

1.0 EXECUTIVE SUMMARY

1.1 OVERVIEW

The Ministry of Science, Technology, Energy and Mining's (MSTEM) Strategic Plan 2014-2017 is set in a policy framework that addresses the Medium Term Economic and Social Framework flowing from Vision 2030. The National Energy Policy 2009-2030, relevant elements of the Minerals Sector Development Plan of Vision 2030, and other policies addressing different aspects of the ministry's varied portfolios therefore address the key national outcomes identified in the Medium Term Economic and Social Framework through oversight, implementing the necessary strategies and activities, and monitoring to ensure that the outputs and outcomes will be met.

The Ministry of Science, Technology, Energy and Mining (MSTEM) has portfolio responsibility for the country's science, technology, energy and mining sectors. By virtue of the minister being the Leader of Government Business in the House of Representatives, MSTEM also oversees the electoral matters at an administrative level.

Through consultation with key stakeholders, MSTEM provides policy direction for the sectors and guides the policy making process by providing information on key issues from stakeholders to the political directorate. It also provides oversight of implementation through its agencies and other bodies and regulates and monitors the sectors' performance. The area of responsibility under Vision 2030 is contributing to the national goal of a prosperous economy, which includes the national outcomes of energy security, a technology enabled society and internationally competitive industry.

The ministry has responsibility for twenty one (21) external portfolio agencies, plus four (4) large external divisions, namely the Government Energy Inspectorate (GEI), the Mines and Geology Division (MGD), the Post and Telecommunications Department (PTD), and the Earthquake or Seismic Research Unit, which is located on the Mona Campus of the University of the West Indies (UWI).

The various policies, programmes, projects and initiatives developed and being executed by MSTEM, in collaboration with stakeholders, are geared to achieve its mandate to facilitate the development of Jamaica's science, technology, energy and minerals sector, and the national electoral superstructure so as to contribute to the economy's orderly and efficient transformation.

This Strategic Business Plan 2014-2017 focuses attention on core issues, priorities, objectives and tasks that are necessary to achieve the outcomes that will help to positively transform the portfolios under the ministry's control. It also outlines initiatives that seek to facilitate more efficient and effective use of resources and synergy among 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 – reducing energy use and ensuring that a unit of energy generates an increased value and volume of output thus reducing the economy's very high energy intensity ratio. It is envisaged that energy efficiency and energy conservation will improve usage and reduce consumption. Evidence of this path is expected to lead to a demand management programme for the country, public and private sectors, and households.
- iii. A diversified minerals sector, which is integrated into the wider economy, is based on the production of increasing quantities of value-added products and contributes meaningfully to on-going national development through wealth generation, employment creation, import substitution and foreign exchange earnings.
- iv. A modern information, communication and technology (ICT) infrastructure allowing for rapid, high quality and low cost communication, movement and storage of data, widespread use in education, health, security, commerce and all other areas of the economy, the development of subsidiary industries and a solid platform for attracting investments. The creation of a government-wide network to optimize the existing infrastructure, rationalize the data within government as a means of improving government efficiency in the provision of services to the public
- v. The creation of a culture that embraces and facilitates the application of science and technology, and encourages innovation in all areas of the economy.
- vi. A globally recognized, transparent and effective electoral system supported by an increasingly modern legislative framework.

1.2 ENERGY

The Ministry's priority projects are directly geared to addressing some of the challenges that are facing the country occasioned by the . economy's openness and 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 dependence on imported oil and the economy's high energy intensity, particularly in the Bauxite and Alumina Sector. This is compounded by inefficient energy use, several obsolete and inefficient electricity generation plants, and an out-dated public electricity sector framework that limits competition in key areas. Reducing dependence on expensive fossil fuel and improving country-wide energy efficiency levels are critical issues that will be pursued during the 2014-2017 planning period. Sourcing cheaper fuels, expanding the role of renewable energy sources in electricity generation, heat and the provision of liquid fuels (ethanol and bio-diesel) for various sectors, and investing in modern and efficient electricity generating plants and energy efficient gadgets and systems are other strategies to assist in ensuring that energy costs are reduced to consumers and businesses.

The continued implementation of the National Energy Policy, completion and introduction of the addenda energy policies, including the Electricity Sector Policy, repositioning of the agencies within the energy portfolio, including the Government Electricity Inspectorate (GEI) and the Rural Electrification Programme (REP),), upgrading of the PETROJAM Refinery, divestment of the Petroleum Company of 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 381 MW of LNG-fuelled electricity generation capacity, 37MW of renewable energy electricity generation projects to achieve the 115 MW for which the Office of Utilities Regulation (OUR) invited bids in 2013, but awarded licences amounting to only 78MW, power wheeling and increased net metering initiatives are critical interventions to be pursued during the 2014-2017 planning cycle.

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 creating the required policy, legal and regulatory framework, public awareness and cultural change necessary to reduce energy consumption, increase energy efficiency and modernize the country's energy structure.

1.3 MINING

The energy challenge has negatively impacted the mining sector, which urgently needs cost effective energy as one part of a multi-prong approach to improve its competitiveness and to attract new investments, especially in the financially rewarding area of value-added production. The resuscitation of the alumina sector and the diversification of the industry to create one based on the exploitation of multiple minerals will be pursued as core development strategies. The promotion of investment opportunities in rare earth minerals, carbonates, especially limestone and its derivatives, hard volcanic rocks, sand and gravel, metallic minerals and other industrial minerals will be a major feature of the development platform for the minerals sector during the 2014-2017 planning cycle. The manufacturing of value-added mineral products, their increased exportation and increased levels of import substitution are other major objectives to be pursued during this planning cycle.

The finalizing of the National Minerals Policy 2014-2030 to address core competitiveness issues, increased private sector involvement, especially by Jamaicans, and increased transparency within the minerals sector are central objectives to be pursued during 2014-2017. The creation of several sub-policies to the National Minerals Policy and restructuring of the legislative framework will also be pursued during the period.

The restructuring of the institutions tasked with developing and monitoring the minerals sector, including the introduction of a National Minerals Institute (NMI), to pilot the development of all mineral resources, except fossil fuels and water, will also be addressed. Increased corporate governance, integration of the different sectors of the minerals industry, integration of the industry into the wider economy, improved planning and environmental stewardship, including sequential land-use planning, effective waste management, the continued restoration of mined out lands, infrastructure planning around mineral assets, increased mineral production and increased benefits to the population and the state from the exploitation of the country's mineral resources are other important tasks to be addressed during the 2014-2017 planning cycle.

1.4 INFORMATION AND COMMUNICATIONS TECHNOLOGY

Devising policies and programmes that will encourage greater use of information and communications technology (ICT) in order 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 three 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, the absence of privacy, poor security, and out-dated infrastructure.

ICT has been positioned and is recognized as a major driver of national development. During the 2014-2017 planning cycle, ICT will be further integrated into our schools, businesses and the wider economy through a multiplicity of mechanisms, including expositions, conferences, 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 the e-Learning Project (e-Learning), Universal Service Fund (USF), e-Gov Jamaica Limited (e-Gov) and Spectrum Management Authority (SMA) will be critical to the ministry's success.

The continued development of the spectrum, including the re-packaging and auctioning of the 700 MHz band, plus the auctioning of the 1700 MHz and 1800 MHz band widths, 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 in our education, justice and security systems, plus the wider application of ICT throughout the economy are other strategic projects to be pursued.

1.5 SCIENCE

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

During the 2014-2017 planning cycle, attempts will be made to apply practical and cutting edge science to resolve various problems and expend resources to integrate science 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 strengthening of the Scientific Research Council (SRC), build-out of its Science Road Map, promotion of its business incubator and processing facilities, and commercialization of its various preparations, plus full staffing of the National Commission on Science and Technology (NCST), will be major projects during this three year plan.

1.6 ELECTORAL MATTERS

By virtue of the Minister of Science, Technology, Energy and Mining being the Leader of Government Business in the House of Representatives, the ministry is charged with ensuring the effective management of the country's electoral super-structure, including the continued modernization of the legislative framework and readiness of the Electoral Office of Jamaica (EOJ) to conduct national elections.

Specific tasks to be pursued during the 2014-2017 planning cycle include the following:

- i. A systematic electoral division boundaries review process.
- ii. The removal of deceased electors from the voters' list.
- iii. Residence re-verification.
- iv. Field distribution of voter registration cards.
- v. Updating of the legislative framework governing the electoral system, including matters relating to campaign financing.
- vi. Hosting of General Elections and Local Government Elections.

1.7 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, technology, energy and mining sectors.
- iv. Increased development and usage of alternative and renewable energy resources in all spheres of the economy.
- v. Increased access to and usage of information and communications technology (ICT) throughout the economy.
- vi. Strategic placement of Jamaica as the key ICT hub within the Caribbean and Latin America.
- vii. Increased contribution of science and technology to economic and social development.
- viii. Increased investment, employment and profitability of the ICT sector.
- ix. Diversification of the mining industry, revival of the alumina sector and increased value-added production which facilitate increased export earnings, state revenues, employment and wealth creation.
- x. Sustainable development and sustainable practices are widely employed in the mining and energy sectors, ICT and science.
- xi. A modern, efficient, transparent, and internationally admired electoral system that is supported by an increasingly modern legislative framework.
- xii. Jamaica is a knowledge-based and educated society that is globally competitive and productive.
- xiii. High quality and high value of service that exceeds stakeholders' expectations and results in improved stakeholder satisfaction.
- xiv. 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.

5.0 MAJOR PRIORITY POLICIES, PROGRAMMES AND PROJECTS DURING THE 2014-2017 PLANNING CYCLE

The ministry's policy priorities are being 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 2012 – 2015, Medium Term Economic Framework (MTEF), Medium Term Socio-Economic Framework: 2013 - 2016 (MTSEF), the

Central Treasury Management System (CTMS) and the constraints and opportunities presented by the government's borrowing relationship with the International Monetary Fund (IMF). Of great importance and acknowledgement are the government's policy priorities and proposed major projects.

Cognizant of the foregoing, the ministry will seek to accelerate implementation of the priority projects during the three year period. The ministry is mindful of the need to adhere to timelines, coordinate and interface with other entities 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 performance management and evaluation system and continued improvement in service delivery throughout the ministry and its agencies.
- ii. Finalize the build out of the ministry's structure and ensure strategic and continued coordination and monitoring of the agencies' programmes and performance.
- iii. Continued development of the ministry's human and technical capacities, especially through training and mentorship.
- iv. Smooth implementation of the public sector modernization programme.
- v. Continued scenario planning, situation analyses and flexibility to allow for the identification of risks before they arise and to facilitate appropriate responses.

5.1 AUDITS AND BUSINESS PROCESS REVIEWS

Audits of several entities will be undertaken and the recommendations of the business process reviews (BPRs) of the GEI and REP/NES implemented. The audits will be driven by the Strategic Audit Plan submitted by the Internal Audit Division, and attached at Appendix E.

The implementation of the recommendations of the BPRs will be driven by the need to improve overall performance of the GEI and the REP/NES. It is expected that this will be expressed through improved work flow, service delivery, cost containment, increased effectiveness and efficiency, and increased earnings. The introduction of the proposed revised fee structure at the GEI and the roll out of new services at the REP can transform them into major revenue earners and self-financing entities.

Focus will be placed on improving the following:

- i. Energy efficiency, conservation and management.
- ii. Geological and geotechnical regulatory services.
- iii. Licensing and inspection.
- iv. Delivery of electrification services.
- v. Regional and international cooperation.
- vi. Research, development and marketing and publication of research results.
- vii. Postal services.
- viii. Delivery of information, communication and telecommunication services.

