# GOVERNMENT OF JAMAICA

## MINISTRY OF SCIENCE, ENERGY AND TECHNOLOGY

**STRATEGIC BUSINESS PLAN 2016 - 2020**

March 2016

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## HONOURABLE MINISTER'S MESSAGE

Science, Energy and Technology (SET) are key elements of Jamaica's growth and development strategy over the short, medium and long term. Consistent with its subject areas, the Ministry of Science, Energy and Technology (MSET) plays a pivotal role in contributing to the economic transformation and sustainable development of the economy, and the well-being of our citizens.

Our Ministry is poised to be a major change agent, and to this end has created the 2016-2020 Strategic Business Plan as the key guide that outlines the fundamental policy direction of the core portfolio areas over the next four (4) years. MSET's medium term framework is anchored in its mandate to:-

- Encourage private sector innovation in the science, energy and technology sectors.
- Lead legal and regulatory reform of the Information and Communications Technology (ICT), Electricity and Gas sectors.
- Improve national energy efficiency and conservation.
- Diversify primary energy sources, particularly to increase the share of renewable energy and reduce dependence on imported fuels.
- Promote and enable the exploitation of S&T for innovation and economic development.
- Create a single ICT regulator.
- Streamline government's ICT operations (GovNet).
- Make access to government services more convenient and efficient using ICTs (e-Government).
- Promote the use of free and open source software by government entities.
- Increase access to and usage of ICT within the education sector and all segments of the economy.

Legislation and regulations designed to create a modernised, transparent, efficient and effective ICT, Electricity and Gas sectors are among the major initiatives, which will drive change and create the enabling framework to encourage investments and balanced growth. The continued implementation and completion of our energy projects will result in the restructuring of the energy sector. This will allow for increased efficiencies and greater competitiveness, the increased use of renewables and fuel diversification; resulting in an expanded, more efficient and productive refinery, a more efficient electricity generation and transmission system, and lower electricity cost.

The continued development and increased application of science and technology (S&T) are central to Jamaica's economic transformation. Projects that had been implemented during 2015-2016 and which showed promise will be continued during 2016-2017, and through to 2020, if warranted. The revitalized National Commission on Science and Technology has been mandated to promote and facilitate the contribution of S&T to national development, with a particular focus on the nutraceutical and other new and possibly high earning sectors.

The vibrant ICT sector is poised for more significant growth. It offers various opportunities for increased investments and employment of Jamaicans in the Business Processing Outsourcing Sector. Animation is a major initiative which will build on Jamaica's competitive advantage and creativity.

These opportunities may further be exploited through the development of a modern and robust infrastructure, with a well trained workforce, and clear consistent regulation to encourage investment. The priority programmes of the MSET are therefore geared to take advantage of opportunities in all the portfolio sectors and to drive the prosperity programme of the Government.

Andrew Wheatley, Ph.D., MP
Minister of Science, Energy and Technology

## PERMANENT SECRETARY'S MESSAGE

The Ministry of Science, Energy and Technology's (MSET's) Strategic Plan 2016-2020 highlights our four (4) year programme to continue improving efficiencies within our core portfolios by articulating and implementing appropriate policies, reducing costs and rationalizing several multi-agency functions, while elevating service standards.

The period 2016-2020 will see the commencement of the transformation of the Government Electrical Inspectorate into the Government Electrical Regulator and the Post and Telecommunications Department to improve service delivery. Similarly, the work to create a single Information and Communications Technology (ICT) regulator will continue as a priority, given its importance to the development of the industry and to keep pace with its dynamics, which are driven by convergence.

In the area of energy, the Energy Security Efficiency and Enhancement Project and the Energy Efficiency and Conservation Programme will remain as two (2) major components in the implementation of the National Energy Policy. Outputs of each project will contribute to the realisation of the primary objectives of conservation, diversification of energy sources, greater efficiency and cost effectiveness of the sector and the promotion of investment and development . The public education and communication initiatives are expected to contribute to the fostering of a culture of efficiency and conservation.

Legislation relating to the creation of a Single Regulator for the ICT sector, Cyber security and the promotion of innovation and entrepreneurship will be the primary areas of emphasis for the ICT sector, while the Science agenda will place emphasis on the popularization of science and technology, and optimising the potential for value creation, particularly within the framework of a nutraceutical industry.

I am confident that the MSET's Strategic Plan is aligned to and supports the goals being pursued in Jamaica's 2030 Vision – for Jamaica to be the "…***place of choice to live, work, raise families and do business."***

Hillary Alexander, JP
Permanent Secretary

## ACCOUNTABILITY STATEMENT

This Strategic Business Plan is for the four (4) year period April 1, 2016 – March 31, 2020, which is aligned to the four (4) year budgetary forecast, was prepared under my direction in accordance with the policy directives outlined by the Government of Jamaica (GOJ), and the authority delegated to me under Section 16 of the Financial Administration and Audit (FAA) Act. The Plan outlines the Ministry's strategies that contribute to the achievement of the Government's agenda, and specifically, the planned policies, programmes and projects for which appropriate monitoring and evaluation mechanisms are being deployed to ensure their timely and cost-effective implementation.

The Ministry's priorities outlined in this Business Plan were identified in context of the Government's medium-term priorities and fiscal targets. I am, therefore, committed to achieving the planned results laid out in this Business Plan.

Hillary Alexander, JP
Permanent Secretary

# 1.0 EXECUTIVE SUMMARY

## 1.1 OVERVIEW

The Ministry of Science, Energy and Technology (MSET) has portfolio responsibility for sixteen (16) agencies and departments spanning the country's energy, science and Information and Communications Technology (ICT) sectors.

The various policies, programmes, projects and initiatives developed and being executed by MSET, in collaboration with stakeholders, are geared to achieve its mandate, which is to facilitate the development of Jamaica's, science, energy and ICT sectors.

Through consultation with key stakeholders, MSET provides policy direction for the sectors to assure alignment of programmes to overarching government policy directions. It also provides oversight of implementation through its agencies and through some of its entities and regulates and monitors the sectors' performance. The Ministry's programmes and activities are supportive of the achievement of the goals of Vision 2030: National Development Plan by contributing to the creation of a prosperous economy, promoting energy security, a technology enabled society and internationally competitive industry.

This Strategic Business Plan 2016-2020 focuses attention on priority policies, legislation, programmes and projects, the strategies to be employed in achieving them, plus the expected outcomes and impacts. It also outlines initiatives that seek to facilitate more efficient and effective use of resources and synergy among Ministries, Departments and Agencies (MDAs) that eliminate waste, overlap and duplication. Consequently, its primary national outcomes in keeping with Vision 2030 are:

i. Energy Security – by creating a facilitative policy, legal and regulatory framework to promote the modernization of the energy sector, an adequate and affordable energy supply, and an increased reliance on renewable energy to contribute to economic and national development.
ii. A strong and effective nation-wide culture of energy efficiency and conservation. The MSET's demand-side management programme focussing on public and private sectors, and households will be a key strategy.
iii. A modern ICT infrastructure allowing for high speed, high quality and low cost communication, with widespread use in all sectors of the economy. This will include the creation of a government-wide network to optimize the existing infrastructure, and to improve government efficiency in the provision of services to the public.
iv. A modern Postal Services Sector, which ensures greater efficiency in the fulfilment of universal service obligations, and a clear regulatory framework for private sector participation.
v. The creation of a culture that embraces and facilitates the application of science and technology (S&T), and encourages innovation in all areas of the economy.

### 1.1.1 STRATEGIC OUTCOMES

The strategic outcomes that the Ministry expects to result from its policy and legislative priorities, programmes and projects are as follows:

i. The country's energy security has been significantly improved.
ii. Improved access to and affordability of energy services and supplies.
iii. Modernized and developed infrastructure in the science, energy and ICT sectors.
iv. Increased development and usage of alternative and renewable energy resources in all spheres of the country's economy.
v. Increased access to and usage of ICT throughout the economy.
vi. The generation of new businesses, employment and wealth-creation in the portfolio sectors, with the increased application of S&T.
vii. Sustainable practices are widely employed in the energy, ICT and science sectors, towards the development of a green economy.
viii. Jamaica is a knowledge-based and educated society that is globally competitive and productive.
ix. High quality and high value of service that exceeds stakeholders' expectations and results in improved stakeholder satisfaction.
x. An appropriately staffed and expertly directed Ministry that efficiently executes its mandates and consistently adds significant value to the economy in compliance with Government of Jamaica (GOJ) policies.

xi. An upgraded petroleum refinery providing a least cost option for petroleum supplies, satisfying demand and producing higher value added products.
xii. Increased contribution of renewable and alternate energy sources to the national energy mix.
xiii. Marked increase in the application of energy conservation and energy efficiency throughout the economy, especially within the public sector.
xiv. Greater policy alignment and integration across portfolio and other key sectors, example Transport, Mining, Housing and Industry, to improve planning and resource management.
xv. An active, appropriately resourced, competent cyber incident response team (CIRT), which successfully protects the country's ICT systems.
xvi. A properly managed, fairly allocated and appropriately valued spectrum.
xvii. World-class, affordable and accessible high capacity ICT infrastructure.
xviii. Increased contribution of research and development (R&D) to national development through rationalisation of the S&T functions across government, the promotion of the sector through the NCST and other organs, and increased allocation of resources to S&T.
xix. High quality e-enabled services provided by all agencies within the MSET.

## 1.2 MINISTRY'S POLICY PRIORITIES

The MSET is predominantly a policy-based ministry that allow for the establishing of policy platforms to direct action and to facilitate development at various levels of the economy. Therefore, our policy priorities have been planned with keen focus on facilitating improved service delivery, increased wealth creation, increased employment and an overall better standard of life for all Jamaica. Our proposed policies have been heavily influenced by the need to demonstrate harmony with other policies in other spheres of government, where necessary and in the country's best interest, such as, the National Development Plan: Vision 2030 Jamaica, the Public Sector Master Rationalisation Plan, Ministry Paper No. 56 – Government at your Service: Public Sector Modernisation Vision and Strategy, Medium Term Socio-Economic Policy Framework and the limitations inherent in the government's current Extended Fund Facility with the International Monetary Fund (IMF). Our policy priorities are therefore as follows:

i. Spectrum Management Policy
ii. Postal Service Policy
iii. Free and Open Source Software (FOSS) Policy
iv. e-Government Strategy and Guidelines
v. Cyber Security Strategy
vi. Broadband Policy

vi. Addenda policies to the National Energy Policy, namely:
    a. Renewable and Alternative Energy Policy
    b. Biofuels Policy
    c. Waste to Energy Policy
    d. Carbon Credit Policy
    e. Energy Efficiency and Conservation Policy

vii. Electric Power Sector Policy.

The development of the Science, Technology and Innovation Policy, which will be spearheaded by the National Commission on Science and Technology (NCST), is of signal import.

Table 1 provides an outline of the intent and expected benefits of each policy.

**TABLE 1: PRIORITY POLICIES, THEIR INTENT AND PROJECTED BENEFITS**

| NO | NAME OF POLICY / PORTFOLIO | INTENT AND PROJECTED BENEFITS |
|---|---|---|
| | **SCIENCE** | |
| 1. | Science, Technology and Innovation Policy | To promote and facilitate the development of S&T as major aspects of our culture and our economy. Increased production of value-added products, increased number of local patents being registered, and the development of a local innovation and science-driven sector that employs significant number of persons, creates wealth and earns the country increasing quantities of foreign exchange while making us less dependent on foreign technologies. |
| | **INFORMATION AND COMMUNICATIONS TECHNOLOGY** | |
| 2. | Spectrum Management Policy | To ensure efficient spectrum planning, allocation and assignment in accordance with international best practices, protocols and standards. Job creation, increased government revenues from licence fees and increased traffic in various areas of the spectrum. |
| 3. | Postal Services Policy | To provide for a modern and robust postal services sector, which safeguards fair compensation for stakeholders, meets universal service obligations, and sets out the licensing and regulatory framework for the sector. Increased number of private sector jobs is projected. |
| 4. | FOSS Policy | To promote innovation and cost rationalization in the use of open source software and open standards for the execution of business processes in the public and private sectors; and to develop Centres of Excellence to provide support for the deployment and use of FOSS solutions. |
| 5. | Cyber Security Strategy | To provide for a National Cyber Security Strategy which encourages consumer confidence in the security of ICTs and the protection of critical ICT infrastructure; to establish a CIRT to monitor and respond to potential threats to ICT infrastructure; and to provide the framework for public education and capacity building. |
| 6. | Open Data Policy | To govern the access, use, reuse, adaptation and distribution of government data in machine readable and processable form to the public. |
| 7. | Broadband Policy | A policy that promotes the island wide deployment and uptake of high speed Internet. |
| 8. | Information and Communications Technology Policy | A Policy that promotes modernization and competition within the ICT Sector. |
| 9. | A framework on Internet Governance | A framework which outlines the norms and principles necessary to shape the evolution and use of the Internet. |
| 10. | Policies and procedures for the administration and technical management, registration and promotion of Jamaica's Country Top Level Domain (.jm ccTLD) | A policy that provides for the administration and technical management, registration and promotion of .jm ccTLD. |
| | **ENERGY** | |
| 11. | Renewable and Alternative Energy Policy | A well-developed, vibrant and diversified renewable energy sector that contributes to Jamaica's energy security and sustainable future. Increased investment in renewables, decreased reliance on imported fuels to drive various branches of economy and aspects of society. Job creation, especially in installation, servicing, sales and operations. The emergence of an ESCO Sector, which should create jobs and save consumers money. |
| 12. | Energy Efficiency and Conservation Policy | The policy is intended to create the enabling environment whereby "In Jamaica, energy is generated, transmitted and utilized exercising best practices in energy conservation and efficiency". It sets out the necessary strategies to guide conservation and efficiency, and |

| NO | NAME OF POLICY / PORTFOLIO | INTENT AND PROJECTED BENEFITS |
|---|---|---|
| | | present targets and ways to monitor performance. The emergence of an ESCO Sector, which should create jobs and save consumers money. |
| 13. | Electric Power Sector Policy | The policy is intended to provide the strategic framework that will guide the orderly development of the electricity sector; define key roles of main actors; and outline the general approach to achieving reduction in electricity prices. It will support the energy policy's thrust for energy security through fuel source diversification. |
| 14. | Biofuels Policy | This policy is intended to define the framework for the exploration, development and expansion of biofuels options. The policy will guide the operations and processes associated with the development of the biofuels sector with specific focus on bioethanol and biodiesel and will require partnerships among the agricultural, energy, transportations and financial sectors. The outcome desired is modern sector that contributes to energy security and positively to the environment |
| 15. | Waste to Energy Policy | This policy seeks to tap into waste management, with the processing of waste so as to generate energy. The policy will seek to ensure that Jamaica is among the world leaders in providing accessible, affordable and clean energy from waste contributing to a sustainable energy security. The intention is to use these various waste, including municipal solid waste, to generate electricity. |
| 16. | Carbon Credit Policy | Jamaica is a signatory to the United Nations Framework Convention on Climate change and its Kyoto Protocol which mandates the reductions in greenhouse gas emission for certain countries. This policy is design to achieve a competitive, diversified, efficient and investment-conducive carbon credits trading sector that fosters socio-economic development and induces a less carbon-intensive economy. |

## 1.3 STRATEGIES

In order to transform the Ministry's priorities and desired outcomes into reality, the following strategies will be pursued.

### 1.3.1 CITIZEN-FOCUSED SERVICE

The Ministry has to address the needs and expectations of the citizenry. Consequently, much time and effort have been spent on engaging with the citizenry through public consultations and cultivating partnerships. Importantly, there is on-going explanation of policies and programmes to the media, and monitoring expectations through feedback mechanisms. MSET is committed to providing its clients with the highest level of service possible. We commit to develop a 'Customer Charter', require that our agencies do the same and will ensure that all business being conducted with the ministry is completed within an agreed period of time.

A minimum of ninety per cent (90%) of all applications for licences and permits will be processed within 120 days. Additionally, licences and permits recommended to the minister for signing will be signed within ten days.

The Ministry is also guided by the various national policies and the policy agenda contained in the government's manifesto. The intention is to mirror the respective agendas and priorities that when pursued will transform the landscape and simultaneously meet citizens' expectations. In keeping with this, the following strategies will be emphasized:

i. Match action with expectations of the public as much as possible.
ii. Establish a benchmark for service levels and ensure that it is met.
iii. Continue to engage with stakeholders through various media.
iv. Communicate policies and programmes to citizenry effectively.
v. Initiate contact with key stakeholder groups and participate in public fora, etc.
vi. Respond to and act where necessary to feedback presented by stakeholders.

vii. Monitor the performance and interface between the Ministry, its divisions and agencies, and the citizenry.

### 1.3.2 STEWARDSHIP

The Ministry is aware of its responsibilities under the Financial Administration and Audit Act (FAA Act) and the Contractor General's Act and takes them seriously. It is MSET's intention to remain compliant and keep audit queries or breaches at zero.

The added constraint of resources means that the Ministry has to manage financial resources and business processes, particularly procurement, in a timely and efficient manner. The focus of our strategy is to:

i. Strengthen measures to increase revenue inflows.
ii. Ensure that the Ministry and its agencies comply with the financial regulations.
iii. Strengthen and monitor the procurement process.
iv. Strengthen the management of cash flow allocations and the use of assets, including motor vehicles.

### 1.3.3 HUMAN RESOURCES

The human resources (HR) strategy is geared to addressing the expectations of the various stakeholders and must contribute to the benefit of the wider public. The strategic focus is to provide a customer-oriented service, which rests on adopting and orienting sound organizational core values, recruitment planning and training. The strategies include:

i. Creating a more customer-oriented staff.
ii. Developing and implementing a Manpower Plan.
iii. Ensuring the HR staff are well-trained and fully apprised of their functions.
iv. Implementing the Citizen Charter.
v. Strengthening the Ministry's accountability through regular performance appraisals.
vi. Transform HR through the requisite exposure to best practices in human resources management and culture.

### 1.3.4 INFORMATION SYSTEMS AND TECHNOLOGIES

Information systems and technology have a role to play in increasing the levels of efficiency and improvements in service delivery. The Information Technology strategy is designed to address internal processes within the organization and also focus on processes that impact externally by providing requisite services that are technology driven and congruent with stakeholders' expectations. The main strategies include:

i. Providing funding for acquisition of key ICT software and infrastructure along with training.
ii. Developing and disseminating government's ICT policies to key stakeholders.

A concerted and focused 'Corporate Communications and Public Education programme' will be pursued. This is required to promote the many and varied initiatives being undertaken by MSET. This programme will be a major vehicle to: propagate the use and application of S&T in all areas of the economy, promote and improve the country's ICT rankings; communicate the continued significance of a diversified energy sector to our economy; highlight the significance of the energy efficiency and conservation programmes and the benefits to be derived from investing in renewable energy systems..

Additionally, as the monitoring and evaluation of performance is an important element of the MSET's work, this medium will support the reporting of performance of key projects and initiatives in the portfolio.

### 1.3.5 RISK MANAGEMENT

Risk is a key area for concern as it may erode the attainment of objectives. Risk assessment and a robust risk management framework are therefore important tools in the planning and management processes.

The key risks identified include funding shortfall, procurement delays, and policy and personnel changes. Consequently, a risk assessment exercise was done internally and across the respective agencies, with a view to identifying the major areas of operation that are particularly vulnerable to risk. Further assessment of these risks is outlined in the risk matrix attached as Appendix A.

The risk management strategies include:

i. Identifying and ranking the risks.
ii. Providing a back-up plan to treat each risk.
iii. Risk acceptance – If the probability of the event occurring and its impact is low, the organisation may simply choose to do nothing about the risk.
iv. Risk avoidance by not engaging in the activities that may occasion particular risks.
v. Risk sharing by obtaining insurance to mitigate the impact of the event, if it occurs, and establishing internal controls to address the risk.
vi. Risk reduction through establishing a system of internal controls that minimises the extent of occurrence and allows for detection of the risk.
vii. Detailed monitoring and evaluation of all policies, programmes, projects and systems.
viii. Policy, programme, project and system review, where necessary.
ix. An effective internal audit programme.

### 1.3.6 MONITORING AND EVALUATION

The successful implementation of policies, programmes and projects is critical to meeting long term goals and objectives. Consequently, each stage of the process has to be monitored and evaluated and this process is outlined in the Monitoring and Evaluation Plan attached at Appendix D. The Ministry has in place a reporting framework, which identifies various reports, in all the functional areas, including Finance, Internal Audit, Human Resources, Science and Energy, among others.

The use of the Performance Management and Appraisal System (PMAS) and Performance Monitoring and Evaluation System (PMES) will further enhance the performance monitoring and evaluation process at the level of the individual and at the level of the units, divisions and agencies.

The main strategies are therefore:
i. To promote the implementation of the PMAS system among the staff.
ii. Continued introduction of the PMES system throughout the Ministry.
iii. Quarterly monitoring reviews of all agencies, divisions and units.
iv. Strengthening the Ministry's evaluation capabilities in the areas of policy and projects.

### 1.3.7 PROCUREMENT

An effective procurement system rests on proper planning, commitment to the government's procurement policies and identifying various scenarios that affect the best laid plans. As a result, the focus will be on:

i. Ensuring careful attention to terms of reference and product or service specifications.
ii. Ensuring that the product or service is matched closely to outcome desired.
iii. Monitoring the procurement process closely to avoid delay and identify and mitigate risk.
iv. Applying best practices such as considerations for sustainability and the preservation of the environment.
v. Identifying contingencies and their cost.
vi. Ensuring that the required staff members are trained in the government's procurement management system.
vii. Requiring compliance with the government's procurement guidelines.

MSET will observe the requirements of the GOJ's public procurement framework and will ensure that its agencies do the same. The Procurement Committee established in the Ministry and in each agency will be responsible for procuring the works, goods and services required. The Procurement Plan attached at Appendix C gives further information. Where vacant, the post of Procurement Officer will be filled and the holder will supervise the procurement process, which must be endorsed by the Permanent Secretary or head of agency.

### 1.3.8 ACCOUNTABILITY

The Minister and the Permanent Secretary (PS) are responsible for the Ministry's direction, level of success and performance. The PS is governed by the established accountability framework, which charts, in detail, the responsibilities that fall under the purview of that office, and is ultimately accountable to the Minister and Cabinet Office. The PS is responsible for the day to day running of the ministry and leads a team of senior officers who have responsibility for specific divisions and agencies.

A combination of strategies will be employed to promote accountability within the Ministry and its agencies. These will include the following:

i. Build individual ownership for projects, programmes and key tasks.
ii. Create effective partnerships with international development partners as well as across GOJ in policy development and project implementation.
iii. Promote excellent corporate governance by ensuring that agencies and departments are sensitised to the developments and requirement of the GOJ.
iv. Promote the implementation of PMAS and PMES systems for the evaluation of staff; and assessment of performance of entities.
v. Continued engagement with stakeholders, including inviting response from community groups and business stakeholders.
vi. Public reporting of performance on key programmes and projects.
vii. Capacity building in critical areas, including project management, procurement and planning, policy development, monitoring and evaluation.

### 1.3.9 POLICIES AND PROGRAMMES FORMULATION AND IMPLEMENTATION STRATEGIES

At the heart of a properly functioning ministry are the correct policies and programmes and their effective implementation. Careful thought has been given to policy formulation and implementation. It is recognized that a key area of attaining stakeholders' consensus is in prior action. Consultation is a key strategy employed. The Ministry has a cadre of human resources invested with an in-depth knowledge of the subject areas of the various portfolios and the requisite skills to successfully engage stakeholders in the consultation processes. Consequently, policies and programmes will be developed based on broad-based and intensive consultations with stakeholders, especially key stakeholders. However, it must be clearly appreciated that the Ministry needs to be strengthened with the required range of skills required to develop robust policies.

Conventional and appropriate consultation methodologies and media will be employed, including real and virtual meetings, electronic and social media. Appropriate time will be given for stakeholders to respond to and provide comments on documents sent for consideration.

### 1.3.10 STAKEHOLDER MANAGEMENT

The Ministry finds merit in incorporating stakeholders' needs and expectations at all levels of the policy development process as it facilitates a greater level of service delivery and benefit to society. Consequently, accessibility and openness are emphasized. Stakeholders should be in a position to communicate with the Ministry at any time and have their concerns acknowledged. The Ministry has a Communications Unit, staffed with professionals in this area, which is geared to handle structured communication as well as queries and/or responses from stakeholders. Additionally, the various segments of the Ministry with policy development functions will also be equally involved in interfacing with stakeholders.

The following strategies will be employed to facilitate effective stakeholder management:

i. A stakeholder mapping and analysis will be completed to ascertain the Ministry's full list of stakeholders and to determine the methodologies to best deploy to allow for maximum and consistent support and engagement.
ii. Stakeholder engagement to assist in policy development, advise on project deployment and on key issues to be addressed by the state to achieve better service delivery and investment.
iii. Stakeholder agreements to ensure role identification and participation in implementation and responsibilities, example via Memoranda of Understating (MOU) to ensure full partnerships, understanding of roles and responsibilities and buy-in to programmes.

### 1.3.11 ENVIRONMENTAL PROTECTION

So as to minimize and mitigate any negative environmental impacts that may arise from the policies, programmes and projects pursued by the Ministry and its agencies, the following measures will be employed:

i. Strengthen and stringently implement legislation and regulations aimed at facilitating environmental protection.
ii. Work closely with environmental agencies and ensure that the Ministry, its entities, partners and investors satisfy requirements to obtain required permits and licences from the various authorities.
iii. Strengthen the environmental monitoring of all entities associated with the Ministry, especially those associated with the energy, science and ICT sectors.
iv. Build sustainable development practices into procurement and development activities.
v. Develop and implement environmental stewardship plans as an integral element of programme design and encourage/require entities to take similar actions.

## 1.4 STRUCTURE OF THE MINISTRY

The MSET is comprised of divisions, departments and agencies, and implements its strategies through them. Given its size, MSET has both internal and external divisions and units. The internal entities are located at its head offices whiles the external entities, usually the largest divisions and departments, are located at other sites. The internal and external divisions and the agencies are as follows:

### 1.4.1 INTERNAL DIVISIONS AND UNITS

i. **The Political Directorate comprising the Office of the Minister:** This office is responsible for setting government policies, which are transmitted through the Permanent Secretary.

ii. **The Permanent Secretary's Office (PSO):** The function of this office is to implement GOJ policies transmitted through the Minister, Cabinet, Parliament and other responsible organs of the state.

iii. **Policy, Planning, Development and Evaluation Division (PPDED):** The PPDED provides policy, planning, development and evaluation direction, oversight and support for the Ministry's three (3) major portfolios. It is responsible for the preparation of the Ministry's Strategic and Operational Plans, coordinating the preparation of the Ministry's annual sectoral presentations, procurement management, and monitoring and evaluating the performance of the Ministry and its agencies.

iv. **Energy Division (ED):** The division has an overall mandate to pursue the roll out of the National Energy Policy 2009-2030, including the transformation of the energy sector.

v. **Legal Unit (LU):** This unit prepares and monitors legislation to give effect to the policies of the ministry and its agencies, and to assist in providing legal advice on all relevant matters.

vi. **Finance and Accounts:** The division directs the Ministry's budgetary process, manages its budgetary allocation, and ensures that the Ministry conforms to the requirements of the FAA Act.

vii. **Internal Audit (IA):** The division is responsible for ensuring efficiency and accountability of the Ministry's resources through conducting various types and levels of audits in the ministry and its agencies. to ensure compliance with the FAA Act.

viii. **Corporate Services Division:** This division is responsible for the management and development of the Ministry's human resources as well as the administration of the entire ministry. The areas of responsibility include Personnel, Training, Industrial Relations, Office Management, Information Technology and Registry and Library Services.

ix. **Communications and Public Relations Unit (CPRU):** This unit develops, coordinates and manages the Ministry's Communication Programme and is responsible for disseminating information to the various publics that interface with the ministry. The unit is also tasked with coordinating information requirements and outputs of the Ministry.

x. **Information and Communications Technology Division (ICTD):** This division exercises immediate responsibility for the policy direction of the Ministry's ICT portfolio.

xi. **Information Technology Unit (ITU):** This unit is responsible for meeting the ICT needs of the Ministry in carrying out its daily information and communication functions including software, programming, email, web page design and updating of the Ministry's web site. It is also responsible for the maintenance and monitoring of the information technology system.

