REPUBLIC OF GHANA

MINISTRY OF FOOD AND AGRICULTURE

MEDIUM TERM EXPENDITURE FRAMEWORK (MTEF)

FOR 2017-2019

2017 BUDGET ESTIMATES

For copies of the MTEF Statement, please contact the Public Relations Office of the Ministry:

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The MoFA MTEF PBB Estimate for 2017 is available on the internet at: www.mofep.gov.gh

TABLE OF CONTENTS

PART A: STRATEGIC OVERVIEW OF THE MINISTRY OF FOOD AND AGRICULTURE.....1

1. GSGDA II POLICY OBJECTIVES 1
2. GOAL 1
3. CORE FUNCTIONS 1
4. POLICY OUTCOME INDICATORS AND TARGETS 2
5. EXPENDITURE TRENDS FOR THE MEDIUM-TERM 4
6. SUMMARY OF KEY ACHIEVEMENTS IN 2016 5

PART B: BUDGET PROGRAMME SUMMARY 11

PROGRAMME 1: MANAGEMENT AND ADMINISTRATION 11

PROGRAMME 2: FOOD SECURITY AND EMERGENCY PREPAREDNESS 21

PROGRAMME 3: INCREASED GROWTH IN INCOMES 34

PROGRAMME 4: MARKETING OF AGRICULTURAL PRODUCE/ PRODUCTS 43

PROGRAMME 5: MANAGEMENT OF LAND AND ENVIRONMENT 45

PROGRAMME 6: APPLICATION OF SCIENCE AND TECHNOLOGY IN FOOD AND AGRICULTURAL DEVELOPMENT 47

PART A: STRATEGIC OVERVIEW OF THE MINISTRY OF FOOD AND AGRICULTURE

1. GSGDA II POLICY OBJECTIVES

The GSGDA II contains fifteen (15) Policy Objectives that are relevant to the Ministry of Food and Agriculture.

These are as follows:

- Promote Agriculture Mechanisation
- Improve science, technology and innovation application
- Promote seed and planting material development
- Increase access to extension services and re-orientation of agriculture education
- Improve institutional coordination for agriculture development
- Increase private sector investments in agriculture
- Improve post- production management
- Develop an effective domestic market
- Expand agriculture exports
- Promote irrigation development
- Improve Agriculture Financing
- Promote sustainable environment, land and water management
- Promote the development of selected staple and horticultural crops
- Promote the development of selected cash crops
- Promote livestock and poultry development for food security and income generation

2. GOAL

Ministry of Food and Agriculture exists to promote sustainable agriculture and thriving agribusiness through research and technology development, effective extension and other support services to farmers, processors and traders for improved livelihood.

3. CORE FUNCTIONS

The core functions of the Ministry of Food and Agriculture are to:

- Plan and advise the Government on agricultural development policies, administration and management of the agricultural sector of Ghana's economy
- Monitor and evaluate the agricultural sector with emphasis on Crops, livestock, irrigation and mechanization of agricultural industry
- Develop and /or manage Agricultural programs and projects
- Coordinate Agricultural research

4. POLICY OUTCOME INDICATORS AND TARGETS

OUTCOME INDICATOR DESCRIPTION	UNITS OF MEASURE	BASELINE		LATEST STATUS		TARGET					
		Year	Value	Year	Value	Year	Value	Year	Value	Year	Value
PERCENTAGE CHANGE IN OUTPUT/YIELD PER UNIT AREA											
-Maize	Metric Tons (mt) produced per hectare (Ha)	2015	1.82	2016	1.87	2017	1.92	2018	1.97	2019	2.02
- Rice		2015	2.92	2016	3.07	2017	3.2	2018	3.35	2019	3.45
-Sorghum		2015	1.22	2016	1.26	2017	1.3	2018	1.34	2019	1.38
-Cassava		2015	20.01	2016	21.61	2017	22.75	2018	23.99	2019	25.14
-Yam		2015	17.21	2016	17.75	2017	18.18	2018	18.69	2019	19.20
-Cowpea		2015	1.54	2016	1.58	2017	1.65	2018	1.70	2019	1.74
Increased production of poultry, small ruminants and pigs.	**Number (000)**										
	Poultry (including Guinea fowl)	2015	71,594	2016	79,174	2017	84,441	2018	89,773	2019	89,773
	Sheep	2015	4,522	2016	4,716	2017	4,905	2018	5,095	2019	5,285
	Pigs	2015	716	2016	781	2017	830	2018	879	2019	730
	Goats	2015	6352	2016	6,677	2017	6,991	2018	7,307	2019	7,627
Increased number of private mechanization services centers established	Number of centers established.	2015	89	2016	89	2017	130	2018	170	2019	210
Irrigation schemes	Area developed/ hectare (Ha)	2014	100,454	2015	110,500	2016	121,550	2017	131,050.00	2018	151,050
Land productivity increased	Land intensification on ratio.	2014	1.60	2015	1.80	2016	2.00	2017	1.9	2018	1.9
Reduced post harvest losses along the value chain.	**Percentage (%) loss**										
	Maize	2015	18.25	2016	18	2017	17.5	2018	16.22	2019	15.85
	Rice	2015	5.54	2016	5.22	2017	4.64	2018	4.2	2019	3.64
	Cassava	2015	25.46	2016	22.45	2017	20.02	2018	17.59	2019	16.45
	Yam	2015	21.96	2016	20.45	2017	19.55	2018	18.2	2019	17.36
	sorghum	2015	7.48	2016	6.84	2017	6.2	2018	5.45	2019	4.96
HARVEST AND POST HARVEST BASELINE STUDY (PPMED, 2008)											
Reduced levels of underweight and stunting in children	Prevalence of severely or moderately underweight among children (%)	2015	10.6	2016	9.4	2017	9.4	2018	9.4	2019	7.6
Reduction in numbers of food insecure (vulnerable) households	Number of households (thousands)	2015	675	2016	692	2017	709	2018	726	2019	226
National food buffer stock centers established in all regions.	Number of national buffer stock centers.	2015	15	2016	20	2017	20	2018	20	2019	25
Seed and planting material security stocks established	Number of security stocks established	2015	13	2016	18	2017	18	2018	18	2019	18

OUTCOME INDICATOR DESCRIPTION	UNITS OF MEASURE	BASELINE		LATEST STATUS		TARGET					
		Year	Value	Year	Value	Year	Value	Year	Value	Year	Value
in all regions.											
Increased number of people below poverty line engaged in off farm livelihood.	Number of poor/vulnerable person supported	2015	2,400	2016	2,400	2017	2,400	2018	2,400	2019	2,400
Out growers schemes developed and FBOs strengthened	Cumulative outgrower schemes developed	2015	610	2016	678	2017	700	2018	725	2019	750
Increased export of non-traditional agricultural commodities	Quality of non-traditional agricultural commodities exported (mt)	2015	679,452	2016	835,726	2017	962.652	2018	1,096,915	2019	1,320,000
	Percentage change in value of non-traditional agricultural export commodities (%)	2015	19.79	2016	23.00	2017	30.10	2018	36.22	2019	42.20
Institutional capacity for SLM at all levels.	Number of training on environmental integration for climate change for staff	2015	17	2016	25	2017	25	2018	25	2019	25
Increased number of Agricultural technologies	Number of new sustainable agricultural technologies developed	2015	6	2016	6	2017	6	2018	6	2019	6
Increased access to relevant technologies along the value chain.	Number of AEA's receiving ToT training on new technologies	2015	1,866	2016	1,080	2017	1200	2018	1400	2019	1,890
	Number of FBO's and CBO's trained on new technologies developed	2015	300	2016	400	2017	400	2018	400	2019	400
	Number of agricultural information centers functional	2015	50	2016	80	2017	80	2018	80	2019	80

5. EXPENDITURE TRENDS FOR THE MEDIUM-TERM

The Ministry of Food and Agriculture was allocated a budget of GH¢306.89 million and GH¢411.821 million for 2014 and 2015 financial years respectively.

The total expenditure for 2015 stood at GH¢337.220million, an increase from GH¢285.29million in 2014. Out of this, GoG (includes ABFA) accounted for GH¢94.32 million, GH¢182.018 million for Donor and GH¢1.411 million for IGF. The increase in expenditure is mainly due to off budget expenditure mainly from donor inflows.

With respect to Compensation of Employees, an amount of GH¢48.63 million was expended in 2014 whilst in 2015, actual expenditure stood at GH¢63.219 million, an increase of GH¢14.589 million. This increase is as a result of the number of cost centres that were reported on in 2015 (58 cost centres and the national and regional levels). It is worth noting that, there is a donor component of GH¢3.27 million and GH¢3.498 million for 2014 and 2015 respectively.

Total expenditure on Goods and Services decreased from GH¢167.16 million in 2014 to a GH¢126.308 million in 2015. This is because some items which were originally budgeted under Assets in 2014 were expended as Goods and Services due to reclassification within the GIFMIS and the reporting format of some donor projects.

An amount of GH¢69.50 million was expended in 2014 for Assets whilst for 2015 GH¢87.230 million was spent. The increase in expenditure is as a result of increased donor allocation.

The Ministry was allocated a total budget of GH¢501.501 million in 2016 financial year. Out of this, the government contribution is estimated at GH¢59.776 million representing 11.9%, while Development Partners were to contribute GH¢175.341 million representing 34.96% of total budget. Included in the total budget is GH¢4.065 million to be generated internally (0.81%). The other source of funding is from the Annual Budget Funding Amount (ABFA) amounting to GH¢262.317 million (52.30%).

In 2016, the Ministry's budgetary allocation was GH¢501,501,707, out of which a total of GH¢214.486 million has been expended as at 30th September, 2016. Actual receipts as at 30th September, 2016 stood at GH¢255.710 million representing 51.00% of total approved budget.