5.2 DEVELOPMENTS AND OUTLOOK FOR FY 2014-2015

Programmes and projects to be continued and completed during the current fiscal year include the following:

- i. Implement the Smart Grid Road Map for Jamaica.
- ii. Complete the National Electricity Policy to enable the modernization of the Electricity Legislation.
- iii. Commence implementation of the recommendations from the Business Process Review of the GEI.
- iv. Distribute the data generated from the solar irradiation and wind mapping studies/research/assessments conducted by the PCJ and WWF, respectively.
- v. Finalize approval process for addenda sub-policies as a part of the 2014-2015 legislative agenda.
- vi. Continue the implementation of the Energy Conservation and Efficiency Loan Programme for Energy Efficiency equipment installation and facilities retrofitting within the public sector.
- vii. Arising from the completed pre-feasibility studies, complete feasibility studies for the four of five hydro-electricity sites passed the pre-feasibility stress test.

- ix. Continue to monitor EWI's progress in constructing 381 MW of new gas-fired electricity generation capacity by 2017.
- x. Continue to support the Jamaica Energy Council and enhance, where necessary, the structures to support its efficient operation.
- xi. Continue to pursue regulatory and legislative reform for the electricity and petroleum sectors.
- xii. Continue the development of a National Petroleum Standard for Jamaica.
- xiii. Continue discussions on new regulations and tariff methodologies for renewable energy.
- xiv. Develop and implement plans for the introduction of Smart Grid Technologies.
- xv. Monitor and update the National Energy Information Clearing House (NEICH).
- xvi. Monitor and update the Energy Database and Management Information System (EDMIS).
- xvii. Expand collaboration with academia (UWI, UTECH, NCU, etc.) to enhance the country's technical capacity to address energy issues.
- xviii. Finalize the National Energy Action Plan 2014-2017.
- xix. Construct 50 km pole line extensions and the wiring of 1,000 houses under the GOJ Revolving Loan Programme.
- xx. Disseminate information and data obtained under the wind mapping and solar farm feasibility studies funded by the IDB.
- xxi. Continue discussions and consultations with investors in the sugarcane industry to encourage and facilitate cogeneration.
- xxii. Review and update the list of energy efficiency items for consideration for tax waivers and possible GCT exemption.
- xxiii. Continue to implement the findings from the Electric Grid Impact Assessment study for renewable sources.
- xxiv. Develop functional training models and laboratory facilities in the Wigton Windfarm Resource Centre to enhance technology transfer of renewable energy.
- xxv. Continue developments towards the further expansion of the Wigton Windfarm (Wigton III).
- xxvi. Finalize the Electricity Policy and new electricity legislation.
- xxvii. Provision of renewable energy solutions to government and private sector stakeholders.
- xxviii. Development of a 5 MW solar farm in joint venture with private stakeholders.
- xxix. Finalize the tariffs for Power Wheeling on the national electricity grid.
- xxx. Continue loss reduction efforts through partnership between Rural Electrification Programme (REP) and the JPS in order to regularized electricity connections for a targeted 20,000 housing units.
- xxxi. Finalize the rebranding of the Rural Electrification Programme Limited (REP) to National Energy Solutions Limited (NESoL).
- xxxii. Commence, through the REP, a Solar Energy Pilot Project for the installation of photovoltaic systems targeting rural communities.
- xxxiii. Cabinet's approval will be sought for Jamaica to adopt the ISO 50001 Energy Management Standards so that energy management throughout the country will conform to international standards particularly in the public and Private sectors. It is planned that during FY 2014 – 2015 that at least two (2) public sector entities and at least one (1) private sector entity will be identified as pilot entities to adopt the ISO 50001 standard. This will be in support of the planned overall energy conservation and efficiency interventions within both sectors.
- xxxiv. Wiring of 3,000 houses under the JPS Loss Reduction Programme.
- xxxv. Implementation of a pilot 'Solar Energy Programme' in a rural community.
- xxxvi. Implementation of Energy Audits for 70 schools.
- xxxvii. Construction of a 30,000 per year solar panel assembly factory.

The major focus during the 2014-2017 planning cycle will be on the following:

1. Proper scoping, implementation, monitoring and evaluation of Capital A and Capital B projects.
2. Development of a comprehensive governance and regulatory framework for all portfolio areas. This includes completing the legislative agenda for the mining, energy, science, ICT and electoral portfolios and their submission to Cabinet and Parliament.
3. Completion of the National Minerals Policy and Action Plan, the addenda energy policies, comprehensive spectrum management policy, postal service policy, policies specific to other portfolios and their submission to Cabinet and Parliament.
4. Expansion of the Science and Innovation Awards.
5. Continued implementation of the Road Map for Science, Technology and Innovation (STI) and an evaluation of its success at the end of the 2014-2017 planning cycle.
6. Divestment of approved GOJ assets under the ministry's various portfolios.

7. Continued modernization of the country's energy infrastructure and strengthening the security of energy supply. This includes strengthening the relations with existing bilateral partners while creating relations with new partners.
 8. Commence the 'Refinery Upgrade Project', plus commence and conclude other activities aimed at improving its efficiency and profitability.
 9. Continued resuscitation of the Bauxite and Alumina Sector and its return to a position of international competitiveness.
 10. Development of a rare earth minerals sub-sector based on the exploitation of red mud.
 11. Continued exploration and mapping of the country's mineral resources, especially the carbonates and economically important igneous resources.
 12. Improved management of mineral resources and mineral bearing lands and their integration into national and regional development plans.
 13. Increased development and strategic promotion of the Industrial Minerals Sector.
 14. Continued improvement and refining of the electoral system.
 15. Identification and exploitation of synergies between various sectors and sub-sectors within the minerals industry so as to maximize economic returns and social acceptance.
 16. Promotion of competition in the transmission and distribution of electricity, introduction and refining of regulations governing power wheeling.
 17. Increased electricity production from renewable energy sources, including the continued build-out of rural electricity supplies based on renewables.

 18. Continued reduction of telecommunications rates.
 19. Implementation of recommendations outlined in the business process reviews (BPRs) conducted at the Government Energy Inspectorate (GEI) and the Rural Electricity Programme Limited (REP).
 20. Transforming the REP into the National Energy Solutions Limited (NESoL).
 21. Promote eco-efficiency and the development of a green economy.
 22. Continued build-out of the national Broadband Network, increased number of Community Access Points and access to internet.
 23. Continued energy efficiency and conservation awareness programme.
 24. Continued development and refining of synergies with the education sector in the use of ICT, including the proposed 'Tablets in School Project'. Increased computer density and improved ICT infrastructure in educational institutions, the Jamaica Library Service (JLS), the justice and security portfolios and the wider economy.
 25. Refining of synergies with the security and justice systems to facilitate increased use of ICT in crime control and the administration of justice.
 26. Improved procurement and asset management systems within the ministry and its agencies.
 27. Implementation of risks mitigation measures to improve project success.
 28. Enable state entities to become models for society in terms of energy management.
 29. Facilitate increased promotion and integration of sustainability principles in the minerals industry.
 30. Introduce a National Minerals Institute.
 31. Introduce a 'Converged Regulator' or 'Single Regulator' for ICT.
 32. Introduction of a Cyber Emergency Response Team to detect and address cyber-attacks and threats.
 33. Introduction of training opportunities for the minerals sector. The Human Employment and Resource Training / National Training Agency (HEART/NTA) and other tertiary institutions will be encouraged to establish a 'Mining School' for this purpose.
 34. Operationalization of GovNet.
 35. Introduction of number portability.
- 5.3 STRATEGIC OUTCOMES IN LINE WITH VISION 2030**

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

- i. Financial and other resources provided to the Ministry are effectively used to execute its mandate.
- ii. An efficient and flexible policy development, monitoring and evaluation apparatus within the ministry.
- iii. The science, technology, energy and mining portfolios positively contribute to a competitive and expanding economy.
- iv. Jamaica enjoys significant levels of energy security.

- v. Jamaica enjoys the benefits of increased development and usage of alternative and renewable energy resources.
- vi. Increased investments in, access to and usage of information and communications technology (ICT) facilitate increased employment, competitive ICT costs, increased efficiency, increased data storage capacity and faster data transmission speed, and the positioning of Jamaica as the ICT hub within the Caribbean and Latin America.
- vii. Diversification of the mining sector, revival of the alumina sector and value added production have facilitated increased export earnings, revenues for the state, employment and wealth creation.
- viii. Sustainable development and sustainable practices are widely employed in all portfolios, particularly the mining and energy sectors.
- ix. A streamlined Ministry that providing consistently high quality service, exceeding stakeholders' expectations and resulting in satisfied stakeholders.
- x. The construction of approximately 381 MW of new, more efficient and lower cost gas-fired, base-load electricity generation capacity results in lower electricity charges to consumers.
- xi. Jamaica's electoral system is modern, efficient, transparent and internationally admired.

5.4 STRATEGIC OBJECTIVES

5.4.1 STRATEGIES

In order to transform the above mentioned priorities and desired outcomes into reality, several strategies will be pursued. The following strategies fit into the below-outlined framework and are modified to suit the conditions and findings in the SWOT analysis.

5.4.2 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.

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 with the citizenry.

5.4.3 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 these responsibilities seriously. It is MSTEM'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.

5.4.4 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.

5.4.5 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 ICT 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. Developing an ICT Plan.
- ii. Providing funding for acquisition of key ICT infrastructure along with training.
- iii. Developing and disseminating government's ICT framework to stakeholders' key ICT projects as determined.

5.5 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. This is reflected in the risk matrix.

The risk containment strategies include:

- i. Identifying and ranking the risks
- ii. Providing a back-up plan to treat each risk
- iii. Detailed monitoring and evaluation of all policies, programmes, projects and systems
- iv. Policy, programme, project and system review, where necessary.

5.6 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.

The ministry has in place a reporting framework, which identifies various reports, in all the functional areas, including Finance, Internal Audit, Human Resources, Mining, 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 during the 2014-2017 planning cycle.
- iii. Quarterly monitoring reviews of all agencies, divisions and units.
- iv. Strengthening the ministry's evaluation capabilities in the areas of policy and projects.

5.7 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. Identifying a 'Plan B', where appropriate.
- ii. Ensuring careful attention to terms of reference and product or service specifications.
- iii. Ensuring that the product or service is matched closely to outcome desired.
- iv. Monitor the procurement process closely to avoid delay and identify risk and riskiness.
- v. Apply best practices such as considerations for sustainability and the preservation of the environment.
- vi. Identify contingencies and their cost.
- vii. Ensuring that the required staff members are trained in the government's procurement management system.
- viii. Requiring compliance with the government's procurement guidelines.

5.8 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.

The main strategies in ensuring high levels of accountability within the ministry are as follows:

- i. Build individual ownership for programmes and key tasks,
- ii. Build morale and camaraderie among management and staff, and
- iii. Utilize PMAS for appraisals.

5.8.1 MAJOR STRATEGIES TO PROMOTE ACCOUNTABILITY

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

- i. Continued engagement with stakeholders, including inviting response from community groups and business stakeholders.
- ii. Deepening the consultation process in key areas and providing for more frequent feedback.
- iii. Promoting new policies, including amended policies to stakeholders.
- iv. Public education campaign promoting key programmes and projects.

- v. Continued capacity building in policy development and evaluation.
- vi. Continue with the review and amendment where necessary of legislation or introduction of new legislation.

5.9 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.

5.10 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 lead in handling structured communication as well as handling unstructured 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. Stakeholder engagement to identify protocols of with whom and how to communicate.
- ii. Risk management to identify key stakeholders and their impacts.
- iii. Stakeholder agreements to ensure role identification and participation in implementation and responsibilities, example Memoranda of Understanding (MOU).
- iv. Full documentation, wherever possible and feedback.

5.11 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, mining and telecommunications sectors.
- iv. Build sustainable development practices into procurement and development activities.
- v. Require the ministry and its agencies to develop and implement environmental stewardship plans.