### 1.4.2 EXTERNAL DIVISIONS/DEPARTMENTS

xii. **Government Electrical Inspectorate (GEI) / Government Electrical Regulator (GER**): This entity's current mandate is to ensure that electrical installations in the country are safe. The mandate includes the inspection of petroleum service stations and garages for tanker wagons associated with the petroleum trade.

xiii. **Post and Telecommunications Department (PTD):** Headed by the Postmaster General and the largest entity within the ministry, this entity's mandate is to provide efficient and cost effective postal and related services to its customers. It operates through a head office and a network of post offices and postal agencies that offer a full range of postal services, including the acceptance and delivery of mail and the sale of postage stamps. It is also a major conduit through which the GOJ channels pensions to pensioners.

### 1.4.3 AGENCIES OF THE MINISTRY

The agencies are particularly important in the operationalization of the ministry's strategies and general mandate. By portfolio, they are as follows:

#### 1.4.3.1 SCIENCE PORTFOLIO

i. International Centre for Environmental and Nuclear Sciences (ICENS)
ii. Scientific Research Council (SRC)
iii. National Commission on Science and Technology (NCST)

#### 1.4.3.2 INFORMATION AND COMMUNICATIONS TECHNOLOGY PORTFOLIO

iv. eGov Jamaica Limited (eGovJa)
v. e-Learning Jamaica Company Limited (e-Ljam)
vi. Post and Telecommunications Department (PTD)
vii. Postal Corporation of Jamaica (PostCorp)
viii. Spectrum Management Authority Limited (SMA)
ix. Universal Service Fund (USF)

#### 1.4.3.3 ENERGY PORTFOLIO

x. Board of Examiners (BOE)
xi. Petroleum Corporation of Jamaica (PCJ)
xii. PETROJAM Limited (PETROJAM)
xiii Jamaica Aircraft Refuelling Services Limited (JARS)
xiv. National Energy Solutions Limited (NESOL)
xv. PETROJAM Ethanol Limited (PEL)
xvi. Wigton Windfarm Limited (WWF)

## 1.5 MINISTRY'S PRIORITY POLICIES/PROGRAMMES/PROJECTS

The Ministry's medium term priority policies, programmes and projects, and their relationship to Vision 2030 National Development Plan are outlined in Table 2.

**TABLE 2: MINISTRY'S MEDIUM TERM PRIORITY POLICIES, PROGRAMMES AND PROJECTS (ALIGNED TO VISION 2030)**

| VISION 2030 NATIONAL GOALS | VISION 2030 NATIONAL OUTCOMES | NATIONAL STRATEGIES (SECTORAL PAPER, MODERNISATION DOCUMENT, MANIFESTO) | MINISTRY'S PRIORITY POLICIES/PROGRAMMES/ PROJECTS | KEY ACTIONS |
|---|---|---|---|---|
| **# 3 Jamaica's economy is prosperous** | **#10 Energy security and efficiency** | #10-1: Diversify the energy supply | 1. Facilitate further development of the manufacturing and productive sectors, and other areas of the economy through affordable and sustainable energy supply.<br><br>2. Facilitate fuel diversification and the security of the public electricity supply.<br><br>3. New renewable energy projects with a total of 115MW in capacity. | 1. Ensure an integrated policy legislative and regulatory framework.<br><br>2. Encourage and track the implementation of energy diversification priorities that are timely, cost competitive, efficient and environmentally friendly.<br><br>3. Implement and facilitate programmes that will achieve the targets for percentage renewables.<br><br>4. Implement/recommend suitable fiscal framework to facilitate the development and use of alternative energy and promote energy efficiency. |
| | | #10-2: Promote energy efficiency and conservation. | 4. Increase the efficiency of the energy sector in the:<br>a) generation, transmission and distribution of electricity;<br>b) use of energy in the transport sector;<br>c) electricity consumption across all sectors of the economy.<br><br>5. Project: Developing Energy Efficiency (EE) Potential.<br><br>6. Expansion of Appliances Labelling and Testing Programme.<br><br>7. Contribute to the introduction of an updated Jamaica Building Code.<br><br>8. Revolving Fund for EE. | 5. Liberalize energy industry and markets to increase competition.<br><br>6. Seek the requisite budget, including grant funding, to popularize energy efficiency and renewable energy development.<br><br>7. Establish framework for the use of the least economic cost expansion plan (LCEP) for electricity generation, transmission and distribution.<br><br>8. Develop institutional capacity to implement demand side energy management programmes.<br><br>9. Develop, promote and implement programmes to influence market behaviour favouring energy efficiency.<br><br>10. Update and promulgate new energy efficient Building Code.<br><br>11. Reduce emissions.<br><br>12. Develop and implement environmental stewardship. |
| | | #10-3: Develop necessary regulatory framework for the introduction of alternative fuels.<br><br>Develop the institutional framework to coordinate policy with energy initiatives and provide integrated monitoring and enforcement of regulations. | 9. Energy Sector sub-policies.<br><br>10. Net metering and wheeling.<br><br>11. Expansion of the OUR's regulatory mandate. | 13. Submit for approval and promulgate sub- policies.<br><br>14. Reinstate and operationalize net metering and wheeling framework. |

| VISION 2030 NATIONAL GOALS | VISION 2030 NATIONAL OUTCOMES | NATIONAL STRATEGIES (SECTORAL PAPER, MODERNISATION DOCUMENT, MANIFESTO) | MINISTRY'S PRIORITY POLICIES/PROGRAMMES/ PROJECTS | KEY ACTIONS |
|---|---|---|---|---|
| | | Review and modify existing institutional framework and drive the ICT sector towards achievement of policy objectives. | | |
| | **#11 A Technology Enabled Society.** | #11-1 Integrate S&T into all areas of development. | 12. Build capacity for effective S&T education in primary and secondary schools.<br>13. Use ICT to enhance learning in the formal education system.<br>14. Create and improve strategic public private sector partnerships in building S&T skills.<br>15. Review and define roles of R&D institutions.<br>16. Strengthen intellectual property right system.<br>17. Create funding mechanisms for R&D.<br>18. Create an effective policy and legislative framework to support and advance Science, Technology and Innovation (STI).<br>19. Develop a viable and robust STI policy.<br>20. Promote lifelong learning in ICTs.<br>21. Strengthen and modify the policy, legislative and regulatory framework governing the ICT sector.<br>22. Promote greater use of Free and Open Source Software. | 15. Develop the National S&T Policy.<br>16. Implement a framework to promote scientific innovation.<br>17. Strengthen the educational and skills levels in S&T throughout the education system.<br>18. Increase and strengthen data collection on the ICT industry.<br>19. Implement funding mechanisms.<br>20. Repeal the Telecommunications Act and replace with an ICT Act.<br>21. Strengthen the Cyber Incident Response Team.<br>22. Implement the Cyber Security Strategy.<br>23. Data Protection Act.<br>24. Postal Services Act.<br>25. Establish a Single Regulator for ICT and other elements to deepen competition and compliance. |
| | | # 11-2 Establish a dynamic and responsive National Innovation System. | 23. Align investments in STI infrastructure with national development goals.<br>24. Create financing and incentive mechanisms aimed at attracting research intensive activities in Jamaica. | 26. Develop the necessary linkages among the NIS stakeholders to diffuse STI in the economy.<br>27. Build STI capacity through rationalization/optimization of laboratories and processes. |
| **# 3 Jamaica's economy is prosperous.** | **#12 Internationally competitive industry structures.** | **Build competitive value-added production.** | 25. .Encourage government to become an exemplar user of ICT applications.<br>26. Establish mechanism for funding ICT ventures.<br>27. Compliance with environmental standards and legislation. | 28. Introduce the use of cheaper and more environmentally friendly fuel sources.<br>29. Develop institutional framework for R&D.<br>30. Strengthen research institutions.<br>31. Design and develop innovative structures and financing mechanism. |

| VISION 2030 NATIONAL GOALS | VISION 2030 NATIONAL OUTCOMES | NATIONAL STRATEGIES (SECTORAL PAPER, MODERNISATION DOCUMENT, MANIFESTO) | MINISTRY'S PRIORITY POLICIES/PROGRAMMES/ PROJECTS | KEY ACTIONS |
|---|---|---|---|---|
| | | | 28. STI Infrastructure development.<br><br>29. Incentive systems for investment in value-added and priority areas.<br><br>30. Expansion of the National Science and Innovation Awards.<br><br>31. Strengthen the NCST. | 32. Examine STI and ICT infrastructure findings.<br><br>33. Initiate engagement with stakeholders.<br><br>34. Initiate focus in new areas of the economy in the application of science by the Scientific Research Council, including new products and processes.<br><br>35. Sensitize Jamaicans to the importance of science, technology, engineering, mathematics and innovation (STEMI). |

## 1.6 TARGETS

During the 2016-2020 planning period, the Ministry will continue to implement existing policies, including the National Energy Policy 2009-2030 (NEP), the S&T Roadmap, and the ICTPolicy. It will also conclude and implement others, including the five (5) addenda energy policies, and an Electricity (Power Sector) Policy.

The Energy Efficiency Conservation Project will be continued with the aim of uncovering further energy efficiency opportunities within the public sector.

The implementation of ministry and departmental strategies will lead to the delivery of the sectoral outcomes against the sectoral performance indicators and high-level targets that have been set. These are set out in Table 3 and show the progress that the Ministry plans to make towards its overall goal during the four (4) year planning cycle.

**TABLE 3: MEDIUM TERM TARGETS**

| SECTOR OUTCOMES | OUTCOME INDICATORS | CURRENT PERFORMANCE (2016 - 2017) | FOUR YEAR SECTORAL TARGETS (2016 – 2020) |
|---|---|---|---|
| Energy efficiency. | Number of electrical appliances labelled to indicate their annual energy consumption.<br><br>Information awareness campaigns launched.<br><br>Number of buildings benefitting from 'efficiency interventions'. | 55% of appliances entering the market labelled. | 75% of all appliances entering the market are labelled.<br><br>National Information Awareness Campaign: 20 information awareness bulletins published.<br><br>5% reduction in energy consumption throughout the Public Sector per annum. |
| Modernized Energy Infrastructure | New investments in electricity generation capacity | US$430 million in investment identified | US$625 million cumulatively to be rolled out. |
| Increased use of renewable energy in the national energy mix.<br><br>Piloting the use of renewables in communities. | Investment, pre-feasibility and feasibility studies for the development of renewables, example hydro, and wind power.<br><br>Low carbon road map developed and promoted.<br><br>Technical assistance in harnessing wind, solar and bio-energy provided to communities. | Contract to undertake studies signed.<br><br>Studies commenced. | 23 studies.<br><br>4 small scale wind turbines. |
| Improve energy security. Lower energy intensity | 20% of renewables in energy mix<br><br>Energy Intensity Index – 2000 BTU/ $US<br>Fuel Reserve – Barrels/1000 population. | 12.5% | 15% of renewables in energy mix at end of 2018.<br>5,074 barrels per 1000 population.<br>12,700 BTU/ $US by 2018.<br>3 months reserves by the end of 2018. |
| Improved governance.<br>A strengthened regulatory and institutional framework.<br><br>Improvement in sector performance and monitoring of energy policy. | New and amended acts and regulations.<br>Compliance with petroleum regulations.<br><br>Reduction in disruptions.<br><br>National Energy Sector Policy Review Committee established and reporting.<br><br>Modern data base/improved turnaround time for dealing with queries.<br><br>Review of data capturing systems. | Petroleum Quality Control Act and Regulations<br><br>Petroleum (Landing and Storage) Act<br><br>Natural Gas Act | 21 acts and regulations developed and promulgated by end of 2020.<br><br>10 meetings per year (30 cumulatively) with members of the Petroleum Sub-sector.<br><br>21 reports completed over the period.<br><br>100%<br><br>4 assessments. |
| Energy conservation in the Public Sector - government to become a leader in energy efficiency and conservation. | Energy savings.<br><br>Reduction in energy expenses.<br><br>Reduction in $CO_2$ and other emissions. | | Savings of 22,609,713.00 kWh between 2016 and 2018.<br>Energy expenses reduced by US$6.7 million.<br><br>$CO_2$ emissions of 19,150 tonnes/year by 2018[1]. |

[1] Each barrel of oil saved prevents the release of 0.43 metric tons of $CO_2$.

| SECTOR OUTCOMES | OUTCOME INDICATORS | CURRENT PERFORMANCE (2016 - 2017) | FOUR YEAR SECTORAL TARGETS (2016 – 2020) |
|---|---|---|---|
| | Reduction in barrels of oil consumed.<br><br>Energy Conservation Awareness Programme conducted.<br><br>Energy retrofitting and installations are carried out.<br><br>Train public sector staff in energy conservation and efficiency.<br><br>National Energy Solutions Limited (rebranded Rural Electrification Programme Limited) becomes integral in building out renewables. | <br><br>Energy Conservation Awareness Programme launched.<br>Energy retrofit contracts awarded, retrofits being conducted.<br>Approximately 50 public sector employees trained.<br><br>Mandate clarified and funding provided. | A reduction of 13,886 barrels of oil per annum by 2018.<br><br>Complete 3 draft manuals on energy savings monitoring and verification.<br><br>Complete 2 draft manuals on energy efficiency, maintenance and environmental disposal.<br><br>Retrofit lighting units, air-conditioning units and install building envelopes in identified buildings.<br><br>12 public sector energy management training programmes completed.<br><br>National Energy Solutions Limited established as a keen player in building out renewables. |
| Eco-efficiency in industry. | Technical support given to the private sector to transition to greater eco-efficiencies. | Energy audits conducted.<br>Projects identified<br>Technical and financial support (line of credit) provided to the private sector. | Minimum of 40 energy audits completed by 2020. |
| | Approval and implementation of energy sub-policies. | Sub-policies being updated. | Energy sub-policies implemented. |
| Promotion and application of S&T in all spheres of the economy. | Increased application of S&T in all spheres of the economy.<br><br>Guidelines/framework for nutraceuticals.<br><br>Streamlining of GOJ laboratory facilities in the Hope Gardens Complex. | Fora promoting the application of S&T throughout the economy.<br><br>Auditing plans being reviewed.<br><br>Commence drafting of a S&T Policy.<br><br>Implement recommendations of the Hope Gardens Complex Laboratory report. | Build out of the S&T Road Map.<br><br>Increased focus on the application of S&T in agriculture, waste management, value-added agriculture and other segments of the economy.<br><br>S&T Park in the Hope Gardens Complex established.<br><br>S&T Policy implemented. |

### 1.7 MEDIUM TERM EXPENDITURE SUMMARY

The medium term summary of expenditure for the ministry and its agencies that are funded through it is outlined in Table 4.

**TABLE 4: MSET'S MEDIUM TERM EXPENDITURE SUMMARY**

| ITEM | YEAR 1 | YEAR 2 | YEAR 3 | YEAR 4 |
|---|---|---|---|---|
| | ESTIMATE OF EXPENDITURE (2016-2017), J$ | ESTIMATE OF EXPENDITURE (2017-2018), J$ | ESTIMATE OF EXPENDITURE (2018-2019), J$ | ESTIMATE OF EXPENDITURE (2019-2020), J$ |
| RECURRENT | 3,156,527,030 | 3,354,040,496 | 3,641,679,044 | 3,932,459,704 |
| LESS APPROPRIATIONS-IN-AID | | | | |
| i. | | | | |
| ii. SRC | 54,151,000 | 25,109,750 | 26,473,000 | 27,795,000 |
| iii. NESOL | 400,000 | 400,000 | 400,000 | 400,000 |
| **TOTAL RECURRENT** | **3,101,977,030** | **3,328,530,746** | **3,614,806,044** | **3,904,264,704** |
| CAPITAL A | 950,000,000 | | | |
| LESS APPROPRIATIONS-IN-AID | | | | |
| i. E-LEARNING | 700,000,000 | | | |
| **TOTAL CAPITAL A** | **250,000,000** | 0.00 | 0.00 | 0.00 |
| **TOTAL CAPITAL B** | **893,366,000** | **602,263,000** | **602,500,000** | **0.00** |
| **TOTAL FUNDING APPROVED** | **4,245,343,030** | **3,930,793,746** | **4,217,306,044** | **3,902,264,704** |

## 2.0 PLANS AND PRIORITIES

### 2.1 PORTFOLIO AREAS

The MSET has portfolio responsibility for the country's energy, science, and ICT sectors.

Significantly greater application of STI will be pivotal to the country's quest for economic and technological transformation and development. The creation and use of cleaner technologies, the continued promotion of eco-efficiency and the development of a green economy, are central features of this plan.

During the 2016-2020 planning cycle, attempts will be made to apply practical and cutting edge science to resolve various problems and expend resources to integrate S&T into the economy and wider society through mechanisms, including the annual Science and Innovation Awards and by strengthening the teaching of science and Science Clubs in our schools.

The continued revitalization of the NCST, planned increase in its staff complement, continued strengthening of the SRC, build-out of its Science Road Map, promotion of its business incubator and processing facilities, commercialization of its various preparations, increasing support for the fledging nutraceutical sector, and increased synergies between science-based entities, will be major projects during the life of this four (4) year plan.

Devising policies and programmes that will encourage greater levels of innovation, increased entrepreneurship in the ICT sector, use of ICT to improve efficiency in service delivery, operating and production costs, diversifying spheres of economic involvement and opportunities, increasing local output, facilitating inward investment and creating new employment opportunities will be central objectives over the four (4) year planning cycle. Practical and cutting edge ICT and an improved and expanded ICT infrastructure will be leveraged to resolve problems, including the absence of streamlined and current regulations to realize greater efficiency and encourage investment, ineffective communication between ministries and external stakeholders.

ICT has been positioned and is recognized as a major driver of national development. During the 2016-2020 planning cycle, ICT will be further integrated into our schools, businesses and the wider economy through a multiplicity of mechanisms, including increased numbers of Community Access Points (CAPs), expositions, conferences, increased use of ICT in the education system as envisioned by the proposed 'Tablets in School' project, the general promotion of ICT and partnerships with academia and the private sector.

Continued reshaping of the legislative and policy frameworks underpinning the country's ICT infrastructure, improving access to and lowering the cost of ICT services, improving the quality of the ICT infrastructure and deriving increased value from its application, while ensuring that Jamaica is acknowledged as one of the main ICT hubs within the Americas, are other major objectives to be pursued. The successful execution of the mandates of the ministry's ICT agencies, namely e-Ljam, USF, eGovJa and SMA will be critical to the Ministry's success.

The continued development of the spectrum, creation of additional radio monitoring and direction finding sites, removal of illegal users of the spectrum, promotion of increased competition within the telecommunications sector and increased use of ICT by the GOJ, plus the wider application of ICT throughout the economy are other strategic projects to be pursued.

The Ministry's energy-focused priority policies, programmes and projects are directly geared to addressing the challenges that are facing the country. Many of these are partly occasioned by the liberalization of our economy, its vulnerability to internal and external shocks, high debt to Gross Domestic Product (GDP) ratio, low levels of international competitiveness in key sectors and a large external trade imbalance contributed largely by the high cost of energy and low value of exports. The country's dependence on imported energy and the economy's high energy intensity, particularly in the Bauxite and Alumina Sector are compounded by inefficient energy use, several obsolete and inefficient electricity generation plants, the absence of competition in key areas of the electricity sector, and still limited development of renewables.

Reducing dependence on expensive fossil fuel and improving country-wide energy efficiency levels are critical issues that will be pursued during the 2016-2020 planning period. Sourcing cheaper fuels, continued development and expansion of the role played by local renewable energy sources in electricity generation and wider energy supply, promoting the construction of modern and efficient combined cycle electricity generating plants at or near alumina plants to enable the Alumina Sector to utilize the steam while allowing for significant quantities of the electricity to be fed into the national electric grid at a cheaper rate than many plants built specifically to supply the national grid, the development of bio-energy, including liquid fuels (ethanol and bio-diesel) for various sectors the conversion of the JPSCo's Bogue Plant to operate on gas, which improves its efficiency and lower operating costs are other strategies to assist in ensuring that energy costs are reduced to consumers and businesses.

The continued reduction in crude prices presents opportunities and threats to Jamaica's energy security and the economy. Care must be taken to ensure that reduced crude prices[2] do not derail the building out of our renewable energy capacity and reducing the need to continue and deepen the implementation of energy efficiency measures and facilitating the development of a national culture of energy efficiency. As at January 11, 2016, crude prices had declined by over 30 per cent compared to prices at the beginning of January 2015. This development was largely driven by increasing supplies of shale oil/gas from the US, a slowdown in global demand, particularly in China, the world's second-largest petroleum consumer, the Organisation of Petroleum Exporting Countries' (OPEC) refusal to reduce supply to the market, plus the re-emergence of Iran and Iraq as significant oil producers and several smaller producers. Additionally, the continued global growth in renewables, improved efficiency standards and concerns about worsening climate change have helped to reduce demand for fossil fuels.

The continued implementation of the National Energy Policy, completion and introduction of the addenda energy policies, including the Electric Sector Power Policy, repositioning of the agencies within the energy portfolio, including the Government Electricity Inspectorate (GEI) and the Rural Electrification Programme (REP) Limited, upgrading of the PETROJAM Refinery, divestment of the Petroleum Company of

[2] Since June 2014 international crude prices have been reduced by at least 25% owing largely to an oversupply largely driven by shale oil and gas from the US, a refusal of the major oil producing countries to reduce production, reduced demand from China and other emerging economies, plus other factors, including displacement of some amount of fossil fuels by the increasing build-out of renewables and energy efficiency at the global level.

Jamaica (PETCOM), plus a refocused commitment to the oil and gas exploration programme and continued build-out of renewable energy generation capacity by Wigton Windfarm Limited (WWL), the Petroleum Corporation of Jamaica (PCJ) and other stakeholders are major projects to be undertaken.

The modernisation and expansion of the country's electricity generation infrastructure, including the installation of new generating capacity, the promotion of synergies in electricity generation between the alumina sector and the national grid, the installation of an additional 38 MW of renewable energy electricity generation projects to achieve the 115 MW for which the Office of Utilities Regulation (OUR) invited bids in 2013, power wheeling and increased net metering initiatives are critical interventions to be pursued during the 2016-2020 planning cycle. These are part of a raft of measures aimed at reducing electricity prices by at least 30%, relative to the prices that obtained as at December 2011.

The Energy Efficiency and Conservation Programme (EECP) and the Energy Security Efficiency and Enhancement Project (ESEEP) will be accelerated. Together, they will play a major role in installing energy efficient systems and gadgets in GOJ buildings, providing comparatively low-cost funding to improve the energy efficiency systems and infrastructure in small and medium-sized productive private enterprises, creating the required policy, regulatory framework, public awareness and cultural change necessary to reduce energy consumption, increase energy efficiency and modernize significant segments of the country's energy structure.

The development of a Communications Plan, which will set in motion a concerted and focused 'Corporate Communications and Promotion Project', will be pursued so as to facilitate improved visibility and public knowledge of the Ministry's activities. More specifically, it will seek to facilitate improved public knowledge and awareness of all initiatives aimed at propagating the use and application of S&T in all areas of the economy, promote and improve the country's ICT rankings, highlight the significance of the energy infrastructure buildout, energy efficiency and energy conservation programmes, and the tangible benefits to be derived from investing in renewable energy systems.

## 2.2 VISION, MISSION AND MANDATE

### 2.2.1 VISION

To create an environment, through policy development and a progressive legislative framework, that facilitates investment, creates jobs and meaningfully improves the well-being of each Jamaican.

### 2.2.2 MISSION

To develop science, energy and technology policies that *Fuel Growth*.

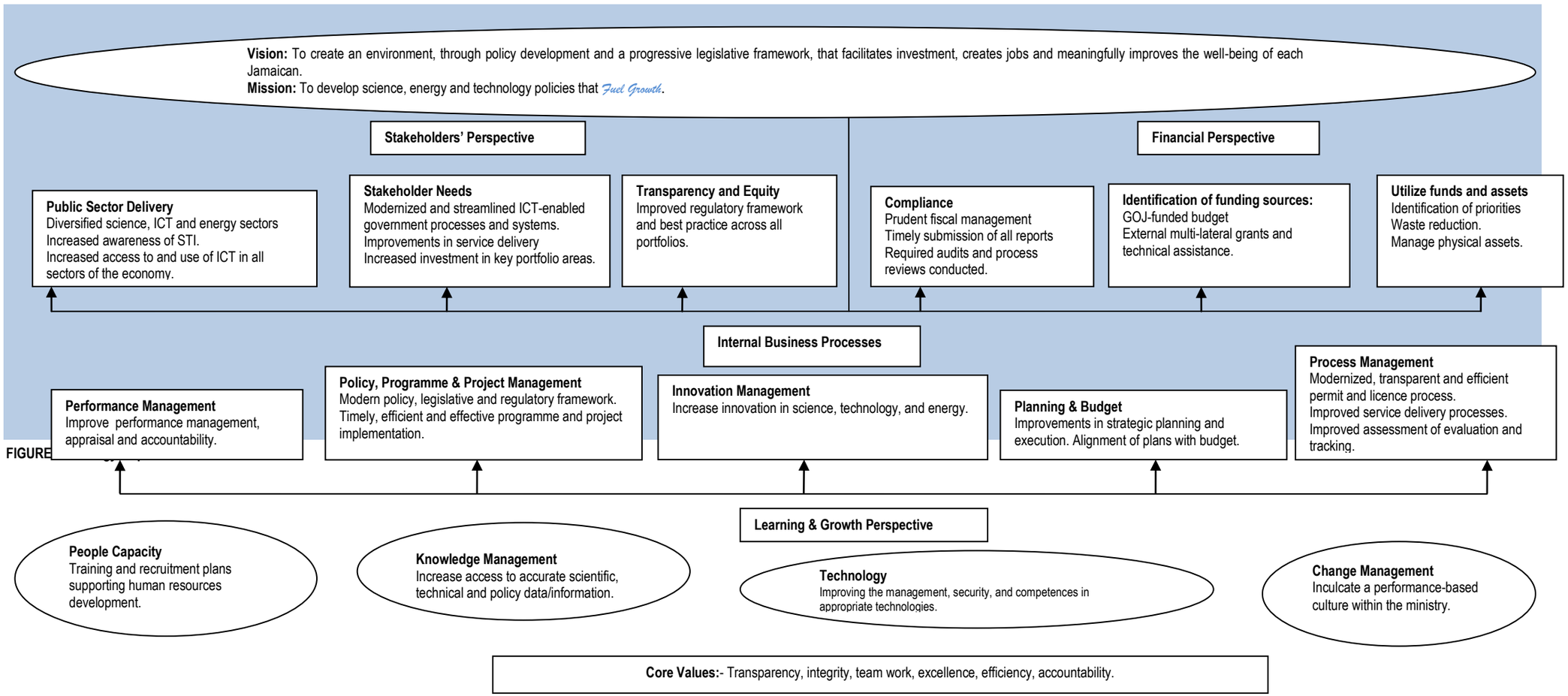
### 2.2.3 MANDATE

Based on the subject areas assigned, the ministry's mandate is to:

i. Encourage private sector innovation in the science, energy and technology sector.
ii. Lead legal and regulatory reform of the ICT, electricity and gas sectors.
iii. Improve national energy efficiency and conservation.
iv. Diversify primary energy sources, energy sources, particularly to increase the share of renewable energy and to reduce dependence on imported fuels.
v. Promote and enable the exploitation of S&T for innovation and economic development.
vi. Create a single ICT regulator.
vii. Streamline government's ICT operations (GovNet).
viii. Make access to Government services, more convenient and efficient using ICTs (e-Government).
ix. Promote the use of free and open source software by government entities.
x. Increase access to and usage of ICT within the education sector and all segments of the economy.