For the 2017-2019 medium term, the Ministry has been allocated a total amount of GH¢759,676,341, GH¢821,179,420 and GH¢889,752,428 respectively. The spending focus over the medium term will be on Goods and Services.

6. SUMMARY OF KEY ACHIEVEMENTS IN 2016

The key achievements under the programmes are as follows:

Management and Administration

To lay the legal foundation of irrigation in Ghana, the Ministry through the Ghana Commercial Agriculture Project facilitated the passage of The Water User Association (WUL) Law – May 2016 to guide the formation and operations of Irrigation Water User on irrigation infrastructure constructed by government and other partners on behalf of or in concern of Government.

The Ministry has further produced a Model Lease Agreement (MLA) to guide investors and land owners on large scale land transactions. Two other documents have also been produced as guidelines and recommendations to offer guidance to investors.

In line with the Long-Term National Development Plan for Ghana, the Ministry has established a roadmap for the 2018-2021 National Implementation Plan (NAIP) starting with the establishment of the Technical Team in October 2016. The Strategic Framework and Operational Plan is expected to be completed by September 2017.

To coordinate and collaborate with key stakeholders in agriculture, the Ministry organized and attended five agriculture related shows in 2016. Also, the Ministry has successfully organized the 2016 Farmers' Day celebration.

Food Security and Emergency Preparedness

Promote Agriculture Mechanization

The Ministry in 2016 procured 50 tractors with requisite components to support Agriculture Mechanization Service Enterprise Centres (AMSECS). An additional 549 agricultural tractors and other range of agricultural machinery/equipment including planters, boon sprayers, harvesters, threshers, shellers and mobile workshop vans have been imported and assembled for sale to support AMSECS under a Brazilian Credit Facility. This will increase the number of AMSECS from 89 to 130.

Improved Science, Technology and Innovation Application

To improve science, technology and innovation application, 90,000 metric tonnes of subsidized fertilizer out of the target of 170,000mt for 2016 have been procured and distributed to 650.000 crop farmers nationwide.

In line with Part III of the Plants and Fertilizer Act,2010 (Act 803), the Ministry of Food and Agriculture in collaboration with the Ghana Standards Authority (GSA), Ghana Atomic Energy Commission (GAEC), Envaserv Research Consults and the SGS Research Laboratories have analyzed thirty-five (35) out of forty-nine (49) newly

introduced fertilizer samples. Out of these thirty five fertilizer samples, twenty–five (25) have passed the regulatory and technical requirements, five (5) samples are still under bio-efficacy trials at the University of Ghana-Legon, Kwame Nkrumah University of Science and Technology(KNUST) and the Soil Research Institute (SRI) of the Council for Scientific and Industrial Research (CSIR)-Kumasi and five (5) samples recommended for a re-run at other laboratories to test the suitability of the fertilizer products for agricultural purposes in Ghana. As a result, the Ministry has registered 18 fertilizer companies and 25 fertilizer products since January 2016 in accordance with the provisions of the Act 803.

The Ministry has also undertaken a number of activities aimed at promoting the adoption of water-saving technologies through the West Africa Agriculture Productivity Project (WAAPP). WAAPP has conducted a number of demonstrations in low energy consumption and more water-saving technologies for cultivation of high value commodities such as tomato, onion, pepper and leafy vegetables for crop and vegetables farmers under the various irrigation schemes.

The demonstrations which included good agronomic practices were carried out in Ashaiman, Dawhenya, Ada, Akumadan and Bontanga Irrigation Schemes. Other vegetable demonstrations have also been set up on five greenhouses in Dawhenya (2), Ashaiman (1) and Akumadan (2).

Promote Seed and Planting Material Development

The Ministry has again undertaken a number of activities aimed at promoting seed and planting material development. Through the Grains and Legumes Development Board, the Ministry in has produced and distributed 20 metric tonnes of maize foundation seed, 3, 055 metric tonnes of certified seeds of rice, sorghum, cowpea, soya bean, groundnut and citrus foundation seeds to farmers. Additionally, 50,000 mini tubers of seed yam, 3,000 suckers of plantain, 300,000 cuttings of cassava and 3,000 seedlings of citrus have also been produced and distributed to farmers.

Promotion of Crop and Livestock Production

To promote and increase rice production, the Ministry continue to develop large tracks of hectares of land with innovative structures aimed at regulating and conserving water suitable for rain fed rice production. The Ministry through the Rice Sector Support Project have completed the development of water regulatory structures covering 715.1ha in 27 valleys in the Volta Region for rice production. This brings the total coverage area under the project to 4,892.3ha out of a total designed area of 5,697.1ha.

The Ministry under the Ghana Commercial Agriculture Project has also developed 700ha of land in the Nasia-Nabogo valleys in the Northern Region for commercial investors to produce rain-fed rice.

To improve the performance of our local breed of livestock, the Ministry supplied 2,584 various livestock species to livestock farmers at a subsidized rate. This comprises of 650 sheep, 450 goats, 700 pigs, 45 cattle and 739 rabbits from the National Livestock Breeding Stations. Under the West Africa Agricultural Productivity Programme (WAAPP) an additional 90 farmers were supported with 450 small ruminants of superior breed quality.

Production Risks/Bottlenecks in Agricultural Industry

Promote Irrigation Development

The Government of Ghana through the Ministry and other stakeholders continue to provide support for the improvement and expansion of irrigation infrastructure across the country.

The Ministry through the NRGP has completed the construction/rehabilitation of 34 irrigation schemes with a total irrigable area of 2,154.40Ha for the production of rice and vegetables across the country. The schemes are expected to benefit about 19,267 smallholder farmers in the Northern, Upper East, Ashanti, Western, Central, Greater Accra and Volta Regions.

In addition, irrigation infrastructure in the Eastern Region at Aditrase and Kornorkle are about 60% complete. In the Volta Region, works at Atidzive-Ayitekorfe and Aka Basin are 90% complete.

Additionally, Government has provided funds through the Export Development and Agricultural Investment Fund (EDAIF) for works on Irrigation Schemes at Sabare, Kpli- and Ho-Keta Plains, Nasia, Libga, Mprumem, Tamne and Amate. Further collaboration with Integrated Water Management and Agricultural Development (IWAD) Project at Yagaba in the Northern Region is expected to add 413Ha of irrigable area for various crop production including sugarcane for industrial procession into sugar.

To further improve vegetable production, the Government with support from the Korean Government through the Korean Rural Community Cooperation is implementing Phase Two of the Akumadan Irrigation Project called the Rural Development and Improvement of Irrigation System for Vegetable Production. The project when completed is expected to improve irrigation system for vegetable Production in Akumadan in the Offinso-North District. The project will be completed in 2017.

Improved Agricultural Financing

To improved access to credit, the Ministry continue to explore innovative ways of facilitating the process of access to agricultural credit by actors along the value chain. The Ministry through the Northern Rural Growth Programme (NRGP) has successfully introduced the innovative cashless credit scheme which has mitigating measures to address some of the challenges related to diversion of loan proceeds to non-agricultural activities and risk the ability of the borrower to service the loan. The programme attracted 22 Rural and Community Banks (RCB) and 3 commercial banks which have cumulatively provided loans to farmers and other value chain actors to the tune of GHS 7,411,844.38 with an average recovery rate of 90%.

To further strengthen and widen the access to credit by actors along the value chain, the Ministry and AGRA is providing Technical Assistance to the Bank of Ghana in designing and setting up The Ghana Incentive-Based Risk Sharing System for Agricultural Lending (GIRSAL) aimed at employing a holistic approach to address challenges faced by the agricultural value chain actors in accessing finance/credit. The main objective of GIRSAL is to reduce the overall risks in agricultural financing to boost agricultural production, productivity and export with the aim of increasing foreign exchange earnings, supporting import substitution and promoting economic growth and development in Ghana. GIRSAL will be based on six main pillars namely; (i) Risk sharing Facility, (ii) Technical Assistance Facility (iii) Agribusiness Insurance (iv) Bank Rating Scheme, (v) Bank Incentive Mechanism and (vi) Digital Finance.

Among the benefits from GIRSAL incudes' but not limited to (i) Increased Foreign Exchange Earnings through Export and Import Substitution, (ii) Food Security, (iii) Increased Employment to reduce inequality and poverty, (iv) Increased Income for Farmers and wider tax base and Macroeconomic Stability. The programme has been successfully launched and full blown implementation will take effect from 2017.

Promote Sustainable Environment, Land and Water Management

The Ministry continue to develop large tracks of hectors of land with innovative structures aimed at regulating and conserving water suitable for rain fed rice production. The ministry through the Rice Sector Support Project have completed the development of water regulatory structures covering 715.1ha in 27 valleys in the Volta Region. This bring the total area covered under the project to 4,892.3ha out of a total designed area of 5,697.1ha.

The Ministry under the Ghana Commercial Agriculture Project has also developed 700ha of land in the Nasia-Nabogo valleys in the Northern Region for commercial investors in

rain-fed agriculture. 2,300ha of land will be developed for various investors to produce rain fed rice in 2017.

Works have also been completed on a 1,003ha flood recession scheme under the Northern Rural Growth Programme to add to the area for rain-fed rice and high value vegetable production. All 7 schemes are expected to be under rice cultivation used from the next season in 2017. Over 2,000 farmers are expected to benefit from the schemes.

The Ministry cultivated 6 hectares of land at Ejura Sheep Breeding Station with Stylosanthes hamata to produce about 5 tonnes of seed for over-sowing of range lands in communities experiencing over grazing. This is to promote Land and water management by way of reducing the impact of climate change and overgrazing for a sustainable environment.