5.12 STRATEGY MAP

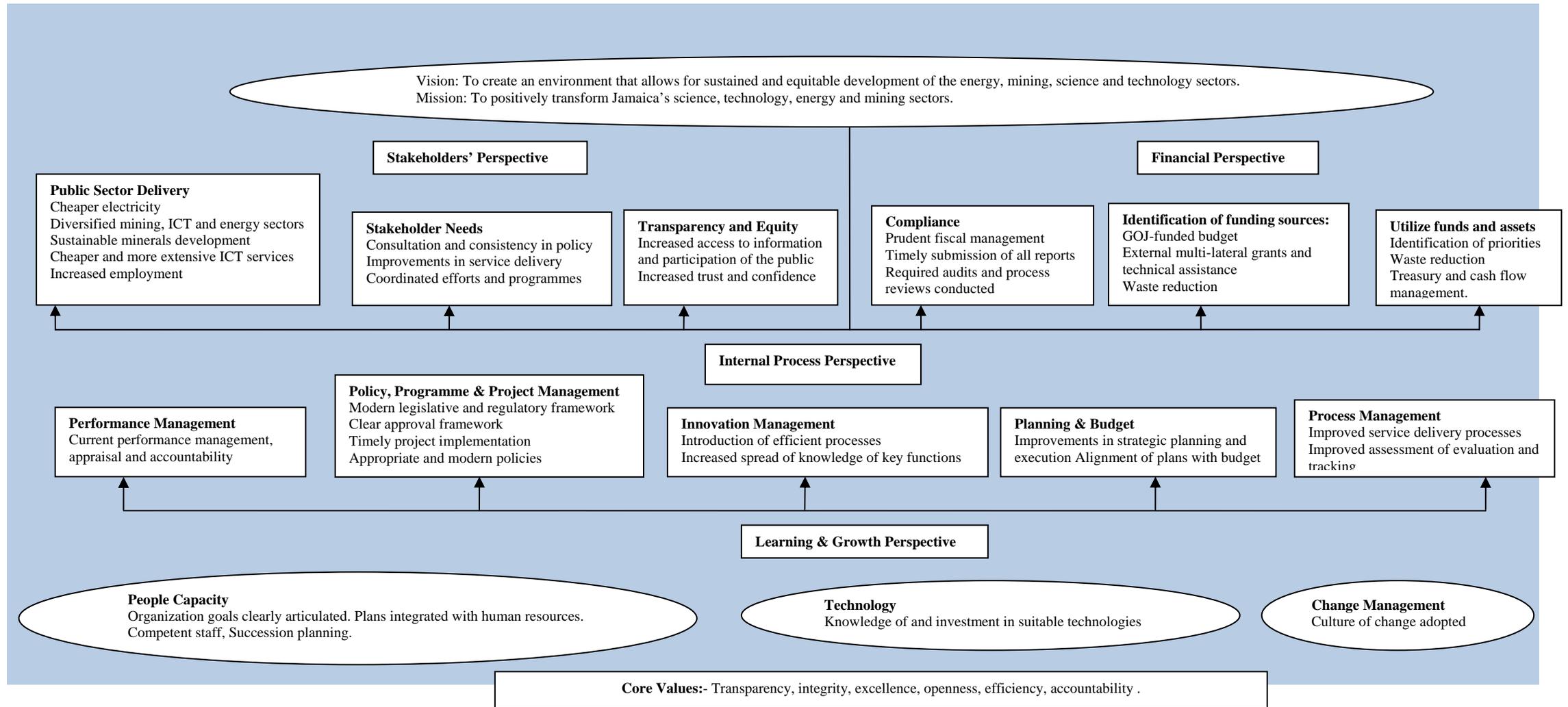


FIGURE 1: Strategy Map

5.13 THE MINISTRY'S SCORECARD (MEDIUM TERM 2014 – 2017)

TABLE 1: MINISTRY'S SCORECARD (MEDIUM TERM 2014 – 2017)

OBJECTIVES	MEASURES (PERFORMANCE INDICATORS)	TARGETS	INITIATIVES	MEDIUM-TERM BUDGET (\$)
STAKEHOLDER PERSPECTIVE				
Cheaper energy and electricity rates.	Decrease in the cost per kW for electricity.		Integrated policy, legislative and regulatory framework.	
	Modernized infrastructure, new and efficient plants, increased capacity.	381 MW (including the replacement of 290MW of aged plants)	Encourage investment.	
	Modern legislative framework	2015-2016	Introduce a new fiscal framework.	
Diversified energy sector.	Increased investments in the energy sector.	US\$450 million in investment identified.	Clear policy guidelines to promote increased build out of renewables, energy efficiency and energy conservation.	
Increased use of renewable energy.	Increased contribution of renewable and alternative energy.	17%	Active involvement of stakeholders in renewable energy, energy efficiency and energy conservation initiatives.	
Increased energy efficiency and energy conservation.	Clear policies and programmes promoting increased energy efficiency and energy conservation throughout the economy.			
Energy security.				
Diversification of the mining sector.	Minerals policy developed.	2014	Finalize minerals policy.	
	Modern legislative framework.	2017	Develop Minerals Policy Action Plan.	
Sustainable minerals development.	Minerals mapping and investment profiles.	2016	Passage of Comprehensive Minerals Development Act.	
	Increased investments in the minerals sector.	2017	Amendment of the Quarries Control Act, and the Mining Act.	
	Reopening of the two closed alumina plants.	2017	Promotion of the Industrial, Metallic and Rare Earth Minerals sectors.	
	Improved competence of sector operatives and application of knowledge to problem solving.	2014-2017	Investment promotion. Land restoration.	
			Creation of a Minerals Institute.	
Increased application of science, technology and innovation.	Promotion and recognition of the role of science, technology and innovation.	Increase the number of installed bio-digesters by 21 by end of 2017.	Hosting of Science and Innovation Awards.	
	Science, technology and innovation applied to waste management.	Five new formulations prepared and presented to market. HACCAP training conducted for private sector partners.	Increase the number of bio-digesters employed to treat waste. Proactive Scientific Research Council (SRC).	

OBJECTIVES	MEASURES (PERFORMANCE INDICATORS)	TARGETS	INITIATIVES	MEDIUM-TERM BUDGET (\$)
	Proactive Scientific Research Council (SRC). Build-out of the 'Science and Technology Road Map'	Science and Technology Road Map promoted throughout society.	Build-out of the 'Science and Technology Road Map'. Science in Schools project. Strengthen Science Clubs in schools.	
Modernized ICT Sector.	New legislation and policy. Increased infrastructural development by investors.	2014-2017	National broadband framework. Single Regulator. Number portability. Cyber Protection Policy introduced.	
Consistency in policy and consultations. Improved service delivery.	Communication, public relations. Policy management is in place.	2014-2017	Policy statements articulated. MOUs signed and enforced.	
FINANCIAL PERSPECTIVE				
Prudent fiscal management.	<ul style="list-style-type: none"> ▪ Above 95% compliance with procurement requirements. ▪ Contractor General's compliance rating of above 95%. ▪ Budgets used for intended purposes. 	≥ 95%	Knowledge transfer/training/ retraining in government procurement standards. Effective budget management training and audits.	
	<ul style="list-style-type: none"> ▪ Audit queries resolved. 	100%	Establish a Quality Management System.	
INTERNAL PROCESS PERSPECTIVE				
Performance Management.	Implementation of Performance Management Appraisal System in two Divisions by 2015. Performance reports. Output focus – JDs. Training in PMAS.	100%	Implement the Performance Management and Appraisal System (PMAS). Implement the Performance Monitoring and Evaluation System (PMES).	
Policy, Programme and Project Management. Creation of a modern legislative framework.	Number of key legislations drafted. Number of policies developed/amended and submitted to Parliament.		Amend the Quarries Control Act, Postal Act, and other pieces of legislation.	

OBJECTIVES	MEASURES (PERFORMANCE INDICATORS)	TARGETS	INITIATIVES	MEDIUM-TERM BUDGET (\$)
Improved policies, programmes and projects.	<p>Clear policy objectives and statements.</p> <p>Information flow, data collection and interpretation.</p> <p>Cost-benefit analyses completed.</p> <p>Evaluation studies completed.</p> <p>Consultations held.</p> <p>Active stakeholder participation in policy, programme and project development.</p>	80%	<p>Various fora to develop, explain and clarify policy issues across sectors.</p> <p>Inter-ministry committees.</p> <p>Joint public-private sector committees.</p> <p>Memoranda of Understanding (MOUs).</p> <p>Data collection, consultancies, reports, business process reviews.</p>	
LEARNING AND GROWTH PERSPECTIVE (Organizational Effectiveness and Capabilities)				
<p>Improved human resource capacity.</p> <p>Integrate plans with human resources.</p> <p>Competent staff.</p>	<p>Organization structure and work groups reflect task assigned in work plan.</p> <p>Staff delivers output at assigned timelines.</p> <p>Level of re-work minimized.</p>	80%	<p>Organizational chart developed and publicized.</p> <p>Organizational review.</p> <p>Manpower planning.</p> <p>Performance reports generated and evaluated.</p> <p>Continued training.</p>	

TABLE 1: MINISTRY'S SCORECARD (MEDIUM TERM 2014 – 2017)

5.14 MINISTRY'S MEDIUM TERM PRIORITY POLICIES, PROGRAMMES AND PROJECTS

The ministry's medium term priority policies, programmes, and projects are set out in Table 2.

TABLE 2: MINISTRY'S MEDIUM TERM PRIORITY POLICIES/PROGRAMMES/PROJECTS

VISION 2030 NATIONAL GOALS	VISION 2030 NATIONAL OUTCOMES	NATIONAL STRATEGIES (SECTORAL PAPER, MODERNISATION DOCUMENT, MANIFESTO)	MINISTRY'S PRIORITY POLICIES/PROGRAMMES/ PROJECTS	KEY ACTIONS
<p># 3 Jamaica's economy is prosperous</p>	<p>#10 Energy security and efficiency</p>	<p>#10-1: Diversify the energy supply</p>	<ol style="list-style-type: none"> 1. Facilitate the 100MW cogeneration plant at Hunts Bay based on the expansion of Petrojam (PETCOKE). 2. Facilitate natural gas as a fuel choice for the expansion of the public electricity supply, bauxite and alumina industry, and other areas of the economy. 3. Facilitate fuel diversification. 4. New renewable energy projects with a total of 115MW in capacity. 	<ol style="list-style-type: none"> 1. Ensure an integrated policy legislative and regulatory framework. 2. Ensure there are long term energy supply contracts from suppliers. 3. Encourage and track the implementation of energy diversification priorities that are timely, cost competitive, efficient and environmentally friendly. 4. Implement and facilitate programmes that will achieve the targets for percentage renewables. 5. Implement suitable fiscal framework to facilitate the development and use of alternative energy.
		<p>#10-2: Promote energy efficiency and conservation.</p>	<ol style="list-style-type: none"> 5. Increase the efficiency of the energy sector in the <ol style="list-style-type: none"> a) generation, transmission and distribution of electricity; b) use of energy in the transport sector; c) electricity consumption across all sectors of the economy. 6. Project: Developing Energy Efficiency (EE) Potential. 7. Expansion of Appliances Labelling and Testing Programme. 8. Legislate an updated Jamaica Building Code. 9. Street Lighting Programme. 10. Revolving Fund for EE. 11. Energy Saving Compact Fluorescent Lamp Project. 	<ol style="list-style-type: none"> 6. Liberalize energy industry and markets to increase competition. 7. Establish framework for the use of the least economic cost expansion plan (LCEP) for electricity generation, transmission and distribution. 8. Develop institutional capacity to implement demand side energy management programmes. 9. Develop, promote and implement programmes to influence market behaviour favouring energy efficiency. 10. Update and promulgate new energy efficient Building Code. 11. Reduce emissions. 12. Develop and implement environmental stewardship. 13. Implement new phase of Compact Fluorescent Lamps Project.
		<p>#10-3: Develop necessary regulatory framework for the introduction of alternative fuels.</p> <p>Develop the institutional framework to coordinate policy with energy initiatives and provide integrated monitoring and enforcement of</p>	<ol style="list-style-type: none"> 12. Energy Sector sub-policies. 13. Net metering and wheeling. 14. Expansion of the OUR's regulatory mandate. 15. Number portability. 	<ol style="list-style-type: none"> 14. Submit for approval and promulgate sub- policies. 15. Establish net metering and wheeling framework. 16. Amend the Telecoms Act. 17. Consult and negotiate with stakeholders.

