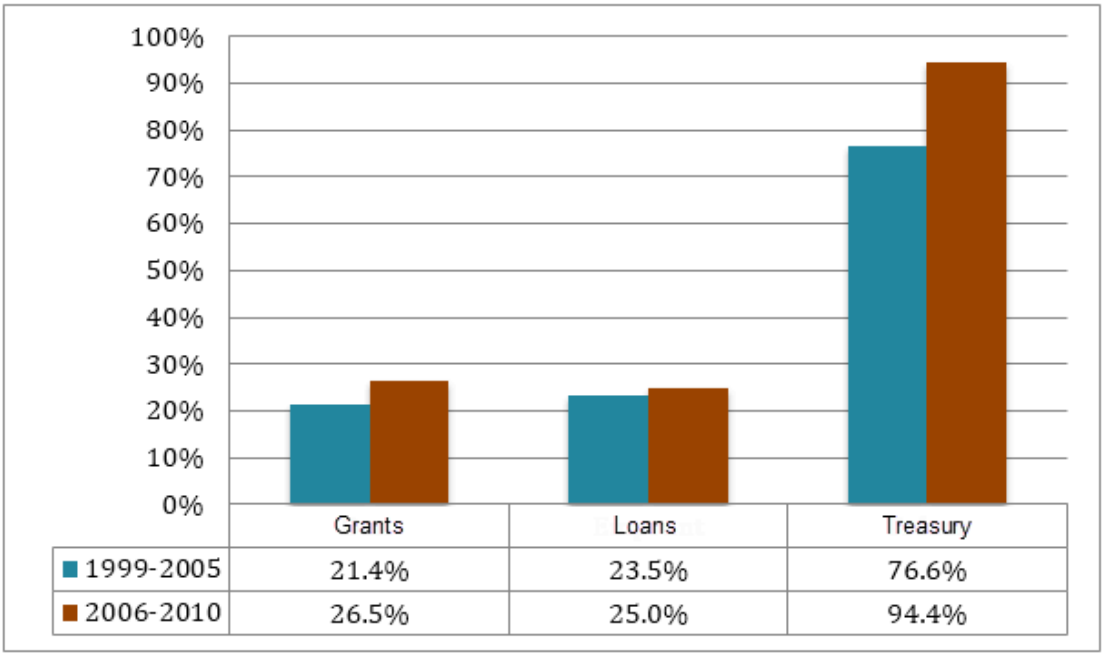
	MINAGRI	**MIRAH**	**MINEF**
2011	78.30	98.70	96.01
2012	93.42	88.33	95.70
2013	90.63	93.13	51.58

Source: SIGFiP

As Table 28 shows, there was a marked improvement in the implementation rate, though MINEF achieved only 51.58% in 2013. Meanwhile, the implementation rate for capital expenditures was abnormally low (10.78%).

This study sought to determine the sources of improvement in the budget implementation rate from 1999–2005 to 2006–2010 by analyzing SIGFiP data. In terms of funding sources, the efficiency gain came mainly from better anticipation of Treasury funds. This could be seen in the analysis of funding sources mentioned in the previous chapter. During the 2006–2010 period, as also noted immediately above, it seems that the Government continued to find it difficult to harnessing the budgeted external resources. However, while there was only marginal improvement in the scheduling of loans, grants fared somewhat better.

Figure 34: Improvement in the budget implementation rate in terms of funding sources, 1999–2010



	Grants	Loans	Treasury
1999-2005	21.4%	23.5%	76.6%
2006-2010	26.5%	25.0%	94.4%

Source: SIGFiP, consultants' research

In terms of expenditure types, as the implementation rate in terms of wages was already satisfactory, the improvement in this type of expenditure was relatively slight. The relative improvement came primarily from better scheduling of off-wages expenditures and somewhat less from investments even if the gain for this latter component was significant.