Improved Institutional Coordination for Agriculture Development

To improved institutional coordination, the Ghana Irrigation Development Authority under the Ministry continued its collaboration with Ghana Social Opportunities Project (GSOP) in the rehabilitation of dams/dugouts in the Upper West, Upper East and Northern Regions. As at the end of July 2016, 42 dams/dugouts have been completed in the Upper East Region while work is on-going at 22 sites. 50 dams/dugouts have been completed in the Upper West Region, while work is on-going at 13 sites. In the Northern Region, 20 dams/dugs have been completed while work is still on-going at 32 sites.

As part of the Ministry's technical support for both private and public institutions and individuals, the GIDA is again supporting Volta River Authority (VRA) to conduct feasibility study of a 20,000ha Pwalugu Multipurpose dam. The project comprises energy production, irrigation, flood management, portable water provision, fisheries development and tourism sub-components. The VRA has funded the feasibility study of the project.

The Ministry through GIDA again provided support to World Food Program (WFP) to train District Assembly and Ministry of Food and Agriculture staff in labour-intensive methods of rehabilitation of dams/dug-outs in Brong Ahafo, Volta and the three Northern regions under the Assets Creation Programme. Eighteen staff have been trained in the Volta and Brong Ahafo Regions each, 15 in Upper West Region and a total of 40 in Northern and Upper East Regions.

Improve Post-Production Management/ Rural Infrastructure Development

The Ministry has constructed a number of warehouses and pack houses for the storage of cereals grains, fruits, and vegetables across the country. The Ministry through the Northern Rural Growth Programme has taking over all of 8 warehouses and 4 pack

houses. This is expected to improved food security and reduced post-harvest losses. Each warehouse has the capacity to store 10,000 meter cubic of produce.

The Ministry in collaboration with the Department of Feeder Roads has also completed the construction/rehabilitation of over 600Km of feeder roads linking farming communities to urban/marketing centers. This is expected to further improve the post production management.

1.5. Appropriation Bill

Summary of Expenditure by Sub-Programme, Economic Item and Funding

Entity: 012 - Ministry of Food and Agriculture (MOFA)
Year: 2017 **| Currency:** Value
Version 1

	GoG				IGF				Funds / Others			Donors			Grand Total
	Compensation of employees	Goods and Services	Capex	Total	Compensation of employees	Goods and Services	Capex	Total	Statutory	ABFA	Others	Goods and Services	Capex	Total	
012001 - Management and Administration	**5,633,871**	**5,763,000**	**600,000**	**11,996,871**						**5,000,000**		**238,552,316**	**119,996,683**	**358,548,999**	**375,545,870**
0120011 - Finance and Administration	2,402,429	5,763,000	600,000	8,765,429						5,000,000		231,952,316	119,996,683	351,948,999	365,714,428
0120012- Human Resource Development and Management	364,419			364,419								5,250,000		5,250,000	5,614,419
0120013- Policy; Planning; Budgeting; Monitoring and Evaluation	1,865,349			1,865,349								1,050,000		1,050,000	2,915,349
0120014 - Research, Statistics, Information, Coomunication and Public Relations	1,001,674			1,001,674								300,000		300,000	1,301,674
012002 - Food Security and Emergency Preparedness	**33,847,273**	**186,039,529**		**219,886,802**		**1,700,000**	**400,000**	**2,100,000**		**98,214,220**		**13,262,030**		**13,262,030**	**333,463,052**
0120021 - Productivity improvement.	4,090,613	184,739,529		188,830,142		1,700,000	400,000	2,100,000				9,322,060		9,322,060	200,252,202
0120022 - Mechanization, Irrigation and water management	5,736,846	200,000		5,936,846						89,814,220		150,000		150,000	95,901,066
0120023 - Food storage, distribution and improved nutrition	727,791	1,100,000		1,827,791						8,400,000		450,000		450,000	10,677,791
0120024- Early warning systems and emergency preparedness.	23,292,023			23,292,023								3,339,970		3,339,970	26,631,993
012003 - Increased Growth in Incomes	**13,385,240**	**70,000**		**13,455,240**		**57,495**	**307,598**	**365,093**				**778,000**		**778,000**	**14,598,333**
0120031- Promotion of cash crop; and livestock production	13,176,641	70,000		13,246,641		57,495	307,598	365,093				778,000		778,000	14,389,734
0120033- Rural Infrastructure Development	208,599			208,599											208,599
012004 - Marketing of Agricultural Produce/Products												**30,000**		**30,000**	**30,000**
0120040- Agricultural Produce Marketing												30,000		30,000	30,000
012006 - Application of Science and Technology in Food and Agric Development	**1,039,086**			**1,039,086**						**35,000,000**					**36,039,086**
0120060- Science and Technology in Agricultural Production	1,039,086			1,039,086						35,000,000					36,039,086
Grand Total	**53,905,470**	**191,872,529**	**600,000**	**246,378,000**		**1,757,495**	**707,598**	**2,465,093**		**138,214,220**		**252,622,346**	**119,996,683**	**372,619,029**	**759,676,342**

PART B: BUDGET PROGRAMME SUMMARY

PROGRAMME 1: MANAGEMENT AND ADMINISTRATION

1. Budget Programme Objectives

- To Improve institutional coordination within MOFA and other relevant Agencies (Private Sector, Civil Society, DPs, MDAs)
- To strengthen institutions within the Ministry
- To strengthen policy, planning, monitoring and evaluation within the Ministry

2. Budget Programme Description

The Management and Administration Programme provides all of the cross-cutting services required in order that the other Programmes can succeed in achieving their objectives. The Programme is responsible for:

- Setting the MDA's policy direction through the reviews, formulation and coordination of policies and programmes.
- Managing human resource, budget, finance, central procurement, stores and logistics, ICT Services, public relations, organizational development and corporate training.

The organizational units responsible for delivering this programme are General Administration and Finance, PPMED, HRDM and SRID.

The beneficiaries of this programme are the Ministry and other key stakeholders in the agricultural sector. The programme is funded mainly by GoG, Donor (CIDA, GIZ, WB, USAID etc.) and IGF.

The main challenge faced in the delivery of this programme is the weak collaboration in planning and execution of policies and programmes with key stakeholders.

2.9. Budget by Chart of Account

9 - Sub-Programme and Natural Account

Entity: 012 - Ministry of Food and Agriculture (MOFA)
Funding: All Source of Funding
Year: 2017 | **Currency:** GH Cedi
Version 1

	Budget	Indicative Year	Indicative Year
012001 - Management and Administration	**375,545,870**	**375,225,870**	**375,225,870**
012001 - Management and Administration	**375,545,870**	**375,225,870**	**375,225,870**
21 - Compensation of employees [GFS]	5,633,871	5,633,871	5,633,871
211 - Wages and salaries [GFS]	5,533,871	5,533,871	5,533,871
212 - Social contributions [GFS]	100,000	100,000	100,000
Goods and Services	249,315,316	248,995,316	248,995,316
22 - Use of goods and services	249,315,316	248,995,316	248,995,316
31 - Non financial assets	120,596,683	120,596,683	120,596,683
311 - Fixed assets	120,596,683	120,596,683	120,596,683

BUDGET SUB-PROGRAMME SUMMARY
PROGRAMME 1: MANAGEMENT AND ADMINISTRATION

SUB-PROGRAMME SP 1.1: Finance and Administration

1. Budget Sub-Programme Objectives

- To effectively coordinate the activities of the Ministry and its Agencies
- To ensure the provision of adequate logistics
- To establish and implement an effective and efficient financial management system within the Ministry.

2. Budget Sub-Programme Description

This sub-programme seeks to develop an effective electronic framework for financial and asset management and for quarterly and annual reporting. It seeks to train and upgrade accounting staff in financial and asset management. The sub programme also looks at the coordination activities of the Ministry and its Agencies through the office of the Chief Director. The main operations are to:

- Issue directives that are consistent with the policy direction of the Ministry;
- Provide logistics (e.g. procurement, transport etc.);
- Manage assets and liabilities (i.e. Plan and administer the maintenance of properties, manage lease agreements, etc.);
- Audit financial transactions and respond to external audit queries; and
- Provide legal services.

The organizational units responsible for delivering this sub-programme are General Administration and Finance with a total number of 100 staff.

The beneficiaries of this programme are the Ministry and its agencies in the agricultural sector. The programme is funded mainly by GoG, Donor (CIDA, JICA etc.) and IGF.
The main challenge faced in the delivery of this sub-programme is the high attrition rate of staff.

3. Budget Sub-Programme Results Statement

The table indicates the main outputs, its indicators and projections by which the Ministry measures the performance of this sub-programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Agriculture related national and international shows organized	Number of shows organized	5	5	5	4	4
Procurement plan prepared	Plan prepared by	31st October	31st Oct.	31st Oct.	31st Oct.	31st Oct.
Asset register	Asset register reviewed by	31st Dec.	31st Dec.	31st Dec.	31st Dec.	31st Dec.
Reports produced	Number of financial reports	4	4	4	4	4
	Audit report	1	1	1	1	1

4. Budget Sub-Programme Operations and Projects

The table lists the main Operations and Projects to be undertaken by the sub-programme.

Operations	Projects
Internal Management of the Organisation	Computer Hardware's and accessories
Local and International Affiliations.	
Preparation of Financial Reports	
Procurement of Office Supplies and Consumables	
Treasury and Accounting Activities	
Legal and Administrative Framework Reviews	
Contractual Obligations and Commitments	
Internal Audit Operations	

2.7 Budget by Chart of Account

7 - Sub-Programme and Natural Account

Entity: 012 - Ministry of Food and Agriculture (MOFA)
Funding: All Source of Funding
Year: 2017 | **Currency:** GH Cedi
Version 1

	Budget	Indicative Year	Indicative Year
0120011 - Finance and Administration	**365,714,428**	**365,394,428**	**365,394,428**
0120011 - Finance and Administration	**365,714,428**	**365,394,428**	**365,394,428**
21 - Compensation of employees [GFS]	2,402,429	2,402,429	2,402,429
22 - Use of goods and services	242,715,316	242,395,316	242,395,316
31 - Non financial assets	120,596,683	120,596,683	120,596,683

BUDGET SUB-PROGRAMME SUMMARY
PROGRAMME 1: MANAGEMENT AND ADMINISTRATION

SUB-PROGRAMME SP 1.2: Human Resource Development and Management

1. Budget Sub-Programme Objective

To improve human resource capacity of all directorates of MOFA and relevant Agencies.