VISION 2030 NATIONAL GOALS	VISION 2030 NATIONAL OUTCOMES	NATIONAL STRATEGIES (SECTORAL PAPER, MODERNISATION DOCUMENT, MANIFESTO)	MINISTRY'S PRIORITY POLICIES/PROGRAMMES/ PROJECTS	KEY ACTIONS
		<p>regulations.</p> <p>Review and modify existing institutional framework and drive the ICT sector towards achievement of policy objectives.</p>	<p>16. 'Single Regulator' for ICT and other elements to deepen competition and regulation.</p> <p>17. Protect ICT infrastructure.</p> <p>18. Reduce incidence of cyber-attacks.</p>	<p>18. Strengthen the Cyber Emergency Response Team.</p> <p>19. Develop and implement Cyber Security Policy</p> <p>20. Data Protection Act.</p> <p>21. Postal Services Act.</p> <p>22. Cyber Crime Amendment Act.</p> <p>23. ICT Bill.</p>
	#11 A Technology Enabled Society.	#11-1 Integrate Science and Technology into all areas of development.	<p>19. Build capacity for effective science and technology education in primary and secondary schools.</p> <p>20. Use ICT to enhance learning in the formal education system.</p> <p>21. Create and improve strategic public private sector partnerships in building science and technology skills.</p> <p>22. Review and define roles of research and development (R&D) institutions.</p> <p>23. Strengthen intellectual property right system.</p> <p>24. Create funding mechanisms for R& D.</p>	<p>24. Finalize the National Science and technology Policy.</p> <p>25. Implement a framework to promote scientific innovation.</p> <p>26. Strengthen the educational and skills levels in science and technology throughout the education system.</p> <p>27. Increase and strengthen data collection on the ICT industry.</p> <p>28. Strengthen the protection of intellectual property.</p> <p>29. Implement funding mechanisms.</p>
		# 11-2 Establish a dynamic and responsive National Innovation System.	<p>25. Align investments in STI infrastructure with national development goals.</p> <p>26. Create financing and incentive mechanisms aimed at attracting research intensive activity in Jamaica.</p>	<p>30. Develop the necessary linkages among the NIS stakeholders to diffuse STI in the economy.</p> <p>31. Build STI capacity through laboratories and processes.</p>
# 3 Jamaica's economy is prosperous.	#12 Internationally competitive industry structures.	Build competitive value-added production.	<p>27. Ensure appropriate policy and regulatory framework for long term development of the minerals industry (National Minerals Policy).</p> <p>28. Develop cost efficient energy solutions for metallic and non-metallic minerals sub-sectors.</p> <p>29. Increase the use of research and technology in minerals industry operations.</p> <p>30. Revise and improve mechanisms for encouraging investment in the metallic and non-metallic minerals sub-sectors.</p> <p>Complete pilot projects to prove viable development possibility for the rare earth minerals sector.</p>	<p>32. Promulgate a Minerals Policy.</p> <p>33. Introduce the use of cheaper and more environmentally friendly fuel sources.</p> <p>34. Develop institutional framework for research and development.</p> <p>Strengthen research institutions.</p> <p>35. Promote the manufacturing and exportation of value added products.</p> <p>36. Design and develop innovative structures and financing mechanism.</p> <p>37. Simplify export procedures.</p>

VISION 2030 NATIONAL GOALS	VISION 2030 NATIONAL OUTCOMES	NATIONAL STRATEGIES (SECTORAL PAPER, MODERNISATION DOCUMENT, MANIFESTO)	MINISTRY'S PRIORITY POLICIES/PROGRAMMES/ PROJECTS	KEY ACTIONS
Jamaica's economy is prosperous.	Internationally competitive industry structures.	<p>Social responsibility.</p> <p>Minimize negative environmental consequences.</p> <p>Facilitate the rationalisation of the STI infrastructure in the public sector.</p> <p>Implement the STI Strategic Roadmap in the priority areas of value-adding applications and production, and resource use efficiency.</p> <p>Promotion of private sector academia linkages.</p>	<p>Legislation</p> <p>31. Strengthen enforcement of mineral licenses and regulations.</p> <p>32. Assist in building viable mining communities.</p> <p>Bauxite Community Development Project</p> <p>33. Enforce occupational safety and health legislation for the mining and quarrying sectors.</p> <p>34. Promote mining for closure.</p> <p>Regulations</p> <p>35. Monitoring of mined out lands and their rehabilitation.</p> <p>Management of mineral-bearing lands.</p> <p>36. Compliance with environmental standards and legislation.</p> <p>37. STI Infrastructure development.</p> <p>38. Incentive systems for investment in value added and priority areas.</p> <p>39. Expansion of the National Science and Innovation Awards.</p> <p>40. Revitalize the National Commission on Science and Technology.</p>	<p>38. Identify export markets for mineral products.</p> <p>39. Amend the Quarries Control Act.</p> <p>40. Establish community based mine and quarry monitoring committees.</p> <p>41. Promote improved environmental health and safety practices at the workplace and in the community.</p> <p>42. Ensure the gazetting of mineral development zones that are linked to Parish Development Plans, etc.</p> <p>43. Implement mineral –bearing land management guidelines.</p> <p>44. Ensure mined lands are rehabilitated within the timeframe outlined in the Mining Act.</p> <p>45. Develop and Implement mineral bearing lands guidelines.</p> <p>46. Improve the capacity of the Mines and Geology Division and other regulatory agencies to monitor the management and rehabilitation of mined out lands.</p> <p>47. Examine STI and ICT infrastructure findings.</p> <p>48. Initiate engagement with stakeholders.</p> <p>49. Initiate focus in new areas of the economy in the application of science by the Scientific Research Council including new products and processes.</p> <p>50. Sensitize Jamaicans to the importance of S&T.</p> <p>51. Develop a Spectrum Management Policy.</p> <p>52. Expand the Voice Over Internet (VOIP) system.</p>

5.15 TARGETS

During the 2014-2017 planning period, the ministry will continue to implement existing policies, including the National Energy Policy 2009-2030 (NEP), the Science and Technology Roadmap, and the Information and Communications Technology Policy. It will also conclude and implement others, including the National Minerals Policy, the five 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 three year planning cycle.

TABLE 3: PERFORMANCE TARGETS FOR THE THREE YEAR PLANNING CYCLE 2014-2017

SECTOR OUTCOMES	OUTCOME INDICATORS	CURRENT PERFORMANCE (2014 - 2015)	THREE YEAR SECTORAL TARGETS (2014 – 2017)
Energy efficiency.	Number of electrical appliances labelled to indicate their annual energy consumption. Information awareness campaigns launched. Number of buildings benefitting from 'efficiency interventions'.	55% of appliances entering the market labelled.	75% of all appliances entering the market are labelled. National Information Awareness Campaign: 20 information awareness bulletins published. 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. Piloting the use of renewables in communities.	Investment, pre-feasibility and feasibility studies for the development of renewables, example hydro, and wind power. Low carbon road map developed and promoted. Technical assistance in harnessing wind, solar and bio-energy provided to communities.	Contract to undertake studies signed. Studies commenced.	23 studies. 4 small scale wind turbines.
Diversified energy mix.	20% of renewables in energy mix	12.5%	17% of renewables in energy mix at end of 2017.
Lower energy intensity comparable to the top 5 non-oil producing countries.	Energy Intensity Index – 20000 BTU/ \$US		12,700
Energy security.	Fuel Reserve –Barrels/1000 population.		5,074 barrels/1000 population. 6 months reserves by the end of 2017.
Reduction in the dependence on petroleum in the energy mix.	Increase in energy security.	91%	Reduction in dependence on petroleum to 85%.
A significant reduction in the cost per kW/h for electricity.	Average annual generation electricity cost	\$200	Reduction to \$120 MW/Hr.
Improved governance. A strengthened regulatory and institutional framework.	New and amended acts and regulations. Compliance with petroleum regulations.	Petroleum Quality Control Act and Regulations Electricity Act	21 acts and regulations developed and promulgated by end of 2017. 10 meetings per year (30 cumulatively) with members of the

SECTOR OUTCOMES	OUTCOME INDICATORS	CURRENT PERFORMANCE (2014 - 2015)	THREE YEAR SECTORAL TARGETS (2014 – 2017)
Improvement in sector performance and monitoring of energy policy.	Reduction in disruptions. National Energy Sector Policy Review Committee established and reporting. Modern data base/improved turnaround time for dealing with queries. Review of data capturing systems.	Petroleum (Landing and Storage) Act Natural Gas Act	Petroleum Sub-sector. 21 reports completed over the period. 100% 4 assessments.
Energy conservation in the Public Sector - government to become a leader in energy efficiency and conservation.	Energy savings. Reduction in energy expenses. Reduction in CO ₂ and other emissions. Reduction in barrels of oil consumed. Energy Conservation Awareness Programme conducted. Energy retrofitting and installations are carried out. Trained public sector staff in energy conservation and efficiency. National Energy Solutions Limited (Rural Electrification Programme Limited) mandated to implement the GOJ's energy conservation and energy efficiency programme.		Savings of 22,609,713 kWh. Energy expenses reduced by US\$6.7 million. CO ₂ emissions of 19,150 tonnes/year by 2016. A reduction of 13,886 barrels of oil per annum by 2016. Complete 3 draft manuals on energy savings monitoring and verification. Complete 2 draft manuals on energy efficiency on maintenance and environmental disposal. Retrofit lighting units, air-conditioning units and install building envelopes in identified buildings. Complete draft proposal on incentives. 12 public sector energy management training programmes completed. National Energy Solutions Limited (NESoL) established.
Eco-efficiency in industry.	Technical support given to the private sector to transition to more eco-efficiencies.	Energy audits conducted. Projects identified.	30 energy audits completed by 2017.
	Approval and implementation of energy sub-policies.	Sub-policies submitted to Cabinet.	Energy sub-policies implemented.
A well-managed, modernized and profitable minerals sector.	Improved access to mineral bearing lands. Increased usage of modern equipment and technologies in mining. Publication of information on the location and boundaries of	Bill to amend the Quarries Control Act. Increased private sector investment. National Mineral-Bearing Lands Management Committee (NMBLMC).	Implementation of a Comprehensive Minerals Development Act. Publicize information on incentives, possible markets, requirements to enter export markets and areas of the industry in which it is profitable to invest.