Figure 35: Improvement in the budget implementation rate in terms of type of expenditure

Source: SIGFiP, consultants' research

Table 29 compares budget implementation rates among the ministries in terms of type of expenditure. MINAGRI did less well than the others because it was forced to reduce its budget allocations the most during the period. Meanwhile, MINEF managed a very good score in budget implementation for wages, seemingly because of a special provision the team does not yet fully understand.

Table 29: Budget implementation rate by ministry

Ministry	Wages	Off-wages	Investments	Total
MINAGRI	89.6%	59.0%	28.0%	59.0%
MINEF	99.8%	70.7%	55.9%	74.7%
MIRAH	82.4%	67.2%	43.4%	64.7%
Others	99.9%	99.8%	53.2%	75.3%

Source: SIGFiP

There are several reasons for the overall low rate of budget implementation. These include the lack of liquidity, which implies either a lack of realism in terms of projections or budget conferences as well as adverse circumstances that affected the amount of revenue or external support received during the year, or most likely a combination of the two. However, there is also inefficiency in the process of implementing expenditures, which includes four steps:

The commitment is the act by which a public body creates or acknowledges an obligation from which a cost will result. It has a legal dimension (creation of an obligation on the part of the

supplier) and an accounting dimension (assignment of part of budget funds to implementation of the expenditure).

Liquidation is intended to verify the reality of the debt and to determine the amount of the expenditure. As the Government pays only after the service is rendered, the calculation is done only after the order is delivered, and the controller is therefore entitled to verify delivery of the order.

The order to pay is given to the public accountant by the party empowered to authorize the expenditure, in this case the MEF, or the entity authorized by it (DAAF, prefect). (Note that when SIGFiP refers to the order to pay coming before preparation of the current budget has been completed, it means approved budget.)

Payment is the payment of funds by the public accountant to the Government's creditor. The public accountant and the party who issues the order to pay are two different authorities. For this reason, SIGFiP does not record payment transactions but rather the amount of the charges assumed, which the creditor will use in order to be paid by the public accountant.

An analysis of the public expenditure cycle reveals significant delays in applying the budget implementation procedures summarized above (Table 30). A statistical test was conducted on a sample of 274 expenditures, including 110 by MINAGRI, 42 by MINEF, and 122 by MIRAH for fiscal years 2009 and 2010. The test compares the time elapsing between budget implementation and the norms set by the Government for performing these tasks.

Table 30: Number and percentage of commitments processed within the time norms

	Commitments tested	DAAF-FC	FC-AUT	AUT-AC
MINAGRI	110	37 (33.64%)	70 (63.64%)	37 (33.64%)
MINEF	42	19 (45.25%)	33 (78.57%)	3 (7.14%)
MIRAH	122	29 (23.77%)	33 (57.38%)	65 (53.28%)
Total	274	85 (31%)	173 (63%)	105 (38%)

Source: SNDI

Notes: DAAF = Directorate of Administrative and Financial Affairs; FC = Financial Controller; AUT = Authorizing Entity; AC = Assumed Costs

Norms: DAAF-FC: 8 days; FC-AUT: 5 days: AUT-AC: 5 days

In the commitment phase, when the controller had eight (8) days to approve the draft purchase order, about 70% of commitment applications were approved after the specified period of time. Only 85 of the 274 commitment applications sent in were returned within the prescribed period. The average time for approval of commitment applications is estimated at 16 days, with a variation coefficient (VC) of 0.83 and a peak of 88 days, or over ten times the mandated period.

In the order-to-pay phase, DAAF is more responsive, with the average time taken to complete this task meeting the target. However, it should be noted that despite the 5-day average, the variation factor remains high (0.90). For the accounting step, the average time for assuming the expenditure, which is 16 days, is well in excess of the regulatory five days.

It was not possible to determine the respective degree of responsibility of the authorizer and the financial controller (as a result of missing documents in the applications sent by DAAF for approval and delays in reviewing the application by the latter). However, it is clear that such delays, when imposed on an agricultural activity such as purchasing inputs, lead to failure of the farmer's crop for the season. This is where the technical efficiency of the agricultural sector's budget will become apparent. Even if the budget is completed late and a relatively significant portion of the allocated amounts is unavailable (because of caps), greater effort should be made to avoid delays in the implementation process.