2. Budget Sub-Programme Description

The operations of the sub-programme involve recruiting, upgrading and adequately resourcing the HRDM and other directorates to function effectively. It also seeks to build capacity of MOFA, Agricultural-related MDAs and the private sector to enhance agriculture productivity.

The sub-programme through the agricultural training colleges provide training for middle level manpower personnel whilst the farm institutes provide vocational training to prospective and practicing farmers and farm hands. The Human Resource Development and Management Directorate also collaborate with tertiary institutions on graduate and postgraduate training of MOFA staff and also undertake curriculum review in line with the sector needs.

The main operations under this sub-programme include facilitate the training of staff, conduct tracer studies and outreach programmes to increase enrolment of females into the agricultural institutions and coordinate staff progression activities.

The organizational unit responsible for delivering this sub-programme is the Human Resource Development and Management Directorate with a total number of 342 Staff. The beneficiaries of this programme are the staff of Ministry, farmers and the youth. The programme is funded mainly by GoG, Development Partners Fund (CIDA, GIZ etc.) and IGF. The main challenge faced in the delivery of this sub-programme is the high attrition rate of staff.

3. Budget Sub-Programme Results Statement

The table indicates the main outputs, its indicators and projections by which the Ministry measures the performance of this sub-programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Human resource database reviewed and updated quarterly	Number of times updated in a year	1	1	1	1	1
Human resource within the ministry, relevant MDAs and other actors along the agricultural value chain developed (trained).						
- In-service training	Number of staff trained	85	90	95	105	110
- Local courses		52	60	65	72	78
- Foreign training		62	70	75	80	85
- Middle level manpower training		550	600	600	650	700
- Prospective and practicing farmers vocational training		200	250	300	300	300

4. Budget Sub-Programme Operations and Projects

The table lists the main Operations and Projects to be undertaken by the sub-programme.

Operations	Projects
Agric Education	No Projects
Procurement of Office Supplies and Consumables	
Human Resource Database	
Manpower Skills Development	
Local and International Affiliations	
Management and Monitoring Policies Programmes and Projects	
Recruitment, Placement and Promotions	

2.7 Budget by Chart of Account

7 - Sub-Programme and Natural Account

Entity: 012 - Ministry of Food and Agriculture (MOFA)
Funding: All Source of Funding
Year: 2017 | **Currency:** GH Cedi
Version 1

	Budget	Indicative Year	Indicative Year
0120012- Human Resource Development and Management	**5,614,419**	**5,614,419**	**5,614,419**
0120012- Human Resource Development and Management	**5,614,419**	**5,614,419**	**5,614,419**
21 - Compensation of employees [GFS]	364,419	364,419	364,419
22 - Use of goods and services	5,250,000	5,250,000	5,250,000

BUDGET SUB-PROGRAMME SUMMARY
PROGRAMME 1: MANAGEMENT AND ADMINISTRATION

SUB-PROGRAMME SP 1.3: Policy, Planning, Budgeting, Monitoring and Evaluation (PPBME)

1. Budget Sub-Programme Objective

- To improve planning, policy analysis, monitoring and evaluation in the agricultural sector.
- To strengthen the platform for engagement between MOFA and DPs, Civil Society Organizations, the Private Sector and other MDAs.

2. Budget Sub-Programme Description

This sub-programme seeks to facilitate the formulation of policies, programmes and projects for the development of agriculture in Ghana. It also monitors and evaluates the implementation of these policies and programmes. The sub-program also promotes coordination between stakeholders to address emerging issues and mitigate risks to the achievement of objectives of the sector.

The main operations involved are:

- Planning, development and review of all policy documents.
- Coordinating the preparation and implementation of the Ministry's budget
- Monitoring, evaluation and reporting on implementation of programmes and projects

The organizational entities responsible for delivering this sub-programme are the Policy, Planning and Budget Directorate, Monitoring and Evaluation Directorate, Project Coordination and Agribusiness units with a total staff strength of 83.

The beneficiaries of this programme are the Ministry, its agencies and other stakeholders. The programme is funded mainly by GoG, Donor (CIDA, USAID, GIZ etc.)

The main challenge faced in the delivery of this sub-programme is the high attrition rate of staff. The directorate as at 2015 had a staff strength of 88, however this figure is now reduced to 83 as indicated above.

3. Budget Sub-Programme Results Statement

The table indicates the main outputs, its indicators and projections by which the Ministry measures the performance of this sub-programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Monitoring and evaluation reports	MoFA Annual Performance Reports Produced (APR),	March	March	March	March	March
	MoFA Joint Sector Review conducted	June	June	June	June	June
Annual Budget prepared and implemented	Internal Budget hearing organized	August	August	August	August	August
	MoFA Annual Budget Prepared	November	November	November	November	November
Private sector Investment into the Agricultural sector increased.	Investment guide for the agriculture sector in Ghana.	31st December	31st December	31st December	31st December	31st December
	Number of Agribusiness Development and Incubator Programs for start-ups mapped out.	31st December	31st December	31st December	31st December	31st December
Trainings and sensitization workshops for the youth on agribusiness investments enrolled.	Number of youth trained and sensitized on agribusiness investments.	30th September	30th September	30th September	30th September	30th September

4. Budget Sub-Programme Operations and Projects

The table lists the main Operations and Projects to be undertaken by the Sub-programme.

Operations	Projects
Budget Preparation and implementation	No Projects
Budget Performance Reporting	
Planning and Policy Formulation	
Publication and dissemination of Policies and Programmes	
Policies and Programmes Review Activities	
Management and Monitoring Polices, Programmes and Projects	
MoFA Annual Performance Report	
Joint Sector Review (JSR)	
Evaluation and impact assessment activities	

2.7 Budget by Chart of Account

7 - Sub-Programme and Natural Account

Entity: 012 - Ministry of Food and Agriculture (MOFA)
Funding: All Source of Funding
Year: 2017 | **Currency:** GH Cedi
Version 1

	Budget	Indicative Year	Indicative Year
0120013- Policy; Planning; Budgeting; Monitoring and	**2,915,349**	**2,915,349**	**2,915,349**
0120013- Policy; Planning; Budgeting; Monitoring and Evaluation	**2,915,349**	**2,915,349**	**2,915,349**
21 - Compensation of employees [GFS]	1,865,349	1,865,349	1,865,349
22 - Use of goods and services	1,050,000	1,050,000	1,050,000

BUDGET SUB-PROGRAMME SUMMARY
PROGRAMME 1: MANAGEMENT AND ADMINISTRATION
SUB-PROGRAMME SP 1.4: Research, Statistic, Information, Communication and Public Relations

1. Budget Sub-Programme Objective

To provide relevant, timely and reliable data for policy formulation and decision making.

2. Budget Sub-Programme Description

- Upgrade capacity of MoFA staff on information/knowledge management

The organizational units responsible for delivering this sub-programme are the Statistics Research and Information Directorate (SRID), Information Communication Technology (ICT) Unit and the Ministry of Food and Agriculture Information Resource Centre (MOFAIR) with a total number of 45 Staff.

The beneficiaries of this programme are the Ministry, its agencies and other stakeholders. The programme is funded mainly by GoG, Donor (CIDA, USAID, GIZ etc.). The main challenge faced in the delivery of this sub-programme is the high attrition rate of staff.

3. Budget Sub-Programme Results Statement

The table indicates the main outputs, its indicators and projections by which the Ministry measures the performance of this sub-programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Reliable and timely information	Number of website hits	150000	180000	220000	240000	260000
Agricultural Facts and Figures disseminated	Number of copies	1,200	1,400	1,600	1,800	1,800
Intranet established in all directorates	Number of Directorates connected	5	5	10	10	13
MOFA staff capacity in ICT upgraded	Number of staff trained	62	62	82	85	85

4. Budget Sub-Programme Operations and Projects

The table lists the main Operations and Projects to be undertaken by the sub-programme.

Operations	Projects
Research and Development	Ghana Agricultural Production Survey (GAPS

2.7 Budget by Chart of Account

7 - Sub-Programme and Natural Account

Entity: 012 - Ministry of Food and Agriculture (MOFA)
Funding: All Source of Funding
Year: 2017 | **Currency:** GH Cedi
Version 1

	Budget	Indicative Year	Indicative Year
0120014 - Research, Statistics, Information, Coomunication	**1,301,674**	**1,301,674**	**1,301,674**
0120014 - Research, Statistics, Information, Coomunication and Public Relations	**1,301,674**	**1,301,674**	**1,301,674**
21 - Compensation of employees [GFS]	1,001,674	1,001,674	1,001,674
22 - Use of goods and services	300,000	300,000	300,000

BUDGET PROGRAMME SUMMARY
PROGRAMME 2: FOOD SECURITY AND EMERGENCY PREPAREDNESS

1. Budget Programme Objectives

- To reduce food and nutrition insecurity through modernized agriculture
- To maintain national strategic stocks for emergencies
- To establish effective early warning systems

2. Budget Programme Description

The programme for enhancing food security and emergency preparedness is delivered through a number of sub-programmes, namely:

- **Productivity Improvement**: This identifies updates and disseminates technological packages and assists farmers to stay abreast with good industry practices.
- **Mechanization, Irrigation and Water Management**: The sub-programme is responsible for policy formulation and development of programmes and projects to improve access to farm power machinery and appropriate technology. It also involves increasing irrigated areas while emphasizing water management techniques.
- **Food Storage, Distribution and Improved Nutrition**: This is responsible for improving advocacy on nutrition and food fortification whiles reducing post-harvest losses.
- **Diversification of Livelihood Options**: Involves agro processing, Micro and Small Enterprises (MSEs) production of soap and creams from agricultural by-products.
- **Early Warning Systems and Emergency Preparedness**: This identifies disaster prone areas of the country and constructs vulnerability maps to support targeting of food security and emergency preparedness interventions.