## 2.3 STRATEGIC OUTCOMES

### STRATEGY MAP



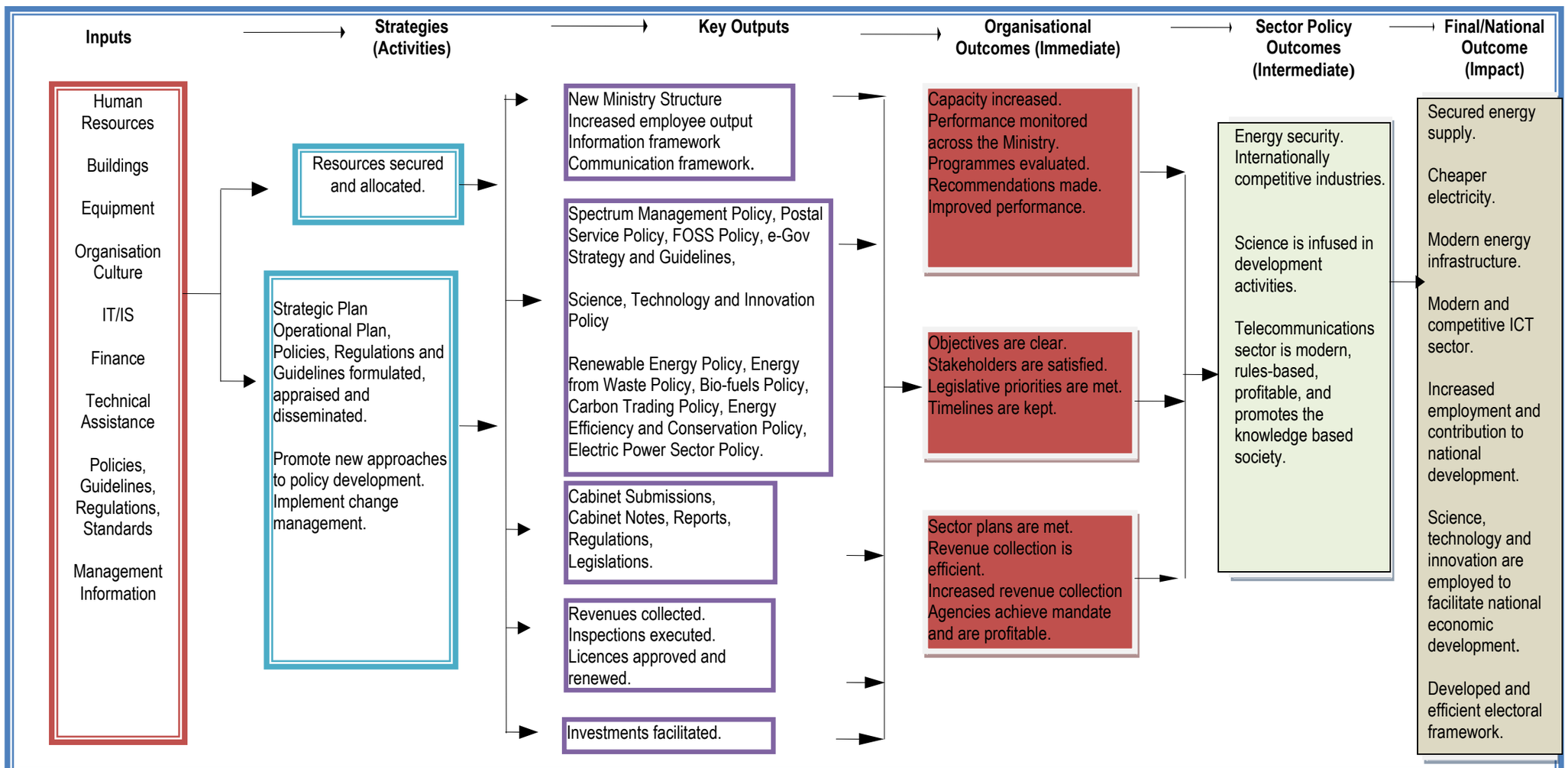

FIGURE

## 2.4 KEY RESULTS MAPPING

### KEY RESULTS MAPPING

The key outputs, outcomes and or impacts of the Ministry's programmes are set out in the following 'Results Map'. The 'map' shows how the Ministry realises its final sector outcomes from its major inputs through the delivery of a number of programme activities.

**FIGURE 2: KEY RESULTS MAPPING**



**BALANCED SCORECARD**

Table 5 outlines the Ministry's 'Balanced Scorecard'.

**TABLE 5: MSET'S BALANCED SCORECARD**

| STRATEGIC OBJECTIVES | MEASURES (PERFORMANCE INDICATORS) | TARGETS | INITIATIVES | MEDIUM-TERM BUDGET ($) |
|---|---|---|---|---|
| **STAKEHOLDER PERSPECTIVE** | | | | |
| Diversified and modernized energy and ICT sectors | Commence implementation of Generation Expansion Plan.<br><br>ICT Act promulgated<br>Data Protection Act promulgated<br>Postal Services Act promulgated | June 2016<br><br>2017<br>2017-2020<br>2018 | Implementation of the Generation Expansion Plan.<br><br>ICT Act<br>Data Protection Act and Office of Data Commissioner<br>Postal Services Act | 30 Million<br><br>.7 Million<br>83 Million[3]<br>20.8 Million[4] |
| Increased awareness of STI. | Sustained public education campaign | 2016 – 2020 | Public education campaign | 2.5 Million |
| Increased access to and use of ICT in all sectors of the economy. | In accordance with USF's and e-Learning's strategic plans<br><br>No. of public institutions connected<br><br>50 CAP sites in 2016<br>50 CAP sites annually after 2016<br>No. of schools in which the project is implemented | <br><br>2016 – 2020<br><br>2016 - 2020<br><br>2017 | Universal Service Fund (USF)<br><br>Establishment of CAPs<br><br>Continued island-wide roll-out of Broadband Network<br><br>Tablets in School Project<br><br>Technology Innovation Fund (TIF) | <br><br>360 Million<br><br>250 Million |
| Modernized and streamlined ICT-enabled government processes and systems. | FOSS Policy developed<br>E-Gov Strategy and Guidelines developed<br>GovNet Strategy framework developed<br>Open Data Policy developed | 2017<br>2016<br>2017<br>2017 | FOSS Policy<br>E-Gov Strategy and Guidelines<br>GovNet Strategy<br>Open Data Policy | .7 Million<br>21 Million[5]<br><br>.7 Million |
| Increased investment in key portfolio areas. | 80.2 MW new renewable generation capacity by 2016<br>190 MW of old generation capacity replaced | 2016<br>2018<br>2018 | Licences for 80.2 MW new renewables signed by 2016<br>190 MW of replaced JPSCo capacity installed<br>Licences for an additional 37 MW of renewables signed | |
| Improved regulatory framework and best practice across all portfolios. | Percentage reduction of approval time for certification of installations for connection to the grid<br>Single ICT Regulator created<br>Spectrum Management Policy developed | 2018<br><br>2017 - 2018<br>2017 | GEI Transformation<br><br>Single ICT Regulator<br>Spectrum Management Policy | <br><br>20 Million[6]<br>.7 Million |

[3] This includes sums budgeted for salary, travel, rental of facilities and purchase of equipment.
[4] This includes the sum of JA $20 Million Dollars budgeted for the market sector study to inform the postal services policy.
[5] This includes the sum of JA $20 Million Dollars budgeted for the salary of the Chief Information Officer.
[6] This sum represents the sum for the Transition Manager only and does not include the costs associated with the creation of the Single Regulator.

| STRATEGIC OBJECTIVES | MEASURES (PERFORMANCE INDICATORS) | TARGETS | INITIATIVES | MEDIUM-TERM BUDGET ($) |
|---|---|---|---|---|
| | Postal Services Policy developed<br>Cyber Security Strategy implemented | 2017<br>2017-2020 | Postal Services Policy<br>Cyber Security Strategy | .7 Million<br>2.1 Million |
| Prudent fiscal management | Monthly expenditure against budget (Recurrent and Capital)<br>Monthly expenditure against cash flow<br>Monthly expenditure against procurement targets (Recurrent and Capital)<br>Monthly expenditure against monthly warrant. | Expenditure contained to approved budget | Use of allocated budget.<br>Monthly guidelines/reports to divisional heads / project managers | |
| Timely submission of all reports | Response to internal and external audit queries<br>Expenditure Reports<br>Revenue Statement<br>Cash flow<br>Bank reconciliation statement<br>Quarterly Contractor General Report<br>Quarterly Cabinet reports<br>Quarterly Performance Report<br>Weekly IMF Energy Report<br>Project Implementation Report<br>Appropriation Accounts<br>Statutory Returns | Within 10 days<br>Monthly<br>Monthly<br>Monthly<br>Monthly<br>Quarterly<br>Quarterly<br>Quarterly<br>Week<br>Monthly / Quarterly<br>Annually<br>Annually | | |
| Conduct audits and process reviews. | 12 internal audits in 2016<br>12 internal audits in 2017 and 2018 | Average of 1 audit monthly | Audit Plan | |
| GOJ-funded budget<br>External multi-lateral grants and technical assistance | Referred to reports above<br>(IDB and WB projects, ICT projects) | | Capital A and B Budget | |
| Modernized, transparent and efficient permit and licence process. | | | | |
| Improvements in strategic planning and execution.<br><br>Alignment of plans with budget. | Budget submitted by November 30 annually. | Ministry-wide strategic budgeting process. | Budget and planning process begins in August each year.<br><br>Budget and strategic plans submitted simultaneously. | |
| Increase innovation in science, technology, and energy. | National Science and Innovation Awards held biennially. | Every other year<br>Annually<br>2016 | National Science and Innovation Awards<br>Completion of Science Labs in Schools Project<br>Rationalization of GOJ's science labs | |

| STRATEGIC OBJECTIVES | MEASURES (PERFORMANCE INDICATORS) | TARGETS | INITIATIVES | MEDIUM-TERM BUDGET ($) |
|---|---|---|---|---|
| | STI Policy developed | 2016 - 2020<br>2017<br>2017 | STI Policy<br>STI Road Map recommendations implemented | |
| Modern policy, legislative and regulatory framework. | | 2016<br><br>2016-2017 | Petroleum and Oil Fuel (Landing and Storage) Act<br><br>Petroleum Quality Control Act<br>Amend the Food and Drugs Act<br>Electricity Policy<br>Data Protection Act<br>Postal Sector Market Study | 0.25 million<br><br><br><br><br>0.5 million |
| **PEOPLE CAPACITY** | | | | |
| Training and recruitment plans supporting human resources development | Organizational structure revised<br>Output-focused job descriptions completed<br>Training opportunities identified, employees trained | 2016 – 2020 | Continued development of human resources and technical capacities through training in management, project management, monitoring and evaluation and energy planning. | 43 Million |
| **KNOWLEDGE MANAGEMENT** | | | | |
| Increase access to accurate, current scientific, technical and policy data/information | GOJ's energy, science and ICT entities' websites linked / integrated. | 2016<br><br>2016 – 2018 | Linkage of GOJ's energy, science and ICT entities' websites. | |
| **TECHNOLOGY** | | | | |
| Improving the internal management, security, and competences in the use of appropriate technologies | | 2016 | Implementation of IT Security Policy and Appropriate/Social Media Use Policy. | |
| **CHANGE MANAGEMENT** | | | | |
| Infuse a performance-based culture within the ministry<br><br>Reduction in resource consumption. | Collaboration<br><br>Waste Management Plan implemented | 2016<br><br>2016 – 2020 | Continue to implement the ministry's modernization projects.<br>ESEEP and EECP<br>Implementation of the Communications Programme under the ESEEP and EECP.<br>Increased resource efficiency / Reduction in resource consumption. | 800 Million |
| Increased application of STI. | Promotion and recognition of the role of .STI<br><br>STI applied to waste management.<br><br>Proactive SRC. | Increase the number of installed bio-digesters by 15 by end of 2018.<br>Five new formulations prepared and presented to market - 2016.<br>HACCAP training conducted for private sector partners - 2016. | Hosting of Science and Innovation Awards.<br><br>Increase the number of bio-digesters employed to treat waste.<br><br>Proactive Scientific Research Council (SRC). | |

| STRATEGIC OBJECTIVES | MEASURES (PERFORMANCE INDICATORS) | TARGETS | INITIATIVES | MEDIUM-TERM BUDGET ($) |
|---|---|---|---|---|
| | Develop a Science and Technology Policy | 2016-2018 | Build-out of the 'Science and Technology Road Map'.<br>Science in Schools project.<br>Strengthen Science Clubs in schools. | 950 Million |
| Consistency in policy and consultations.<br>Improved service delivery. | Communication, public relations.<br><br>Policy management is in place. | 2016-2020 | Policy statements articulated.<br><br>MOUs signed and enforced. | |
| **FINANCIAL PERSPECTIVE** | | | | |
| Prudent fiscal management. | ▪ Above 95% compliance with procurement requirements.<br>▪ Contractor General's compliance rating of above 95%.<br>▪ Budgets used for intended purposes. | ≥ 95% | Knowledge transfer/training/ retraining in government procurement standards.<br><br>Effective budget management training and audits. | |
| | ▪ Audit queries resolved. | 100% | Establish a Quality Management System. | |
| **INTERNAL PROCESS PERSPECTIVE** | | | | |
| Performance Management. | Implementation of PMAS and PMES by 2015.<br>Performance reports.<br>Output focused Job Descriptions.<br>Training in PMAS. | 100%<br>2016 – 2020 | Implement the PMAS.<br>Implement the PMES. | |
| Policy, Programme and Project Management.<br><br>Creation of a modern legislative framework. | Number of key legislations drafted.<br><br>Number of policies developed/amended and submitted to Parliament. | | Amend the Postal Act, and other pieces of legislation. | |
| Improved policies, programmes and projects. | Clear policy objectives and statements.<br><br>Information flow, data collection and interpretation.<br><br>Cost-benefit analyses completed.<br><br>Evaluation studies completed.<br><br>Consultations held.<br><br>Active stakeholder participation in policy, programme and project development. | 80% | Various fora to develop, explain and clarify policy issues across sectors.<br><br>Inter-ministry committees.<br><br>Joint public-private sector committees.<br><br>Memoranda of Understanding (MOUs).<br><br>Data collection, consultancies, reports, business process reviews. | |
| **LEARNING AND GROWTH PERSPECTIVE (Organizational Effectiveness and Capabilities)** | | | | |
| Improved human resource capacity.<br><br>Integrate plans with human resources. | Organization structure and work groups reflect task assigned in work plan.<br><br>Staff delivers output at assigned timelines. | 80% | Organizational chart developed and publicized.<br><br>Organizational review.<br><br>Manpower planning. | |

| STRATEGIC OBJECTIVES | MEASURES (PERFORMANCE INDICATORS) | TARGETS | INITIATIVES | MEDIUM-TERM BUDGET ($) |
|---|---|---|---|---|
| Competent staff. | Level of re-work minimized. | | Performance reports generated and evaluated.<br><br>Continued training. | |

## 2.5 SITUATIONAL ANALYSIS OF THE MINISTRY

A clear understanding of the Ministry's strengths and weaknesses, the threats to its mandate and the opportunities that present themselves is of import to creating a logical and appropriate Strategic Plan, which has a high possibility of being successful.

A SWOT Analysis and a Situational Analysis provide a clear overview and analysis of the Ministry's strengths, weaknesses, opportunities and threats. The information garnered forms the basis for identifying objectives, targets and strategies that may be employed to apply the strengths, address the weaknesses, realize the opportunities and mitigate the threats to us achieving our mandate as expressed through our policies, programmes and projects. Simultaneously, they indicate the broader environment in which we must operate, but over which we have limited or no control and the variables that can impact the outcomes that we expect to achieve.

The Ministry's strengths and weaknesses, the opportunities that it may seek to realize and the threats to it successfully executing its mandate are outlined in Table 6.

**TABLE 6: SWOT ANALYSIS OF THE MINISTRY OF SCIENCE, ENERGY AND TECHNOLOGY (MSET)**

| STRENGTHS | WEAKNESSES |
|---|---|
| i. Awareness of the Ministry's mandate and mission.<br>ii. Strong political and administrative leadership committed to attaining major priorities and goals.<br>iii. Predominantly young and experienced staff educated and trained in various areas, and eager to achieve.<br>iv. High levels of compliance and adherence to government procedures and guidelines.<br>v. Interaction between and communication with various stakeholders.<br>vi. Policy and legislative framework in place for some portfolio areas.<br>vii. Well established inter-ministerial and external network.<br>viii. Strong linkages and goodwill with external partners.<br>ix. Quickly emerging team culture and more integrated management team.<br>x. Recently approved human resource structure for several divisions. The filling of these positions will vastly improve the Ministry's available human resources. | i. Inadequate synergies between divisions and agencies.<br>ii. Delays in developing and implementing policies and projects.<br>iii. Out-dated and inadequate legislation in some portfolios.<br>iv. Inadequate staffing, overburdened staff (in some areas) and misalignment of organisational structure. |
| **OPPORTUNITIES** | **THREATS** |
| i. Availability of external training in designated areas for human resource development.<br>ii. Public sector accountability and management framework.<br>iii. Assistance provided with change management will help to facilitate a smooth change and attain consensus.<br>iv. Access to concessionary funding to facilitate the implementation of key projects.<br>v. Availability of technical assistance to assist in developing required legislative and policy | i. Limited fiscal space to deploy programmes within an effective timeline.<br>ii. Continued sluggish global economy may hamper growth potential in critical (including export dependent) sectors.<br>iii. Changes in or shifting of government's priorities, especially within the context of the on-going and increasingly demanding requirements under the Extended Fund Facility with the IMF.<br>iv. Insufficient stakeholder capacity/support to implement major partnership programmes |

| | |
|---|---|
| infrastructure and skills base.<br>vi. The development of external partnerships to assist in streamlining programmes and ensuring relevance and buy-in.<br>vii. Availability of support (technical and financial) from international development partners.<br>viii. New minister with academic accomplishments in the sciences is likely to provide a fillip to the Science Portfolio. | v. Changes in international regulations.<br>vi. Low salaries and declining purchasing power have contributed to low morale among some members of staff. The very limited wage increases, which have been below the rate of inflation/cost of living, will exacerbate this situation and the ability to recruit and retain qualified staff.<br>vii. Policy incoherence. |

#### 2.5.5 CONCLUSIONS FROM SWOT ANALYSIS

The sectors under MSET are particularly vulnerable to external threats that have had pronounced negative impacts on the science, energy and ICT sectors. The Jamaican economy has no control over many of these variables. Consequently, contingencies and scenario analyses must be filtered into planning. Experience has shown that even with some of these considerations, negative impacts still occur. The attention to careful design of programmes and timely implementation remains an area that needs to be improved so as to put in place the necessary strategies to soften these external impacts.

The Ministry has embraced public sector reform and accountability. There is an awareness of the significance of the modernization and accountability programmes and their capacity to improve efficiency and service delivery to customers. The human and financial resources gap remains a challenge in the attainment of key goals and objectives. This situation requires urgent attention. If not, the ministry's effectiveness and its ability to drive the implementation of the priorities for the sectors' development will be compromised. A Ministry-wide implementation of PMAS and PMES by the end of 2016 is necessary.

## 2.6 MINISTRY'S CURRENT PERFORMANCE (2015-2016)

### 2.6.1 ACHIEVEMENTS IN THE SCIENCE PORTFOLIO

The Ministry was able to re-establish the NCST.

#### 2.6.1.1 SCIENTIFIC RESEARCH COUNCIL

During the 2015-2016 financial year (FY), the SRC continued to promote the application of STI through:

i. The provision of services to Micro, Small and Medium-sized Enterprises.
ii. The implementation of the STI Road Map.
iii. Upgrade of Analytical Laboratories to provide for an increase in the number of accredited (ISO 17025) tests for water and food.
iv. Technology transfer and commercialization.

In executing this mandate, the SRC sought to assist various clients with marketing and business development skills, and understanding the benefits of embracing cleaner production technologies. To achieve these two (2) objectives, it launched a project to develop new technologies and services (products) to satisfy the needs and demands of the productive sectors. These included the following:

a. The International Atomic Energy Agency (IAEA) funded disease and drought resistant materials project aimed at the agricultural sector;
b. Resuscitation of the ginger industry;
c. Research focused on developing Jamaica's Nutraceutical Industry. Areas of interest focused on included diabetics, herbal teas, insecticidal properties of Jamaican plants and the anti-oxidant properties in local medicinal plants;
d. Provision of consultancy services in cleaner production technologies and wastewater treatment options; and
e. Training in the use of technologies.

#### 2.6.1.2 NATIONAL COMMISSION ON SCIENCE AND TECHNOLOGY (NCST)

Appraisal of the R&D institutions in and around the Hope Gardens area to see how best to forge synergies amongst their programmes was completed. The institutions involved were the SRC, Government Chemist, Jamaica Bauxite Institute, Mines and Geology Division, Rural Physical Planning, Government Veterinary Services, Environmental Health Laboratory, Food Storage and Prevention of Infestation Division and National Water Resources Authority. A consultant has been retained to spearhead preparation of the STI Policy.

### 2.6.2 ACHIEVEMENTS IN THE TECHNOLOGY (INFORMATION AND COMMUNICATIONS TECHNOLOGY) PORTFOLIO

Increased access to the Internet has facilitated a rapid rise in the number of computer and internet security incidents, including intrusions, hacking, and economic fraud. During FY 2013 – 2014, having realized the depth and possible impacts of cybercrimes, the GOJ considered a comprehensive package of measures to treat with the problem. Work continued on developing the CIRT, which is intended to serve as the GOJ's cornerstone for cyber security coordination and preparedness to protect Jamaica's internet infrastructure, coordinate a defence against and respond to cyber-attacks.

The continued operation of eGovJa, employment of a Chief Information Officer (CIO), moves to develop the ICT and Data Protection legislation, creation of 'Guidelines for Number Portability', continued build-out of GovNet concept and the creation of a 'Single Regulator for ICT', conclusion of the 'Tablets in Schools Pilot Project, and commencement of the Animation and Digital Industries Project were points of focus and achievement during FY 2015 - 2016.

With the assistance of the USF, the e-Learning Project continued to build out ICT services, ICT-based instructional materials, build capacity and improve the hardware and software available in several schools throughout the country.

The programmes and projects pursued under the ICT portfolio were intended to assist in effecting the following:

i. Accelerating public sector reform by facilitating the widespread use of e-Government in areas that increase productivity.
ii. Improving performance within our education system, especially at the primary and secondary levels, including all-age schools.
iii. Improving the provision of convenient, efficient and citizen-centric services delivered electronically via the internet and mobile devices.
iv. Mitigating corruption and increasing transparency with the implementation of automated systems.
v. Improving efficiency and service delivery throughout the economy, including the courts, revenues and taxation entities, and security services.
vi. Lowering the cost of ICT services.
vii. Increasing the use of the spectrum, including the rate of compliance and reducing radio frequency interference.

In September 2015, ICT portfolio stakeholders proposed the following strategic objectives:

i. To advance Jamaica's national development by FY 2019-2020 in the Finance, Agriculture, Health, Transportation and Education sectors through the adoption and application of ICT.
ii. To create a knowledge-based society through structured processes for education and training of the workforce and citizenry by FY 2018-2019.
iii. To establish and maintain a secure reliable, affordable, efficient and widely accessible ICT infrastructure for Jamaica by FY 2020-2021.
iv. To provide e-Government services with the integration of information and services to deliver secure, timely, efficient and reliable ICT services to the citizens of Jamaica by FY 2020-2021.
v. To enable a secure and responsible information management framework in accordance with legislative and ICT governance requirements by FY 2020-2021.
vi. To increase efficiency and productivity within the workforce and citizenry by FY 2020-2021 by maximizing the effective use of ICT resources.
vii. To reduce costs, increase productivity and efficiency by employing standardized processes for data sharing and integration by FY 2020-2021.
viii. To align IT and business strategy to improve communication and business processes and improve risk control mechanisms by FY 2020-2021.

Jamaica's National Cyber Security Strategy was launched in early 2015. It seeks to establish a framework that is built around the following four (4) core areas: - technical measures; human resource and capacity building; legal and regulatory; and public education and awareness. Since its launch, the following have occurred in relation to the core areas:

A. **Technical**

i. Implementation of the CIRT. The physical facility for the CIRT was completed with assistance from the International Telecommunication Union (ITU) and Organization of American State (OAS) and housed at eGovJa's Building. Policies to govern the running of the CIRT have already been developed. Points of note regarding the CIRT are:

   a. It has been responding to incidents since its formation in June 2015.
   b. Issues timely Alerts and Advisories to GOJ MIS officers.
   c. It is managed directly by MSET.

ii. Two (2) cyber security sensitization sessions held with MIS officers of government entities.

iii. Transformation Process commenced to develop minimum security standards to be maintained by Government ministries, agencies and departments.

B. **Legal**

i. Passing of the Cybercrimes Act

ii. The Data Protection Bill drafted and circulated for review and comments by key stakeholders. The Bill will be tabled in Parliament by the end of the legislative year 2016/2017.

C. **Capacity Building**

A cadre of highly skilled professionals already engaged in the public service have been identified to temporarily staff the CIRT. The Training of these personnel has begun with help from the ITU and OAS.

D. **Public Awareness**

i. Jamaica became a part of the ***Stop Think Connect Campaign***.

ii. The GOJ partnered with private sector companies for the launch of a Public Education and Awareness Programme, and with select MDAs for the promotion of Cyber Security awareness on their websites and social media pages. Observation of October as Cyber Security Awareness Month along with the rest of the world, sharing of tips to maintain safety online via email, twitter and Facebook and participation in Think Tank at JIS to promote cyber security awareness were some of the public awareness activities undertaken.

### 2.6.3 ACHIEVEMENTS IN THE ENERGY PORTFOLIO

The following were achieved:

i. Review of the JPS Licence completed and recommendations incorporated in the Licence, which is in the final stages of negotiation.

ii. Memorandum of Understanding (MOU) signed with the United States Government in January 2015 outlining a programme of technical collaboration on the implementation of clean energy activities.

iii. Letter of Intent concerning development and redeployment of clean energy related technologies signed with the US Department of Energy in April 2015.

iv. Ground breaking for:

   a. 24 megawatt wind facility (Wigton III) by Wigton Windfarm Limited in February 2015. This pending addition to the existing 38.7 MW capacity within Wigton I and Wigton II will help to reduce oil consumption by more than 37,100 barrels per year and is slated to be commissioned by end of Q1 2016.
   b. 34 megawatt wind facility by Blue Mountain Renewables (BMR) in February 2015. The plant, which will save over US$150 million from Jamaica's US$2 billion annual oil import bill is slated to be commissioned by end of Q1 2016.
   c. 20MW solar farm by Content Solar Limited in July 2015. Plant slated to be commissioned by end of Q1 2016.

v. Procurement completed for:
   a. 120MW of diesel-fired generation capacity to be converted to burn Liquefied Natural Gas (LNG) at Bogue Power Station, St. James. The fuel conversion should be completed by March 2016.
   b. A 190MW LNG-fired power plant at Old Harbour Power Station, St. Catherine to replace old and inefficient oil-fired power plants. Plant to be commissioned in Q4 of 2018.

vi. Award granted for JAMALCO to build cogeneration coal-fired power plant and sell up to 50MW of power to JPSCo. Construction to be completed by 2020.

vii. Request for Proposal issued by the OUR for the supply of up to 37MW of electricity generation from renewable energy resources. Submission deadline was January 27, 2016.

viii. Net Billing:
   a. Of 360 applications, 316 licences issued. This represents a potential for 4.8MW of new generation capacity.
   b. 120 systems connected to the grid representing approximately 2.0MW. After three (3) years, a review of the programme has been completed and renewed efforts are being made to achieve the target of approximately 12MW, representing 2% of system peak demand.

ix. The OUR, with the assistance of the US-based National Renewable Energy Laboratory (NREL) and the United States Agency for International Development (USAID), completed **an assessment report on the Net Billing Pilot Programme** for the period May 2012 to January 2015. The report was presented to stakeholders at a workshop held May 28-29, 2015.

x. US Government granted a licence to New Fortress Energy Company in August 2015 to export LNG from the USA to Jamaica, the first non-NAFTA country to receive LNG from the USA.
Natural Gas Supply Agreement signed in August 2015 between New Fortress and JPS to supply fuel to the Bogue power plant when upgraded.

xi. Energy Conservation Measures, Monitoring and Verification Template completed. Technical specifications for the development of environmental standards for the disposal of waste from the Energy Efficiency and Conservation Programme completed. Forty-two (42) agencies monitored (this is ongoing). A cumulative 1,998,220 kWh in electricity reductions achieved with approximately $80 million in savings since start of project.

xii. Air conditioning retrofits done in several GOJ buildings: 80% completion for seven facilities. Demand Side Component - Education and Public Awareness - completed for six facilities, namely St Andrew High School for Girls, Jamaica Information Service, Donald Sangster Building, Transport Authority, Jamaica Cultural Development Commission and Jamaica Bauxite Institute.

xiii. Feasibility studies completed for six hydro sites. Pre-feasibility studies completed for six additional hydro sites.

xiv. Five loans totalling US$594,074.07 were disbursed under the Development Bank of Jamaica's (DBJ) Line of Credit (LOC) facility to SMEs. The LOC is to assist approved entities with renewable energy and/or energy efficiency retrofits.