In terms of improving budget implementation, a Public Expenditure Management and Financial Accountability Review (PEMFAR) review was conducted for 2008.

In view of the weaknesses found, a public finance reform plan was prepared involving nine (9) strategic themes, which the new administration is currently implementing:

1. Improving the legal and institutional framework of the public finance management system;
2. Enhancing transparency in the management of the public finances;
3. Optimizing resource allocation;
4. Improving budgetary discipline;
5. Improving the traceability and monitoring of budget implementation;
6. Developing accountability mechanisms;
7. Improving the legislative and regulatory framework for government contracts;
8. Enhancing the institutional framework for government contracts; and
9. Enhancing the operational framework for government contracts.

Points 3 to 5 and 9 are the most important for the agricultural sector.

IX. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Agricultural Public Expenditure Levels and Trends

The agricultural sector was not the government's dominant priority over the period 1999–2010. This is reflected by the Maputo target, which Côte d'Ivoire never met as the share of agricultural public expenditure (APE) in the national budget averaged 4%, well below the 10% agreed on by the Heads of State in 2003. It can also be seen in the fact that over the period, the rural population still accounted for 54% of the total while the average distribution of APE among that population was less than CFAF 6,000 per rural resident per year. Lastly, while Côte d'Ivoire was a leader in terms of support for the agricultural sector from 1960 to 1980, it fell behind in that area compared with other countries during the study period.

However, Côte d'Ivoire was not the only country to fail to honor its Maputo commitment. As of 2010, only seven NEPAD countries (Burkina Faso, Ethiopia, Guinea, Malawi, Mali, Niger, and Senegal) met the Maputo target.

- The exclusion of feeder roads from COFOG does not mean that Côte d'Ivoire should seek to meet the Maputo target by cutting expenditure on these roads;
- Côte d'Ivoire should seek a consistent and steady increase in APE year on year for better planning of this expenditure. The medium-term expenditure framework should help with this;
- It would also be misguided to focus on the share of AGDP within GDP because this ratio tends to decrease naturally as agriculture modernizes and changes with the creation of value added being captured by other sectors and the weight of these other sectors in the economy grows.

Composition of APE

A comparison between ministries confirms MINAGRI's dominance, accounting for 80% of the expenditure of the key ministries (MINAGRI, MIRAH, and MINEF). This reflects the country's environmental conditions, which are more conducive to plant production than to livestock production while large tracts of forest were cleared to make way for plantations. MINAGRI's predominance is even greater when we take into account expenditure targeting the plant subsectors in its objectives. However, this concentration seems excessive given the need to promote diversification in the agricultural sector and the expectation that the private sector will play a greater role in agribusiness sectors with a view to guarding against the difficulties encountered under similar circumstances in the past.

The functional composition of APE, including off-budget expenditure, suggests that high priority was awarded to plant sectors. Large funds were allocated by the EU and the government in support of agribusiness sectors, such as coffee/cocoa, and subsectors considered distressed, such as cotton. These sectors therefore supplanted rice and staple crops. Aside from the argument that these distressed subsectors required particular attention, the priority given to them was at odds with their performance, with sugar growing a modest 1% over the 2000–2010 period but bananas declining around 2%, cotton falling around 5%, and pineapples recording the sharpest fall of all at around 13%. Interestingly, the best-performing subsectors received no direct support from the government or from off-budget EU expenditure. This concerns in particular cashew nuts, whose average growth rate over the period 2000–2009 was spectacular (21%), followed by papayas (11%) and rubber (6%). It should probably be recognized that investment played a major role in the development of subsectors such as cashew nuts, rubber, and non-traditional fruits.