The organizational units responsible for delivering this programme are General Administration and Finance, PPMED, HRDM and SRID.

The beneficiaries of this programme are the Ministry and other key stakeholders in the agricultural sector. The programme is funded mainly by GoG, Donor (CIDA, GIZ, WB, USAID etc.) and IGF.

2.9. Budget by Chart of Account

9 - Sub-Programme and Natural Account

Entity: 012 - Ministry of Food and Agriculture (MOFA)
Funding: All Source of Funding
Year: 2017 | **Currency:** GH Cedi
Version 1

	Budget	Indicative Year	Indicative Year
012002 - Food Security and Emergency Preparedness	**333,463,052**	**239,652,559**	**239,652,559**
012002 - Food Security and Emergency Preparedness	**333,463,052**	**239,652,559**	**239,652,559**
21 - Compensation of employees [GFS]	33,847,273	29,672,980	29,672,980
211 - Wages and salaries [GFS]	33,847,273	29,672,980	29,672,980
Goods and Services	205,815,779	201,179,579	201,179,579
22 - Use of goods and services	205,815,779	201,179,579	201,179,579
31 - Non financial assets	93,800,000	8,800,000	8,800,000
311 - Fixed assets	93,800,000	8,800,000	8,800,000

BUDGET SUB-PROGRAMME SUMMARY
PROGRAMME 2: FOOD SECURITY AND EMERGENCY PREPAREDNESS
SUB-PROGRAMME SP 2.1: Productivity Improvement

1. Budget Sub-Programme Objective

- To increase productivity of priority commodities through the use of improved agricultural inputs and Good Agricultural Practices (GAP).
- To improve seed/planting material/breeding stock for multiplication in the Agricultural Stations and other locations in all regions

2. Budget Sub-Programme Description

This sub-programme identifies updates and disseminates technological packages to assist farmers to stay abreast with good industry practices. It also introduces new and improved seed/planting material/breeding stock (high yielding, short duration, disease and pest resistant and nutrient-fortified) to increase productivity.

The main functions under this sub-programme are as follows;

- Facilitate farmer access to improved planting materials, breeding stock and fertilizer
- Expand infrastructure for seed/planting materials and breeding stock production, processing, storage and marketing to facilitate private sector involvement.
- Increase production in targeted products such as poultry (including Guinea Fowl), small ruminants and pigs.
- Promote the production and productivity of roots and tuber crops
- Develop arable lands for rice cultivation

The organizational units responsible for delivering this sub-programme are CSD, PPRSD, APD, GLDB, VSD and DAES. The beneficiaries of this sub-programme are farmers and other stakeholders. The programme is funded mainly by GoG, Donor (CIDA, GIZ, WB, USAID, IFAD, AfDB, and JICA) and IGF.

The main challenges faced in the delivery of this sub-programme are high cost of agricultural inputs, dilapidated infrastructure for processing and storage, and absence of a harmonized regulatory framework.

3. Budget Sub-Programme Results Statement

The table indicates the main outputs, its indicators and projections by which the Ministry measures the performance of this sub-programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Increased yields in:						
Maize	Metric Tonnes per Hectare	1.82	1.87	1.92	1.97	2.02
Rice (Paddy)		2.92f	3.07	3.20	3.35	3.45
Sorghum		1.22	1.26	1.30	1.34	1.38
Cassava		20.01	21.61	22.75	23.99	25.14
Yam		17.21	17.75	18.18	18.69	19.20
Cowpea		1.54	1.58	1.65	1.70	1.74
Increased Production of:						
Poultry (Including guinea fowl)	Number	53,650	79,174	84,441	89,773	94,445
Sheep		4,521	4,716	4,905	5,095	5,272
Pigs		730	781	830	879	910
Goats		6,353	6,677	6,991	7,307	7,623

4. Budget Sub-Programme Operations and Projects

The table lists the main Operations and Projects to be undertaken by the sub-programme.

Operations	Projects
Agricultural facilities and Infrastructure	Development and Management of Farmer Based Organizations
Operation of agricultural research stations	
National strategic stock programmes	
Sustainable Land and Water Management	
Plants, Fertilizer and Seed Management	
Production and acquisition of improved breeds	
Surveillance and Management of Diseases and Pests	
Development and production of guides for training	

Operations	Projects
on GAPs	
Production of improved seeds/planting materials	

2.7 Budget by Chart of Account

7 - Sub-Programme and Natural Account

Entity: 012 - Ministry of Food and Agriculture (MOFA)
Funding: All Source of Funding
Year: 2017 | **Currency:** GH Cedi
Version 1

	Budget	Indicative Year	Indicative Year
0120021 - Productivity improvement.	**200,252,202**	**196,694,124**	**196,694,124**
0120021 - Productivity improvement.	**200,252,202**	**196,694,124**	**196,694,124**
21 - Compensation of employees [GFS]	4,090,613	3,718,735	3,718,735
22 - Use of goods and services	195,761,589	192,575,389	192,575,389
31 - Non financial assets	400,000	400,000	400,000

BUDGET SUB-PROGRAMME SUMMARY
PROGRAMME 2: FOOD SECURITY AND EMERGENCY PREPAREDNESS

SUB-PROGRAMME SP 2.2: Mechanization, Irrigation and Water Management

1. Budget Sub-Programme Objectives

- To provide access to efficient mechanized services along the value chain
- To accelerate the development and management of irrigation schemes.
- To improve productivity through increased land intensification ratios on water management schemes.

2. Budget Sub-Programme Description

Mechanization

This component of the sub-programme ensures the availability of farm power machinery and other engineering technologies for all categories of farmers and agro – processors along the value chain.

The main operations involved are:

- Facilitate the establishment of private sector led Agricultural Mechanisation Services Enterprise Centers to provide mechanised services to farmers. (At least one AMSEC established in each district).
- Identify and select appropriate farm power machinery and equipment for farmers in collaboration with research institutes.
- Develop the skilled man power to handle, manage and maintain farm power machinery
- Develop the skilled man power to locally fabricate simple tools and parts for machinery
- Promote the use of simple and gender friendly farm tools and equipment by small holder farmers,
- Intensify the use of animal traction and intermediate means of transport by smallholder farmers operating on fragile soils.

Irrigation and Water Management

This component of the sub-programme seeks to expand the area under irrigated agriculture through the execution of plans leading to the development of land and water resources.

The main operations involved are;

- Undertaking site identification, selection and conducting feasibility studies.
- Mapping out suitable and potential sites for irrigation development.
- Facilitating construction of new irrigation schemes and rehabilitation of existing ones.
- Supporting the formation and training of farmer groups (water users) in water management practices, facility operation and maintenance.
- Training extension workers in irrigation and water management techniques
- Providing scheme management services to farmers on public irrigation schemes.
- Providing technical services on irrigated agriculture to its clients.

The organizational units responsible for delivering this sub-programme are the Agricultural Engineering Services Directorate, Irrigation Company of Upper Region (ICOUR) and the Ghana Irrigation Development Authority through its regional and scheme offices and now have a total staff number of 34 after a restructuring.
The beneficiaries of this sub-programme are farmers and entrepreneurs. The main sources of funding are GoG, Donor (CIDA, WB, AfDB, BADEA, JICA Brazilian Credit Facility, Japanese grant facility, EDAIF, etc and IGF.

The challenges faced in the delivery of this sub-programme are:

- High attrition rate of professional staff and machinery (tractor) operators.
- Inadequate Agricultural Machinery Workshops and spare parts dealers to provide after sales services.
- Absence/lack of basic maintenance equipment to cut down on cost of rehabilitation of schemes.
- High energy cost of pump schemes.

3. Budget Sub-Programme Results Statement

The table indicates the main outputs, its indicators and projections by which the Ministry measures the performance of this sub-programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Land productivity increased	Land intensification ratio	1.80	2.0	1.90	1.90	1.8
Irrigation schemes developed	Area developed (ha)	110,500	121,550	131,050	140,850	160,920
Private sector mechanization centers established	Number of centers established	130	170	210	240	300

4. Budget Sub-Programme Operations and Projects

The table lists the main Operations and Projects to be undertaken by the

Operations	Projects
Agricultural Facilities and Infrastructure (Maintenance of machinery and plant, office facilities etc)	Agricultural facilities and Infrastructure (Irrigation systems etc.)
Sustainable Land and Water Management (Visits conferences, seminars etc)	Sustainable Land and Water Management (Irrigation systems)

2.7 Budget by Chart of Account

7 - Sub-Programme and Natural Account

Entity: 012 - Ministry of Food and Agriculture (MOFA)
Funding: All Source of Funding
Year: 2017 | **Currency:** GH Cedi
Version 1

	Budget	Indicative Year	Indicative Year
0120022 - Mechanization, Irrigation and water	**95,901,066**	**10,084,911**	**10,084,911**
0120022 - Mechanization, Irrigation and water management	**95,901,066**	**10,084,911**	**10,084,911**
21 - Compensation of employees [GFS]	5,736,846	5,270,691	5,270,691
22 - Use of goods and services	5,164,220	4,814,220	4,814,220
31 - Non financial assets	85,000,000		

BUDGET SUB-PROGRAMME SUMMARY
PROGRAMME 2: FOOD SECURITY AND EMERGENCY REPAREDNESS

SUB-PROGRAMME SP 2.3: Food Storage, Distribution and Improved Nutrition

1. Budget Sub-Programme Objectives

- To improve advocacy on nutrition education, food fortification and food-based nutrition interventions.
- To reduce post – harvest losses and improve storage and distribution systems

2. Budget Sub-Programme Description

This sub-programme focusses on reducing risks associated with natural disasters, diseases/pest outbreaks and ensuring availability of food stocks. It also involves the establishment of regulated warehousing systems and developing technologies in post-harvest handling for actors along the value chain. The sub-programme further seeks to improve the intake of nutrients-dense foods through awareness creation.