SECTOR OUTCOMES	OUTCOME INDICATORS	CURRENT PERFORMANCE (2014 - 2015)	THREE YEAR SECTORAL TARGETS (2014 – 2017)
	<p>Minerals Development Zones (mining zones and quarry zones).</p> <p>Increase in the production of value added mineral products.</p> <p>Improvement in capacity to monitor the sector and ensure rehabilitation of mined lands.</p> <p>National Mineral-Bearing Lands Management Committee (NMBLMC) established.</p> <p>Amendment to and introduction of minerals-related legislation</p> <p>National Minerals Institute established.</p> <p>Mining/Minerals School established.</p>	<p>Bauxite Lands Land Titling Committee (BLLTC).</p>	<p>Regular meetings of the National Mineral-Bearing Lands Management Committee (NMBLMC).</p> <p>Quarterly meetings of the BLLTC.</p> <p>350 land titles presented to relocated land-owners.</p> <p>National Minerals Institute established and provides improved management of the country's minerals resources.</p> <p>Mining/Minerals School provides trained and certified personnel for the mining/minerals industry.</p>
<p>Sustainable minerals sector exhibiting environmental stewardship healthy and safe communities,</p>	<p>Strengthened environmental monitoring and enforcement.</p> <p>Improved health and safety regulations.</p> <p>Increased usage of environmental friendly technologies.</p> <p>Appropriate sanctions for deviation from health and safety regulations.</p>	<p>Monitoring activities of the Mines and Geology Division (MGD).</p> <p>Revision of the Quarries Control Act.</p> <p>Revision of the Mining Safety and Health Regulations.</p>	<p>Implement the Minerals Community Development Programme.</p> <p>Implement the amended Quarries Control Act.</p> <p>Bill to amend the Mining Safety and Health Regulations tabled by December 2014.</p>
<p>Internationally respected electoral system as an example of best practice.</p>	<p>Improved electoral super-structure.</p> <p>Stakeholder support for continued improvements to the electoral super structure.</p> <p>Constantly prepared Electoral Office of Jamaica.</p>	<p>Preparation for electoral division boundaries review.</p> <p>Removal of deceased electors from the voters list.</p> <p>Residence re-verification.</p> <p>Voter registration car distribution.</p> <p>Continued modernization of the electoral legislative framework.</p>	<p>Electoral division boundaries reviewed.</p> <p>Deceased electors removed from the voters list.</p> <p>Residence re-verification.</p> <p>Voter registration card distributed.</p> <p>Implementation of new and amended pieces of legislation and continued modernization of the electoral legislative framework.</p>
<p>Promotion and application of science in all spheres of the economy.</p>	<p>Increased application of science and technology in business.</p> <p>Improved economic competitiveness.</p> <p>Improved quality commodities.</p>	<p>Fora promoting the application of science and technology in business.</p>	<p>Build out of the Science and Technology Road Map.</p> <p>Increased focus on the application of science and technology in agriculture, waste management, value-added agriculture and other segments of the economy.</p>

SECTOR OUTCOMES	OUTCOME INDICATORS	CURRENT PERFORMANCE (2014 - 2015)	THREE YEAR SECTORAL TARGETS (2014 – 2017)
Increased understanding of Jamaica's geo-hazard risk and availability of geo-hazard information.	<p>Publication of maps, educational materials and Jamaica's Seismic Code and maps.</p> <p>Implementation of an effective Earthquake Early Warning Programme.</p> <p>Publication of landslide hazard maps and information important to ensuring an effective National Building Code.</p>	Purchase of broadband seismograph and other equipment.	<p>Publication of Jamaica's Seismic Code.</p> <p>Publication of seismic maps.</p> <p>Implementation and maintenance of an Earthquake Early Warning Programme.</p> <p>Increased study of the country's seismic risks and more accurate/comprehensive determination of its seismic profile.</p>

5.16 SUMMARY OF STRATEGIC OUTLOOK

A summary of the ministry's strategic outlook for the 2014-2017 period is outline in Table 4.

TABLE 4 : SUMMARY OF STRATEGIC OUTLOOK 2014-2017

INSTITUTIONAL REFORM	POLICY AND LEGISLATIVE REFORM	SERVICE DELIVERY	CAPACITY BUILDING	NOTES	INDICATORS	FINANCIAL OUTLAY
ICT AND STI						
<p>Strategic Objective</p> <p>Improve the business environment for investment and development of the ICT Sector.</p> <p>Improving the competitiveness of the ICT Sector.</p> <p>Monitoring and evaluation.</p>	<p>Policy development.</p> <p>Rationalize current ICT legislation to support growth of the ICT Sector.</p>	A single point of entry into the ICT sector.	<p>Technical assistance to be obtained from the International Telecommunications Union (ITU).</p> <p>Technical assistance to be obtained from the International Development Bank (IDB).</p>	<p>Constraints:</p> <p>Human capital development and funding required.</p>	<p>Reducing three pieces of legislation into a consolidated piece of legislation by 2014.</p> <p>Creation of an ICT Single Regulator.</p> <p>Processing timeline for issuing single entry point established by end of Q2 2014-2015.</p>	<p>Two (2) stakeholder consultations.</p> <p>\$500,000.00.</p> <p>US\$315,000.00</p> <p>Counterpart funding of US\$70,000.00 and US\$30,000.00 in kind.</p>
					<p>Licensing -1year vs. benchmark against where we need to be.</p> <p>Average time it takes to process.</p>	

INSTITUTIONAL REFORM	POLICY AND LEGISLATIVE REFORM	SERVICE DELIVERY	CAPACITY BUILDING	NOTES	INDICATORS	FINANCIAL OUTLAY
	Cyber Security Policy. Amendments to the Cybercrimes Act. Establishment of Cyber Emergency Response team.	Technical assistance from the International Telecommunications Union (ITU). Funding to be resolved.	Capacity development for GoJ risk management / cyber security for ICT sector.	Training and capacity building.	White Paper tabled by the end of March 2014. Cybercrimes Act amended by end of April 2015. Completion of Cyber Security risk assessment. US\$140,000.00 obtained to establish the Cyber Emergency Response Team (CERT).	
	Repeal of Post Office Act. Vesting of the assets of the Post and Telecommunications Department in Postal Corporation.				Post Office Act repealed and replaced by June 2015. Assets of the Post and Telecommunications Department vested in Postal Corporation.	
	Promulgation of Data Protection Act.				Completion of the Data Protection Act by the end of March 2014.	
Science Technology and Innovation Road Map.			Linkages with tertiary institutions, DBJ and other financial houses.		Various aspects of the Science Technology and Innovation Road Map are linked to the work of the country's tertiary institutions, DBJ and other financial houses.	
– Establishment of the Office of the Chief Information Officer; Operationalization of e-Gov Jamaica Limited (e-Gov).	Development of e-Government Strategy Map and prioritized Action Plan.	Improved access to and increased efficiency in the delivery of government services.	Work stations and resources – computers, printers, etc.	Recruitment of the Chief Information Officer (CIO) and support staff.	Establishing a new structure within the Ministry for the Office of the CIO by the end of Q1 2014/2015 Operationalization of e-Gov Jamaica Limited (e-Gov).	\$34 M
Improving the competitiveness of the ICT Sector.	Development of a National Broadband Strategy Development of an Interactive Broadband Map. Deployment of an island-wide broadband network.	Broadband Access	Assessment of GOJ's GIS capabilities to host Broadband Map.	Financing provided by IDB through CANTO's Regional Broadband Project. Recruitment of consultant.	Improved access to ICT services Telecommunications costs reduced.	\$18.2 M (or US\$170,000.00)

INSTITUTIONAL REFORM	POLICY AND LEGISLATIVE REFORM	SERVICE DELIVERY	CAPACITY BUILDING	NOTES	INDICATORS	FINANCIAL OUTLAY
						\$453.4 M
ENERGY						
<p>Electricity Sector Reform:</p> <p>Clarify and streamline the regulatory framework (OUR/MSTEM/JPS).</p> <p>JPS licence amendment.</p> <p>Electricity Act.</p> <p>Rebranding of Rural Electrification Programme Limited (REP) to National Energy Solutions Limited (NESol)</p>	<p>World Bank Project: Gas Regulations Renewable Energy Development: new regulations and legislations developed.</p> <p>Amending the JPS. licences.</p>	<p>Business Process Review (BPR) – GEI.</p> <p>Implementation of recommendations arising from the BPR – GEI.</p>	<p>Training of public sector and MSME sector in energy management and related disciplines.</p> <p>New organisation structure.</p>	<p>The implementation of the recommendations of the GEI's BPR is necessary to improve the division's efficiency.</p>	<p>Operations of the GEI integrated into the Amanda System.</p> <p>Energy Exposition and Investment Conference</p>	\$35 M
		<p>EEC:</p> <p>OAS:</p> <p>Continuing assessment of opportunities in Wind Irrigation: MOA/NIC.</p>	<p>Realign some strategic staff to achieve project design results.</p> <p>Employ additional staff to assist in increasing project (components) delivery.</p>	<p>Assumptions:</p> <p>Decision by MOF on retirement of equipment replaced in project deployment.</p> <p>Inadequate staff is a major risk to project success within the project timeline.</p>	<p>Increased investments in the sector as a result of an improved regulatory environment.</p> <p>Reduction in the cost of the electricity to the country.</p> <p>Increase in the number of manufacturers.</p> <p>Gas sector aligned to international industry standards to facilitate investment.</p> <p>Revision of the gas sector regulations before June 2014.</p>	<p>Minimum of US\$500 M investment between 2014-2017.</p>

INSTITUTIONAL REFORM	POLICY AND LEGISLATIVE REFORM	SERVICE DELIVERY	CAPACITY BUILDING	NOTES	INDICATORS	FINANCIAL OUTLAY
		ESEEP PROJECT: BSJ	ISO 50001 Certification and Standards Development (energy management).	Assumptions: Finalisation by MOF of issues relating to DBJ components: Foreign exchange risk. AFI's/PC Banks.	Electricity Policy implemented by August 2014. Communications and Public Education Programme –implemented between April 2014 - April 2016.	
	Petroleum (Quality Control) Act. Petroleum (Landing and Storage) Act. Finalization of energy sub-policies: Renewable Energy Waste to Energy Bio Fuels Carbon Trading Energy Efficiency Energy Conservation Electricity (Power Sector) Policy. Electricity Act.	Streamline the issuing of licences granted under the Petroleum (Quality Control) Act.			Energy sub-policies presented to Cabinet by end of May 2014. Energy sub-policies implemented by October 2014.	
MINING						
Strategic Objective: Improve the business environment for investment and development of the Mining Sector. Diversify and improve the Mining Sector's competitiveness. Monitoring and evaluation.	IFC Regulations Standards for the Extractive Industry. Quarries Control Act amended. Comprehensive Minerals Development Act.	National Minerals Policy: Integrate IFC Regulations/Intergovernmental Forum on Mining, Minerals Metals and Sustainable Development into the National Minerals Policy. Rare earth minerals, limestone, other minerals. Mineral supplies vs.	Development of the mining sector: Establishment of formal linkages with tertiary institutions to promote training, research, development and commercialization in the mining/minerals sector. IDB, WB, OAS and bilateral support for training/consultations, monitoring, evaluation. Establish a Mining School'. Incorporate mining curriculum into	Funding needed for the sub-policies.	Stakeholder consultation. Investment for value added products. Quarries Control Act amended and tabled by April 2013. Comprehensive Minerals Development Act developed by March 2016.	US\$1.8 million

INSTITUTIONAL REFORM	POLICY AND LEGISLATIVE REFORM	SERVICE DELIVERY	CAPACITY BUILDING	NOTES	INDICATORS	FINANCIAL OUTLAY
		installed production capacity. Revenue enhancement and protection. Transparency in earnings from the minerals sector.	established tertiary institutions (HEART/NTA, UTECH, UWI). Maximize on existing data sets.			
Complete the National Minerals Policy	National Minerals Policy Minerals development: Sub-policy			Support being sought from the IADB.	Cabinet Submission completed by April 2014. Action plan completed by June 2014.	Grant founding will be sought.
Reform research and regulatory institutions. Application of international standards. Data sharing and integration among the institutions.	Development of a policy and guidelines for the restoration of mined/quarried-out lands. Consider IFC policy approaches for the minerals (extractive) sector. Establishment of a Mining Information Clearing House.	National Mining Information Clearing House to ascertain investment opportunities Update and digitize geological hazard maps	Enhance the ministry's capacity to elaborate, manage, monitor assess and update strategies for mineral resources development. Detailed action plan.		Mining Information Clearing House established by August 2015.	US\$500,000 (Technical assistance from the IDB).
	Comprehensive Minerals Development Act. Mining Act - Mining Safety and Health Regulations.				Comprehensive Minerals Development Act created by June 2015. Amendments to the Mining Safety and Health Regulations tabled by December 2014.	
		ISO 17025 Certification and Standards Development Accreditation for MGD's laboratory.	Procedure manual revised. Staff trained. Physical facilities improved. More advanced analytical equipment secured, equipment repaired and maintained.		Develop the terms of reference for ISO 17025 Gap Analysis within the Q3 of the financial year 2014. Data mapping - assessment completed by end of the Q2 2014-2015.	Additional funding to be sought in 2014/2015.
Accelerate Mineral Resources Mapping.	Geological Survey and Resources Act.	Integrated mineral resources maps. Hazard maps.			Drafting instructions for Geological Survey and Resources Act.	
Promote development within the	National Minerals Week (NMW).	NMW 2015			NMW 2015 hosted by October 2015.	J\$17.5 million in