The regional allocation of APE suggests that priority was given to the savannah region. This impression is corroborated if one examines off-budget EU expenditure in support of a number of subsectors set up in the savannah areas (in particular cotton). As for transfers to the departments as part of the decentralization process, these began in 2003 and amounted to too low a level for sound conclusions to be drawn. However, as they play a role in development in principle, they should be monitored. Tidying up the SIGFiP classification will enable a more detailed analysis of regional APE allocations and reveal priorities not granted to the regional decentralization of administrative services.

The economic composition of budgeted APE (not including off-budget expenditure) generally reveals the features we would expect (or fear), that is, a balance heavily tilted in favor of recurrent expenditure (80%), including wage (48%) and non-wage expenditure (35%) on average over the period. However, in budget allocation, the intention was to strike a balance between expenditure types, with precedence given to investment (36%) followed by non-wage expenditure (33%) and the smallest share going to wages. The extra contribution from off-budget expenditure helped strike this balance.

Input subsidies represented 9% of sector PAE (excluding off-budget expenditure) over the period 1999–2010. Almost all (around 98%) of these subsidies were used to finance inputs for plant subsectors, primarily pesticides (68% of subsidies) followed by staple seeds (29%). Inputs for livestock production (vaccines and animal pharmaceuticals) received only around 2% of these subsidies.

Total APE on agricultural research over the period came to CFAF 60.12 billion (83% of which was met by the Treasury), or the equivalent of 10.7% of MINAGRI expenditure, 8% of APE excluding off-budget expenditure, 0.43% of actual national expenditure, and 0.23% of AGDP. The latter outcome falls short of the NEPAD target for national investment in agricultural R&D (at least 1% of GDP). The National Center for Agricultural Research (CNRA), the leading

organization dedicated to agricultural research, is largely dependent on the private sector, in particular FIRCA.

Over the period, APE on feeder roads (all sources combined) totaled CFAF 52.581 billion, of which CFAF 22.305 billion (42.42%) was financed by the subsectors, i.e., by the private sector. The size of the contribution of the Rural Investment Fund (FIMR), which amounted to 39% of APE on roads, should be noted. The government also made a noteworthy investment effort over the period 2003–2006 (emergency program), which was subsequently carried on by the subsectors and the EU between 2007 and 2010. Expenditure on feeder roads over the period accounted for 10.49% of APE (COFOG+, i.e., COFOG including feeder roads).

Total APE on outreach amounted to CFAF **545,395 million**, with off-budget financing representing 124.64% of budgeted expenditure. This expenditure represented on average 1% of AGDP for expenditure excluding off-budget items and 2.13% including off-budget items. Two entities played a large role in this area. Although **ANADER** drew most of its funding from the government (87% of its financing of CFAF 126.35) over the 1999–2010 period, over the past three years, it has mobilized slightly more than 20% of its funding, while 12% came from **FIRCA**. The large contributions by the subsectors to FIRCA (CFAF 19.60 billion over the period) made it possible to finance research and outreach (public goods) from private funds. **As regards the economic composition of allocations to the subsectors,** as hoped at the subsector level, expenditure on wages made up the smallest share (16%), with one-third spent on investment and more than half allocated to non-wage expenditure. Here too, off-budget expenditure favored achieving these desired results. **At the regional level**, resources were allocated above all to covering non-wage expenditure. **In terms of public and private goods**, the economic allocation was also largely as expected in that wages were predominant (more than 60%) in the production of public goods. Meanwhile, the share of investment was smaller (less than 20%), whereas in the production of private goods, the share of wages was the lowest (less than 20%), with a sizable share going to investment (close to 40%).

Financing Sources

During the period of crisis from 1999 to 2010, the Ivorian public Treasury was the main source of financing for budgeted APE (around 87% on average). Taking into account off-budget expenditure, the Treasury covered slightly over 60%. For the subsectors, off-budget expenditure was the largest source of financing.