The main operations under this sub-program include:

- Capacity building of relevant stakeholders in better harvesting, transportation and storage methods, introduction of grading methods and strengthening linkages between producers and markets;
- Improving advocacy/nutrition education to enhance knowledge of the importance of optimum nutrition; and
- Ensuring food production systems that take into consideration foodstuffs with both macro and micro nutrients and food fortification/enrichment as an important component of food processing.

The organizational units responsible for delivering this sub-programme are the Women in Agricultural Development, Agricultural Engineering Services Directorate, Plant Protection and Regulatory Services Directorate, National Buffer Stock Company Limited with a total staff number of 164. The beneficiaries of this sub-programme are farmers and other stakeholders along the value chain. The main sources of funding are GoG, Donor (CIDA, WB, AfDB, BADEA, JICA, Japanese grant facility, etc) and IGF.

The challenges faced in the delivery of this sub-programme are:

- Inadequate warehousing facilities
- Low integration of commodity markets

3. Budget Sub-Programme Results Statement

The table indicates the main outputs, its indicators and projections by which the Ministry measures the performance of this sub-programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Post-harvest losses reduced						
Maize	Percentage (%)	1.82	1.87	1.92	1.97	2.0
Rice		2.92	3.07	3.20	3.35	3.70
Sorghum		1.22	1.26	1.30	1.34	1.71
Cowpea		1.54	1.58	1.65	1.70	1.80
Cassava		20.01	21.61	22.75	23.99	25.00
Yam		17.21	17.75	18.18	18.69	20.12
Volumes of strategic stocks						
- Stored Grains	Metric tonnes (MT)	50,000	50,000	50,000	50,000	50,000

4. Budget Sub-Programme Operations and Projects

The table lists the main Operations and Projects to be undertaken by the sub-programme.

Operations	Projects
Agricultural Education	Agricultural Facilities and Infrastructure (Warehouses etc)

2.7 Budget by Chart of Account

7 - Sub-Programme and Natural Account

Entity: 012 - Ministry of Food and Agriculture (MOFA)
Funding: All Source of Funding
Year: 2017 | **Currency:** GH Cedi
Version 1

	Budget	Indicative Year	Indicative Year
0120023 - Food storage, distribution and improved	**10,677,791**	**9,577,791**	**9,577,791**
0120023 - Food storage, distribution and improved nutrition	**10,677,791**	**9,577,791**	**9,577,791**
21 - Compensation of employees [GFS]	727,791	727,791	727,791
22 - Use of goods and services	1,550,000	450,000	450,000
31 - Non financial assets	8,400,000	8,400,000	8,400,000

BUDGET SUB-PROGRAMME SUMMARY
PROGRAMME 2: FOOD SECURITY AND EMERGENCY PREPAREDNESS
SUB-PROGRAMME SP 2.4: Early Warning Systems and Emergency Preparedness

1. Budget Sub-Programme Objective

To reduce risks associated with natural disasters and disease/pests outbreaks and ensure availability of adequate food stocks

2. Budget Sub-Programme Description

The Sub-Programme seeks to establish and coordinate early warning systems to prevent and manage emergencies and expand national strategic stocks to ensure that emergencies are effectively managed.

This is achieved by:

- Inspecting and certifying all seeds/planting materials and animal products and produce;
- Coordinating pest and disease surveillance activities;
- Facilitating activities of diagnostic laboratories;
- Establishing Buffer stock centres in all regions;
- Establishing a National Seed Security stock for emergencies; and
- Collaborate with Relevant agencies to identify early warning signs.

The organizational units responsible for delivering this sub-programme are the Crops Services Directorate, Plant Protection and Regulatory Services Directorate, Grains and Legumes Development Board, National Buffer Stock Company, Veterinary Services Directorate with a total staff number of 1196.

The beneficiaries of this sub-programme are farmers and other stakeholders along the value chain. The main sources of funding are GoG, Donor (CIDA, AfDB, World Food Programme etc).

The challenges faced in the delivery of this sub-programme are:

- Weak collaboration among key stakeholders
- Inadequate warehousing facilities

3. Budget Sub-Programme Results Statement

The table indicates the main outputs, its indicators and projections by which the Ministry measures the performance of this sub-programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Reduction in numbers of food insecure (vulnerable) households	Number of households (thousand)	675	692	709	726	728
National food buffer stock centers established in all regions.	Number of buffer stock centers	15	20	-	-	-
Seed/planting material security stock established in all regions	Number of security stock established	13	18	18	18	18
The poor/ vulnerable supported to engage in off- farm livelihood alternatives.	Number poor /vulnerable persons supported	2,400	2,400	2,400	2,400	2,400

4. Budget Sub-Programme Operations and Projects

The table lists the main Operations and Projects to be undertaken by the sub- programme.

Operations	Projects
National Fruit fly management	No Projects
National Vaccination exercise	
Surveillance and Management of Diseases and Pests	

2.7 Budget by Chart of Account

7 - Sub-Programme and Natural Account

Entity: 012 - Ministry of Food and Agriculture (MOFA)
Funding: All Source of Funding
Year: 2017 | **Currency:** GH Cedi
Version 1

	Budget	Indicative Year	Indicative Year
0120024- Early warning systems and emergency	**26,631,993**	**23,295,733**	**23,295,733**
0120024- Early warning systems and emergency preparedness.	**26,631,993**	**23,295,733**	**23,295,733**
21 - Compensation of employees [GFS]	23,292,023	19,955,763	19,955,763
22 - Use of goods and services	3,339,970	3,339,970	3,339,970

BUDGET PROGRAMME SUMMARY
PROGRAMME 2: FOOD SECURITY AND EMERGENCY

PREPAREDNESS

SUB-PROGRAMME SP 2.5: Diversification of Livelihood Options

1. Budget Sub-Programme Objective

To reduce the vulnerability of the poor by supporting diversification of livelihood options

2. Budget Sub-Programme Description

The Sub-programme supports poor subsistence farmers to diversify their production systems and engage in alternative livelihood activities such as agro processing (cassava flour, local cooking oils, production of soap and creams from agricultural by-products). It also involves the production of special herbs, honey, snail, mushroom, grass-cutter etc.

It also seeks to identify NGOs in microfinance to promote and sustain community based saving and credit schemes. The organizational units responsible for delivering this sub-programme are the Women in Agricultural Development and Animal Production Directorate with a total staff number of 255.

The beneficiaries of this sub-programme are farmers, small scale agro processors and other stakeholders along the value chain. The main sources of funding are GoG, Donor (CIDA, WB, AfDB, etc). The challenge faced in the delivery of this sub-programme is limited capacity of the poor to engage in income generating activities

3. Budget Sub-Programme Results Statement

The table indicates the main outputs, its indicators and projections by which the Ministry measures the performance of this sub-programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Provision of support for people falling below extreme poverty line to engage in off-farm livelihood alternatives						
Grass cutter	Number of people supported	400	400	400	400	400
Bee Keeping		200	200	200	200	200
Cockerel		1500	1500	1500	1500	1500
Soap &Pomade prod		500	500	500	500	500
Rabbit		300	300	300	300	300

4. Budget Sub-Programme Operations and Projects

The table lists the main Operations and Projects to be undertaken by the sub- programme.

Operations	Projects
Extension Services	No Projects
Production of Extension materials and services	
Personnel and staff Management	

2.7 Budget by Chart of Account

7 - Sub-Programme and Natural Account

Entity: 012 - Ministry of Food and Agriculture (MOFA)
Funding: All Source of Funding
Year: 2017 | **Currency:** GH Cedi
Version 1

BUDGET PROGRAMME SUMMARY
PROGRAMME 3: INCREASED GROWTH IN INCOMES

1. Budget Programme Objectives

- To reinforce food security through financial access to food
- To diversify into cash crops and livestock as a business.
- To add value to commodities being produced and develop new products.
- To find market for existing, diversified and new products.
- To promote small holder livestock business enterprises.

2. Budget Programme Description

This programme addresses the need for enhanced growth in incomes in the agricultural sector through diversification into cash crops, livestock and value addition. The programme seeks to enhance incomes through:

- Promotion of cash crop and livestock production for income in all ecological zones through extension services and enhanced access to certified seeds for cash crops and improved breeding stock.
- Development of pilot value chains for one selected commodity in each agro-ecological zone by establishing regional core teams for value chain development, identifying and building capacity, undertaking market feasibility studies for value added goods, facilitating linkages to markets for the selected commodities and strengthening FBOs.
- Development of rural infrastructure including advocating for the linking of all district capitals to each other with tarred roads, facilitating the establishment of marketing centres and the development of rural industrial processing of cash crops and livestock.
- Supporting urban and peri-urban agriculture to improve nutrition.

The organizational unit responsible for delivering this sub-programme is the Animal Production Directorate, Veterinary Services Directorate, Crops Services Directorate, Women in Agricultural Development Directorate, Agricultural Engineering Services Directorate, Plant Protection and Regulatory Services Directorate and RADUs with a total number of 1,903 staff.

The beneficiaries of this programme are the farmers and other stakeholders along the value chain. The programme is funded mainly by GoG, Donor (CIDA, USAID, GIZ etc.) and IGF

The main challenges faced in the delivery of this sub-programme include encroachment on farm lands and the use of waste water for irrigating crops.