**REGISTRATION AND PETROLEUM LICENCES APPROVED**

i. Registration of sixty five (65) petroleum tankers
ii. Six (6) Petroleum Haulage Contractors Licences
iii. Six (6) Petroleum Bulk Distributors Licences
iv. Fifty four (54) 'no objection' letters to Trade Board regarding applications for export permits

**RURAL ELECTRIFICATION**

The Rural Electrification Programme Limited (REP) was officially rebranded as the National Energy Solutions Limited (NESoL). This entity will continue to facilitate the provision of electricity to certain rural and low income urban communities by building out renewable energy solutions. It will also continue to play a major role in the Jamaica Public Service Company's (JPSCo) on-going electricity theft reduction campaign by providing house wiring services to targeted customers to facilitate proper metering of their premises and legal connection to the grid.

**SUMMARY OF PRIORITY POLICY ACHIEVEMENTS**

**TABLE 7: PRIORITY POLICIES, THEIR INTENT AND PROJECTED BENEFITS**

| NO | NAME OF POLICY / PORTFOLIO | INTENT AND PROJECTED BENEFITS | STATUS AND COMMENTS |
|---|---|---|---|
| | **SCIENCE** | | |
| 1. | Science, Technology and Innovation Policy | To promote and facilitate the development of science and technology as major aspects of our culture and our economy. Increased production of value-added products, increased number of local patents being registered, and the development of a local innovation and science-driven sector that employs significant number of persons, creates wealth and earns the country increasing quantities of foreign exchange while making us less dependent on foreign technologies. | Development yet to commence. A consultant has been contracted by the NCST to lead the policy development process. |
| | **TECHNOLOGY** | | |
| 2. | Spectrum Management Policy | To ensure efficient spectrum planning, allocation and assignment in accordance with international best practices, protocols and standards. Job creation, increased government revenues from licence fees and increased traffic in various areas of the spectrum. | Delayed |
| 3. | Postal Services Policy | To provide for a modern and robust postal services sector, which safeguards fair compensation for stakeholders, meets universal service obligations, and sets out the licensing and regulatory framework for the sector. Increased number of private sector jobs is projected. | Delayed |
| 4. | FOSS Policy | To promote innovation and cost rationalization in the use of software for the execution of business processes in the public and private sectors; and to develop Centres of Excellence to provide support for the deployment and use of FOSS solutions. | In progress |
| | Information and Communications Technology (ICT) Policy | To provide for the development of a modern and robust ICT sector that enhances productivity and competitiveness; drives private sector investment; makes ICT readily accessible by all citizens; supports improved governance at all levels; and contributes to science, research and innovation. | Review delayed |
| 5. | Cyber Security Strategy | To provide for a National Cyber Security Strategy which encourages consumer confidence in the security of ICTs and the protection of critical ICT infrastructure; to establish a Computer Incident Response Team (CIRT) to monitor and respond to potential threats to ICT infrastructure; and to provide the framework for public education and capacity building. | Developed |
| | **ENERGY** | | |
| 6. | Renewable Energy Policy | A well-developed, vibrant and diversified renewable energy sector that contributes to Jamaica's energy security and sustainable future. Increased investment in renewables, decreased reliance on imported fuels to drive various branches of economy and aspects of society. Job creation, especially in installation, servicing, sales and operations. The emergence of an ESCO Sector, which should create jobs and save consumers money. | Draft completed, but awaiting synchronization with the National Energy Policy. Notwithstanding, various policy prescriptions are being implemented. |
| 7. | Energy Efficiency and Conservation Policy | The policy is intended to create the enabling environment whereby "In Jamaica, energy is generated, transmitted and utilized exercising best practices in energy conservation and efficiency". It sets out the necessary strategies to guide conservation and efficiency, and present targets and ways to monitor performance. The emergence of an ESCO Sector, which should create jobs and save consumers money. | Completed draft is to be updated to allow for synchronization with the National Energy Policy. |
| 8. | Electric Power Sector Policy | The policy is intended to provide the strategic framework that will guide the orderly development of the electricity sector; define key roles of main actors; and outline the general approach to achieving reduction | |

| NO | NAME OF POLICY / PORTFOLIO | INTENT AND PROJECTED BENEFITS | STATUS AND COMMENTS |
|---|---|---|---|
| | | in electricity prices. It will support the energy policy's thrust for energy security through fuel source diversification. | |
| 9. | National Energy Policy | The policy will provide the enabling environment, including legislative support for the achievement of this national outcome of a secure and sustainable energy supply and the implementation of the two national energy strategies. | Being implemented. |
| 10 | Biofuels Policy | The policy provides the framework for the development of ethanol from sugar cane and further use of bagasse for cogeneration and is also a part of the country's Strategy for the adaption of the Sugar Industry 2006-2020, which addresses the re-development of the sugar industry and its attendant reforms to facilitate access to ethanol and power generation. The main benefits include generation of clean electric power sustainable growth and development ,increased supply of biodiesel | Draft to be finalized and policy submitted to Parliament |
| 11 | Waste to Energy Policy | Implementation of this policy will guide the operations and processes associated with generating energy from waste in Jamaica and have the potential to be a contributor in meeting the target set for renewable energy for Jamaica. The main benefits includes reduction in the overall waste quantities requiring final disposal, reduction in greenhouse gas emissions, environmentally safe solid waste management and disposal, as well as the potential for cleaner and cheaper electric power supply | Draft to be finalized |
| 12 | Carbon Credit Policy | Implementation of this policy will result in a reduction in Jamaica's carbon footprint or activities that induce global warming through release of greenhouse gases into the environment and adverse consequences. The policy will also provide an incentive to for certain afforestation and reforestation activities and enhance energy security through displacing traditional energy sources and earning rom carbon credits in a developing energy sector | Draft to be finalized |

**SUMMARY OF PRIORITY LEGISLATIVE ACHIEVEMENTS**

**TABLE 8: LEGISLATIVE PROGRAMME ACHIEVEMENTS**

| NO | NAME OF LEGISLATION | PURPOSE OF LEGISLATION | CATEGORY | PROGRESS | PRIORITY |
|---|---|---|---|---|---|
| | **ICT** | | | | |
| 1. | The Data Protection Act | The Act will provide for the protection of privacy of individuals in relation to personal data and to regulate the collection, processing, storing, use and disclosure of personal data. | 7 | A Validation Workshop was held in May 2015. The final report from the ITU Consultant was utilizedto finalise and issue drafting instructions to the Chief Parliamentary Counsel. Draft Bill was prepared by CPC and circulated to all Ministries, the Legal Reform Department and the Attorney General's Chambers for comments. | High |
| 2. | The Information and Communications Technology Act (Telecommunications Act Repeal) | To provide the ICT sector with an adequate legislative and regulatory framework which addresses:<br>• the establishment of a converged stand-alone ICT Regulator<br>• current trends and emerging technologies<br>• competitiveness | 7 | Cabinet Submission to be prepared seeking approval for drafting instructions to be issued. | High |

| NO | NAME OF LEGISLATION | PURPOSE OF LEGISLATION | CATEGORY | PROGRESS | PRIORITY |
|---|---|---|---|---|---|
| | | • consumer protection. | | | |
| 3. | Cybercrimes (Amendment) Act | To strengthen the sanctions under the Act and to bring same into alignment with international best practices. | 1 | The Act was passed in Parliament and received the Governor General's assent in December 2015. | |
| 4. | Postal Services Act<br>[Post Office Act (Repeal)] | Review of the Post Office Act and other legislation with a view to aligning same with policy initiatives to:<br>• Licence and regulate all operators providing postal services outside of a policy and legislative framework by inter alia;<br>• Repealing the Post Office Act; and creating a statutory body. | 5 | The draft Bill is to be reviewed to ensure its currency and alignment with new policy thrust. | Medium |
| 5. | Telecommunications (Amendment) Act | To amend the Act to establish the basic requirements and conditions for the implementation and operation of number portability in Jamaica. | 1 | Rules were passed and implemented in June 2015 | High |
| 6. | Regulations to the Telecommunications Act | To outline the fixed penalties applicable in respect of offences promulgated under the Act as amended in May 2012. | 7 | To be addressed in the review of the Telecommunications Act and the consideration of the ICT Act mentioned at 2 above. | High |
| | **ENERGY** | | | | |
| 7. | The Electricity Act | To replace the Electricity Act of 1890 with a modernised Electricity Act. Consequent on the imminent completion of the Electricity Policy for Jamaica, a modernised Act will include:<br>• Introducing more competition in the sector;<br>• Modernised infrastructure, including but not limited to smart grid deployment;<br>• Regulatory clarification of the rules for competition, self-generation, net billing, net metering and power wheeling in the electricity market;<br>• Regulatory provisions for the treatment of renewables, waste to energy and other alternative energy forms;<br>• Appropriate tariffs for energy, differentiated by source;<br>• Standardised power purchase agreements; and<br>• Provisions for appropriate rates for electrical inspections. | 1 | The Act was passed in the Houses of Parliament and came into operation on August 17, 2015. | |
| 8. | The Petroleum (Landing and Storage) Act | To modernise and update the legislation. | | The Chief Parliamentary Counsel (CPC) is finalizing the amendments. | High |

| NO | NAME OF LEGISLATION | PURPOSE OF LEGISLATION | CATEGORY | PROGRESS | PRIORITY |
|---|---|---|---|---|---|
| 9. | The Gas Act | To provide for the proper legislative and regulatory framework for the gas market. It is contemplated that gas will be introduced to Jamaica. | | Assistance is being sought from the Commonwealth Secretariat with a view to assessing international best practices in the gas industry and to make recommendations for our Gas Act. This is on-going and will continue in 2016. | Very High |
| 10. | The Petroleum (Quality Control) Act | • To review and amend the current licensing mechanisms and penalties associated with the Act, to ensure appropriate enforcement of safety standards for the petroleum sector;<br>• To provide for appropriate charges for the inspection of petroleum facilities;<br>• To establish standards and regulations for ultra-low sulphur diesel; and<br>• To establish standards and regulations for biodiesel. | | The CPC is finalizing the final draft Bill. | High |

## 2.7 PRIORITY PLANS AND PROGRAMMES (2016 – 2020)

The Ministry's policy priorities are planned and developed with focus on the National Development Plan Vision 2030 Jamaica, Public Sector Master Rationalisation Plan, Ministry Paper No. 56 - Government at Your Service, Public Sector Modernisation Vision and Strategy 2015 – 2018, Medium Term Socio-Economic Policy Framework: 2014 - 2017 (MTSEPF), the Central Treasury Management System (CTMS), the constraints and opportunities presented by the government's borrowing relationship with the IMF and policy positions taken by the political directorate. Of great importance are the government's policy priorities and proposed major projects.

Cognizant of the foregoing, the Ministry will seek to accelerate implementation of the priority programmes and projects, where possible, and within the allowed ceilings, during the four (4) year period. The Ministry is mindful of the need to adhere to timelines, coordinate and interface with its agencies, partners and clients and to monitor the performance of the key priority policies, programmes and projects. The emphasis to enhance success and remain on track will be on:

i. Ministry-wide implementation and improvement of the PMES, PMAS, and continued improvement in service delivery throughout the Ministry and its agencies.
ii. Continued development of the Ministry's human resources and technical capacities, especially through training and mentorship.
iii. Continued implementation of the Ministry's modernization programme so as to ensure the effective implementation of its mandate, including the strategic coordination and monitoring of the agencies' programmes and performance.
iv. Continued scenario planning, situation analyses and flexibility to allow for the identification of opportunities and risks. This will assist us to maximize and benefit from possible opportunities and developing appropriate mechanisms and responses to reduce and treat with the risks.

**SUPPORT SERVICES**

The Ministry's support services include Internal Audit Division, Office Services, Human Resources Management and Administration, Communications and Public Relations, and the Finance and Accounts Division. It is to be noted that for the implementation of the PMES, and to deploy the priority programmes as defined above, the MSET will require the Ministry of Finance's (MOF) support to employ the personnel against the recently approved organisation structures for several divisions.

**INTERNAL AUDITING**

Audits of several entities will be undertaken in line with the Ministry's 2016-2020 Audit Plan. Ten scheduled audits will be executed during 2016-2017, and twelve during each of the two following FYs. Special audits will be conducted if and when the need arises. A central objective of the Internal Audit Division is to facilitate compliance with audit procedures so as to improve governance and efficiency. The following targets are to be achieved during the years highlighted:

i. 2017-2018: 90% reduction in the number of Auditor General's queries and appearances before the Public Accounts Committee (PAC) within the Ministry and external divisions and 80% within portfolio agencies.
ii. 2018-2020: 95% reduction in the number of Auditor General's queries and appearances before the PAC within the Ministry and external divisions and 90% within portfolio agencies.

**ACCOUNTS AND FINANCE DIVISION**

This entity is tasked with developing the Ministry's budget and presiding over the effective and legal management of the financial resources provided by the MOF. During the three (3) year planning cycle, it will seek to reduce the number of physical cheques drawn and issued, while simultaneously increasing the number of wire transfers. This action is projected to reduce the cost involved in making payments to various accounts, increase efficiency and minimize risk. It will also seek to:

i. Ensure representation to MOF to secure adequate funding to fund activities towards achieving MSET's mandate.
ii. Ensure that financial commitments are processed internally within three (3) days.
iii. Complete Budget preparation and submit same to the MOF within the prescribed time.
iv. Divisions will receive a statement of their monthly expenditure within seven (7) days of the end of each month.
v. Meet all statutory requirements within the prescribed date for submission of the respective reports.

**COMMUNICATIONS AND PUBLIC RELATIONS**

The provision of information to the public on the Ministry's policies, programmes and projects and generally helping the Ministry to keep a positive public image is the remit of the Communications Unit. During the 2016-2020 planning cycle, it commits to the following:

i. Produce a quarterly publication for the Ministry's three (3) core portfolios.
ii. Boost the Ministry's online visibility through the use of social and alternative media.
iii. Produce an annual report for the Ministry.
iv. Streamline the communications system.
v. Establish protocol on speaking to the media and with partners.
vi. Increase media monitoring.
vii. Develop and implement a Comprehensive Communications Plan.

**CORPORATE SERVICES**

The activities of this division extend to and impact all aspects of the Ministry. The effective build-out of PMAS and PMES, the Ministry's proposed restructuring and modernization, procurement of goods and services, management of the Ministry's physical assets and the day to day operations of our offices are within the remit of this segment of the Ministry. The division will also undertake the following priorities:

i. Establish a documentation management/archival system for the Ministry.
ii. Increase security systems within the Ministry.
iii. Develop service standards for the division.

**SCIENCE AND TECHNOLOGY PORTFOLIO**

The priority plans and programmes for the S&T portfolio, namely the NCST, are outlined in Table 9.

**TABLE 9: PRIORITY PLANS AND PROGRAMMES FOR THE SCIENCE PORTFOLIO 2016 - 2020**

| **PRIORITY POLICY ISSUES** | STRATEGIES | **OUTPUT** | **PERFORMANCE MEASURES/ OUTCOME INDICATORS** | **TARGET & COST '000** 2016/17 **J$21,200'** | **TARGET & COST '000 2017/18 J$8,500'** | **TARGET & COST '000** 2018/19 **J$10,200'** |
|---|---|---|---|---|---|---|
| **MAJOR PROGRAMMES** | | | | | | |
| **STRATEGIC BUSINESS PLAN** | | | | | | |
| Supporting framework for the integration of science and technology in national development | Develop and implement the new science and technology and innovation policy as a tool for sustainable national development | New Science and Technology and Innovation Policy 2016-2030 | Increase collaboration among and between S&T entities and industry<br>Improvement in the scientific literacy of the people of Jamaica<br>Outline of a fiscal mechanism to support greater investments in scientific research and its application in critically relevant areas in industry and to the society | Development of and implementation of Science Technology and Innovation (ST&I) policy | *[Continue with related targets and costs – Yr 1]* | *[Continue with related targets and costs – Yr 1]* |
| | Design and execute a pilot project for the measurement of R&D in support of GoJ effort to incorporate R&D in the national accounting<br><br>Constitute oversight committee to govern the systematized collection of ST&I data<br><br>Strengthening of the capacity for S&T institutions to adopt appropriate metrics for the collection, reporting and analysis of science and technology indicators | National R&D survey executed for public and private sector entities<br><br>Signed MOU agreement between relevant agencies responsible for collection and reporting of data – standardized data collection and reduction in duplicity<br><br>Two (2), three (3) days Capacity building workshop on ST&I indicators with technical assistance from UNESCO/RICYT | Increase involvement and input from the S&T community in the development and updating of indicators for activities and R&D<br><br>Systematic collection of ST&I data to drive decision-making and improve the mechanism by which stakeholders are advised on the implication of S&T to Jamaica's development<br><br>Stakeholders trained in the collection and reporting of data in keeping with international standards and practices<br><br>capacity for systematic measuring of R&D inputs in the public and private sectors | Contract consultant<br>Database development<br><br>Capacity assessment completed within 2nd quarter FY<br><br>Stakeholder engagements<br><br>Implement pilot<br><br>Verification and reporting of data<br><br>Stakeholder consultations<br><br>Capacity assessment Report on institutional gaps as it relates to human resources, and hard/soft wares etc.<br><br>Three (3) National | Implement pilot<br><br>MOU agreement with relevant MDAs<br>Development of a framework for the collection and reporting of data on STI<br><br>*[Continue with related targets and costs – Yr 1]* | Execute national survey on R&D and STI activities among institutions |

| **PRIORITY POLICY ISSUES** | STRATEGIES | **OUTPUT** | **PERFORMANCE MEASURES/ OUTCOME INDICATORS** | **TARGET & COST '000** 2016/17 **J$21,200'** | **TARGET & COST '000 2017/18 J$8,500'** | **TARGET & COST '000** 2018/19 **J$10,200'** |
|---|---|---|---|---|---|---|
| | | | | stakeholder consultations to gain buy-in – public and private entities | | |
| Formalize the establishment of the National Nutraceutical Industry (NNI) and the development of supporting areas in keeping with international developments | Review and amendments proposed changes to the National Food and Drug Act (FDA) for the inclusion of nutraceuticals as a special class of products requiring appropriate regulatory considerations for public health and safety | Proposed amendment to MOH submitted | Promulgation of new National FDA | Implementation and monitoring of Amendment to the FDA | *[Continue with related targets and costs – Yr 1]* | |
| | Assessment of the NNI in Jamaica and identify potential market entry points | Published report on the state of the NNI in Jamaica with recommendations | Results/reports of the assessment | Conduct assessment and draft recommendations of the industry with the support of key agencies | Publish and launch report<br>Implement recommendations | |
| | Establish *registry* of practitioners and information | Establish registry of practitioners currently involved in the industry | Repository of relevant information for the NNI for practitioners | Develop a database of practitioners and related NNI information | *[Continue with related targets and costs – Yr 1]* | |
| | Development of a framework for coordination and standardization of the NNI industry in | Framework outlining the functional roles of existing agencies and their role in the regulation of NNI | Reduction in bureaucracy and clear identification of functionality in the NNI<br><br>Development of guidelines for standardization and adoption of appropriate certification mark | Stakeholder engagement for development of framework | Framework developed with responsibilities of functional and governing agencies<br><br>Implementation of guidelines of Chief Parliamentary Council for development of NNI. | *[Continue with related targets and costs – Yr 2]* |
| | Strong Public Education Campaign focused at building awareness on legislative changes and their implications | Sensitization through various forms of print and electronic media and public engagement initiatives | Increased # of Publications and informational material in public domain<br><br>Increased public engagement thru workshops /consultations/ seminars/lectures etc. | Stakeholder engagement<br>Public education | *[Continue with related targets and costs – Yr 1]* | *[Continue with related targets and costs – Yr 2]* |

| PRIORITY POLICY ISSUES | STRATEGIES | OUTPUT | PERFORMANCE MEASURES/ OUTCOME INDICATORS | TARGET & COST '000 2016/17 J$21,200' | TARGET & COST '000 2017/18 J$8,500' | TARGET & COST '000 2018/19 J$10,200' |
|---|---|---|---|---|---|---|
| | MOU with an international Clinical Site Management Organization:<br><br>To explore synergistic relationship towards establishing clinical trial locus in Jamaica<br><br>Gain approval locally from relevant bodies for conducting clinical trials | Approval from the relevant authorities for the conduction of clinical trials in Jamaica | Support the NNI development through institution of clinical trials<br><br>Develop Jamaica's capacity to conduct clinical trials | Signed MOU Agreement for partnership to develop Jamaica's capacity for clinical trials | Implementation of MOU<br><br>Stakeholder engagements | *[Continue with related targets and costs – Yr 2]* |
| | Development of nutraceutical farmers and build capacity for engagement in the NNI<br><br>Develop liaison with the Jamaica 4-H Clubs and the facilitation of public-private partnerships | Train 1,000 4-H clubbites in nutraceutical farming across the island<br><br>New start-up entrepreneurial activities among youth in nutraceutical farming | 4-H clubbites trained in the business and planting of nutraceutical crops<br><br>20% Establishment of new and stable nutraceutical business and entrepreneurial initiatives – establish at least one (1) nutraceutical business with trade and export potential | Develop and expand nutraceutical farming training programme<br>Train 200 4-H clubbites<br>Develop and explore partnerships for advancing ventures | *[Continue with related targets and costs – Yr 1]* | *[Continue with related targets and costs – Yr 2]* |
| Infrastructure development to improve and attract returns on public spending | Support the enhancement of the physical infrastructure - based on recommendations of the 2015 Audit of Hope Gardens Lab facilities<br><br>Engage decision makers in providing support for accreditation of facilities to | Project Manager contracted to develop and execute work-plan<br><br>Engagement of JAANAC in the hosting of accreditation pre-assessment workshop<br><br>Project Management training for key staff<br><br>Appointments of the ST&I Liaison group | improve operational and services deliveries and overall organizational development<br><br>Progress on Implementation - quarterly Status report on implementation<br><br>Create clear path towards gaining accreditation - requirements and inputs needed<br><br>Project Management training implemented by FY 2016<br><br>Establish ST&I Liaison channel with MoF to engender meaningful dialogue | Procure consultant<br>Develop work-plan<br><br>JANAAC pre-assessment of accreditation workshop (s)<br><br>Representative staff training in Project Management Principles | *[Continue with related targets and costs – Yr 1]*<br><br>Pre-Assessment Accreditation reports<br><br>Updating of training in Project Management Principles | *[Continue with related targets and costs – Yr 2]*<br><br>30% of stakeholders generate plan towards ISO 17025 accreditation |

| **PRIORITY POLICY ISSUES** | STRATEGIES | **OUTPUT** | **PERFORMANCE MEASURES/ OUTCOME INDICATORS** | **TARGET & COST '000** 2016/17 **J$21,200'** | **TARGET & COST '000 2017/18 J$8,500'** | **TARGET & COST '000** 2018/19 **J$10,200'** |
|---|---|---|---|---|---|---|
| Popularization of Science, Technology and Innovation (ST&I) | Facilitate the wide dissemination of scientific knowledge through various media<br><br>Publicly recognize the efforts of scientist, and innovators | Publications of articles and media engagement<br><br>Participation and coordination of public initiatives promoting S&T<br><br>National Innovation and Medal Awards ceremony<br><br>Features and follow-up activities promoting work and accomplishments | 20 % increase in ST&I material in the public domain<br>Increase engagement of the scientific community in publishing scientific information<br><br>Increase public engagement and involvement in science and technology applications<br><br>Increase support for the Biennial Awards ceremony<br>Increase stakeholder participation and involvement | Collaborate with other stakeholders in producing information for print and electronic media<br><br>Plan and execute programme<br><br>Engage media promotions for programme<br><br>Solicit funding support for awards presentations | *[Continue with related targets and costs – Yr 1]* | *[Continue with related targets and costs – Yr 2]*<br><br>*[Continue with related targets and costs – Yr 1]* |
| | Facilitate capacity building support for innovators to access funds and resources towards commercialization of their ideas and products | Engage relevant MDAs in support of capacity development initiatives and venture capital support facilities | 20% of Winners of National Innovation Awards progress with their innovations<br><br>Increase training and support opportunities for innovators to further their access to available resources | Coordinate and engage support for capacity building of innovators in support of promising ideas<br><br>Coordinate venture support meetup to build exposure for cohort | *[Continue with related targets and costs – Yr 1]* | *[Continue with related targets and costs – Yr 2]* |

**INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) PORTFOLIO**

The priority plans and programmes for the ICT portfolio are outlined in Table 10.