Financing Sources and Economic Composition

We would expect grants and loans to be spent primarily on investment and much less on recurrent expenditure and on wages in particular. This is one of the principles or even conditions underpinning donor financing. It is therefore comforting to see that this expectation was borne out by the results, with the lion's share of grants (73%) going to investment while only 4% went

to wages. With regard to loans, 43% was allocated to investment and 18% to wages. With regard to the Treasury, 54% of resources was used to pay wages and only 14% went to investment.

Budget Implementation, Execution, and Follow-Up

There is no room in the steps involved in budget implementation for consultation between the key ministries. Intense budget conferences are held within each ministry and between representatives from each ministry and the Ministry of Economy and Finance (MEF).

The calendar for the implementation of the budget was not often abided by during the period. These steps (from macroeconomic projections to budget trade-offs, the publication of the finance bill, and budget allocation) are undoubtedly necessary but are very time-consuming. Several months, in some cases as many as six months, were needed to organize the budget so that the budget of the following year needed to be prepared even as the budget for the current year was not yet in place. However, in 2008 and 2009, the budget for the current year was set in the final quarter of the previous year. This shows that it is possible to rein in the budget implementation process.

Budget execution rates were very low during 1999–2010: only 62% on average over the period. As one would expect, budget execution was much better (though not perfect) for wages (90%) and good for the Treasury (83%) as wages are the first priority and the government managed the resources of the public Treasury much better than the direct resources received from donors during this period of socio-political crisis. MINAGRI had the lowest execution rate (57%). We note that this rate improved markedly from the period 1999–2005 (55%) to 2006–2010 (78%). After the new government made this indicator a priority, the rate in 2012 improved further. However, **this indicator of technical efficiency can paint a misleading picture.** We note that the timeframe for setting up the budget does not appear to have been consistent with the budget execution rate, which was not necessarily worse when delays were long. This may be because sector administrations hurried to commit the balance of funds as the year end approached. Accordingly, while a poor budget execution rate is a sign of poor performance, a good rate does not necessarily indicate good performance.

Execution norms do not appear to have always been observed. Based on a sample of commitments, we note that the average time needed to receive the approval of the financial controller of requests for commitment (draft orders) submitted by the Directorate of Administrative and Financial Affairs (DAAF) was 16 days. This is twice as long as the eight (8) days set aside for this operation. In one case, this process took as many as 88 days. For agricultural activities (requiring, for example, the procurement of seeds or fertilizer), such delays could thwart a growing season because the inputs are not delivered on time.

Database and Collection

As per the terms of reference, this basic diagnostic review of APE drew on empirical data. This mainly involved SIGFiP and estimates of off-budget expenditure from the EU, FAO, ANADER, ONDR, and FIRCA.

Despite a solid structure and highly capable staff, SIGFiP has a number of flaws. For a while, verification of data consistency posed a problem, and the information concerning the budget allocated and actual expenditure changed from one extraction to another. Adjustments designed to reconstruct complete and consistent series for previously merged but now split ministries also posed a challenge. Name changes for the five ministries concerned by this study (including a code change for Water Resources and Forests) generated confusion for a long time. It is possible that after the ministries split, some headings were kept in one ministry and not in another but with lines of expenditure that no longer matched the names of these headings. It is likely that the adjustment will never be perfect, especially with regard to the distribution of the administrative expenditure of the formerly merged ministries. However, while these adjustments may affect the expenditure of the ministries in question, they do not fundamentally change overall APE for the sectors covered by these ministries.

Data for off-budget expenditure by development partners (DPs) play a large role in APE. Yet it is very difficult to obtain these, and the data gathered do not have the level of detail required if they are to be used at the same level as SIGFiP data in analyses of the composition of APE. It is not always execution levels that they reflect but rather amounts made available to the country.