INSTITUTIONAL REFORM	POLICY AND LEGISLATIVE REFORM	SERVICE DELIVERY	CAPACITY BUILDING	NOTES	INDICATORS	FINANCIAL OUTLAY
minerals sector.						October 2015.
CROSS CUTTING ISSUES						
Communication Plan to support the activities						
Investment in the Mining and ICT sectors. Promote education and capacity in ECC and RE development.					Communications Plan.	
HUMAN RESOURCES						
Human Resource Training			Project management capacity building for senior management team; management of public/private partnership. Management of cyber security and risk management; leadership skills training; protocol training; commencement of online training initiatives – Spanish, French and Japanese. International procurement and financial analysis for non-financial managers. Energy Management, Monitoring and Evaluation; ICT Audit.		Gap Analysis Study under the Performance Management and Appraisal System. Training courses held. Improved staff competence and efficiency.	
PARLIAMENTARY AFFAIRS						
Electoral Office of Jamaica	Registration and financing of political parties. Electoral divisions and their boundaries defined. Legislation on Campaign Financing.					

6.0 PLANS AND PRIORITIES

6.1 PRIORITY PROJECTS

On the basis of the primary source of funding, the ministry's projects are classified as 'Capital A' (GOJ-funded) and 'Capital B' (primarily foreign funded). Over the 3 year period, the ministry intends to increase the number of projects in both groups.

6.1.1 CAPITAL A PROJECTS

Existing projects under this heading are related to the following:

- ii. Quarry Zoning.
- iii. Metallic Minerals Exploration.
- iv. Geological and Geotechnical Assessments.
- v. Rural Electrification Programme and the transformation of the Rural Electrification Programme Limited (REP) into the National Energy Solutions Limited (NES).
- vi. LNG Regulatory Framework.
- vii. E-Learning Project.
- viii. Non-Metallic Minerals Exploration.
- ix. International Centre for Environmental and Nuclear Sciences (ICENS):
 - a. Development of Yam Cultivar with Low Cadmium Take-up.
 - b. Recovery of Rare Earth Element-Bearing Components from E-Waste.
 - c. Production of Paper and Carton from Agricultural Fibre.
 - d. Road Repair Materials from Pozzolan and Waste.

6.1.2 CAPITAL B PROJECTS

Existing projects under this heading are related to the following:

- i. Energy Security and Efficiency Enhancement Project.
- ii. Energy Efficiency and Conservation Loan Preparation Facility.
- iii. Low Carbon Energy Road Map.
- iv. Caribbean Hotel Energy and Action Project.
- v. Wind Powered Irrigation Feasibility Assessment.
- vi. Capacity Development for Energy Efficiency and Security in Jamaica.
- vii. Latin American Energy Organisation's (OLADE) Caribbean Sub-Regional Office in Jamaica.
- viii. Establishment of Government Network Infrastructure (GovNet).
- ix. Enhancing the ICT Regulatory Environment.
- x. Improving innovation capacities in the Caribbean.

6.2 SUMMARY OF EXPECTED IMPACTS OF THE PRIORITY POLICIES, PROGRAMMES AND PROJECTS

The expected impacts of the ministry's priority policies, programmes and projects are projected to be as follows:

- i. Reduced dependence on fossil fuel through diversification fuel types.
- ii. Significantly improved energy infrastructure and modernization of the energy sector.
- iii. Reduced energy costs and contribution to increased competitiveness.
- iv. Increased use of renewable energy resulting in its increased contribution to the energy mix.

- v. Improved energy management, increased energy efficiency and conservation, and increased competitiveness in energy delivery.
- vi. Increased participation and investments in the energy sector.
- vii. Enhanced management and modernization of the minerals sector.
- viii. Creation of a more favourable climate for investment in the mineral sector. This includes a revised taxation and royalty system.
- ix. The introduction of written objective guidelines to dictate the duration for which quarry licences are granted.
- x. Continued reduction and mitigation of adverse impacts associated with mining.
- xi. Increased use and application of research and technology in the minerals sector.
- xii. Increased revenues to the GOJ and benefits to the Jamaican people from the minerals industry.

- xiii. Establishment of a 'mining school' to increase the skills levels and skills pool available to the mining sector.
- xiv. The introduction of a system of robust deterrents to cyber threats, which results in significant reduction in cybercrimes.
- xv. Continued development and more effective regulation of the spectrum resulting in increased compliance in the use of the spectrum.
- xvi. Provision of a modern ICT regulatory and institutional framework.

- xvii. Amendments to and promulgation of various pieces of legislation, which create a balanced and forward-looking legal framework that facilitates development of the respective portfolios.

6.3 SUMMARY OF THE DESIRED OUTCOMES OF THE PRIORITY POLICIES, PROGRAMMES AND PROJECTS

Some of the main desired sector outcomes from the policy, programme and project priorities are as follows:

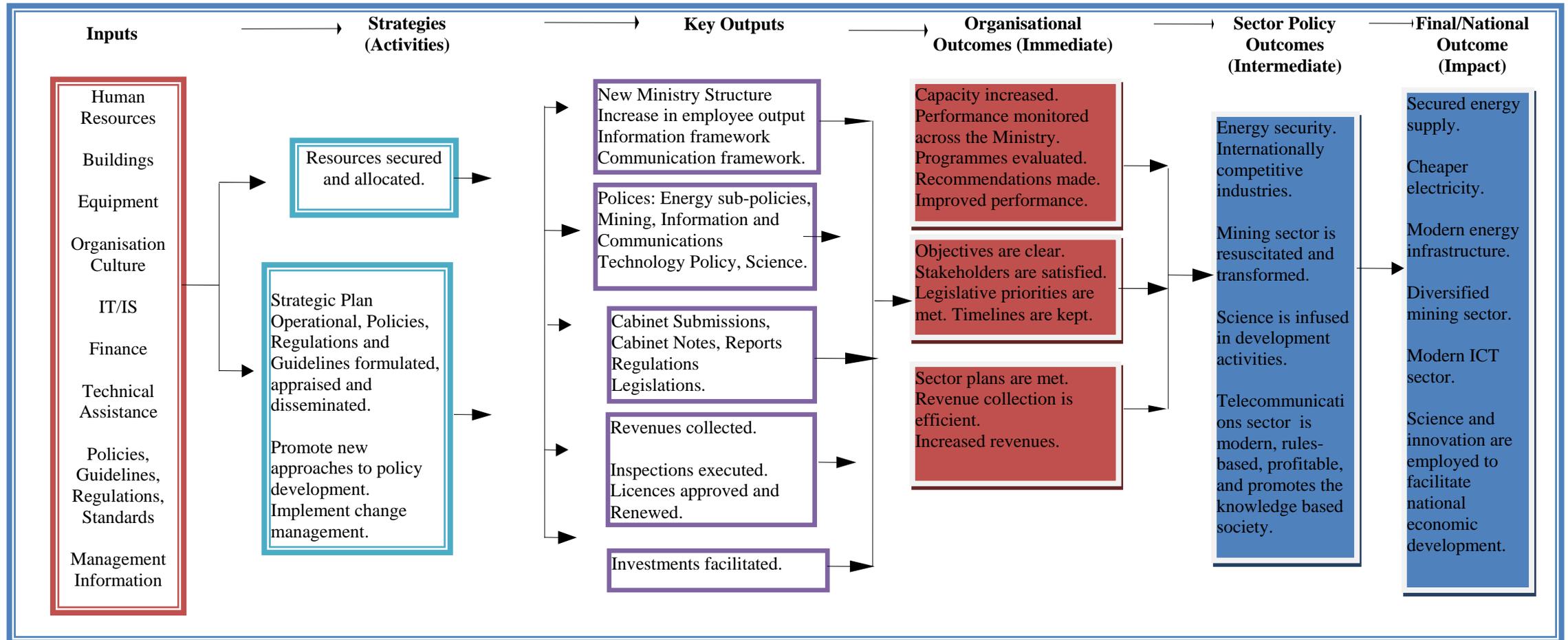
- i. Increased energy security, including fuel diversification, results in reduced energy prices, the availability of required energy services and supplies contribute to improved competitiveness of the economy.
- ii. An upgraded petroleum refinery providing a least cost option for petroleum supplies, satisfying demand and producing higher value added products.
- iii. Increased contribution to the national energy mix by renewable and alternate energy sources.
- iv. Contribution to the development of a green economy with the possibility of increased employment, a cleaner environment and increased earnings.
- v. Increased compliance with global protocols, resulting in pollution reduction, including greenhouse gases.
- vi. A liberalized energy industry governed by competition and appropriate regulations.

- vii. Marked increase in the application of energy conservation and energy efficiency throughout the economy, especially within the public sector, some of whose members are recognized as leaders in energy conservation and energy efficiency.
- viii. Continued alignment of the Transport Policy with the National Energy Policy resulting in an increased use of fuel efficient motor vehicles, the importation of an increased percentage of fuel efficient new and late model motor vehicles, increased use of public transportation and a reduction in ownership of private motor cars.
- ix. Increased usage of an energy efficient-focused building code.

- x. A modern energy infrastructure which adds significant value to the economy.
- xi. The creation of a growing, diversified and internationally competitive mining sector, with high levels of output, increased production of value-added products, increased levels of import substitution and increased value of exports.
- xii. The creation of a competitive and modern legal and regulatory framework that effectively attracts and retains a steady growth in investment capital, number of investors and investor confidence in the mining, energy, ICT and science portfolios.
- xiii. Sustainable development practices are integrated into the activities of businesses in the mining, energy, ICT and science sectors.
- xiv. A resuscitated and expanded Bauxite and Alumina Sector.
- xv. A diversified minerals industry with increased emphasis on the development of the metallic and industrial minerals sectors.
- xvi. Successful completion of the commercial pilot project aimed at profitably extracting rare earth minerals from 'red mud' and investment in a commercial scale operation made resulting in the development of a profitable and long-term Rare Earth Minerals Sub-sector.
- xvii. Creation of an increasingly technologically sophisticated electoral system, which is affordable, clean, easily understood and copied by other countries.
- xviii. An active, expanded and competent cyber emergency response team, which successfully protects the country's ICT systems from threats, especially malicious criminal threats.
- xix. A properly managed, fairly allocated and affordable spectrum.
- xx. A robust broadband system, which is available island-wide and is affordable to users.
- xxi. A properly resourced and managed 'mining school' which provides the pool of trained talents required by the mining industry.
- xxii. Wheeling and net metering are established elements of the energy management framework.
- xxiii. An established and nationally recognised National Science and Innovation Awards.
- xxiv. A widely utilized Scientific Research Council (SRC), which is credited with having contributed to the creation of new businesses and the continuation and increased profitability of older businesses.
- xxv. A rebranded Rural Electrification Programme Limited (REP) which effectively executes the government's energy solutions agenda.
- xxvi. The services provided by the PTD, GEI, MGD, NES, SRC and other entities within the ministry are deemed to be of consistently high quality by their clients, professionally delivered and price competitive.