**TABLE 10: PRIORITY PLANS AND PROGRAMMES FOR THE ICT PORTFOLIO 2016 - 2020**

| PROGRAMME/ PROJECT & BUDGET NO. AND POLICY INITIATIVES | STRATEGIES | OUTPUT | PERFORMANCE INDICATORS | TARGET & COST 16/17 | TARGET & COST 17/18 | TARGET & COST 18/19 | TARGET & COST 19/20 |
|---|---|---|---|---|---|---|---|
| **MAJOR PROGRAMMES** | | | | | | | |
| Improve efficiency and security of internal business processes | Implement new website which facilitates the provision of e-services to internal and external stakeholders | Website that promotes the use of e-services by the Ministry's stakeholders. | 80% increase in the number of users of the Ministry's website by the end of FY 2019/2020 | 20% increase in the number of users of the Ministry's website by the end of FY 2016/2017 | 40% increase in the number of users of the Ministry's website by the end of FY 2017/2018 | 60% increase in the number of users of the Ministry's website by the end of FY 2018/2019 | 80% increase in the number of users of the Ministry's website by the end of FY 2019/2020 |
| | Develop a schedule for the maintenance and/or replacement of Information and Communications Technology (ICT) infrastructure | ICT infrastructure maintained and/or replaced | ICT equipment maintained in keeping with maintenance schedule.<br><br>At least 50% of end of life ICT infrastructure replaced by the end of each financial year. | ICT equipment maintained in keeping with maintenance schedule.<br><br>50% of end of life ICT infrastructure replaced. | ICT equipment maintained in keeping with maintenance schedule.<br><br>50% of end of life ICT infrastructure replaced. **Estimated cost - $2.5 million** | ICT equipment maintained in keeping with maintenance schedule.<br><br>50% of end of life ICT infrastructure replaced. **Estimated cost - $2.5 mil** | ICT equipment maintained in keeping with maintenance schedule.<br><br>50% of end of life ICT infrastructure replaced. **Est. cost $2 million** |
| Improve monitoring and administration of the use of Microsoft Software within Ministries Departments and Agencies (MDAs) | Implement policy on self-reporting of Microsoft license acquisitions by MDAs | Self-reporting of licence acquisitions by MDAs | 100% of MDAs self-reporting licence acquisitions by the end of FY 2018/2019 | 35% of MDAs self-reporting licence acquisitions by the end of FY 2016/2017 | 70% of MDAs self-reporting licence acquisitions by the end of FY 2017/2018 | 100% of MDAs self-reporting licence acquisitions by the end of FY 2018/2019 | N/A |
| | Conduct compliance audit of Microsoft products in use by MDAs | Compliance audit of the use of Microsoft products | Compliance audit completed biennially | N/A | Compliance audit completed at the end of FY 2017/2018 | N/A | Compliance audit completed at the end of FY 2019/2020 |
| **MAJOR PROJECTS** | | | | | | | |
| Improve legal and regulatory framework for the ICT sector | Establish a single ICT Regulator | Single ICT Regulator | Single ICT Regulator established by end of FY 2017/2018 | Implementation of Transition Plan to Single ICT Regulator | Implementation of Transition Plan to Single ICT Regulator<br><br>Single ICT Regulator established | N/A | N/A |

| PROGRAMME/ PROJECT & BUDGET NO. AND POLICY INITIATIVES | STRATEGIES | OUTPUT | PERFORMANCE INDICATORS | TARGET & COST 16/17 | TARGET & COST 17/18 | TARGET & COST 18/19 | TARGET & COST 19/20 |
|---|---|---|---|---|---|---|---|
| **MAJOR INITIATIVES (LEGISLATIVE & POLICY)** | | | | | | | |
| Improve legal and regulatory framework for the Information and Communications Technology sector<br>Improve legal and regulatory framework for the Information and Communications Technology sector | Review Information and Communications Technology (ICT) Policy<br><br>Review Information and Communications Technology (ICT) Policy | A Policy that promotes modernization and competition within the ICT Sector. | New ICT Policy developed by end of FY 2016/2017 | Revised ICT Policy | Monitor implementation of ICT Policy | Monitor implementation of ICT Policy | N/A |
| | | Development of a mechanism to monitor ICT statistics and indicators as a reference for international ranking. | Database of ICT statistics and indicators created by end of FY 2017/2018 | Schematic for the database for ICT statistics and modalities for collection of data | Database of ICT statistics and indicators created | ICT statistics and indicators monitored; database updated | ICT statistics and indicators monitored; database updated |
| | Develop a Spectrum Management Policy | A Policy that provides for efficient spectrum planning, allocation and assignment in accordance with international best practices, protocols and standards | Spectrum Management Policy developed by the end of FY 2017/2018;<br><br>Spectrum Management Regulations developed by the end of FY 2017/2018 | Spectrum Management Policy developed.<br><br>Regulation to guide the management of the Spectrum developed | Implementation of the Policy | N/A | N/A |
| | Development of a Postal Sector Policy | A Policy that provides for the development of a modern postal services sector. | Postal Sector Market Study conducted by the end of FY 2016/2017 to inform the development of Postal Services Policy;<br><br>Postal Services Policy developed by the end of FY 2017/2018. | Postal Sector Market Study completed. | Postal Services Policy developed. | Implementation of the Policy | Monitor Implementation of Policy |
| | Develop Information and Communications Technology Act | An Information and Communications Technology (ICT) Act that provides for modern framework for licensing, regulation and the establishment of a single ICT Regulator | ICT Act promulgated by the end of FY 2017/2018 | Promulgation of ICT Act | Monitor the implementation of ICT Act | Monitor the implementation of ICT Act | Monitor the implementation of ICT Act |

| PROGRAMME/ PROJECT & BUDGET NO. AND POLICY INITIATIVES | STRATEGIES | OUTPUT | PERFORMANCE INDICATORS | TARGET & COST 16/17 | TARGET & COST 17/18 | TARGET & COST 18/19 | TARGET & COST 19/20 |
|---|---|---|---|---|---|---|---|
| | Promulgate Data Protection Act | A Data Protection Act that provides for the protection and privacy of personal data and prescribes how this data is to be handled. | Data Protection Act promulgated by the end of FY 2016/2017 | Promulgate Data Protection Act | Establish Office of the Data Commissioner<br><br>Implement public education campaign. | Monitor the implementation of Data Protection Act<br><br>Continue public education on legislation | Monitor the implementation of Data Protection Act |
| | Repeal of Post Office Act and promulgation of Postal Services Act | A new Postal Services Act that provides for a modern and robust postal services sector which safeguards fair compensation for stakeholders; meets universal service obligations and sets out the licensing and regulatory framework for the sector. | New Postal Services Act promulgated by the end of FY 2017/2018 | N/A | Promulgate new Postal Services Act. | Monitor the implementation of Postal Services Act | Monitor the implementation of Postal Services Act |
| Improve integration and delivery of public services using ICTs | Development of an Open Data Policy | An Open Data Policy | Open Data Policy developed by end of FY 2016/2017 | Open Data Policy developed | Implementation of the Open Data Policy | Monitor implementation of the Open Data Policy | Monitor implementation of the Open Data Policy |
| Reduce reliance on proprietary software and foster software innovation | Development of an Open Software and Open Standards Policy | A policy that promotes the use of open source software and open standards within government and the private sector. | Open Source Software and Open Standards Policy | N/A | Open Source Software and Open Standards | Implementation of Policy on Open Source Software and Open Standards within MDAs | Monitor implementation of Policy on Open Source Software and Open Standards within MDAs |
| Increase the security of electronic communication | Implementation of the Cyber Security Strategy | A Strategy that promotes *inter alia* cyber incident response, technical cyber security improvement; and public education and capacity building. | Cyber Security Strategy implemented by the end of FY 2018/2019 | Implementation of Cyber Security Strategy | Implementation of cyber security strategy;<br><br>Monitor elements previously implemented. | Implementation of cyber security strategy<br><br>Monitor elements previously implemented. | Monitor elements previously implemented.<br><br>Review Cyber Security Strategy. |

| PROGRAMME/ PROJECT & BUDGET NO. AND POLICY INITIATIVES | STRATEGIES | OUTPUT | PERFORMANCE INDICATORS | TARGET & COST 16/17 | TARGET & COST 17/18 | TARGET & COST 18/19 | TARGET & COST 19/20 |
|---|---|---|---|---|---|---|---|
| Improving the regulatory framework governing the use of the Internet | Development of a framework on Internet Governance | A framework which outlines the norms and principles necessary to shape the evolution and use of the Internet | A framework for Internet Governance by the end of FY 2016/2017 | A framework for Internet Governance | Implementation of the Framework | Monitor implementation of the Framework | Monitor implementation of the Framework. |
| Improving the regulatory framework governing the use of the Internet | Development of policies and procedures for the administration and technical management, registration and promotion of Jamaica's Country Top Level Domain (.jm ccTLD) | A policy that provides for the administration and technical management, registration and promotion of .jm ccTLD) | A policy that provides for the administration and technical management, registration and promotion of .jm ccTLD) developed by the end of FY 2016/2017 | Policy for the administration and technical management; registration and promotion of .jm ccTLD developed | Implementation of the policy | Monitor implementation of the policy | Monitor implementation of the policy |
| **OTHER INITIATIVES and ACTIVITIES** | | | | | | | |
| Ensure proper administration of the telecommunications sector. | Prepare and issue all licences for which recommendations have been received from the Regulators | Licences prepared and issued | Licences prepared and issued within one (1) month of receipt of recommendations | Licences prepared and issued | Licences prepared and issued | Licences prepared and issued | Licences prepared and issued |
| | Prepare requisitions for members of the Telecommunications Tribunal and ICT Advisory Council and submit same to the Accounts Department for payment | Requisitions for members of the Telecommunications Tribunal and the ICT Advisory Council prepared | Requisitions prepared for the Accounts Department to make payment to members of the Tribunal thirty days prior to due date and to the ICT Advisory Council fifteen days after the end of each quarter | Requisitions prepared and submitted for payment.<br><br>Telecommunications Tribunal - **$1,200,000 + $84,000 for admin support**<br><br>ICT Advisory Council – **$1,500,000** | Requisitions prepared and submitted for payment.<br><br>Telecommunications Tribunal - **$1,200,000 + $84,000 for admin support**<br><br>ICT Advisory Council – **$1,500,000** | Requisitions prepared and submitted for payment.<br><br>Telecommunications Tribunal - **$1,200,000 + $84,000 for admin support**<br><br>ICT Advisory Council – **$1,500,000** | Requisitions prepared and submitted for payment.<br><br>Telecommunications Tribunal - **$1,200,000 + $84,000 for admin support**<br><br>ICT Advisory Council – **$1,500,000** |

| PROGRAMME/ PROJECT & BUDGET NO. AND POLICY INITIATIVES | STRATEGIES | OUTPUT | PERFORMANCE INDICATORS | TARGET & COST 16/17 | TARGET & COST 17/18 | TARGET & COST 18/19 | TARGET & COST 19/20 |
|---|---|---|---|---|---|---|---|
| | Monitor compliance by Regulators and Agencies with the Public Bodies Management and Accountability Act and other relevant legislation | Plans/Reports from Portfolio Agencies forwarded to the Policy Division reviewed | Plans/Reports from Portfolio Agencies reviewed and forwarded to Policy Division within two weeks of receipt | Comments submitted to Policy Division. | Comments submitted to Policy Division. | Comments submitted to Policy Division. | Comments submitted to Policy Division. |
| Ensure technical and policy input provided to MDAs regarding government ICT initiatives and the interest of Jamaica as appropriate advanced in ICT related regional and international fora. | Participate in consultation; provide comments on legislative, policy and other government initiatives | Consultation documents | Consultation objectives are addressed in document<br><br>Consultations are timely representative and comprehensive | Participate in consultation. Comments provided on legislative, policy and other government initiatives. | Participate in consultation. Comments provided on legislative, policy and other government initiatives. | Participate in consultation. Comments on legislative, policy and other government initiatives. | Participate in consultation. Comments on legislative, policy and other government initiatives. |
| | Review and prepare technical submissions for participation in ICT regional and international fora | Technical submissions and contributions.<br><br>Reports on decisions taken and/or approved. | Technical submissions/ contributions provided within the agreed timeframe.<br><br>Reports from meetings/conferences submitted within one (1) month of return from meetings/conferences. | Reports/Briefs reviewed and technical submissions/contributions prepared.<br><br>Reports from meetings/conferences submitted. | Reports/Briefs reviewed and technical submissions/contributions prepared.<br><br>Reports from meetings/conferences submitted. | Reports/Briefs reviewed and technical submissions/contributions prepared.<br><br>Reports from meetings/conferences submitted. | Reports/Briefs reviewed and technical submissions/contributions prepared.<br><br>Reports from meetings/conferences submitted. |
| | Ensure Jamaica's full compliance with its financial obligations under agreements and treaties. | Prepared invoices. | Invoices submitted to Accounts Department within two (2) days of receipt. | Prepare invoices for submission to Accounts Department.<br><br>Microsoft Agreement - **$151,250,000**<br><br>Universal Postal Union - **$1,000,000** | Prepare invoices for submission to Accounts Department.<br><br>Microsoft Agreement - **$159,568,750**<br><br>Universal Postal Union - **$1,055,000** | Prepare invoices for submission to Accounts Department.<br><br>Microsoft Agreement - **$168,345,031**<br><br>Universal Postal Union - **$1,113,025** | Prepare invoices for submission to Accounts Department.<br><br>Microsoft Agreement - **$177,604,008**<br><br>Universal Postal Union - **$1,174, 241** |

**ENERGY PORTFOLIO**

The priority plans and programmes for the Energy Portfolio are outlined in Table 11

**TABLE 11: PRIORITY PLANS AND PROGRAMMES FOR THE ENERGY PORTFOLIO 2016 – 2020**

| PRIORITY POLICY ISSUES | STRATEGIES | OUTPUT | PERFORMANCE MEASURES/ OUTCOME INDICATORS | TARGET & COST 2016/17 | TARGET & COST 2017/18 | TARGET & COST 2018/19 | TARGET & COST 2019/20 |
|---|---|---|---|---|---|---|---|
| **MAJOR PROGRAMMES** | | | | | | | |
| **Goal 1 – Energy Efficiency** | **Expand the Appliances Labelling and Testing Programmes of the BSJ** | Electrical appliances tested | # of different models of appliances tested<br><br>% increase in proportion of tested appliances | Targeted number of different models tested **– 18** | Targeted number of different models tested – **25**<br><br>25% increase in proportion of tested appliances | Targeted number of different models tested – **30**<br><br>50% increase in proportion of tested appliances | Targeted number of different models tested – **33**<br><br>60% increase in proportion of tested appliances |
| | Approval of ISO 50001 Energy Management Standards for Jamaica | Wide scale adoption and use of International Standards for Energy Management | Cabinet Approval of ISO 50001 Energy Management Standards for Jamaica | Draft Cabinet Submission prepared and Approved<br><br>Identify three (3) entities (2 public sector and I private sector) for implementing pilot projects for ISO 50001 Compliance | Commence/Continue Implement ISO50001 Energy Management Standards for the three (3) Entities identified<br><br>4 other entities identified for ISO 50001 Energy Management Standards compliance | Identify 10 Entities for ISO 50001 Energy Management Standards Compliance | |
| | Develop coordinated National Energy Conservation and Efficiency Implementation Plan for all sectors of the society | National Energy Conservation and efficiency Implementation Plan | Coordinated National Energy Conservation and Efficiency Plan Approved<br><br>Sector Plans Developed for Energy Conservation and Efficiency | Draft Sector Plans to be completed<br><br>**J$5million** | Coordinated Plan Completed and Approved | Commence/Continue Phased Implementation of National Coordinated Plan | |
| | | | | Collaborate with Ministry of Transportation and Water on the Alignment of transport policy with National Energy Policy | Increase the percentage of fuel efficient vehicles<br><br>Enforcement of maximum axle weight standards | | |

| PRIORITY POLICY ISSUES | STRATEGIES | OUTPUT | PERFORMANCE MEASURES/ OUTCOME INDICATORS | TARGET & COST 2016/17 | TARGET & COST 2017/18 | TARGET & COST 2018/19 | TARGET & COST 2019/20 |
|---|---|---|---|---|---|---|---|
| **MAJOR PROGRAMMES** | | | | | | | |
| | Energy Efficiency and Conservation in Households | Increased uptake of Solar Water Heater Loans from National Housing trust (NHT)<br><br>Increased uptake of Solar photovoltaic Loans from NHT | Reduction in average monthly electricity consumption by households | Collaborate with NHT to complete NHT Energy Efficiency Policy and restructure energy loan programmes for households<br><br>Conduct Survey to establish Consumption Patterns in residential sector<br><br>Develop Legislation to ensure sustainability of EEC measures | Develop capacity to enforce policy, legislative and regulatory measures for EEC | | |
| | Develop and implement programmes to influence market behaviour toward and promote efficient use of energy | Established framework for energy services company development | Framework developed<br><br>Training intervention achieved<br><br>At least three operating ESCOs | Framework for energy performance contracting<br><br>Training and capacity building<br><br>At least three operating ESCOs<br><br>J**$5MIllion** | Enabling environment for local and foreign financing of energy projects | | |
| | Design and facilitate a systematic series of dialogue sessions to build awareness on energy<br><br>Robust media campaign to increase public awareness and support for private sector and public sector issues | Information/Communication Plan (Project and National Energy Programme) | Number of Workshops held, Number of advertisements sponsored, Number of publications distributed | At least 5 targeted delivery programmes<br><br>**J$10 Million** | A minimum of 5 targeted delivery programmes<br><br>**J$10 Million** | A minimum of 5 targeted delivery programmes<br><br>**J$12 Million** | |

| PRIORITY POLICY ISSUES | STRATEGIES | OUTPUT | PERFORMANCE MEASURES/ OUTCOME INDICATORS | TARGET & COST 2016/17 | TARGET & COST 2017/18 | TARGET & COST 2018/19 | TARGET & COST 2019/20 |
|---|---|---|---|---|---|---|---|
| **MAJOR PROGRAMMES** | | | | | | | |
| **Goal 2 - Modernized Energy Infrastructure** | Advise on the general development of the electricity system, with consideration for new generation capacity and the introduction of Smart Grid technologies | New investment commitments to Electricity Sector (US$ Millions) | New commitments by type of investment (generation, gas, energy efficiency, etc.) | 85% increase over previous period to **US$240 Million**<br><br>Engage JPS in implementing a phased roll-out of Smart Grid technology | 25% increase over previous period to **US$300 Million** | 100% increase over previous period to **US$600 Million** | |
| | Introduce further competition in the electricity market and break the monopoly on distribution of electricity | Competition in the supply and distribution of electricity | Increase the number of players in the supply and distribution of electricity | Increased Supply and Demand dynamics and more competitive costs for electricity | Increased Supply and Demand dynamics and more competitive costs for electricity | Increased Supply and Demand dynamics and more competitive costs for electricity | |
| | Increase use of technologies in the electricity sector to drive competition, improve system stability and electricity price reduction. An integrated approach to the energy market to leverage the optimal use of the electric grid infrastructure | Smart Energy Road Map, including Smart Grid technologies developed<br><br>Reduced system losses | Smart Energy Road Map Implementation Plan Developed and Recommendations for Implementation defined<br><br>Reduced system losses | Stakeholder Consultations and Cabinet's approval<br><br>System loss reduction target<br>Technical – 8.2%<br>Non Technical – 13.3% | Commence Phased Implementation of Smart Energy Programmes<br><br>System loss reduction target<br>Technical – 8.2%<br>Non Technical – 13.3% | Continue Implementation of Smart Energy Programmes<br><br>System loss reduction target<br>Technical – 7.2%<br>Non Technical – 12.3% | |
| | Introduce cleaner fuels into the petroleum supply chain and improve the operational efficiencies of the Petrojam Refinery | Petrojam Refinery Upgrade | Cabinet Approval and Project Finance Approved | Commence Phased Upgrade Project | Continue Phased Upgrade Project | Continue Phased Upgrade Project | |
| **Goal 3 Renewable Energy Programme** | Prioritize renewable energy sources by economic feasibility criteria | Prefeasibility, Feasibility and Other investment studies underway or completed on Renewable Energy (Hydro and Wind) | Number and status of investments studies (prefeasibility, feasibility, other investments preparation) carried out for development of Renewable Energy | 5 studies<br><br>Increased hydroelectricity capacity<br><br>3 Investment packages for hydro development - **J$88 million** | 5 studies<br><br>Increased hydroelectricity capacity<br><br>3 Investment packages for hydro development **J$88 million** | | |
| | Provide support to domestic | Wind map for the development | Increased renewable energy | Integrated Renewable | Install 2 small scale pilot | | |

| PRIORITY POLICY ISSUES | STRATEGIES | OUTPUT | PERFORMANCE MEASURES/ OUTCOME INDICATORS | TARGET & COST 2016/17 | TARGET & COST 2017/18 | TARGET & COST 2018/19 | TARGET & COST 2019/20 |
|---|---|---|---|---|---|---|---|
| | | | **MAJOR PROGRAMMES** | | | | |
| | entities by mapping and piloting the use of wind turbines to generate power.<br><br>Provide technical assistance for the development of small scale wind technology | of small scale wind turbine<br><br>Small scale pilot wind turbines in rural communities constructed and installed | resources in fuel supply mix to at least 12.5% by 2016<br><br>2 small scale pilot wind turbines constructed and installed | Energy Map of Jamaica Developed | wind turbines – **J$5 million** | | |
| | Expand the local capacity for solar penetration in Jamaica | Increased local capacity in implementation of solar systems | # of PV and water heating systems installed | Non-tariff incentives for solar systems installations<br><br>Survey on the # of solar system and solar water heaters installed in Jamaica - **J$8million** | | | |
| **Goal 4 Energy Security** | Expand renewable energy and indigenous sources in the energy supply mix | Reduction in the share of Petroleum in the Energy Mix from 91% | Increase in Energy Security | Reduction in contribution of petroleum to 89% | Reduction in contribution of petroleum to 73% | Reduction in contribution of petroleum to 67% | Reduction in contribution of petroleum to 64%. |
| | | | | Increased hydroelectricity capacity | Construction of at least one waste to energy plant<br><br>Production of electricity from bagasse to grid **$300million** | | |
| **Goal 5 Governance and Regulatory Framework** | Strengthen the Regulatory and Institutional Framework to Improve Sector Performance, Increase Private Investment and Transition to Cleaner Fuel | Coherence in the policy, legislative and regulatory framework for the Energy Sector<br><br>Status and number of regulations | Approved Legislative Agenda Successfully Completed<br><br>Number of new regulations under preparation or approved | Approval of Legislative Agenda<br><br>Commence development of National Petroleum Standards<br><br>Capacity Built to effectively monitor and enforce the Policy, | Review of Policy, Legislative and Regulatory Framework and develop plan for amendments as necessary<br><br>5 regulations developed<br><br>**J$8 million** | 5 regulations developed | 5 regulations developed |

| PRIORITY POLICY ISSUES | STRATEGIES | OUTPUT | PERFORMANCE MEASURES/ OUTCOME INDICATORS | TARGET & COST 2016/17 | TARGET & COST 2017/18 | TARGET & COST 2018/19 | TARGET & COST 2019/20 |
|---|---|---|---|---|---|---|---|
| **MAJOR PROGRAMMES** | | | | | | | |
| | | | | legislative and Regulatory Requirements<br><br>7 regulations developed<br><br>**J$10 million** | | | |
| | Encourage and facilitate Improved compliance of petroleum operators through liaison with stakeholders and Petroleum Safety Inspectorate and maintain industrial harmony. | Increased registration and regularization of petroleum marketers, distributors, retailers and contractors, | Registration targets achieved<br><br>Number of public education programme conducted<br><br>Number of disruptions averted. | 6 meetings at a minimum | 6 meetings at a minimum | 6 meetings at a minimum | |
| | Facilitate broad–based consultation and national consensus in decision making for the development of the energy sector. | Increased Stakeholders' Participation in and acceptance of decision made and the decision making process<br><br>Minimize controversy concerning decisions on broad energy issues | Meetings Held and Decisions made | 4 meetings held<br><br>**J$80,000** | 4 Meetings held<br><br>**J$80,000** | 4 Meetings held<br><br>**J$100,000** | |
| | Establish Technical Review Committee to report on the effectiveness of the implementation of the Ministry's energy programmes, projects and initiatives. | Up to date reports on the implementation of the Ministry's Energy Programmes, Projects and Initiatives | Meetings held and Number and quality of Quarterly Reports submitted and recommendations implemented | Established monitoring framework to track energy targets and indicators<br><br>4 reports<br><br>**J$2million** | 4 reports | 4 reports | |
| | Establish new links and strengthen existing ones, whether nationally, regionally and internationally whereby reliable and timely data can be obtained and disseminated. | Reports and energy statistics generated on time | Increase turn-around time for data input.<br><br>Increase turn-around time for addressing queries and generating information within established timelines. | At least 98%<br><br>At least 98% | At least 100%<br><br>At least 100% | At least 100%<br><br>At least 100% | |

| PRIORITY POLICY ISSUES | STRATEGIES | OUTPUT | PERFORMANCE MEASURES/ OUTCOME INDICATORS | TARGET & COST 2016/17 | TARGET & COST 2017/18 | TARGET & COST 2018/19 | TARGET & COST 2019/20 |
|---|---|---|---|---|---|---|---|
| **MAJOR PROGRAMMES** | | | | | | | |
| | Implement a modern energy database and management system<br><br>Conduct periodic review of data capturing systems. | | Number of assessment of database capturing system | 1 assessment | 1 assessment | | |
| | Improve long-term planning and forecasting for the energy sector | | • Simulations<br>• Model results<br>• Reports and analyses | Establish working group to review and update at least one energy planning modelling tool<br><br>**J$100,000** | Working group to review and update at least one energy planning modelling tool<br><br>J**$100,000** | | |
| **Goal 6 - Government is a Leader in Energy Conservation** | Enhance Jamaica's Energy Efficiency (EE) and Energy Conservation (EC) potential through the design and implementation of cost savings EE and EC measures in the public sector.<br><br>Develop the Energy Efficiency Institutional Framework.<br><br>Design and implement a "Manual on EE Initiatives for Maintenance and Environmentally Safe Disposal".<br><br>Develop Energy Savings Monitoring & Verifications Activities. | Investments in Energy Efficiency EE and Energy Conservation (EC).<br><br>Energy Conservation and Efficiency (ECE) Education Awareness Programme in place.<br><br>Building envelopes measures implemented.<br><br>ECE Education Awareness Programme conducted.<br><br>Technologies for EE Standards & Norms developed.<br><br>Five EE Studies/Audits completed.<br><br>Two Workshops and seminars on EE procurement and management conducted. | Energy Savings of 22,609,713 kWh in the public sector by 2016is realized.<br><br>Energy expenses reduction of US$6.7M by 2015 is realized.<br><br>$CO_2$ emissions of 19,150 tones/year in the public sector are reduced by 2015.<br><br>A reduction of 13,886/year barrels of oils is reduced by 2015.<br><br>Number of Installation and retrofits carried out in keeping with established targets<br><br>Proposal for EE & EC incentives mechanisms developed. | 3 draft manuals on Energy Savings Monitoring and Verification – **J$5.5 Million**<br><br>2 draft manuals on EE on Maintenance and Environmental Disposal and Draft proposal on regulatory and incentives – **J$10Million**<br><br>Retrofit air-conditioning units and install building envelopes - J**$231Million**<br><br>1 Energy Awareness Baseline Study – **US$150,000**<br>Deliver ECE Education Awareness Programmes – | | | |

| PRIORITY POLICY ISSUES | STRATEGIES | OUTPUT | PERFORMANCE MEASURES/ OUTCOME INDICATORS | TARGET & COST 2016/17 | TARGET & COST 2017/18 | TARGET & COST 2018/19 | TARGET & COST 2019/20 |
|---|---|---|---|---|---|---|---|
| **MAJOR PROGRAMMES** | | | | | | | |
| | | | | **J$4Million** | | | |
| **Goal 7 – Eco-efficiency in Industry** | Expand Concessionary Line of Credit Financing to support Private Sector Retrofits for EEC<br><br>Conduct detailed energy audits and analysis of energy consumption patterns for Jamaica. | Improved Energy efficiency in the Private Sector<br><br>Energy audits conducted<br><br>Retrofits for Energy Conservation and Efficiency completed | Increase uptake of funds available through Energy Funds for EEC Retrofits<br><br>Technical support given to the private sector to facilitate their transition to eco-efficiencies | 6 RE & EEC Retrofit energy projects completed<br><br>J**$45 million** | At least 6 EEC Retrofit energy projects completed<br><br>**J$45 million** | | |
| | | | | Through collaboration with the environment ministry develop environmental stewardship action plan for the public sector<br><br>Institutional Strengthening for Environmental Management procedures developed and capacity building undertaken for NEPA<br><br>Develop National Appropriate Mitigation Actions for the Energy sector in collaboration with the Change Division of the Ministry of Water, Land, Environment and Climate Change – **US$30,000** | Develop the capacity of local companies to improve their processes and energy efficiency | | |

**POLICY, PLANNING, DEVELOPMENT AND EVALUATION PORTFOLIO**

**General policy development, strategic planning, monitoring and evaluation matters for all portfolios, several plans, projects and programmes are outlined in Table 12.**