Recommendations

Recommendations to the Ministries Concerned

Broadly speaking:

- The sector should pursue the strategy (1999–2015) designed to develop the subsectors with emphasis on those subsectors neglected over the period: fisheries and aquaculture, sustainable livestock farming, and the restoration of forestry assets. Fortunately, as this diversification is already included in the NAIP, it is simply a question of putting it into action;
- The key ministries should set up with a consultation mechanism for discussing the budgeting and programming of public investment for the sector. This consultation mechanism may be set up by the NAIP secretariat, which would perform a coordinating role in the execution of sector-wide public investment;
- The budget execution rate should be confirmed by a follow-up of the budget because it does not necessarily display technical efficiency even when it is correct;
- Compliance with budget execution rules must be systematically documented in order to improve budget execution. The new Time Management directive, which consists in electronically verifying file send and receipt dates, should serve as a tool for estimating

timeframes in budget execution procedures;

- It will be necessary to strengthen capacities for drafting and executing budgets among the agricultural administrations in order to improve sector performances;
- It will also be necessary to consider reforming the decentralized services of the agricultural sector ministries in order to grant them allocations that are commensurate with the functions attributed to them, including in agricultural research.

In terms of **inputs:**

- To improve agricultural productivity, the level and quality of inputs used must be improved through measures such as:
  - Targeted subsidies for fertilizer prices;
  - Targeted subsidies for the cost of innovative small equipment;
  - The creation of a distribution network designed to improve the availability of inputs;
  - A credit guarantee fund accessible to banks; and
  - The development of skills in family farm management to help them modernize;
- Over time, support for the organization of the subsectors should lead them to totally or partially manage inputs themselves.

In terms of **agricultural research:**

- Budget conferences should enable consultation between the key ministries and the Ministry of Higher Education and Scientific Research (MESRSCI) and its institutions;
- The mechanism for disbursing funds must show flexibility by taking into account the fact that agricultural research (in particular on plant production) is highly weather-dependent;
- Within the framework of the NDP, the government should increase the share allocated to agricultural research. The search for financing through regional and sub-regional programs should be encouraged (e.g., WECARD);
- Negotiations should be undertaken with industry leaders in order to identify a mechanism that would lead to ensuring their continued contribution;
- As the agribusiness subsector does not contribute to FIRCA, it should be called upon to do so.

In terms of **outreach:**

- Sector budgets will have to improve the share allocated to training. It would be worthwhile to carry out an in-depth study of decentralization to the regional directorates

in order to improve their structure and equip them with the means to make a significant contribution to the outreach and project follow-up mechanisms.

With regard to feeder roads:

- The involvement of the subsectors in the maintenance of feeder roads should be encouraged, in addition to government investment;
- A strategy paper should also be drafted on the maintenance of equipment and investments in general.

Recommendations for the Ministry of Economy and Finance

- **Above all, the mobilization of funds must be improved** and the cap raised or the constraint on it removed. This cap means that even if the budget is considered in place, only commitments up to a very low level can be made due to a lack of funds. Splitting bulk orders that could benefit from a reduction in wholesale prices leads to delays and cost overruns.

Recommendations for the SIGFiP

- The SIGFiP should carry out a validation of the database to identify the source of the data inconsistencies noted in this review. This is why series of budget allocations and commitments should be drawn separately to be consistent;
- It would be timely to update the SIGFiP software to make it possible to export data in a more current Excel format than the very limited Excel 95 format;
- In terms of classification, the SIGFiP should continue to fine-tune the content of headings and sub-headings (and document the process) in order to ensure transparency in classification. Otherwise, it will be difficult to replicate the same analyses and obtain the same results, which remains the essential test of scientific objectivity;
- Off-budget expenditure should be included in the SIGFiP database to enable adequate analysis of it. If not, the ministries concerned and DPs should agree on standard formats for collecting information through a tracking system that provides the level of detail required for analyses of APE.
- With regard to off-budget expenditure also, large investments were made in the sector by the First Lady, the Disarmament, Demobilization, and Reintegration Agency (ADDR), and the National Plan against Climate Change (PNRC). Traceability of this financing and especially an evaluation of its impact would improve the level of APE identified.

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