6.4 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.



6.5 PRIORITY PLANS AND PROGRAMMES (2014 – 2017) AND MEDIUM TERM TARGETS

The ministry's operations and functions shape the strategies that will be implemented to achieve the required outputs and desired outcomes. These work operations are coordinated within and across functional divisions and or units in various programmes and projects. In some instances, the scope of work and outputs extend outside of the ministry, indicating the need to work through respective agencies and even other ministries and bodies to ensure success. Many of these stakeholders have already been identified and various work groups, committees and agreements relating to roles and responsibilities are already in place.

Critical priority programmes, plans, projects, including the revised National Minerals Policy and Action Plan, related addenda policies, Market Study for Industrial Minerals, Rare Earth development Project, the 2014-2017 Energy Action Plan, Tablets in School Pilot and Island-wide Project, among various others are to be commenced, and in some instances completed during the three year planning cycle. Some of these are outlined in Table 5.

TABLE 5: PRIORITY PLANS, PROJECTS, PROGRAMMES AND MEDIUM TERM TARGETS

PROGRAMME/ PROJECT & BUDGET NO. AND POLICY INITIATIVES	STRATEGIES	OUTPUT	PERFORMANCE INDICATORS	TARGET & COST		
				2014/2015	2015/2016	2016/2017
MAJOR PROGRAMMES						
Security of national energy supply.	Identify and secure reliable energy sources at least cost.	Demand and supply model reports.	Accuracy in forecasts.			
	Embark on fuel diversification programme.	Database statistics of energy use.	Classification of energy usage.			
Modernized and expanded energy infrastructure.	Develop renewable energy sources.	Bilateral energy supply contracts and agreements.	Percentage energy consumption by sector.			
Pursue energy conservation & efficiency.	Identify and forecast energy demand and supply.	New fuel alternative.	Signed energy supply contracts.			
		Promotion of increased investment in renewable energy development.	Reduction in generation avoided cost.			
Develop renewable and alternative energy sources.			Increase in alternative fuel used.			
			Increased generation capacity.			
			Increased usage of renewable energy.			

PROGRAMME/ PROJECT & BUDGET NO. AND POLICY INITIATIVES	STRATEGIES	OUTPUT	PERFORMANCE INDICATORS	TARGET & COST		
				2014/2015	2015/2016	2016/2017
	<p>Upgrade through the expansion of capacity and higher value added products.</p> <p>Improve electricity distribution and transmission efficiency.</p> <p>Retire and replace old generation plants.</p>	<p>Upgraded Refinery to app. 50,000 boe per day.</p> <p>Increased production of lighter petroleum products, including low sulphur diesel.</p> <p>Constancy and continuity of energy supply and distribution.</p> <p>Replacement of old and in-efficient electricity plants.</p> <p>Implement least economic cost solutions for energy supply, including source conversion and distribution.</p>	<p>25% reduction in importation of refined products by 2017.</p> <p>Reduction in emissions.</p> <p>10% reduction in technical losses.</p> <p>30% reduction in non-technical losses</p> <p>Reduced average age of plants.</p> <p>Increased plant reliability.</p> <p>Reduction in generation cost.</p> <p>Improved long-term energy planning and forecasting.</p>	<p>6% increase over previous period.</p> <p>US\$1.2 B</p> <p>US\$65.1 M</p> <p>Commence construction of 381 MW of new gas-fired electricity generation plants.</p>	<p>6% increase over previous period.</p>	<p>6% increase over previous period.</p> <p>Refinery upgrade completed.</p> <p>381 MW of new gas-fired electricity generation plants connected to the grid.</p>
	<p>Study and audit energy usage.</p> <p>Develop and promote a national energy savings and conservation programme as well as to initiate training in energy conservation programmes.</p> <p>Facilitate the introduction of energy savings devices.</p> <p>Introduce a new building code.</p>	<p>Energy usage and energy audit reports.</p> <p>Public education programme.</p> <p>Incentives and disincentives in place.</p> <p>A demand side management programme.</p> <p>Installed efficient lighting and appliances.</p> <p>Contribute to the implementation of a new Building Code.</p>	<p>Promotion programmes in energy conservation delivered and evaluated to various stakeholders.</p> <p>Public buildings retrofitted, lighting and cooling in place.</p> <p>New Building Code legislated and enforced.</p>	<p>5% increase in energy conservation over previous period.</p>	<p>5% increase in energy conservation over previous period.</p>	<p>5% increase in energy conservation over previous period.</p>

PROGRAMME/ PROJECT & BUDGET NO. AND POLICY INITIATIVES	STRATEGIES	OUTPUT	PERFORMANCE INDICATORS	TARGET & COST		
				2014/2015	2015/2016	2016/2017
	<p>Identify inventory rank and determine feasibility and investment criteria.</p> <p>Introduce incentives to encourage the development of renewables.</p> <p>Determine payback periods.</p> <p>Increase contribution of renewables to the electricity grid.</p>	<p>Sites identified and studies conducted.</p> <p>Increased wind, hydro-electric and solar capacity.</p> <p>Legislation in place to encourage investments.</p> <p>Investment project profiles.</p> <p>Increased renewable energy contribution to energy supply mix.</p>	<p>Developed hydro power resources.</p> <p>Reduction in carbon emissions.</p> <p>Wigton Windfarm expansion continued.</p> <p>Increased use of solar and other renewable energy technologies in housing schemes, schools and other buildings.</p> <p>Increased investments in renewables.</p>	<p>Hydro feasibility studies.</p> <p>Low carbon energy roadmap.</p> <p>Construction of Wigton Windfarm's 24MW expansion.</p> <p>Wind resources studies.</p> <p>1MW Grid tied Photovoltaic system.</p>	<p>Construction and testing of Wigton Windfarm's 24MW expansion.</p>	<p>Wigton Windfarm's 24MW expansion connected to the grid.</p>
<p>Well defined and established governance framework that ensures stakeholder participation.</p>	<p>Develop energy sector policies and introduce regulatory framework for fuel diversification and other energy initiatives.</p> <p>Conduct studies on net metering and wheeling in the tariff rates along with procedures.</p> <p>Coordinate policy , monitoring and the enforcement of regulations.</p>	<p>Policy framework approved and implemented.</p> <p>Legislation implemented.</p> <p>Establishment of net metering and power wheeling framework.</p>	<p>Policies are coherent and approved.</p> <p>Number of customers on system.</p>	<p>See legislative agenda.</p>		

PROGRAMME/ PROJECT & BUDGET NO. AND POLICY INITIATIVES	STRATEGIES	OUTPUT	PERFORMANCE INDICATORS	TARGET & COST		
				2014/2015	2015/2016	2016/2017
Develop and implement a National Minerals Policy.	Follow-up with respective stakeholders to ensure approval.	National Minerals Policy. National Minerals Policy Strategy and Action Plan.	National Minerals Policy and National Minerals Policy Strategy and Action Plan submitted to Cabinet and Parliament. Policies are coherent.	Policy implementation and monitoring.	Development of additional sub-policies: Industrial Minerals Sector Policy, Mined lands Rehabilitation Policy, Mineral-bearing Lands Management Policy.	Submission of addenda mineral policies to Cabinet and Parliament for approval: Industrial Minerals Sector Policy, Mined lands Rehabilitation Policy, Mineral-bearing Lands Management Policy
Create a well-managed and modern mining and quarry sector.	Provide the necessary legislation or amendments to existing legislation. Integrate with other segments of the economy. Promote improved efficiency and productivity.	Amended Quarries Control Act. Comprehensive Minerals Development Act.	Bill to amend the Quarries Control Act Bill finalized by CPC, agreed by Attorney General, submitted to Cabinet. Bill conforms to stakeholders needs. Sectoral and legislative changes made to effect the integration of the mining sector with other segments of the economy.	As per legislative agenda. Mining sector revision workshops. Meeting with PIOJ and other stakeholders.	Submit a draft Comprehensive Minerals Development Act to CPC. Submit the new legislation to Cabinet's Legislation Committee for deliberation and submission to Cabinet and Parliament.	Gazetting and implementation of the Comprehensive Minerals Development Act.
Management, Promotion and Institutional Development of the Minerals Sector.	Provide a platform for policy and project development for the sector. Develop linkages with key stakeholders. Promote and communicate with potential investors through various for a.	Minerals Development Act. Minerals Industry Encouragement Act.	Minerals Development Act developed. Minerals Industry Encouragement Act developed.	Committees to create the Minerals Development Act and the Minerals Industry Encouragement Act established.	Minerals Development Act developed. Minerals Industry Encouragement Act developed.	Minerals Development Act submitted to Cabinet. Minerals Industry Encouragement Act submitted to Cabinet.

PROGRAMME/ PROJECT & BUDGET NO. AND POLICY INITIATIVES	STRATEGIES	OUTPUT	PERFORMANCE INDICATORS	TARGET & COST		
				2014/2015	2015/2016	2016/2017
Promotion and development of a culture of applying science, technology and innovation throughout the economy.	Science Policy to be reviewed. Encourage innovation , research and development. Implementation of the Science, Technology and Innovation Roadmap.	Revised policy. Incentives.	Creation of the National Institute for Science, Technology and Innovation (NISTI).	Facilitate the rationalization of the STI infrastructure in the public sector SRC to have increased focus on value added areas in the economy outside of agro processing.		
Introduction of a comprehensive Spectrum Management Policy.	Develop a Spectrum Management Policy.	Policy White Paper.	Green Paper prepared and tabled in parliament by the end of the 4 th quarter.	Green Paper prepared and tabled.	Spectrum Management Policy implemented.	Monitoring of Spectrum Management Policy.
Establishment of a monitoring and evaluation system of the ICT policy.	Develop system Collaborate with internal and external stakeholders.	Monitoring and evaluation system.	Monitoring and evaluation of the ICT Policy.	Monitoring and evaluation system \$250,000.	Monitoring of the ICT Policy.	Monitoring and evaluation of ICT Policy.
Introduction of a framework for increased local internet content and application development.	Establish inter-ministerial /agencies working group. Develop framework.	Framework for increased local internet content and applications.	Regular meetings of Working Group. Expansion and refining of internet content framework	Meeting of Working Group. Expansion of internet content framework.	Monitoring of implemented framework.	Monitoring of implemented framework.
Introduction of a National Broadband Framework.	Encourage island-wide broadband take up by developing a national framework.	National Broadband Framework Document. Broadband Map. Interactive Dashboard.	National Broadband Framework Document. Broadband Map. Interactive dashboard developed.	National Broadband Framework Document.	National Broadband Framework monitored.	National Broadband Framework monitored.
MAJOR PROJECTS						
Liquefied Natural Gas (LNG) Project.	Facilitate the introduction of LNG.	Natural Gas is in place and is used in electricity generation grid and in the bauxite and alumina plants. Gas legislation and regulations.	Gas legislation and regulations are in place in 2014.			
Petrojam Oil Refinery Upgrade.	Negotiate funding with partners Facilitate the continuation of the upgrade project.	Upgraded refinery with capacity 50,00 boe per day.		Resume and conclude negotiations with partners to restart.	Refinery upgrade model determined.	Physical upgrade of the refinery commences.