**TABLE 12: POLICY, PLANNING, DEVELOPMENT AND EVALUATION 2016-2020**

| PRIORITY POLICY ISSUES | OBJECTIVES | STRATEGIES | PERFORMANCE MEASURES / OUTPUT INDICATORS | MAJOR TASKS, TARGETS, RESOURCES AND COST | | | |
|---|---|---|---|---|---|---|---|
| | | | | YEAR 1 (2016-2017) *Budgeted cost 33,748,,866* | YEAR 2 (2017-2018) *Projected Cost 52,857,259* | YEAR 3 (2018-2019) *Projected cost 55,742,494* | YEAR 4 (2019-2020) *Projected cost 59,087,043* |
| **Effective policy development, monitoring and evaluation of the ministry's activities.** | To enable the ministry to optimize its ability to develop policies, monitor and evaluate the impacts of its policies, legislations, projects and programme, and the effectiveness of its agencies and divisions. | Broad-based consultations with all stakeholders.<br><br>Implementation and constant improvement of a focused monitoring and evaluation programme to allow for the gathering of necessary information and the provision of feedback to stakeholders.<br><br>Continued training and improvement in the capacity of staff members as a key component to facilitate an effective Policy, Planning, Development and Evaluation Division.<br><br>Focused and effective research to guide policy development and evaluation. | Meetings to represent the Ministry's interest are attended and the Minister, PS, CTD briefed on the proceedings.<br><br>Ministry Papers are completed and laid in Parliament in time for the Budget Debate each fiscal year.<br><br>Documents, including Cabinet Submissions, Cabinet Notes, briefs, reports and memoranda are prepared accurately and on time.<br><br>The Ministry's Operational and Strategic Business plans are completed and submitted to Cabinet and the Ministry of Finance on time.<br><br>Operational and Strategic Business plans for the Ministry's agencies are received, noted and woven into the Ministry's.<br><br>Quarterly Operational Plan Review Meetings convened with each agency and division within the Ministry.<br><br>The annual reports of the Ministry's agencies are received, the required Cabinet Notes | Meetings to represent the Ministry's interest are attended and the Minister, PS, CTD briefed on the proceedings.<br><br>Ministry Papers are completed and laid in Parliament in time for the Budget Debate each fiscal year.<br><br>Ministry's Operational and Strategic Business plans are completed and submitted to Cabinet and the Ministry of Finance.<br><br>Quarterly Operational Plan Review Meetings convened with each agency and division within the Ministry.<br><br>The agencies' annual reports are reviewed, and the required Cabinet Notes prepared and dispatched.<br><br>Annual divisional budgets, Strategic 4-Year Plans, Corporate Plans and individual work plans are completed.<br><br>Ministry-wide biannual | Meetings to represent the Ministry's interest are attended and the Minister, PS, CTD briefed on the proceedings.<br><br>Ministry Papers are completed and laid in Parliament in time for the Budget Debate each fiscal year.<br><br>Ministry's Operational and Strategic Business plans are completed and submitted to Cabinet and the Ministry of Finance.<br><br>Quarterly Operational Plan Review Meetings convened with each agency and division within the Ministry.<br><br>The agencies' annual reports are reviewed, and the required Cabinet Notes prepared and dispatched.<br><br>Evidence-based policy and policy revision driven by research prepared.<br><br>Annual divisional budgets, Strategic 4-Year Plans, Corporate Plans and | Meetings to represent the Ministry's interest are attended and the Minister, PS, CTD briefed on the proceedings.<br><br>Ministry Papers are completed and laid in Parliament in time for the Budget Debate each fiscal year.<br><br>Ministry's Operational and Strategic Business plans are completed and submitted to Cabinet and the Ministry of Finance.<br><br>Quarterly Operational Plan Review Meetings convened with each agency and division within the Ministry.<br><br>The agencies' annual reports are reviewed, and the required Cabinet Notes prepared and dispatched.<br><br>Evidence-based policy and policy revision driven by research prepared. | Meetings to represent the Ministry's interest are attended and the Minister, PS, CTD briefed on the proceedings.<br><br>Ministry Papers are completed and laid in Parliament in time for the Budget Debate each fiscal year.<br><br>Ministry's Operational and Strategic Business plans are completed and submitted to Cabinet and the Ministry of Finance.<br><br>Quarterly Operational Plan Review Meetings convened with each agency and division within the Ministry.<br><br>The agencies' annual reports are reviewed, and the required Cabinet Notes prepared and dispatched.<br><br>Evidence-based policy and policy revision driven by research |

| PRIORITY POLICY ISSUES | OBJECTIVES | STRATEGIES | PERFORMANCE MEASURES / OUTPUT INDICATORS | MAJOR TASKS, TARGETS, RESOURCES AND COST | | | |
|---|---|---|---|---|---|---|---|
| | | | | **YEAR 1 (2016-2017)** ***Budgeted cost 33,748,,866*** | **YEAR 2 (2017-2018)** ***Projected Cost 52,857,259*** | **YEAR 3 (2018-2019)** ***Projected cost 55,742,494*** | **YEAR 4 (2019-2020)** ***Projected cost 59,087,043*** |
| | | | prepared and submitted to Cabinet and the reports submitted to Parliament.<br><br>Ministry-wide biannual strategic and operational planning sessions held.<br><br>The Minister's Budget Debate speech is compiled, copied and presented to Parliament in time for his presentation.<br><br>Research aimed at facilitating evidence-based policy and policy revision.<br><br>Evidence-based concept and position papers prepared.<br><br>Annual divisional budgets, Strategic 4-Year Plans, Corporate Plans and individual work plans are completed.<br><br>Supervision and guidance provided to staff.<br><br>Individual work plans are monitored and revised to achieve at least an 85% completion rate.<br><br>Annual performance evaluations for staff members completed as per the HRMA Division's dictates | strategic and operational planning sessions held.<br><br>Individual work plans are monitored and revised to achieve at least an 85% completion rate.<br><br>Annual performance evaluations for staff members completed.<br><br>Contribute to the compilation of Minister's Budget Debate speech. | individual work plans are completed.<br><br>Ministry-wide biannual strategic and operational planning sessions held.<br><br>Individual work plans monitored and revised to achieve at least an 85% completion rate.<br><br>Division's member's annual performance evaluation completed.<br><br>Contribute to the compilation of Minister's Budget Debate speech. | Annual divisional budgets, Strategic 4-Year Plans, Corporate Plans and individual work plans are completed.<br><br>Ministry-wide biannual strategic and operational planning sessions held.<br><br>Individual work plans monitored and revised to achieve at least an 85% completion rate.<br><br>Division's member's annual performance evaluation completed.<br><br>Contribute to the compilation of Minister's Budget Debate speech. | prepared.<br><br>Annual divisional budgets, Strategic 4-Year Plans, Corporate Plans and individual work plans are completed.<br><br>Ministry-wide biannual strategic and operational planning sessions held.<br><br>Individual work plans monitored and revised to achieve at least an 85% completion rate.<br><br>Annual performance evaluations for staff members completed.<br><br>Contribute to the compilation of Minister's Budget Debate speech. |
| **Implement the National Energy Policy** | Facilitate the development of a modern, efficient, | Through close alliance with the Petroleum Corporation of Jamaica (PCJ) Group of | Proposed incentives to promote energy efficiency and energy conservation and the | At least 4 stakeholder meetings held | At least 4 stakeholder meetings held | | |

| PRIORITY POLICY ISSUES | OBJECTIVES | STRATEGIES | PERFORMANCE MEASURES / OUTPUT INDICATORS | MAJOR TASKS, TARGETS, RESOURCES AND COST | | | |
|---|---|---|---|---|---|---|---|
| | | | | YEAR 1 (2016-2017) *Budgeted cost 33,748,,866* | YEAR 2 (2017-2018) *Projected Cost 52,857,259* | YEAR 3 (2018-2019) *Projected cost 55,742,494* | YEAR 4 (2019-2020) *Projected cost 59,087,043* |
| | diversified and environmentally sustainable energy sector providing affordable and accessible energy supplies with long term energy security. | Companies, the National Energy Solutions Company (NESCO), other public sector bodies, academia donors, professional bodies. | development of renewable energy are implemented by the Ministry of Finance and Planning (MOFP).<br>Building-out of renewable energy technologies.<br>Climate proofing of operations within the science and energy sectors.<br><br>In partnership with stakeholders, complete studies and pilot projects on various issues necessary to facilitate the development of a biofuels industry in Jamaica.<br><br>Local companies sign MOUs and commit resources to develop biofuels and increase their capacity to develop the biofuels sector. | Consultation sessions held island wide | Draft Policy for Bio-fuels developed | | |
| Active performance of focal point roles: Sustainable Development, Climate Change, Biodiversity, Environment Policy, Minamata Convention, World Heritage Site declaration, etc. | To develop and manage the sectorial strategies and actions, along with monitoring, evaluating and reporting on these strategies and actions. | Participation in meetings.<br><br>Inter-ministry coordination of various treaty issues | Participation in various fora.<br><br>Development of Ministry positions and intra-ministry facilitation documents specific to the various treaty and other issues.<br><br>Collaboration with donor entities to obtain technical and financial support to effect the implementation of agreed treaty and other matters.<br><br>Review of sustainable development policy and mechanisms, environmental | Represent the Ministry at various fora to facilitate the incorporation of climate change adaptation, sustainable development, environmental management, world heritage site declaration, biodiversity, etc. into the strategic planning processes and execution of the Ministry's mandates.<br><br>Work with donors to access climate funds to support implementation of programmes and projects cross-cutting Science, | Represent the Ministry at various fora to facilitate the incorporation of climate change adaptation, sustainable development, environmental management, world heritage site declaration, biodiversity, etc. into the strategic planning processes and execution of the Ministry's mandates.<br><br>Work with donors to access climate funds to support implementation of programmes and projects | Represent the Ministry at various fora to facilitate the incorporation of climate change adaptation, sustainable development, environmental management, world heritage site declaration, biodiversity, etc. into the strategic planning processes and execution of the Ministry's mandates.<br><br>Work with donors to access climate funds to | Represent the Ministry at various fora to facilitate the incorporation of climate change adaptation, sustainable development, environmental management, world heritage site declaration, biodiversity, etc. into the strategic planning processes and execution of the Ministry's mandates.<br><br>Work with donors to |

| PRIORITY POLICY ISSUES | OBJECTIVES | STRATEGIES | PERFORMANCE MEASURES / OUTPUT INDICATORS | MAJOR TASKS, TARGETS, RESOURCES AND COST | | | |
|---|---|---|---|---|---|---|---|
| | | | | **YEAR 1 (2016-2017)** ***Budgeted cost 33,748,,866*** | **YEAR 2 (2017-2018)** ***Projected Cost 52,857,259*** | **YEAR 3 (2018-2019)** ***Projected cost 55,742,494*** | **YEAR 4 (2019-2020)** ***Projected cost 59,087,043*** |
| | | | policy, climate change mechanisms, etc. | Technology and energy sectors.<br><br>Collaborate with other ministries and agencies on the implementation of treaty requirements within the science and energy sectors.<br><br>Review of NEPA's Biogas, Coal-fired Plant, and other guidelines and documents. | cross-cutting Science, Technology and energy sectors.<br><br>Collaborate with other ministries and agencies on the implementation of treaty requirements within the science and energy sectors. | support implementation of programmes and projects cross-cutting Science, Technology and energy sectors.<br><br>Collaborate with other ministries and agencies on the implementation of treaty requirements within the science and energy sectors. | access climate funds to support implementation of programmes and projects cross-cutting Science, Technology and energy sectors.<br><br>Collaborate with other ministries and agencies on the implementation of treaty requirements within the science energy sectors. |

## 3.0 MEDIUM TERM FINANCIAL IMPLICATION

### SUMMARY OF PROJECTED ANNUAL EXPENDITURE WITH PROJECTED ANNUAL INCREASE

**TABLE13, 2016-2020 BUDGET AND FORWARD ESTIMATES: MINISTRY AND AGENCIES,** provides a summary of the medium term expenditure (2016-2020) for the Ministry and the external entities that obtain their annual subventions through the ministry.

### TABLE 13: 2016-2020 BUDGET AND FORWARD ESTIMATES: MINISTRY AND AGENCIES

| ITEM AND PROGRAMME | BUDGET UPLOADED 2016-2017 | FORWARD ESTIMATES 2017/2018 | FORWARD ESTIMATES 2018/2019 | FORWARD ESTIMATES 2019/2020 | REVISED BUDGET 2016/2017 |
|---|---|---|---|---|---|
| **MINISTRY** | | | | | |
| Direction and Management | 113,636,212.00 | 105,475,706.00 | 112,414,540.00 | 119,596,584.00 | |
| Financial Management and Accounting Services | 41,383,810.00 | 42,178,594.00 | 43,0154,72.00 | 43,841,369.00 | |
| Human Resource Management and Other Support Services | 157,141,472.00 | 164,687,557.00 | 166,889,734.00 | 173,991,973.00 | |
| Administration of Internal Audit | 20,398,042.00 | 25,604,052.00 | 26,260,632.00 | 26,751,643.00 | |
| Legal Services | 13,823,027.00 | 10,799,555.00 | 10,882,555.00 | 11,047,555.00 | |
| Communication and Public Relations | 14,906,797.00 | 12,374,702.00 | 12,884,744.00 | 13,398,551.00 | |
| Technology Administration | 173,870,490.00 | 200,169,019.00 | 212,269,111.00 | 225,415,622.00 | |
| Policy Formulation, Monitoring and Evaluation | 33,748,,866.00 | 52,857,259.00 | 55,742,494.00 | 59,087,043.00 | |
| Technical and Economic Department: Energy Division | 40,319,617.00 | 40,413,639.00 | 41,203,328.00 | 42,018,885.00 | |
| Government Energy Inspectorate (GEI) | 139,432,573.00 | 85,548,767.00 | 90,681,693.00 | 96,122,594.00 | |
| Directorate of Communications | 49,195,475.00 | 52,147,203.00 | 55,276,035.00 | 58,592,597.00 | |
| Membership Fees, Grants and Contributions | 6,560,000.00 | 6,920,000.00 | 7,300,000.00 | 7,701,500.00 | |
| **SUB-TOTAL RECURRENT (MINISTRY)** | **766,667,515.00** | **799,176,053.00** | **834,820,338.00** | **877,565,916.00** | |
| **DEPARTMENTS AGENCIES/ PUBLIC BODIES** | | | | | |
| | | | | | |
| **E-Gov Jamaica Limited (e-GOV)** | 1,468,948,010.00 | 1,577,045,430.00 | 1,748,642,070.00 | 1,936,497,730.00 | |
| **Board of Examiners (BOE)** | 16,799,608.00 | 13,072,258.00 | 13,724,190.00 | 14,440,478.00 | |
| **National Energy Solutions Limited (NESOL)** | 214,044,000.00 | 255,510,000.00 | 268,281,000.00 | 281,685,000.00 | |
| **E-Learning Jamaica Company Limited (E-LEARNING)** | 127,331,229.00 | 131,223,860.00 | 135,235,180.00 | 139,329,693.00 | |
| **National Commission on Science and Technology (NCST)** | 29,016,138.00 | 29,781,825.00 | 30,579,984.00 | 31,412,127.97 | |
| **Scientific Research Council (SRC)** | 453,309,000.00 | 467,236,400.00 | 526,106,940.00 | 563,982,440.00 | |
| International Centre for Environmental and Nuclear Sciences (**ICENS)** | 80,411,530.00 | 80,994,670.00 | 84,289,342.00 | 87,546,320.00 | |
| | | | | | |
| **SUB-TOTAL DEPARTMENTS, AGENCIES, RECURRENT** | **3,156,527,030.00** | **3,354,040,496.00** | **3,641,679,044.00** | **3,932,459,704.00** | |
| **LESS APPROPRIATIONS-IN-AID:** | | | | | |
| i. | | | | | |
| ii. SRC | 54,150,000.00 | 25,109,750.00 | 26,473,000.00 | 27,795,000.00 | |
| iii. NESOL | 400,000.00 | 400,000.00 | 400,000.00 | 400,000.00 | |
| **TOTAL RECURRENT** | **3,101,977,030.00** | **3,328,530,746.00** | **3,614,806,044.00** | **3,904,264,704.00** | |
| **CAPITAL A** | | | | | |
| E-LEARNING JAMAICA COMPANY LIMITED | **950,000,000.00** | | | | |
| LESS APPROPRIATIONS-IN-AID | 700,000,000.00 | | | | |
| **TOTAL CAPITAL A** | **250,000,000.00** | **0.00** | **0.00** | **0.00** | |
| | | | | | |
| **TOTAL CAPITAL B** | **893,366,000.00** | **602,263,000.00** | **602,500,000.00** | **0.00** | |
| **TOTAL BUDGET** | **4,245,343,030.00** | **3,930,793,746.00** | **4,217,306,044.00** | **3,902,264,704.00** | |

**TABLE 15: LIST OF CAPITAL B PROJECTS AND BUDGET**

| NO. | NAME OF PROJECT | SOURCE OF FUNDING | | TOTAL FUNDING (J$) | REMARKS |
|---|---|---|---|---|---|
| | | CONSOLIDATED FUND (J$) | EXTERNAL FUND (J$) | | |
| 9353 | Energy Security and Efficiency Enhancement Project | 1,952,000.00 | 404,163,515.00 | 406,115,515.00 | Supported by World Bank |
| 9372 | Energy Efficiency and Conservation Programme | 356,773,522.00 | 0.00 | 356,773,522.00 | Funding support assumed by the GOJ |
| 9400 | OLADE Caribbean Sub-Regional Office | 1,534,000.00 | 5,825,000.00 | 7,359,000.00 | Supported by OLADE |
| 9469 | Youth Employment in Digital and Animation Industries | 1,985,000.00 | 92,100,000.00 | 94,085,000.00 | Supported by World Bank |
| 9450 | SRC | 2,200,000.00 | 26,832,963.00 | 29,032,963.00 | Supported by the ACP |
| | **TOTAL, $** | **364,444,522.00** | **528,921,478.00** | **893,366,000.00** | |

## 4.0 HUMAN RESOURCES CAPACITY PLAN

While cognizant of the country's current financial constraints, it is necessary that the Ministry obtains its required cadre of staff and continuously train and improve the capacity of its human resources so as to successfully address its mandate.

The Ministry's Human Resources Capacity Plan, which outlines its current and proposed staff complement, is outlined in Table 16. Compared with the current persons employed within the Ministry, the numbers are projected to increase to 298 at the end of the planning cycle in FY 2019/2020. This is an increase of persons or approximately 60% over the current staff complement, and is comprised of existing 40 existing vacancies in 2016-17 and forward projections up to 298 by 2091-2020. The projected increase is necessary to facilitate the effective implementation of our mandates.

It is very likely that the number of employees will decline by approximately thirty persons when the planned transformation and privatization of the GEI take effect in FY 2017-2018.

**TABLE 16: HUMAN RESOURCES CAPACITY PLAN**

| UNITS, DIVISIONS OR PROJECTS | CURRENT STAFF COMPLEMENT 2015/2016 | VACANCIES | PLANNED STAFF COMPLEMENT | | | |
|---|---|---|---|---|---|---|
| | | | 2016/2017 | 2017/2018 | 2018/2019 | 2019/2020 |
| HRM&A Division | 37 | 7 | 50 | 50 | 50 | 50 |
| Finance and Accounts Division | 20 | 0 | 20 | 20 | 20 | 20 |
| Internal Audit | 6 | 1 | 12 | 12 | 12 | 12 |
| Policy, Planning, Development and Evaluation Division | 6 | 12 | 18 | 18 | 18 | 18 |
| Energy Division | 30 | 3 | 30 | 31 | 33 | 33 |
| Communications Unit | 3 | 0 | 3 | 7 | 7 | 7 |
| ICT Division | 9 | 3 | 13 | 7 | 7 | 7 |
| Legal Unit | 2 | 0 | 2 | 2 | 2 | 2 |
| Executive Office | 13 | 4 | 13 | 13 | 13 | 13 |
| | | | | | | |
| Government Electrical Inspectorate / Regulator | 54 | 6 | 58 | 58 | 58 | 58 |
| Chief Information Office | 3 | 0 | 3 | 3 | 5 | 5 |
| Science Directorate (Proposed) | 0 | 3 | 0 | 3 | 3 | 3 |
| Commission on Science and Technology (NCST) | 4 | 1 | 5 | 5 | 5 | 5 |
| | | | | | | |
| **TOTAL** | **187** | **40** | **227** | **294** | **298** | **298** |

## 5.0 DEPARTMENTS AND AGENCIES BUSINESS PLAN SUMMARIES

Summaries of the business plans for the Ministry's external departments and agencies whose budgets are funded through it are outlined below.

**EXTERNAL DIVISIONS**

### 5.1 GOVERNMENT ELECTRICAL INSPECTORATE (GEI) / GOVERNMENT ELECTRICAL REGULATOR (GER)

**MISSION**

i. To ensure that electrical installations island-wide are carried out in a manner consistent with the Jamaica Standards Regulations.
ii. To educate the society on the importance of having electrical installations inspected and certified.
iii. To monitor electrical installation practices with the aim of preventing loss of life and property as a result of electrical accidents.

**MANDATE**

i. Ensure that all electrical installations constructed in Jamaica comply with the Electric Lighting Law and the related regulations so that electrical systems can provide light and power without hazard to life and property.
ii. Physically inspect all new installations (industrial, commercial, and domestic) and certify them before they are connected to the power grid of the Jamaica Public Service Company Limited (JPSCo).
iii. Carry out periodic checks of old installations, including transmission and distribution lines and substations, and recommend modifications and improvements as necessary.
iv. Inspect and certify new installations by the JPSCo, electrical systems (transmission and distribution) and the National Energy Services Company Limited (NESOL).
v. Process, comment on, and approve all electrical designs submitted by consultants, contractors, developers and consumers.
vi. Investigate accidents relating to electricity and prepare reports to improve the safety of installations involved.
vii. Provide technical information to consultants, architects, electrical engineers, contractors, the police, fire officials and the general public.
viii. Monitor the performance of all licensed electricians and advise the Board of Examiners accordingly.
ix. Meet with technical committees of the Board of Examiners and the Bureau of Standards to deliberate on technical standards, materials, equipment and the preparation of new specifications.

**STRATEGIC OUTCOMES**

i. A current and competitive fee structure for electrical inspections results in an improved cash flow for the GEI and possibly providing it with the funding necessary to effect its modernization, transform it into a self-financing entity and removing it from the list of entities requiring financial support from the government.
ii. The implementation of a fee structure for petroleum inspections.
iii. Transformation of the GEI into a primarily regulatory entity and privatization of its inspectorate functions. This is intended to create an extremely efficient entity, reduce its call on the GOJ's budget, and make the electrical inspection task less onerous, less time consuming and more easily available.

**STRATEGIC PRIORITIES**

i. Conduct or facilitate 105,000 electrical inspections over the three year planning cycle and aligned to transformation plan.
ii. Re-inspect 450 petroleum stations over the three year planning cycle.
iii. Reduce the backlog of electrical inspections by 85% by 2017.

**MEDIUM TERM EXPENDITURE SUMMARY**

**TABLE 17: GOVERNMENT ELECTRICAL INSPECTORATE'S (GEI) MEDIUM TERM EXPENDITURE SUMMARY WITH 3 YEAR PROJECTIONS**

| PROPOSED BUDGET 2016/2017, J$ | PROJECTIONS, J$ | | |
|---|---|---|---|
| | 2017/2018 | 2018/2019 | 2019-2020 |
| 89,194,045.35 | 94,290,342.70 | 95,755,342.70 | 97,930,342.70 |

## 5.2 INTERNATIONAL CENTRE FOR ENVIRONMENT AND NUCLEAR SCIENCES (ICENS)

### VISION
To be a centre of excellent and forward looking scientific research providing the data, information, know-how and methods needed to resolve present and future challenges to the environment, natural resource base and international competitiveness of Jamaica.

### MISSION
To maintain a scientific information baseline and capabilities in interdisciplinary STI capabilities for enhancing the quality of life in Jamaica by guiding sustainable development of natural resources, remediation of the environment and the life systems and industries that it supports.

### STRATEGIC DIRECTIONS
ICENS' strategic plans and priority programmes are set in a framework that mirrors international standards and bears relevance in their applicability to the Jamaican society. Also, the strategic research programmes and activities seek to target the most critical areas of the Jamaican economy.

Specific strategic directions are as follows:

i. ICENS integrates its diverse programmes within available budget to provide a central research, information and knowledge facility to better the lives of Jamaican people.
ii. Scientific data are made available and disseminated within Jamaica to demonstrate to all levels of society their use in resolving challenges related to environmental and natural resources.
iii. Continued collaborations and partnerships with various entities in the areas of R&D projects.
iv. Build national capacity to apply environmental research to everyday problem solving.
v. Continued development and upgrading of ICENS' physical and human capital, particularly in the areas of management and training.

### STRATEGIC OUTCOMES
i. Research data help to resolve Jamaica's developmental challenges.
ii. New technologies developed and deployed quickly and effectively throughout the economy resulting in improved commercial activities, increased competitiveness of local businesses, increased wealth generation and employment opportunities.
iii. Improved understanding of the effects of selected trace metals on humans, plants and animals as a means to improve the health, nutrition and wellbeing of Jamaicans through better prevention and early detection of related diseases.
iv. Jamaican foods, in increasing quantities, meet health and export safety requirements.
v. Discovery of new natural resources, including water, minerals, biological resources and improved efficiency in their use.
vi. Jamaica's science infrastructure becomes more integrated and responsive and research programmes have a wider impact in terms of scale, quality, efficiency, effectiveness and time-frame.

vii. ICENS and Jamaica's R&D community achieve greater value at lower cost through sharing of research, support resources and infrastructure, including people, skills and equipment.
viii. Jamaica has an increased appreciation of the value of science and science-based solutions, which are widely employed throughout the economy.
ix. ICENS' work contributes to improved socio-economic development in Jamaica.

**PLANTS AND FOOD COMPOSITION**

i. Research priorities for the next four (4) years will be the determination of the heavy metal contents of Jamaican grown foods, their relationship with soil profiles and the possible health effects on the Jamaican population.
ii. Elements for priority attention will include arsenic, cadmium, lead and mercury and assessment of level of toxicity.

**IMPORT SUBSTITUTION BY NEW MATERIALS**

ICENS will carry out research with international partners to develop new materials from Jamaican industrial, agricultural and end of life electronic wastes as a means of substituting expensive imports and creating new SMEs and community-based job opportunities in the country. Specific research projects to be pursued include the following:

i. Formulate low-cost road repair and construction materials.
ii. Recycle banana plant fibres into low-cost eco-friendly packaging that can replace environmentally harmful polystyrene.
iii. Recover rare earth elements from discarded electronic equipment and devise new uses for bauxite red mud waste.

**MEDIUM TERM EXPENDITURE SUMMARY**

**TABLE 18: ICENS' MEDIUM TERM EXPENDITURE SUMMARY WITH 3 YEAR PROJECTIONS**

| PROPOSED BUDGET 2016/2017, J$ | PROJECTIONS, J$ | | |
|---|---|---|---|
| | 2017/2018 | 2018/2019 | 2019-2020 |
| 80,411,530.00.00 | 80,994,670.00 | 84,289,342.00 | 87,546,320.00 |

## 5.3 eGOV JAMAICA LIMITED (eGovJa)

eGov Jamaica Limited (eGovJa) is charged with the responsibility of providing ICT solution to all Government MDAs to facilitate the achievement of business objectives and greater efficiency.

**VISION**

To be the reliable ICT solutions and services company dedicated to achieving excellence and transformational value to the GOJ.

**MISSION**

We exist to revolutionize the Government of Jamaica's interactions with its entities, citizenry and businesses through harnessing the power of ICT.

**MANDATE AND VALUE STATEMENT**

To lead the development and implementation of ICT strategies, frameworks and solutions for the Government of Jamaica to facilitate the achievement of business objectives and greater efficiency.

We are a visionary, customer-centric company that values integrity, accountability, effective communication, innovation, knowledge and respect.

**STRATEGIC OUTCOMES**

i. Creation of a common government-wide area network (GovNet) and communication and data backbone.
ii. National Portal.
iii. Benefits from software agreements.

**THE STRATEGIC PLANS AND PRIORITY PROGRAMMES**

i. Continuation of the GovNet Project.
ii. The launch of the National Portal *Jamaica.gov.jm* for the provision of information to access government services and to facilitate persons doing business in Jamaica.
iii. Pursue the introduction of FOSS.
iv. Review ICT procurement and projects to ensure that ICT projects are in line with GOJ priorities.