2.9. Budget by Chart of Account

9 - Sub-Programme and Natural Account

Entity: 012 - Ministry of Food and Agriculture (MOFA)
Funding: All Source of Funding
Year: 2017 | **Currency:** GH Cedi
Version 1

	Budget	Indicative Year	Indicative Year
012003 - Increased Growth in Incomes	**14,598,333**	**14,020,838**	**14,020,838**
012003 - Increased Growth in Incomes	**14,598,333**	**14,020,838**	**14,020,838**
21 - Compensation of employees [GFS]	13,385,240	13,385,240	13,385,240
211 - Wages and salaries [GFS]	13,385,240	13,385,240	13,385,240
Goods and Services	905,495	328,000	328,000
22 - Use of goods and services	905,495	328,000	328,000
31 - Non financial assets	307,598	307,598	307,598
311 - Fixed assets	307,598	307,598	307,598

BUDGET SUB-PROGRAMME SUMMARY
PROGRAMME 3: INCREASED GROWTH IN INCOMES

SUB-PROGRAMME SP 3.1: Promotion of Crop and Livestock Production

1. Budget Sub-Programme Objective

To increase crop and livestock productivity along the value chain

2. Budget Sub-Programme Description

This sub-programme seeks to increase incomes from livestock and cash crop production by providing extension services and enhanced access to improved seeds, breeding stock and other production inputs along the value chain.

The organizational units responsible for delivering this sub-programme are the Animal Production Directorate, Veterinary Services Directorate, Crops Services Directorate, Women in Agricultural Development Directorate, Agricultural Engineering Services Directorate, Plant Protection and Regulatory Services Directorate and RADUs with a total number of 1,903 staff.

The beneficiaries of this programme are the farmers and other stakeholders along the value chain. The programme is funded mainly by GoG, Donor (CIDA, USAID, GIZ etc.) and IGF

The main challenges faced in the delivery of this sub-programme include encroachment on farm lands and the use of waste water for irrigating crops.

3. Budget Sub-Programme Results Statement

The table indicates the main outputs, its indicators and projections by which the Ministry measures the performance of this sub-programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Increased number of agricultural technologies	Number of new sustainable agricultural technologies developed	6	6	6	6	6
Increased access to relevant technologies along the value chain	Number of AEA's receiving ToT training on new technologies	1,866	1,080	1,200	1,400	1,800
	Number of FBO's and CBO's trained on new technologies developed	300	400	400	400	400
	Number of agricultural information centers functional	50	80	80	80	80
Improved breeding stock distributed	Number of improved breeds	5456	5558	5894	5952	6000
Post-harvest losses reduced						
Maize	Percentage loss per annum	18.00	17.50	16.22	15.85	14.90
Rice		5.22	4.64	4.20	3.64	3.12
Cassava		22.45	20.02	17.59	16.45	14.34
Yam		20.45	19.55	18.20	17.33	16.20
Sorghum		6.84	6.20	5.45	4.96	3.24

4. Budget Sub-Programme Operations and Projects

The table lists the main Operations and Projects to be undertaken by the sub- programme.

Operations	Projects
Production and acquisition of improved breeds	Agricultural Production
National Vaccination Exercise	
Surveillance and Management of Diseases and Pests	

2.7 Budget by Chart of Account

7 - Sub-Programme and Natural Account

Entity: 012 - Ministry of Food and Agriculture (MOFA)
Funding: All Source of Funding
Year: 2017 | **Currency:** GH Cedi
Version 1

	Budget	Indicative Year	Indicative Year
0120031- Promotion of cash crop; and livestock production	**14,389,734**	**13,812,239**	**13,812,239**
0120031- Promotion of cash crop; and livestock production	**14,389,734**	**13,812,239**	**13,812,239**
21 - Compensation of employees [GFS]	13,176,641	13,176,641	13,176,641
22 - Use of goods and services	905,495	328,000	328,000
31 - Non financial assets	307,598	307,598	307,598

BUDGET SUB-PROGRAMME SUMMARY
PROGRAMME 3: INCREASED GROWTH IN INCOMES

SUB-PROGRAMME SP 3.2: Strengthening of FBOs and Out-Grower Schemes

1. Budget Sub-Programme Objective

To strengthen Farmer Based Organization (FBOs) and out-grower schemes to enhance marketing of agricultural produce.

2. Budget Sub-Programme Description

This sub-programme seeks to promote grouping of farmer for easy access to input and output market. This is done by holding sensitization sessions for farmers to explain the benefits of cooperative efforts, particularly in storage, processing and transporting of produce to markets. Assistance and advice is provided to farmer groups for the establishment of FBOs.

The organizational unit responsible for delivering this sub-programme is the DAES, APD, CSD, and RADUs with a total number of 1,032 staff.

The beneficiaries of this programme are the farmers and other stakeholders along the value chain. The programme is funded mainly by GoG, Donor (CIDA, USAID, GIZ etc.) and IGF. The main challenges faced in the delivery of this sub-programme include encroachment on farm lands and the use of waste water for irrigating crops.

3. Budget Sub-Programme Results Statement

The table indicates the main outputs, its indicators and projections by which the Ministry measures the performance of this sub-programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Out-grower schemes developed and FBOs strengthened	Cumulative out-grower schemes developed	610	678	700	725	750

4. Budget Sub-Program Operations and Projects

The table lists the main Operations and Projects to be undertaken by the sub- programme.

Operations	Projects
Development and management of farmer-based organization.	No Projects

2.7 Budget by Chart of Account

7 - Sub-Programme and Natural Account

Entity: 012 - Ministry of Food and Agriculture (MOFA)
Funding: All Source of Funding
Year: 2017 | **Currency:** GH Cedi
Version 1

BUDGET SUB-PROGRAMME SUMMARY
PROGRAMME 3: INCREASED GROWTH IN INCOMES

SUB-PROGRAMME SP 3.3: Rural Infrastructure Development

1. Budget Sub-Programme Objective

To develop rural infrastructure to improve agricultural production

2. Budget Sub-Programme Description

This sub-programme seeks to reduce cost of transportation and post-harvest losses by facilitating the provision of good road network and agro processing industries.

It does this by:

- Advocating for the linking of all production, processing and marketing centres with feeder roads
- Facilitating the establishment of marketing centres and development of rural industrial processing of cash crops and livestock.

The organizational unit responsible for delivering this sub-programme is the DAES, Animal Production Directorate, Veterinary Services Directorate, Crops Services Directorate, Women in Agricultural Development Directorate, Agricultural Engineering Services Directorate, Plant Protection and Regulatory Services Directorate and RADUs with a total number of 1,962 staff.

The beneficiaries of this programme are the farmers and other stakeholders along the value chain. The programme is funded mainly by GoG, Donor (CIDA, USAID, GIZ etc.) and IGF

3. Budget Sub-Programme Results Statement

The table indicates the main outputs, its indicators and projections by which the Ministry measures the performance of this sub-programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Improved access to production centers	Km of feeder roads constructed/improved (by projects)	100	140	180	200	500
Increased industrial processing of agricultural produce.						
Cassava	Percentage increase in processed produce per annum	4	6	8	10	15
Oil Palm		8	8	12	15	18
Shea nut		6	7	9	11	15
Groundnut		6	5	8	12	13
Soya bean		6	6	7	9	12
Cashew		6	6	8	9	11

4. Budget Sub-Programme Operations and Projects

The table lists the main Operations and Projects to be undertaken by the sub-programme.

Operations	Projects
Agricultural Facilities and Infrastructure.	
Agricultural production	
GPS mapping of oil palm mills	

2.7 Budget by Chart of Account

7 - Sub-Programme and Natural Account

Entity: 012 - Ministry of Food and Agriculture (MOFA)
Funding: All Source of Funding
Year: 2017 | **Currency:** GH Cedi
Version 1

	Budget	Indicative Year	Indicative Year
0120033- Rural Infrastructure Development	**208,599**	**208,599**	**208,599**
0120033- Rural Infrastructure Development	**208,599**	**208,599**	**208,599**
21 - Compensation of employees [GFS]	208,599	208,599	208,599

BUDGET SUB-PROGRAMME SUMMARY
PROGRAMME 3: INCREASED GROWTH IN INCOMES

SUB-PROGRAMME SP 3.4: Urban and Peri - Urban Agricultural Support

1. Budget Sub-Programme Objective

To promote Urban and Peri-Urban agriculture as a source of income

2. Budget Sub-Programme Description

This sub-programme seeks to minimize the risk of health hazards associated with the production and consumption of agricultural produce within Urban and Peri-Urban areas.

The main functions of this sub-programme are to:

- Liaise with MMDAs to zone areas within urban and Peri-Urban areas for agricultural activities;
- Identify owners and potential users of such lands for agricultural purposes and agree on conditions of use;
- Train Peri-Urban producers, processors and traders in good agricultural practices;
- Facilitate tuberculosis and brucellosis screening in the Peri-Urban milk collection areas; and
- Facilitate mass vaccination, endo and ecto-parasitic interventions against the endemic diseases in the Peri-Urban areas.

The organizational unit responsible for delivering this sub-programme is the Animal Production Directorate, Veterinary Services Directorate, Crops Services Directorate, Women in Agricultural Development Directorate, Agricultural Engineering Services Directorate, Plant Protection and Regulatory Services Directorate and RADUs with a total number of 1,903 staff.

The beneficiaries of this programme are the farmers and other stakeholders along the value chain. The programme is funded mainly by GoG, Donor (CIDA, USAID, GIZ etc.) and IGF

The main challenges faced in the delivery of this sub-programme include encroachment on farm lands and the use of waste water for irrigating crops.

3. Budget Sub-Programme Results Statement

The table indicates the main outputs, its indicators and projections by which the Ministry measures the performance of this sub-programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Peri-Urban Agricultural yields	Percentage increase in yields	4	4	5	5	5
Farmers practicing Peri-Urban Agriculture	Number of farmers	4520	4590	5200	5540	5,850
Adoption of Good Agricultural Practices	Number of farmers	5670	5645	5523	5432	5678
Zoonotic diseases reduced	Number of animals tested for TB & Brucellosis	2680	3564	3664	3854	4235

4. Budget Sub-Programme Operations and Projects

The table lists the main Operations and Projects to be undertaken by the sub-programme.