PROGRAMME/ PROJECT & BUDGET NO. AND POLICY INITIATIVES	STRATEGIES	OUTPUT	PERFORMANCE INDICATORS	TARGET & COST		
				2014/2015	2015/2016	2016/2017
Extraction of rare earth minerals from red mud.	Engage potential investor Secure agreement Construct pilot plant.	Research. Investments.	Viability of rare earth minerals extraction established.	Commence pilot project to determine commercial prospects.		Rare earth minerals commercial extraction facility established.
Local lime manufacturing.	Facilitate the construction of a new lime plant.	Investments. Employment.		Pursue discussions with potential investors.		
Limestone quarries and associated port facilities.	Engage potential investors.	US\$150 m limestone investment.		Continue discussions with potential investors.	Signed MOUs. Investment studies completed.	
Limestone Study.		Completed limestone study.		Complete first phase of market assessment and design for limestone and its derivatives.	Complete second phase of market assessment for limestone and limestone products.	
Energy Security and Enhancement (IBRD)	Promote private sector investment in the energy sector. Improve energy security and efficiency. Build institutional capacity.	New and amended legislation. Strengthened regulatory framework. Hydro feasibility studies. Investments in renewables. Fuel alternatives. Capacity building.	Legal and regulatory framework for the gas sector in place. Completed hydro feasibility studies.	\$2.7 billion Consultancies – regulatory framework for gas sector, electric power and modernization, grid impact analysis. Public education programme.	Consultancies – regulatory framework for gas sector, electric power and modernization, grid impact analysis. Public education programme.	Public education programme.

PROGRAMME/ PROJECT & BUDGET NO. AND POLICY INITIATIVES	STRATEGIES	OUTPUT	PERFORMANCE INDICATORS	TARGET & COST		
				2014/2015	2015/2016	2016/2017
Developing Energy Efficiency IDB.	<p>Strengthen the institutional capacity of MSTEM for implementing energy efficient and conservation measures.</p> <p>Invest in energy efficient and conservation measures in the public sector.</p> <p>Increase energy efficiency and conservation awareness and support to demand management programmes.</p>	Energy efficiency and conservation guidelines.		<p>\$310 million.</p> <p>Replace in-efficient lighting and cooling systems Public education campaigns.</p>	<p>Replace in-efficient lighting and cooling systems in select public buildings.</p> <p>Public education campaigns.</p>	<p>Replace in-efficient lighting and cooling systems in select public buildings.</p> <p>Public education campaigns.</p>
<p>Cuba-Jamaica Energy Saving Compact Fluorescent Light Bulb Project</p> <p>Expanded energy cooperation with Cuba.</p>	Distribute and replace incandescent light bulbs in households.	<p>Reduction in energy consumption</p> <p>Increased energy efficiency.</p>	<p>200,000 CFLs distributed.</p> <p>Report prepared and submitted.</p>	<p>\$5.3 million</p> <p>Seventh phase of Cuba-Jamaica Energy Saving Compact Fluorescent Light Bulb Project.</p> <p>Finalization of an expanded energy cooperation agreement with Cuba.</p>	<p>Seventh phase of Cuba-Jamaica Energy Saving Compact Fluorescent Light Bulb Project.</p> <p>Implementation of energy efficiency projects in selected secondary schools under the expanded Cuba-Jamaica energy cooperation agreement.</p>	<p>Implementation of energy efficiency projects in selected secondary schools under the expanded Cuba-Jamaica energy cooperation agreement.</p>
Enhancing the Information Communications Technology ICT Environment.		A modern all island telecommunications network.		<p>\$18.90 million.</p> <p>Review the existing ICT regulatory framework along with recommendations for single regulator.</p> <p>Review governance model, broadband map.</p>	<p>New ICT regulatory framework proposed.</p> <p>Single ICT regulator operational.</p>	

PROGRAMME/ PROJECT & BUDGET NO. AND POLICY INITIATIVES	STRATEGIES	OUTPUT	PERFORMANCE INDICATORS	TARGET & COST		
				2014/2015	2015/2016	2016/2017
MAJOR INITIATIVES (LEGISLATIVE & POLICY)						
The Electricity Act.	To replace the Electricity Act of 1890 with a modernised Electricity Act.	Electricity Act amended.			New Electricity Act.	
Promulgate the Natural Gas Act.	To provide for the proper legislative and regulatory framework for the liquefied natural gas market.	Natural Gas Act.	Liquefied natural gas is introduced to Jamaica by FY 2016/2017.	Very high priority.		
Promulgate the Mineral Industries (Encouragement) Act.	Create a structured and unified legal framework for the minerals sector.					Mineral Industries (Encouragement) Act promulgated.
The Quarries Control Act.	to improve the management of quarries.	Amended Quarries Control Act.		Amended Quarries Control Act.		
PUBLIC SECTOR TRANSFORMATION INITIATIVES						
Introduction of PMES.	Form cross-functional committees to determine terms of reference and targets for implementation. Form cross functional sub-committees to develop implementation strategies.	Transformation Implementation Plan. Review reports.	MSTEM meets or exceeds stakeholders expectations. Ministry meets its targets and objectives.	MSTEM meets or exceeds stakeholders expectations. Ministry meets targets and objectives that are set.	MSTEM meets or exceeds stakeholders expectations. Ministry meets targets and objectives that are set.	MSTEM meets or exceeds stakeholders expectations. Ministry meets targets and objectives that are set.
Introduction of PMAS.	Sensitization of staff to PMAS.	Performance Appraisals.	Employees meet agreed targets and set expectations.	Employees meet agreed targets and set expectations.	Employees meet agreed targets and set expectations.	Employees meet agreed targets and set expectations.

6.6 MEDIUM TERM FINANCIAL IMPLICATIONS

The strategic plan over the three year period is built around the availability of key human and financial resources. The complex environment in which this ministry operates, means that other critical variables can directly influence the timelines of key programmes or projects.

Some of these 'other variables' include the absence of the required human resources and inadequate financing, which has plagued the refinery upgrade project and as a consequence the Petcoke Project, which is yet to get off the ground. Delays in legislation have also impacted negatively on implementation and influenced the costs of implementation, as well as the overall challenges in the macro economy and external agreements that constrain the use of funds. It is necessary that the economy begins to perform better than it has done since 2011 to allow for a gradual easing of some of the financial difficulties being experienced and help to facilitate successful implementation of the outlined projects over the medium term.

Set out in Table 6 is a projection of the ministry's medium term recurrent financial requirements. A conservative 9% annual increase, inclusive of projected annual inflation, over the 2014-2015 budgetary request is applied in years 2015-2016 and 2016-2017.

TABLE 6: MEDIUM TERM RECURRENT FINANCIAL IMPLICATIONS

MINISTRY/AGENCY	BUDGETARY REQUEST 2014-2015 (\$)	PROJECTED BUDGET (\$)	
		2015 - 2016	2016-2017
Head Office	593,590,000.00	647,013,100.00	705,244,279.00
Government Energy Inspectorate (GEI)	123,756,000.00	134,894,040.00	147,034,503.60
Mines and Geology Division (MGD)	142,735,000.00	155,581,150.00	169,583,453.50
Board of Examiners (BOE)	8,520,000.00	9,286,800.00	10,122,612.00
Earthquake Unit (EU)/Seismic Research Unit (SRU)	33,549,000.00	36,568,410.00	39,859,566.90
Scientific Research Council (SRC)	538,942,000.00	587,446,780.00	640,316,990.20
e-Gov Jamaica Limited (e-Gov)	1,617,784,000.00	1,763,384,560.00	1,922,089,170.40
Electoral Commission of Jamaica (ECJ)	2,385,418,000.00	2,600,105,620.00	2,834,115,125.80
National Commission on Science and Technology (NCST)	20,184,000.00	22,000,560.00	23,980,610.40
International Centre for Environmental and Nuclear Sciences (ICENS)	73,866,000.00	80,513,940.00	87,760,194.60
E-Learning Jamaica Company Limited (E-Learning)	107,084,000.00	116,721,560.00	127,226,500.40
Post and Telecommunications Department (PTD)	1,569,449,000.00	1,710,699,410.00	1,864,662,356.90
GRAND TOTAL	7,214,877,000.00	7,864,215,930.00	8,571,995,363.70
LESS APPROPRIATION IN AID FOR MGD AND SRC	59,855,000.00	65,241,950.00	71,113,725.50
NET TOTAL	7,125,022,000.00	7,798,973,980.00	8,500,881,638.20

The requested funding of Capital Projects under the 2014-2015 budget is outlined in Table 7. Over 90% of these projects will be continued throughout the 2014-2017 planning cycle.

TABLE 7: CAPITAL PROJECTS SUPPORTED BY THE 2014-2015 BUDGET

CAPITAL A				CAPITAL B				
No.	NAME OF PROJECT	CODE	COST, J\$	No.	NAME OF PROJECT	CODE	FUNDING AGENCY	COST, J\$
1	E-Learning Project	2263	1,237,000,000.00	1	Energy Efficiency and Conservation Loan Preparation Facility	9372	IDB	1,487,648,000.00
2	MGD: Quarry Zoning	2306	3,075,000.00	2	Wind Powered Irrigation Feasibility Assessment	9389	IDB	2,107,000.00
3	Metallic Minerals Exploration	2307	4,300,670.00	3	Caribbean Hotel Energy and Action Project (CHENACT-2)	9374	(Gov. of Germany)	42,743,600.00
4	Non- Metallic Minerals Exploration	2308	3,080,200.00	4	Energy Security and Efficiency Enhancement Project	9353	IBRD	526,799,000.00
5	Geological and Geotechnical Assessments	2309	2,676,940.00	5	Caribbean Wide Elaboration of Collaboration Schemes (Caribbean WELCOME)	9362		0.00
6	Rural Electrification Programme	9148	488,025,090.00	6				
7	ICENS: Development of Yam Cultivar with Low Cadmium Take-up	New	810,000.00	7	Capacity Development for Energy Efficiency and Security in Jamaica	9393	UNDP	0.00
8	Recovery of Rare Earth Element-Bearing Components from E-Waste	New	5,840,000.00	8	Funding of OLADE Sub -Regional Office (OLADE) in Jamaica	9400	OLADE	7,752,850.00
9	Production of Paper and Carton from Agricultural Fibre	New	5,270,000.00	9	Development of Broadband Plan for Jamaica and Enhancing the ICT Regulatory Environment	New	IDB	18,740,000.00
10	Road Repair Materials from Pozzolan and Waste	New	6,845,270.00	10	Improving Innovation Capacities in the Caribbean	New		3,351,000.00
11	e-Gov Jamaica Limited: Computerization of Revenue Services	New	322,269,880.00					
12	Custom Computerization Project	New	261,362,350.00					
	GRAND TOTAL		2,340,555,400.00					2,155,639,450.00
	Less Appropriations In Aid							
	i. REP		26,320,000.00					
	ii. E-Learning		1,080,000,000.00					
	NET TOTAL		1,234,235,400.00					2,155,639,450.00

6.7 HUMAN RESOURCES CAPACITY PLAN

While cognizant of the country's current financial constraints, it is necessary that the ministry improves the quality and quantity of its human resources so as to successfully address its mandate.

The ministry's current and projected 'Human Resources Capacity Plan' is outlined in Table 8, which projects an increase of 68 persons at the end of FY 2016/2017 or a 30.22% increase on the 225 staff complement within the core ministry, the MGD and the GEI. The projected increase is necessary to facilitate the effective implementation of our mandates.

TABLE 8: HUMAN RESOURCES CAPACITY PLAN

UNITS, DIVISIONS OR PROJECTS	CURRENT STAFF COMPLEMENT 2013/2014	PLANNED STAFF COMPLEMENT		
		2014/2015	2015/2016	2016/2017
HRM&A Division	43	53	53	53
Finance and Accounts Division	21	22	22	22
Internal Audit	7	12	12	12
Policy, Planning, Development and Evaluation Division	6	15	9	9
Mining and Minerals Development Division	0	0	7	7
Energy Division	15	15	15	15
Communications Unit	3	5	5	5
ICT Division	11	12	12	12
Legal Unit	3	3	3	3
Executive Office	9	13	13	13
Mines and Geology Division	51	68	68	68
Electricity Division	55	61	61	61
Chief Information Office	0	3	3	3
Science Directorate	0	2	2	2
Commission on Science and Technology	1	8	8	8
TOTAL	225	292	293	293