**TABLE 19: eGOVJA'S MEDIUM TERM EXPENDITURE SUMMARY WITH 3 YEAR PROJECTIONS**

| PROPOSED BUDGET 2016/2017, J$ | PROJECTIONS, J$ | | |
|---|---|---|---|
| | 2017/2018 | 2018/2019 | 2019-2020 |
| 1,468,948,010.00 | 1,577,045,430.00 | 1,748,642,070.00 | 1,936,497,730.00 |

**TABLE 20: HUMAN RESOURCE CAPACITY PLAN**

| CURRENT STAFF COMPLEMENT | PLANNED 2016/2017 | PLANNED 2017/2018 | PLANNED 2018/2019 | PLANNED 2019-2020 |
|---|---|---|---|---|
| 226 | 276 | 301 | 326 | 326 |

## 5.4 SCIENTIFIC RESEARCH COUNCIL (SRC)

**VISION**

The Scientific Research Council, guided by quality management principles, is a centre of excellence that utilizes innovation, scientific and technical information and knowledge for transformation and sustainable development, positively impacting the quality of life of all Jamaicans.

**MISSION**

The Scientific Research Council (SRC) serves the productive sector, policy makers and the general public in order to enable sustainable growth and development in Jamaica by:

i. Providing quality scientific and technological solutions (product/process R&D, policy advice, technology transfer).
ii. Popularizing S&T through strategic alliances.
iii. Being Customer-focused, with innovative, competent and responsive teams.

**STRATEGIC OUTCOMES**

i. Established and maintained scientific information centre, which contributes to the propagation of scientific knowledge.
ii. The SRC's preparations and interventions contribute to improved competitiveness of individual businesses, increased value of exports, wealth and employment creation, and economic development.

**STRATEGIC DIRECTION**

i. Movement to value added interventions in S&T
ii. Focus on indigenous resources.

iii. Pursue economic linkages.
iv. Prioritize areas of energy, agro-processing, agri-business, innovation and ICT.

**STRATEGIC PLANS AND PRIORITIES**

i. Implementation of priority actions under the STI Roadmap.
ii. Maintain the Caribbean Climate Innovation Centre.
iii. Improve the Microbiology Laboratory
iv. Develop and implement “Waste Management Systems Business Plan"
v. Increase the use of the “Food Pilot Plant”.

**MEDIUM TERM EXPENDITURE SUMMARY WITH 3 YEAR PROJECTIONS**

**TABLE 21: SRC MEDIUM TERM EXPENDITURE SUMMARY WITH 3 YEAR PROJECTIONS**

| PROPOSED BUDGET 2016/2017, J$ | PROJECTIONS J$ | | |
|---|---|---|---|
| | 2017/2018 | 2018/2019 | 2019-2020 |
| 453,313,000.00 | 467,236,400.00 | 526,106,940.00 | 563,982,440.00 |

## 5.5 E-LEARNING JAMAICA COMPANY LIMITED (E-LJAM)

**VISION**

To transform national learning outcomes using ICTs

**MISSION**

i. To facilitate the development of a knowledge-based society by using ICT methodologies.
ii. e-LJam is committed to using indigenous Jamaican ICT solutions of world class standards.

**STRATEGIC OUTCOMES**

i. Development of a comprehensive set of standard ICT-based instructional materials for teachers and students in eleven (11) subject areas.
ii. Widespread availability of the technology and infrastructure for data storage, dissemination and access through the provision of ICT equipment and software to schools along with the establishment of a central repository for educational materials to store and reproduce, update and distribute material.
iii. The training of teachers in ICT across the educational system results in significantly improved instructional capacity and improved student performance across the education system.
iv. Standard examination assessment across grades 7-9.
v. The provision of remedial support to students results in marked improvements in student performance in all areas of the education system.

**STRATEGIC PRIORITIES**

i. Completion and hand over of the High School ICT Project to the MOE.
ii. Continued building out of CAPs.
iii. Island-wide implementation of the Tablets in School project, post evaluation of the pilot project.

**MEDIUM TERM EXPENDITURE SUMMARY WITH 3 YEAR PROJECTIONS**

**TABLE 22: E-LJAM'S MEDIUM TERM EXPENDITURE SUMMARY WITH 3 YEAR PROJECTIONS**

| PROPOSED BUDGET 2016/2017, J$ | PROJECTIONS, J$ | | |
|---|---|---|---|
| | 2017/2018 | 2018/2019 | 2019-2020 |
| 127,331,229.00 | 131,223,860.00 | 135,235,180.00 | 139,329,693.00 |
| | | | |

## 5.6 POST AND TELECOMMUNICATIONS DEPARTMENT (PTD)

**MANDATE**

The Post and Telecommunications Department (PTD) is responsible for Jamaica's postal service and is comprised of a network of post offices and postal agencies across the country. The Postal Corporation of Jamaica was established in 2000 to commercialize and modernize the PTD.

**STRATEGIC OUTCOMES**

i. The modernisation of the postal services.
ii. Introduction of new market driven products and services.
iii. Increased competitiveness of the PTD.

**STRATEGIC PRIORITIES**

i. Repeal and replace Post Office Act with a Postal Services Act.
ii. Transition from a Central Government Department to a fully corporatized entity.
iii. Increased application of ICT, including automated postal counters and CAPs.
v. Establish a local area network.
vi. Establish a full track and trace system.

**MEDIUM TERM EXPENDITURE SUMMARY**

**TABLE 23: PTD'S MEDIUM TERM EXPENDITURE SUMMARY WITH 3 YEAR PROJECTIONS**

| PROPOSED BUDGET 2016/2017 (J$) | PROJECTIONS (J$) | | |
|---|---|---|---|
| | 2017/2018 | 2018/2019 | 2019-2020 |
| 1,569,449,000.00 | 1,710,699,410.00 | 1,864,662,357.00 | |

The PTD's current and projected staff complement is outlined in Table 18.

**TABLE 24: PTD'S CURRENT AND PLANNED STAFF COMPLEMENT**

| CURRENT STAFF COMPLEMENT | PLANNED | | | |
|---|---|---|---|---|
| | 2016 – 2017 | 2017 – 2018 | 2018 -2019 | 2019-2020 |
| 1916 | 1887 | 1887 | 1887 | |
| | | | | |

## 5.7 NATIONAL ENERGY SOLUTIONS LIMITED (NESOL)

**MISSION**
To contribute to the economic growth and development of the country by providing affordable access to electricity island-wide and regularizing urban electrification.

**MANDATE**
The construction of electrical distribution pole lines in non-electrified areas and the provision of house wiring assistance through affordable loan programmes to householders who would be given access to electricity service from the newly erected electricity lines. Additionally, REP offers house-wiring assistance to needy householders in already electrified areas through a revolving fund programme.

**STRATEGIC OUTCOMES**
i. Transform REP into a major renewable energy solutions provider.
ii. House wiring to be provided to over 2,050 houses in 2016-2017, and over 8,000 houses wired during the 2016-2020 period.

**STRATEGIC PRIORITIES**
i. Public positioning of NESOL through aggressive search for business opportunities and public awareness.
ii. Diversification of services into renewables.
iii. Expansion of electrification services in rural communities and poor urban communities.
iv. Complete 51 km of pole line extensions in 2016-2017.

**MEDIUM TERM EXPENDITURE SUMMARY**
Owing to the proposed rebranding of this entity, the annual growth in its medium term expenditure is likely to be slightly higher than that of other entities within the ministry. I

**TABLE 25: NATIONAL ENERGY SOLUTIONS LIMITED'S (NESOL) MEDIUM TERM EXPENDITURE SUMMARY WITH 3 YEAR PROJECTED INCREASE**

| PROPOSED BUDGET 2016/2017, J$ | PROJECTIONS, J$ | | |
|---|---|---|---|
| | 2017/2018 | 2018/2019 | 2019/2020 |
| 214,044,000.00 | 255,510,000.00 | 268,281,000.00 | 281,685,000.00 |

## 5.8 BOARD OF EXAMINERS

**VISION STATEMENT**
To modernize, regulate the electrical installation industry of Jamaica through the granting and renewing of electrical licence.

**MISSION STATEMENT**
To establish a licensing authority, that will prepare a cadre of professional licensing electricians who are capable of been certified to national, regional and international standards."

**BOARD OF EXAMINERS**

**TABLE 27: BOARD OF EXAMINERS' (BOE) MEDIUM TERM EXPENDITURE SUMMARY WITH 3 YEAR PROJECTED INCREASE**

| PROPOSED BUDGET 2016/2017, J$ | PROJECTIONS, J$ | | |
|---|---|---|---|
| | 2017/2018 | 2018/2019 | 2019/2020 |
| 16,799,608.00 | 13,072,258.00 | 13,724,190.00 | 14,440,478.00 |

## 6.0 LIST OF PUBLIC SECTOR ENTERPRISES (SELF-FINANCED PUBLIC BODIES)

There are ten (10) self-financing public bodies within the Ministry. Basic information on each entity is outlined in Table 28.

**TABLE 28: LIST OF PUBLIC SECTOR ENTERPRISES (SELF-FINANCED PUBLIC BODIES)**

| NAME OF ENTITY | PURPOSE | CEO | CONTACT | INCOME ($'000) | | | EXPENDITURE ($'000) | | | FUNDING ($'000) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | YR1 | YR2 | YR3 | YR1 | YR2 | YR3 | YR1 | YR2 | YR3 |
| **TECHNOLOGY** | | | | | | | | | | | | |
| Spectrum Management Authority Limited (SMA) | To ensure the efficient management of Jamaica's radio frequency spectrum in keeping with international best practices. | Dr. David McBean | 13-19 Harbour Street Kgn.<br>Tel: 92-28884<br>dmcbean@sma.gov.jm | 296,880 (Interest income, regulatory and processing fees) 112,580 Spectrum Licences fees | 305,800 (Interest income, regulatory and processing fees) 112,580 (Spectrum Licences fees) | 313,360 (Interest income, regulatory and processing fees) 112,580 (Spectrum Licences fees) | Recurrent: 281,850<br>Capital: 200,850 | Recurrent: 289,590<br>Capital: 87,870 | Recurrent: 296,420<br>Capital: 79,390 | Interest income, regulatory and processing fees<br>Remit to Consolidated Fund: 112,580 | Interest income, regulatory and processing fees<br>Remit to Consolidated Fund: 112,580 | Interest income, regulatory and processing fees<br>Remit to Consolidated Fund: 112,580 |
| Universal Service Fund Limited (USF) | To facilitate the provision of universal access by the deployment of high capacity networks. | Mr. Everald Simms (Acting) | 36 Trafalgar Road Kgn. 10<br>Tel: 926-1727<br>esimms@usf.gov.jm | 984,000 | 999,960 | 999,960 | 3,915,977 | 3,078,900 | 3,084,334 | Consolidated Fund: 1,700,000 | Consolidated Fund: 2,200,000 | Consolidated Fund: 2,180,000 |
| Postal Corporation of Jamaica (PostalCorp) | To commercialize and modernize the postal service. | Mr. Michael Gentles | Central Sorting Office South Camp Road Kingston 4<br>pmgoffice@jamaicapost.gov.jm<br>mgentles_jmpost@hotmail.com | 116,992 | 126,535 | 135,024 | 8.775 billion | 9.045 billion | 9.328 billion | | | |
| **ENERGY** | | | | | | | | | | | | |
| Petroleum Corporation of Jamaica (PCJ) | To undertake the development and promotion of Jamaica's energy resources. | Mr. Winston Watson | 36 Trafalgar Road, Kgn. 10<br>Tel: 929-5380<br>winston.watson@pcj.com | 701,831 | 1,429,770 | 1,535,446 | 1,038,472 | 1,007,168 | 1,077,075 | Commissions, rent and interest income | Commissions, rent and interest income | Commissions, rent and interest income |
| Petrojam Limited | To refine and supply petroleum products at internationally competitive prices and quality, acting in the best interest of Jamaica. | Mr. Winston Watson | 96 Marcus Garvey Drive, Kgn.<br>Tel: 923-8611<br>wlw@petrojam.com | Refinery Gross Margin US$103,374 | Refinery Gross Margin US$128,101 | US$162,558 | US$94,067 | US$103,288 | US$110,871 | Profits<br>Management fees<br>Rental revenues<br>Commissions | Profits<br>Management fees<br>Rental revenues<br>Commissions | Profits<br>Management fees<br>Rental revenues<br>Commissions |

| NAME OF ENTITY | PURPOSE | CEO | CONTACT | INCOME ($'000) | | | EXPENDITURE ($'000) | | | FUNDING ($'000) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | YR1 | YR2 | YR3 | YR1 | YR2 | YR3 | YR1 | YR2 | YR3 |
| Petroleum Company of Jamaica Limited (PETCOM) | To be responsive to customers' needs, profitable in operations and socially responsible, while endeavouring to implement positive changes within the petroleum trade. | Mr. Godfrey Boyd (Acting) | 695 Spanish Town Road, Kgn.<br>Tel: 934-6682 | | To be divested | Divested | | | | | | |
| Petrojam Ethanol Limited (PEL) | To produce, export and sell ethanol. | Dr. Audley Darmond | 96 Marcus Garvey Drive<br>Tel: 934-6682<br>ron@petrojam.com | 5,009,869<br>Gross margin: 164,703<br>Profit Before Tax 119,000 | | | 138,153 | | | Profits and inventories | Profits and inventories | Profits and inventories |
| Wigton Windfarm Limited (WWL) | To provide and or facilitate increased wind power and other renewable technologies to generate electricity, thereby diversifying Jamaica's energy mix. | Mr. Earl Barrett | 36 Trafalgar Road<br>Kgn. 10<br>Tel: 960-3994<br>Earl.barrett@wwfja.com | | | | | | | Profits | Profits | Profits |

**TABLE 29: LIST OF PUBLIC SECTOR ENTERPRISES FINANCED THROUGH THE CENTRAL GOVERNMENT'S BUDGET**

| NAME OF ENTITY | PURPOSE | CEO | CONTACT | INCOME ($000) | | | EXPENDITURE ($000) | | | FUNDING ($000) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | YR1 | YR2 | YR3 | YR1 | YR2 | YR3 | YR1 | YR2 | YR3 |
| National Commission on Science and Technology (NCST) | | | Prof. Errol Morrison<br>36 Trafalgar Road<br>Kingston 10 | | | | 60,113 | 60,113 | 60,113 | | | |
| eGov Jamaica Limited | To revolutionize the Government of Jamaica's interactions with its entities, citizenry and businesses through harnessing the power of ICT. | Mr. Herman Athias | 235B Old Hope Road<br>Kingston 6<br>Jamaica, W.I.<br>hathias@egovja.com | | | | 1.89 B | 2.082 B | 2.291 B | | | |
| E-Learning Jamaica Company Limited | To facilitate web-based learning, computer-based learning and virtual classrooms utilizing information and communications technology. | Ms. Avril Crawford | 36 Trafalgar Road<br>Kingston 10<br>Tel: 929-4044<br>Avril.crawford@e-ljam.net | | | | 1.4 billion<br><br>Recurrent 107,083 | Recurrent 114,961 | Recurrent 123,362 | Universal Service Fund | Universal Service Fund | Universal Service Fund |

| NAME OF ENTITY | PURPOSE | CEO | CONTACT | INCOME ($000) | | | EXPENDITURE ($000) | | | FUNDING ($000) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | YR1 | YR2 | YR3 | YR1 | YR2 | YR3 | YR1 | YR2 | YR3 |
| Post and Telecommunications Department (PTD) | To provide efficient and cost effective postal and related services to its customers. | Mr. Michael Gentles | Central Sorting Office<br>South Camp Road<br>Kingston 4<br>mgentles_jmpost@hotmail.com<br>pmgoffice@jamaicapost.gov.jm | | | | 116,992 | 126,535 | 135,024 | | | |
| Government Electrical Regulator (GER) | To ensure that electrical installations in the country are safe and effected consistent with the Jamaica Standards Regulations. | Mr. Solomon Burchell | 18 Parkington Plaza<br>Kgn. 10<br>Tel:929-4070-3<br>gei@cwjamaica.com | | | | 152,424 | 143,040 | 145,257 | | | |
| Scientific Research Council (SRC) | To foster the development of scientific research for the benefit of all of Jamaica. | Dr. Cliff Riley | Old Hope Road<br>Hope Gardens<br>Kgn. 6<br>Tel : 702-4025<br>hawthornew@src-jamaica.org | 69,855 | 69,855 | 69,855 | 376,711 | 397,235 | 426,116 | | | |
| International Centre for Environmental and Nuclear Sciences (ICENS) | To enhance the quality of life in Jamaica by maintaining: an accessible scientific information baseline for the environment; interdisciplinary STI capabilities; chemical analysis of environmental media and foodstuff using nuclear and atomic spectroscopy. | Mr. Charles Grant | University of the West Indies<br>Tel:927-1777<br>charles.grant@uwimona.edu.jm | | | | 75,492 | 75,937 | 81,937 | Subvention / grant funding | | |
| National Energy Solutions Limited (NESOL) | To expand electricity supply to rural communities to assist in regularizing urban supplies and to facilitate the increased use of renewable source of energy. | Mr. Garfield Daley | 113 Washington Boulevard<br>Kingston. 20<br>Tel: 933-0631<br>gdaley@rep.gov.jm | 29,700 | 29,700 | 29,700 | 500,548 | 477,261 | 490,791 | GOJ: 470,848<br><br>AIA: 29,700 | GOJ- 440,250<br><br>AIA 70,350 | GOJ: 420,100<br><br>AIA: 120,700 |
| Board of Examiners (BoE) | To licence electricians, renew licence and revoke licences where electricians operate contrary to the laws. | Mr. Steve Ashley-Chairman | 113 Washington Boulevard<br>Kingston 20<br>Tel: 934-6496<br>boelicence@cwjamaica.com | 450,000 | 1,120,000 | 1,510,000 | 11,580 | 11,832 | 12,056 | Subvention from the MOF through the MSET | | |

**APPENDIX A**

**RISK MANAGEMENT MATRIX**

| PROGRAMME/PROJECT/ POLICY INITIATIVE | RISKS | IMPACT | PROBA-BILITY | MITIGATING MEASURE/RESPONSE | FINANCIAL YEAR | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | 2016/2017 | 2017/2018 | 2018/2019 | 2019/2020 |
| Refinery Upgrade Project. | Financing<br><br>Divestment | Negative. This has resulted in delays in implementation and increases in project cost.<br><br>Positive if the new owners provide the resources to effect the upgrade.<br><br>Negative implications for the PetroCaribe Agreement with further negative implications for balance of trade and other macro-economic issues, especially if the new owners are not the Venezuelans: | 100% | **Avoidance** - | | | | |
| | | | | **Reduction** – Discussions with Venezuela on alternative financing options | | | | |
| | | | | **Sharing** - | | | | |
| | | | | **Acceptance** - | | | | |
| Petcoke 100MW-120WM Generation Project. | Financing | Negative. The protracted problem with financing has caused the postponement of this project. | 100% | **Avoidance** - | | | | |
| | | | | **Reduction** - | | | | |
| | | | | **Sharing** - | | | | |
| | | | | **Acceptance** - No action is taken | | | | |
| | | | | **Reduction** – More research and detailed collection and analysis of information | | | | |
| | | | | **Sharing** - | | | | |
| | | | | **Acceptance** - | | | | |
| Oil and Gas Exploration | Legal<br>Financial | Lack of clarity on legal requirements and tariff structures for exploration and development of oil and gas sector.<br><br>Unavailability of financing has delayed the development of | Medium | **Avoidance** - | | | | |
| | | | | **Reduction** – Development of Regulations in 2016/2017. | | | | |
| | | | | **Sharing** - | | | | |
| | | | | **Acceptance** - | | | | |
| | | | | **Reduction** – Address concerns of stakeholders and their expectations | | | | |
| | | | | **Sharing** - | | | | |

| PROGRAMME/PROJECT/ POLICY INITIATIVE | RISKS | IMPACT | PROBA-BILITY | MITIGATING MEASURE/RESPONSE | FINANCIAL YEAR | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | 2016/2017 | 2017/2018 | 2018/2019 | 2019/2020 |
| | | the sector. | | **Acceptance** - | | | | |
| Tablets in Schools Project. | Stakeholders<br>Suppliers<br>Financial<br>Procurement | Procurement mechanisms may delay the project's implementation | High | **Avoidance** – Update implementation plan and collaborate with the MOFP and USF on developing the procurement plan to mitigate risks. | | | | |
| | | | | **Reduction** - Address concerns of stakeholders and manage expectations through training and sensitization. | | | | |
| | | | | Sharing - | | | | |
| | | | | Acceptance - | | | | |
| FOSS Policy. | Stakeholder buy-in<br><br>Funding | Continued unnecessary expenditure on some licensed software.<br><br>Lack of innovation in software use and development. | High<br><br>High | **Reduction** – Promote awareness and benefits of FOSS. | | | | |
| Rural Electrification Programme. | Funding<br><br>Project Management | Limited availability of electricity to rural communities.<br><br>Limited socio-economic activities in said communities. | High | **Reduction:** Secure funding to accelerate projects.<br><br>Project Management and RE Systems training. | | | | |
| 37 MW Renewable Energy Project (Left-over of the 115 MW Project). | Low participation in Office of Utilities Regulation (OUR) tender process.<br><br>Evaluation delays by the OUR. | Low participation for firm capacity.<br><br>Delay in announcing the award of generation licences by MSET.<br><br>Delay in building-out RE capacity. | High | **Reduction:** Provide greater clarity in the RFP on the framework (including tariffs and incentives particularly for firm capacity RE). | | | | |
| Energy Security and Efficiency Enhancement Programme. | Foreign Exchange<br><br>Insufficient | Currency depreciation will increase the DBJ's financial exposure.<br>Very high demand may | High | **Transfer:** Clarify the operational framework for the disbursement of funds between the MOFP and DBJ. | | | | |

| PROGRAMME/PROJECT/ POLICY INITIATIVE | RISKS | IMPACT | PROBA-BILITY | MITIGATING MEASURE/RESPONSE | FINANCIAL YEAR | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | 2016/2017 | 2017/2018 | 2018/2019 | 2019/2020 |
| | fiscal space.<br>Inability to attract or retain qualified staff | oversubscribe the pool of loan funds. | | **Reduction:** Recruit required staff and technical assistance to accelerate project deployment and improve programme planning and management. | | | | |
| Energy Efficiency and Conservation Programme. | Delay in project deliverables.<br><br>Insufficient fiscal space.<br><br>Inability to attract or retain qualified staff | Delay in programme deployment and completion.<br><br>Increased cost of project administration.<br><br>Inability to meet targets and realize full cost benefit of the programme. | High | **Reduction:** Recruit required staff and technical assistance to accelerate project deployment and improve programme planning and management. | | | | |
| Establishment of OLADE Sub -Regional Office (OLADE) in Jamaica. | Funding | Reduced speed of energy security build-out in Jamaica. | Low | Ensure that the Ministry of Finance makes annual allocation for the office. | | | | |
| Establishment of Government Network Infrastructure (GovNet). | Funding | | | | | | | |
| Low-Carbon Energy Road Maps for Small Island States in the Caribbean. | Funding | Slow development of low carbon development strategies.<br><br>Vulnerability. | High | | | | | |
| Enhancing the ICT Regulatory Environment. | Funding<br><br>Speed of delivery (consultant) | Reduced investment in the ICT and related sectors of the economy. | High | Early and constant consultations with stakeholders, including the CPC.<br>Ensure consultants deliver agreed assignment on time and within budget. | | | | |
| Transformation and privatization of the GEI. | Funding<br><br>Speed of completion | Unavailability of funds delays the transformation and proposed privatization. | High | Scheduled discussions with the Ministry of Finance regarding the need to fund this project as planned. | | | | |
| Energy Sector –Sub Polcies | Information may become | Delay in policy implementation and investments through | Medium | Schedule meetings with stakeholders to finalise and submit policies | | | | |

| PROGRAMME/PROJECT/ POLICY INITIATIVE | RISKS | IMPACT | PROBA-BILITY | MITIGATING MEASURE/RESPONSE | FINANCIAL YEAR | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | 2016/2017 | 2017/2018 | 2018/2019 | 2019/2020 |
| | date | uncertainty | | | | | | |

## APPENDIX B

## LEGISLATIVE PROGRAMME 2016 – 2020

| NO | NAME OF LEGISLATION | PURPOSE OF LEGISLATION | PRIORITY |
|---|---|---|---|
| 1. | The Data Protection Act | The Act will provide for the protection of privacy of individuals in relation to personal data and regulate the collection, processing, storage, use and disclosure of personal data. | High |
| 2. | Information and Communications Technology Act (Telecommunications Act Repeal) | To provide the ICT sector with an adequate legislative and regulatory framework which addresses:<br>• the establishment of a single stand-alone ICT Regulator<br>• current trends and emerging technologies<br>• competitiveness<br>• consumer protection | High |
| 3. | Postal Services Act [Post Office Act (Repeal)] | Review of the Post Office Act and other legislation with a view to aligning same with policy initiatives to licence and regulate all operators providing postal services. | Medium |
| 4. | The Petroleum (Landing and Storage) Act | To modernized and update the legislation. | High |
| 5. | Promulgate the Natural Gas Act | To provide for the proper legislative and regulatory framework for the gas market. It is contemplated that gas will be introduced to Jamaica. | Very High |
| 6. | The Petroleum (Quality Control) Act | • To review and amend the current licensing mechanisms and penalties associated with the Act, to ensure appropriate enforcement of safety standards for the petroleum sector;<br>• To provide for appropriate charges for the inspection of petroleum facilities;<br>• To establish standards and regulations for the introduction of low sulphur and ultra-low sulphur diesel; and<br>• To establish standards and regulations for biodiesel. | High |

## APPENDIX C
## PROCUREMENT PLAN FOR FINANCIAL YEARS 2016 – 2020

| REF. NO. | DESCRIPTION | UNIT OF MEASURE | QUANTITY | ESTIMATED BUDGET & FUNDING SOURCE | | | | | PRE-QUALIFICATION | PROCUREMENT METHOD | ESTIMATED DATES | | | STATUS & COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | GOJ | EXTERNAL FUNDING | | SELF-FINANCED | TOTAL | YES / NO | | PUBLICATION | AWARD | START | |
| | | | | | LOANS | GRANTS | | | | | | | | |
| | **1. GOODS** | | | | | | | | | | | | | |
| | Stationery Supplies | | | Yes | | | | 3,125,945.00 | No | LT | n/a | n/a | Qtrs. 1- 4 | |
| | First Aid/ Pharmaceutical Items | | | Yes | | | | 36,970.00 | No | LT | n/a | n/a | Qtrs. 1- 4 | |
| | Cutleries | | | Yes | | | | 313,900.00 | No | LT | n/a | n/a | Qtrs. 1- 4 | |
| | Food and Drinks | | | Yes | | | | 1,461,966.00 | No | LT | n/a | n/a | Qtrs. 1- 4 | |
| | Office Furniture | | | Yes | | | | 679,000.00 | No | LT | n/a | n/a | Qtrs. 1- 4 | |
| | Cleaning Products | | | Yes | | | | 579,505.00 | No | LT | n/a | n/a | Qtrs. 1- 4 | |
| | Security Surveillance Systems | | 1 | Yes | | | | 1,400,000.00 | No | LT | Jun-16 | Jul-16 | Qtrs. 1-2 | |
| | Computers: Laptops | | 3 | Yes | | | | 350,000.00 | No | LT | May-16 | May-16 | Qtr. 1 | |
| | Computers: Desktops | | 12 | Yes | | | | 1,440,000.00 | No | LT | Oct-16 | Nov-16 | Qtr. 3 | |
| | Motor Vehicle Purchases | | 3 | Yes | | | | 12,000,000.00 | No | LCB | Jul-16 | Aug. 2016 | Qtr. 2 | |
| | **2. WORKS** | | | | | | | | No | | | | | |
| | Office Renovations/Painting | | | Yes | | | | 5,000,000.00 | No | LCB | Apr-16 | May-16 | Qtr. 1 | |

**APPENDIX D**
**MONITORING AND EVALUATION PLAN**

The ministry intends to increase the rigour of its monitoring and evaluation programme to track and grade its performance, including that of its portfolio agencies. This will be accomplished through established mechanisms of reporting and performance reviews to ensure an audit and reconciliation of the entities' work plans against their achievements[7].