Operations	Projects
Extension Services	No Project

2.7 Budget by Chart of Account

Entity: !
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Year: 'Currency: # $ %
Version 1

BUDGET PROGRAMME SUMMARY
PROGRAMME 4: MARKETING OF AGRICULTURAL PRODUCE/ PRODUCTS

1. Budget Programme Objectives

To increase competitiveness of agricultural produce and enhance their integration into domestic and international markets.

2. Budget Programme Description

This programme provides the enabling environment to facilitate export trade and increase participation of small to medium holders in the marketing of agricultural commodities locally. It seeks to improve on the existing market infrastructure; grading and standardization systems, market intelligence; and strengthen the capacity of stakeholders along the value chain.

The operations carried out to address the issue of low levels of domestic market penetration by small holder farmers are to:

- Facilitate the linkage of agro-business firms with small holding farmers;
- Facilitate capacity building for farmers in all aspects of commercialisation including market driven production, small holding farmer linkage models, and good agricultural practices (GAPs);
- Design and launch a market promotion programme for import substitution commodities
- Advocate for local supermarkets, hotels and restaurants to work with a smallholder production base
- Facilitate the enforcement of anti-dumping regulations.

The operations undertaken to increase exports of non-traditional agricultural commodities by small holder farmers are:

- Facilitating links between small farmers and successful firms with access to assured export markets;
- Designing sustainable programmes to support the certification of smallholders for export markets;
- Developing effective processing and packaging systems for crops and livestock;
- Developing branding of Ghanaian produce for international markets
- Building capacity and resourcing relevant stakeholders for international Trade negotiations.

The operations involved in grading and standardization are:

- Developing and promoting the adoption of grading and standardization systems for all commodities for both domestic and export markets; and
- Collaborating with relevant agencies in enforcing laws and regulating on standards and grading.

The organizational unit responsible for delivering this programme is the PPRSD, WIAD, VSD, CSD, APD, SRID and RADU with a total number of 1,887 Staff. The beneficiaries of this programme are the producers, processors, traders, exporters, and other stakeholders. The programme is funded mainly by GoG, Donor (CIDA, AfDB, GIZ etc.) and IGF.

The main challenges to domestic market access include:

- Limited processing facilities;
- Limited access to market information and
- Poor adoption of standardized measures and marketing qualities standards for agricultural commodities.

3. Budget Programme Results Statement

The table indicates the main outputs, its indicators and projections by which the Ministry measures the performance of this programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Increased Export of Non-traditional agricultural commodities	Quality (mt) of Non-traditional agricultural Commodities Exported	679,452	835,726	962,652	1,096,915	1,234,678
	Percentage in value of non-traditional agricultural export commodities	19.79	23.00	30.10	36.22	38.56

4. Budget Programme Operations and Projects

The table lists the main Operations and Projects to be undertaken by the programme.

Operations
Agric. Education.
Research and development.

Projects
No Project

BUDGET PROGRAMMME SUMMARY

PROGRAMME 5: MANAGEMENT OF LAND AND ENVIRONMENT

1. Budget Programme Objectives

- To promote land management for sustainable agriculture
- To increase the resilience of agricultural production systems against global climate change
- To promote sustainable exploitation of all water bodies

2. Budget Programme Description

This programme facilitates the implementation of sustainable land and environmental management (SLEM) practices in agriculture. It approaches this task by promoting SLEM technologies; creating awareness and building locally based institutional capacity by setting and monitoring a supporting policy environment.

The main operations are;

- Establishing cross–sector SLEM coordination mechanisms at all levels.
- Establishing mechanisms for joint planning and implementation for SLEM at all levels.
- Enhancing the capacities of private extension service providers in approaches to climate change adaptation and mitigation processes
- Developing and pilot a SLEM based farmer-field-school curriculum
- Integrating SLEM principles into curriculum of Agriculture Colleges.
- Developing an effective, efficient and motivating incentive system to support farmers adopting SLEM practices
- Developing policy and regulatory framework for SLEM by generating relevant information and database
- Reviewing by-laws supporting community level SLEM activities
- Establishing, maintaining and integrating natural resource M&E system, including establishing initial baseline data on land degradation and SLEM practices.

The organizational units responsible for delivering this programme are Crop Services Directorate and the 10 Regional Agricultural Development Units with a total number of 745 Staff.

The beneficiaries of this programme are farmers and other key stakeholders in the agricultural sector. The programme is funded mainly by GoG and Donor (CIDA, FAO, WB, etc.)

The main challenges faced in the delivery of this programme are

- Weak policy environment for sustainable land management at the community level,
- Low capacity at all levels for implementation of SLEM policies,
- Low adoption of SLEM technologies at community level, and
- Weak collaboration of relevant agencies to ensure SLEM mainstreaming.

3. Budget Programme Results Statement

The table indicates the main outputs, its indicators and projections by which the Ministry measures the performance of this programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Policies, laws and regulations reviewed	Number of reviews per year	4	4	4	4	4
Monitoring visits undertaken to ensure compliance (per district)	Number per District per year	4	4	4	4	4
Bushfire control	Number of major outbreaks controlled	5	5	5	5	5
Area under conservation (protected areas)	Hectares	37,463	37,463	37,463	37,463	37,463
Participatory land use management plans developed at all levels	No of plans developed	5	5	5	5	5
Training and Awareness programmes on SLEM	Number of private extension service providers trained	40	40	40	40	40
	Number of awareness programmes organized	4	4	4	4	4
Adoption of SLEM practices by farmers (percentages)	Number of farmers	-	1	-	1	1
Incentive system (grants and scheme) for SLEM service providers	Number of service providers/beneficiaries covered	-	70	80	70	80

4. Budget Program Operations and Projects

The table lists the main Operations and Projects to be undertaken by the programme.

Operations	Projects
Sustainable Land and water management	No Projects

BUDGET PROGRAMME SUMMARY
PROGRAMME 6: APPLICATION OF SCIENCE AND TECHNOLOGY IN FOOD AND AGRICULTURAL DEVELOPMENT

1. Budget Programme Objectives

To enhance the adoption of agricultural technologies along the value chain

2. Budget Programme Description

This programme facilitates adoption of improved technologies by building capacity for technology research and application, enhancing access to research information and findings, and developing sustainable funding mechanisms for agricultural research.

The key operations of this programme are detailed below;

Improve participatory research: This involves

- Identifying and maintaining a register of all key stakeholders in the agriculture value chain (database)
- Engaging stakeholders (value chain mode) in Research Extension Liaison Committee (RELC) planning sessions, farmer field fora, adaptive trials and other research based events including consultative fora on laws and regulations relating to biotechnology.
- Facilitating the intensification of field demonstrations, farmer field schools, and field days/ study tours to encourage the adoption of improved technologies.
- Strengthening the veterinary laboratories in Accra and Pong Tamale to conduct research into the production of bivalent New Castle Disease (NCD) and Fowl Pox vaccine in order to improve rural poultry production.

Build capacity of stakeholders – This is to enhance technology transfer and adoption along the value chain through the following:

- Conducting and facilitating adaptive trials, farmer field fora, Durbars and exhibitions focused on sector stakeholders;
- Organizing consultative fora for producers and processors to review best practices and new technologies and to build the capacity of field officers, producers, processors and other stakeholders in the use of new technologies;
- Conducting on-farm research on low cost, appropriate technologies and developing/delivering these technologies as packages
- Researching into improved crop varieties and breeding stock and feedstuffs.
- Developing new food products and equipment.

Enhance access to agricultural research information – The programme will facilitate wider access to research information by:

- Organizing Research Extension Liaison Committee (RELC) planning sessions for stakeholders along the value chain at the regional and district levels. .
- Implementing plans for researchable farmer's constraint, extension and training programme.
- Repackaging of existing technologies and disseminate to various stakeholders along the value chain.
- Printing and launching RELC guidelines.
- Establishing and operating a modernized (ICT-based) agricultural library.
- Assessing the biotechnology research potential of the country's research system.
- Conducting an Information Education Campaign (IEC) on biotechnology application.

Develop a sustainable funding mechanism for Agricultural research –The programme seeks to address this issue by:

- Dialoguing with DPs and Ministry of Finance to agree on appropriate funding mechanisms for agricultural research
- Facilitating dialogue with private sector to fund agricultural research;
- Organizing consultative meetings with research stakeholders to review and promote best practices; and
- Facilitating the establishment of an Agricultural Research Development and Dissemination Fund.

The organizational unit responsible for delivering this programme is Directorate of Agricultural Extension Services, Women in Agricultural Development, Crop Services Directorate, Plant Protection and Regulatory Services Directorate and Animal Production Directorate with a total number of 442 Staff.

The beneficiaries of this programme are clients of the Ministry and these include farmers, FBOs, processors, youth, etc in the agricultural sector. The programme is funded mainly by GoG, Donor (WB, AusAID, GAC, etc.).

The main challenges faced in the delivery of this programme are low ratio of agricultural extension officers to farmers, aging extension officers and low interest of the youth in agriculture.

3. Budget Programme Results Statement

The table indicates the main outputs, its indicators and projections by which the Ministry measures the performance of this programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Adoption of improved technologies along the value chain	Rate of adoption	10%	5%	5%	5%	5%
Regulatory framework for biotechnology established	Number of regulations passed	1	1	1	1	1

4. Budget Programme Operations and Projects

The table lists the main Operations and Projects to be undertaken by the programme.

Operations	Projects
Operations of Agricultural research stations.	Agricultural Production.
Surveillance and Management of Diseases and Pests.	
Extension services.	
Production of Extension materials and services.	

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