The mechanisms which will be employed to ensure an efficient monitoring and evaluation programme are:

- A Monitoring and Evaluation Plan,
- Quarterly performance reviews of the Ministry's divisions and agencies. Heads of Divisions and Chief Executive Officers will be required to report on actual achievements against plans and to also provide explanations for deviations and revise plans to meet targets.
- Assignment of agencies to Desk Officers in the Division,
- Tabling of annual reports to Parliament and submission of periodic of reports to Cabinet,
- Representation of the ministry on the agencies' Boards of Directors,
- Reports from project managers, divisional and agency heads ,
- Analysis of work programme against achievements and periodic audits.

| **PROGRAMME/POLICY INITIATIVE: ENERGY SECURITY AND EFFICIENCY**<br>**Description**: This programme is a vital component of the ministry's mandate and is geared at ensuring the country can meet its current and long term energy needs, reduce its vulnerability to disruptions in energy supplies, and reduce its dependence on imported fossil fuels. It is envisaged that the contributions from renewable energy sources such as wind, hydro, bio fuels and solar will become an increasing percentage of the energy mix. A second component of the programme is the more efficient utilization of energy. | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **MINISTRY'S STRATEGIC OUTCOME** | **BASELINE DATA (2008)** | **MONITORING AND EVALUATION FREQUENCY** | | | | | | | | **MONITORING AND EVALUATION ASSESSMENT METHOD** |
| | | **YEAR 2016/2017** | | **YEAR 2017/2018** | | **YEAR 2018/2019** | | **YEAR 2019/2020** | | |
| | | **MONITOR** | **EVALUATE** | **MONITOR** | **MONITOR** | **MONITOR** | **EVALUATE** | **MONITOR** | **EVALUATE** | |
| Energy security and efficiency through security of supplies, fuel diversification and increase in renewables to 15% by 2018. | 5.6% renewable in energy mix | Annually | Mid-term and after completion of implementation | Annually | Mid-term and after completion of implementation. | Annually | Mid-term and after completion of implementation. | Annually | Mid-term and after completion of implementation. | - Reports<br>- Statistical Data<br>- Models<br>- Participants' evaluation |
| Reduction of the energy intensity of the economy to 12700 | | Annually | Mid-term. Reset national figure after 2018. | Annually | Mid-term. Reset national figure after 2018. | Annually | Mid-term. Reset national figure after 2018. | Annually | Mid-term. Reset national figure after 2018. | - Reports<br>- Statistical Data |

[7] The absence of the required staff presents a threat to achieving this objective.

| **PROGRAMME/POLICY INITIATIVE: ENERGY SECURITY AND EFFICIENCY**<br>**Description**: This programme is a vital component of the ministry's mandate and is geared at ensuring the country can meet its current and long term energy needs, reduce its vulnerability to disruptions in energy supplies, and reduce its dependence on imported fossil fuels. It is envisaged that the contributions from renewable energy sources such as wind, hydro, bio fuels and solar will become an increasing percentage of the energy mix. A second component of the programme is the more efficient utilization of energy. | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **MINISTRY'S STRATEGIC OUTCOME** | **BASELINE DATA (2008)** | **MONITORING AND EVALUATION FREQUENCY** | | | | | | | | **MONITORING AND EVALUATION ASSESSMENT METHOD** |
| | | **YEAR 2016/2017** | | **YEAR 2017/2018** | | **YEAR 2018/2019** | | **YEAR 2019/2020** | | |
| | | **MONITOR** | **EVALUATE** | **MONITOR** | **MONITOR** | **MONITOR** | **EVALUATE** | **MONITOR** | **EVALUATE** | |
| BTU by 2018. | | | | | | | | | | |
| **Programme/Policy Initiative: A Technology Enabled Society**<br><br>**Description**: This Programme is a critical component of the Ministry's mandate and is linked to Vision 2030 to influence the national outcome of a Technology Enabled Society. The programme is designed to include science at the centre of driving economic growth and development in a knowledge-based and trained society. The main sub-programme includes a finalized National Science and Technology Policy, E-learning applications, ICT Development and Spectrum Management Policy, and establishment of a national broadband framework. | | | | | | | | | | |
| Science and Technology integrated into all areas of national development.<br><br>Electronic learning widespread in education, including secondary and primary levels.<br><br>An advanced ICT sector that is globally competitive and driven by private sector investments. | | Annually | Mid-term and after completion of implementation. | Annually | Mid-term and after completion of implementation. | Annually | Mid-term and after completion of implementation. | Annually | Mid-term. | - Reports<br>- Statistical Data |
| | | | | | | | | - | | - |

**APPENDIX E**
**INTERNAL AUDIT STRATEGIC PLAN 2016-2020**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Dept./ Division** | Internal Audit | | | | | | | | | |
| **Vision** | *To be recognized for excellence and professionalism in internal audit services and be seen as leaders in the implementation of continuous improvement in government stewardship and performance* | | | | | | | | | |
| **Mission** | *The mission of the internal Audit Unit is to add value to the operations of the Ministry, its external divisions and portfolio agencies by promoting a controlled environment through open communication, professionalism, expertise and trust, while performing audit services of the highest standards.* | | | | | | | | | |
| **Ministry's Outcome Indicators** | *Improved governance, overall efficiency and accountability in the Ministry of Science, Energy & Technology and its portfolio agencies.*<br>*Reduction in the level of Auditor General's queries and appearances before the Public Accounts Committee of Parliament.* | | | | | | | | | |
| **Priority Policy** | **Strategic Objectives** | **Strategies** | **Key Output** | **Performance Indicator/Targets** | | | **Current Performance, % (2016-2017)** | **Cost ($M)** | | |
| | | | | **Year 1** | **Year 2** | **Year 3** | | **Year 1** | **Year 2** | **Year 3** |
| | To add value through the delivery of high quality assurance and consulting services to the Ministry, its external divisions and portfolio agencies in assessing and determining the level of compliance with:<br><br>i. The F.A.A. Act and Instructions, The PBMA ACT<br><br>ii. Directives from Ministry of Finance & Planning | Contribute to the effective and efficient performance of the Ministry, its external divisions and portfolio agencies by conducting independent analysis, reviews and evaluation of existing activities and procedures.<br><br>Examine, analyse, test and evaluate systems in place by:<br>Conducting frequent independent inspections of the Ministry's Head office and the various entities | Quality audit reports with practical recommendations for the control of risks, the safeguarding of assets, and compliance with relevant rules, laws and regulations. | Twelve (12) audits conducted<br><br>Percentage of audit recommendations accepted and implemented by Management.<br><br>Stakeholders' satisfaction with the quality and usefulness of IA reports. | Fourteen (14) audits conducted<br><br>Percentage of audit recommendations accepted and implemented by Management.<br><br>Stakeholder's satisfaction with the quality and usefulness of IA reports. | Sixteen (16) audits conducted<br><br>Percentage of audit recommendations accepted and implemented by Management.<br><br>Stakeholder's satisfaction with the quality and usefulness of IA reports. | Ten (10) audits conducted.<br><br>Percentage of audit recommendations accepted and implemented by Management.<br><br>Stakeholders' satisfaction with the quality and usefulness of IA reports. | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | under its portfolio. | | | | | | | | |
| **Priority Policy** | **Strategic Objectives** | **Strategies** | **Key Output** | **Performance Indicator/Targets** | | | **Current Performance %** | **Cost ($M)** | | |
| | | | | **Year 1** | **Year 2** | **Year 3** | | **Year 1** | **Year 2** | **Year 3** |
| | | Reviewing and assessing the effectiveness of risk management, control and governance processes. | Risk assessment conducted for all audit reviews | Improved governance and efficiency<br>95% reduction in the level of Auditor General's queries and appearances before the PAC within the Ministry and external divisions<br>and 80% within portfolio agencies. | Improved governance and efficiency<br>98% reduction in the level of Auditor General's queries and appearances before the PAC within the Ministry and external divisions and 85% within portfolio agencies. | Improved Governance and Efficiency. 100% reduction in the level of Auditor General's queries and appearances before the PAC Within the Ministry and external divisions and 90% within portfolio agencies. | Improved governance and efficiency<br>93% reduction in the level of Auditor General's queries and appearances before the PAC within the Ministry and external divisions<br>and 75% within portfolio agencies | | | |
| | iii. Other statutory regulations | Communicate findings and observations to relevant stakeholders in a timely manner. | Timely and accurate audit reports on all audited activities. | Reports finalized for at least 85% of audits conducted. | Reports finalized for at least 90% of audits conducted. | Reports finalized for at least 93% of audits conducted. | Reports issued for at least 85% of audits conducted | | | |
| | Strengthening the capacity of the Internal Audit Unit. | Recruitment of qualified and competent personnel to fill vacant positions. | Increase staff compliment by at least five (5) new positions. | Increased level and quality of output.<br>2 new positions filled. | Increased level and quality of output.<br>3 new positions filled. | Increased level and quality of output.<br>80% participation in external training. | Reports issued for at least 85% of audits conducted | | | |
| | Creating a cadre of highly skilled and competent staff. | Identifying and exploring relevant training options and ensure training of all staff members. | All members of staff exposed to external and in house training. | 100% staff participation in at least 2 external and/or in-house training courses. | 100% staff participation in at least 2 external and/or in-house training courses. | 100% participation in-house training. | Increased level and quality of output. | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | At least 3 new positions filled | | | |
| **Priority Policy** | **Strategic Objectives** | **Strategies** | **Key Output** | **Performance Indicator/Targets** | | | **Current Performance %** | **Cost ($M)** | | |
| | | | | **Year 1** | **Year 2** | **Year 3** | | **Year 1** | **Year 2** | **Yr 3** |
| | | Continued Education through personal initiatives. | Certification in relevant qualification and training. | | | | 100% staff participation in at least 2 external and/or in-house training courses. | | | |
| | | Assess performance of unit through quality assurance and on-going reviews. | Completion of quality assurance reviews. | Self-Assessment and validation of audit function in keeping with IA Standards. | Periodic reviews in conformance with IA Standards. | Periodic reviews in conformance with IA Standards. | | | | |
| | | | Performance appraisals conducted | Performance appraisals done in a timely manner. | Performance appraisals done in a timely manner. | Performance appraisals done in a timely manner. | Periodic reviews in Conformance with IA Standards<br><br>Performance appraisals done in a timely manner | | | |

**APPENDIX F**

**FINANCE AND ACCOUNTS DIVISION'S STRATEGIC PLAN 2016-2020**

| PRIORITY POLICY ISSUES | OBJECTIVES/ POLICY OUTCOMES | STRATEGIES | PERFORMANCE MEASURES/ OUTCOME INDICATORS | MAJOR TASKS, TARGETS, RESOURCES AND COST | | | |
|---|---|---|---|---|---|---|---|
| | | | | Year 1 2016/17 | Year 2 2017/18 | Year 3 2018/19 | Year4 2019/20 |
| | Optimize the Ministry's capacity to realize corporate objectives through efficient management of its financial resources | Ensure that all MSET's financial accounting transactions are processed in accordance with the FAA Act, other pertinent Acts, and guidelines.<br><br>Conduct periodic reviews of processes used by divisions and agencies to ensure the timely and accurate processing of payments.<br><br>Investigate and prepare responses to audit queries issued by Internal Audit and the Auditor General.<br><br>Ensure Financial Reports completed in accordance with FAA Act and other pertinent guidelines.<br><br>Ensure accurate timely computations, payment of salaries and deductions. | Fewer audit queries.<br><br>Accurate and timely processing of all transactions.<br><br>All audit queries answered satisfactorily within stipulated deadline.<br><br>Monthly statements and annual Appropriation accounts submitted within stipulated timeframe.<br><br>Payroll and statutory deduction and returns processed on time. | All transactions processed according to established rules.<br><br>Properly authorised bills dispatched to the Accountant General's Department for settlement within 3 days.<br><br>Queries answered within stipulated deadline.<br><br>Financial Statements completed and submitted within FAA Act stipulated deadline.<br><br>Annual Appropriations Accounts completed and submitted within deadline.<br><br>Monthly and fortnightly payroll completed as per MOF guideline.<br><br>Annual returns completed and submitted within deadline. | All transactions processed according to established rules.<br><br>Properly authorised bills dispatched to the Accountant General's Department for settlement within 3 days.<br><br>Queries answered within stipulated deadline.<br><br>Financial Statements completed and submitted within FAA Act stipulated deadline.<br><br>Annual Appropriations Accounts completed and submitted within deadline.<br><br>Monthly and fortnightly payroll completed as per MOF guideline.<br><br>Annual returns completed and submitted within deadline. | All transactions processed according to established rules<br><br>Properly authorised bills dispatched to the Accountant General's Department for settlement within 3 days.<br><br>Queries answered within stipulated deadline<br><br>Financial Statements completed and submitted within FAA Act stipulated deadline.<br><br>Annual Appropriations Accounts completed and submitted within deadline<br><br>Monthly and fortnightly payroll completed as per MOF guideline.<br><br>Annual returns completed and submitted within deadline | All transactions processed according to established rules<br><br>Properly authorised bills dispatched to the Accountant General's Department for settlement within 3 days.<br><br>Queries answered within stipulated deadline<br><br>Financial Statements completed and submitted within FAA Act stipulated deadline.<br><br>Annual Appropriations Accounts completed and submitted within deadline<br><br>Monthly and fortnightly payroll completed as per MOF guideline.<br><br>Annual returns completed and submitted within deadline |

| PRIORITY POLICY ISSUES | OBJECTIVES/ POLICY OUTCOMES | STRATEGIES | PERFORMANCE MEASURES/ OUTCOME INDICATORS | MAJOR TASKS, TARGETS, RESOURCES AND COST | | | |
|---|---|---|---|---|---|---|---|
| | | | | Year 1 2016/17 | Year 2 2017/18 | Year 3 2018/19 | Year4 2019/20 |
| | Optimize the Ministry's capacity to realize corporate objectives through efficient management of its financial resources | Coordinate and analyze expenditure budget submissions (annual and supplementary) form Divisions and Agencies.<br><br>Coordinate and analyze Non Tax Revenue budget submissions form Divisions and Agencies.<br><br>Analyze annual and other financial reports of the various companies within the Ministry's portfolio.<br><br>Ensure that work plans are aligned to operational plans – ensure all objectives of the Division are reflected in the work plans and are agreed to by staff. | Annual budget aligned to Ministry priorities and submitted on time as stipulated in the Budget Call from the MOF.<br><br>Non Tax Revenue budget submitted on time as stipulated in the Budget Call from the Accountant General.<br><br>Timely analysis of reports and submission of findings to Policy Division.<br><br>100% staff appraisals completed within the timeframe specified by the Permanent Secretary (PS) through the HRMA.<br><br>Training needs assessment done and training facilitated internally or externally. | Budgets and cash flow requests submitted as per deadline established by MOF's budget call Circular.<br><br>Budget submitted as per timeline established by MOF's and the Accountant General's budget call Circular.<br><br>Findings submitted within 10 days of receipt of the actual report<br><br>100% appraisal done within time specified by the PS<br><br>Continuous assessment of training needs and training facilitation. | Budgets and cash flow requests submitted as per deadline established by MOF's budget call Circular.<br><br>Budget submitted as per timeline established by MOF's and the Accountant General's budget call Circular.<br><br>Findings submitted within 10 days of receipt of the actual report<br><br>100% appraisal done within time specified by the PS<br><br>Continuous assessment of training needs and training facilitation | Budgets and cash flow requests submitted as per deadline established by MOF's budget call Circular.<br><br>Budget submitted as per timeline established by MOF's and the Accountant General's budget call Circular.<br><br>Findings submitted within 10 days of receipt of the actual report<br><br>100% appraisal done within time specified by the PS<br><br>Continuous assessment of training needs and training facilitation | Budgets and cash flow requests submitted as per deadline established by MOF's budget call Circular.<br><br>Budget submitted as per timeline established by MOF's and the Accountant General's budget call Circular.<br><br>Findings submitted within 10 days of receipt of the actual report<br><br>100% appraisal done within time specified by the PS<br><br>Continuous assessment of training needs and training facilitation |

**APPENDIX G**
**COST SAVINGS INITIATIVES (WASTE REDUCTION PLAN)**

| OBJECTIVES | INDICATOR | ACYIVITIES/INITIATIVES | TIMELINE |
|---|---|---|---|
| To reduce printing paper usage. | 5% reduction in consumption per annum | - Implement centralized printing in all Divisions<br>- Establish predetermined quota of paper supply based on usage<br>- Implement Printing Management Software on centralized printers | Annually |
| To reduce fuel consumption for fleet vehicles. | 5% reduction in consumption per annum | - Maintain tighter control on the maintenance of log books for usage of fleet vehicles<br>- Maintain strict custody of Fuel Advance Cards<br>- Implement, where possible, predetermined routes for drivers daily assignments | Annually |
| To reduce usage of office supplies. | Usage maintained within quota<br>3% decrease in consumption | - Maintain tighter control of the inventory of supplies<br>- Implement predetermined quotas for Divisions | Annually |
| To reduce the cost of parking. | Reduction in parking charges | - Streamlined procedures to eliminate payments for unofficial parking<br>- Source additional parking space for staff members to avoid paying hourly rates | Annually |
| To reduce expenditure for telephone services. | 10% reduction in expenditure per annum | - Maximise the use of the VIOP System<br>- Reduce the number of straight lines in use<br>- Employ a CUG system | Annually |

## APPENDIX H
## GLOSSARY FOR PERFORMANCE MONITORING AND EVALUATION SYSTEM

**Accountability:** The obligation to demonstrate and take responsibility both for the means used and the results achieved in light of agreed expectations.

**Baseline:** A clearly defined commencement point from which implementation begins and comparisons of improvement or decline with subsequently accumulated data can be made.

**Benchmark:** Reference point or standard against which performance or achievements can be assessed. A benchmark refers to the performance that has been achieved in the recent past by other comparable organisations, or what can be reasonably inferred to have been achieved in the circumstances.

**Cost Effectiveness:** The extent to which an organization, programme, policy or initiative is using the most appropriate and efficient means in achieving its expected results relative to alternative design and delivery approaches.

**Effectiveness:** The extent to which an organisation, policy, programmes or initiative is meeting its expected results.

**Efficiency:** The extent to which an organisation, policy, programmes or initiative produces outputs in relation to the resources used.

**Evaluation:** The systematic collection and analysis of evidence on the outcomes of programmes to make judgments about their relevance, performance and alternative ways to deliver them or to achieve the same results.

**Expected Result:** An outcome that a programme, policy or initiative is designed to produce.

**External Evaluation:** The evaluation of a development intervention conducted by entities and/or individuals outside the donor and implementing organizations.

**Feedback:** The transmission of findings generated through the evaluation process to parties for whom it is relevant and useful so as to facilitate learning. This may involve the collection and dissemination of findings, conclusions, recommendations and lessons from experience.

**Goal:** The higher-order objective or results to which a development intervention is intended to contribute.

**GoJ's Performance Report:** A government-wide performance report tabled annually in Parliament. This report provides parliamentarians and Jamaicans with a whole-of-government perspective from which to assess the performance of MDAs in the delivery of agreed plans, programmes and resource allocation and the achievement of results.

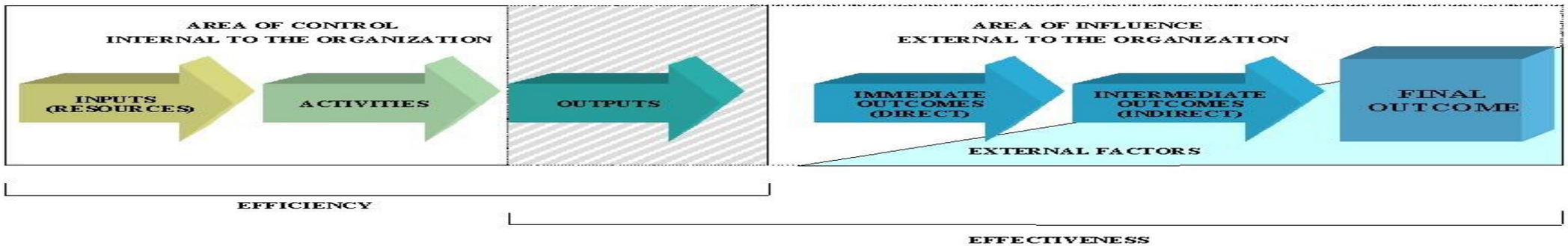
**Governance:** The processes and structures through which decision-making authority is exercised. Example, an effective governance structure ensures individuals or groups of individuals are responsible for setting policy directions, priorities, taking investment decisions, re-allocating resources and designing programmes.

**Government Initiative:** A priority outcome and the means to achieve it articulated by the Government. It may involve one or more Ministries, and one or more programmes.

**Impacts:** Positive and negative, primary and secondary long-term effects or changes produced by a development intervention, directly or indirectly, intended or unintended.

**Indicators:** Quantitative or qualitative factor or variable that provides a simple and reliable means to measure achievement, to reflect the changes connected to an intervention, or to help assess the performance of a programme.

**Lessons Learned:** Generalizations based on evaluation experiences with projects, programmes, or policies that abstract from the specific circumstances to broader situations. Frequently, lessons highlight strengths or weaknesses in the preparation, design, and implementation that affect performance, outcome and impact.




**Medium Term Expenditure Framework (MTEF):** A tool which links plans and budgets over the medium term and help managers make decisions on how best to strategically allocate financial resources in line with government policy.

**Mid-term Evaluation:** Evaluation performed towards the middle of the period of implementation of the intervention.

**Ministry Business Plans (MBP):** The MBPs provide information on plans and expected performance over a three-year period. These reports are tabled in Parliament annually, after resource allocation deliberations. They include information on the department or agency's mission or mandate, strategic outcomes, strategies, plans and performance targets.

**Ministry Performance Reports (MPR):** The MPRs are tabled in Parliament four months after the end of the financial year. Their fundamental purpose is to present a report on results and accomplishments as established in the corresponding Ministry Business Plans (MBPs) in order to provide Parliamentarians with knowledge and understanding of the government's stewardship of public resources.

**Mission:** The fundamental purpose for the existence of an organisation which forms the baseline for effective business planning.

**Monitoring or Performance Monitoring:** An on-going activity that uses the systematic collection of data on specified indicators; to provide management with an indication of the extent to which physical and financial progress has been made on a planned programme, project or policy initiative.

**National Outcome:** The long-term and enduring benefits to citizens that more than one Ministry, Department or Agency are working to achieve.

**Operational Planning:** Operational planning is a subset of strategic work planning. It describes short-term ways of achieving milestones and explains how, or what portion of, a strategic plan will be put into operation during a given operational period.

**Outcome:** The likely or achieved medium-term effects of an intervention's outputs. (Related terms: result, outputs, impacts).

**Output:** The products, capital goods and services which result from a development intervention; may also include changes resulting from the intervention which are relevant to the achievement of outcomes.
**Performance:** The degree to which a development intervention or a development partner operates according to specific criteria/ guidelines or achieves results in accordance with stated goals or plans.

**Performance Evaluation:** An independent analysis undertaken at a fixed point in time to determine the degree to which stated objectives or results have been reached. This is generally used as a basis for decision making, including updating plans.

**Performance Indicator:** A variable that allows the verification of changes in the development intervention or shows results relative to what was planned. See p**erformance measure.**

**Performance Measure:** A qualitative or quantitative means of measuring an output or outcome, with the intention of gauging the performance of an organisation, program, policy or initiative. Quantitative performance measures are composed of a number and a unit of measure. The number provides the magnitude (how much) and the unit gives the number its meaning (what). E.g. number of written complaints received.

**Performance Monitoring:** The on-going, systematic process of collecting, analysing and using performance information to assess and report on an organization's progress in meeting expected results and, if necessary, make adjustments to ensure these results are achieved.

**Performance Monitoring and Evaluation System (PMES):** A comprehensive framework that includes an inventory of activities, resources, results, performance measurement and governance information. PMES will provide a formal process through which the Government of Jamaica will be able to monitor and report on results; support the setting of broad strategic priorities and the reflection of these priorities in the plans of MDAs through the development of performance indicators and targets.

**Performance Reporting:** The process of communicating evidence-based performance information. Performance reporting supports decision-making, accountability and transparency.

**Plans:** The articulation of strategic choices, which provide information on how an organisation intends to achieve its priorities and associated results. Generally a plan will explain the logic behind the strategies chosen and should focus on actions that lead to the expected result.

**Policy:** A course of action taken by Government to address a given problem or related set of problems. A statement of principles by Government that informs legislation, regulation, official guidelines and operating practices intended to influence behaviour towards a stated outcome.

**Programme:** A group of related activities that are designed and managed to meet a specific public need and often treated as a budgetary unit.

**Project:** A task or planned programme of work that has a start and end date and requires significant time and effort in initiating, planning, executing and monitoring to complete.

**Programme Evaluation:** Evaluation of a set of interventions, marshalled to attain specific global, regional, country, or sector development objectives. (A development programme is a time bound intervention involving multiple activities that may cut across sectors, themes and/or geographic areas).

**Priorities:** Specific areas that an organisation has chosen to focus and report on during the planning period. They represent the things that are most important or what must be done first to support the achievement of the desired Strategic Outcome(s).

**Relevance:** The extent to which the objectives of a government intervention are consistent with beneficiaries' requirements, country needs global priorities and partners' and donors' policies. (Retrospectively, the question of relevance often becomes a question as to whether the objectives of an intervention or its design are still appropriate given changed circumstances).

**Reliability:** Consistency or dependability of data and evaluation judgements, with reference to the quality of the instruments, procedures and analyses used to collect and interpret evaluation data. Evaluation information is reliable when repeated observations using similar instruments under similar conditions produce similar results.

**Result:** The output, outcome, or impact (intended or unintended, positive and/ or negative) of a development intervention.

**Results-based Management:** A comprehensive, lifecycle, approach to management that integrates strategy, people, resources, processes and measurements to improve decision-making and drive change. The approach focuses on getting the right design early in a process, focusing on outcomes, implementing performance measurement, learning and changing, and reporting performance.

**Results-based Model:** A depiction of the causal or logical relationships between inputs, activities, outputs and the outcomes of a given policy, programme or initiative.

**Strategic Outcome:** A long-term and enduring benefit to Jamaicans that stems from a ministry, department or agency's mandate, vision and efforts. It represents the difference a ministry, department or agency wants to make for Jamaicans.

**Strategic Planning:** Determines the general direction and goals of the organization in both the short and long term; the process of defining its strategy, or direction, and making decisions on allocating its resources to pursue this strategy.

**Strategic Priorities:** A ranking of an organization's strategic objectives by importance; a description of what an organization's decision-makers believe is more important or less important.
**Strategies:** Strategy refers to a plan of action designed to achieve a particular goal.

**Sustainability:** The continuation of benefits from a government intervention after major developmental programme has been completed. It may also be defined as the probability of continued long-term benefits.

**Target:** A measurable performance or success level that an organization, programme or initiative plans to achieve within a specified time period. Targets can be either quantitative or qualitative and are appropriate for both outputs and outcomes.

**Transparency:** Transparency is a general quality. It is implemented by a set of policies, practices and procedures that allow citizens to have accessibility, usability, informativeness, understandability and auditability of information and process held by centres of authority.

**Validity:** The extent to which the data collection strategies and instruments measure what they purport to measure.

**Vision:** The category of intentions and desires for the organisation that are broad, all-intrusive and forward-thinking.

**Whole-of-government:** All ministries, agencies and departments, including statutory bodies (public sector enterprises/public bodies).

**Whole-of-Government Business Plan:** This plan sets out the broad functional and fiscal goals of Government over a 3-year horizon. The plan will also outline how GoJ's strategic priorities will be pursued and the specific performance indicators and targets that will be used to monitor and report on results.