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AILEG Analysis and Investment for Low-Emission Growth

AILEG Jamaica Symposium
Report of Proceedings

THE AILEG PROJECT

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TASK ORDER: AID-OAA-TO-11-00041

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Presentations are included in a separate Annex from the main report

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Between March and June of 2013, the AILEG team benefited from over 30 meetings with Government of Jamaica (GoJ) representatives and donors. In particular, AILEG would like to acknowledge the Project Steering Committee led by Col. Oral Khan, Chief Technical Director (CTD of the Ministry of Water, Land, Environment and Climate Change (MWLECC); Mr. Fitzroy Vidal, Principal Director of the Energy Division of the Ministry of Science, Technology, Energy and Mining (MSTEM); and Mr. Richard Kelly and Mr. Hugh Morris of the Planning Institute of Jamaica (PIOJ), who were our main points of contact in the GoJ.

Professor Dale Webber, Chairman of the Environmental Foundation of Jamaica led the opening ceremony. The Hon. Phillip Paulwell, Minister of Science Technology Energy and Mining, opened the Symposium. Mr. Fitzroy Vidal and Mr. Omar Alcock of MSTEM; Lt. Col. Oral Khan and Ms. Rachel Allen of MWLECC, Mr. Philbert Brown from the Ministry of Local Government and Community Development (MLGCD); and Ms. Le-Anne Roper PIOJ spoke at the Symposium.

The AILEG team received technical guidance from the USAID Jamaica Office of Environment and Health (OEH), specifically Ms. Suzanne Ebert, Director; Sharon Gulick, Environment Officer; Dr. Michael Hanowsky, EC-LEDS Country Coordinator; and Mr. Malden Miller, Project Management Specialist, for their leadership at the focus group and Symposium and in establishing highly productive government relationships.

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We also thank our partners in the communities of Princessfield and Content, especially Ms. Lorraine Cole and Ms. Joan Laing who presented on their own behalf and Ms. Nellie Richards of the St. Catherine Development Agency (SACDA), which worked closely with the communities in developing their energy efficiency and renewable energy action plans, supported by AILEG Community Facilitator, Janet Bedasse.

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The symposium facilitators included Dr. Alicia Hayman, Ms. Janet Bedasse, and Mrs. Karen McDonald Gayle, Chief Executive Officer of the Environmental Foundation of Jamaica (EFJ).

Mrs. Karen McDonald Gayle and her team from the EFJ prepared this proceedings report. Valuable review of the report was provided by Dr. Eric Hyman, AILEG Co-Activity Manager, USAID/E3/EP, Ms. Suzanne Ebert) and Dr. Michael Hanowsky; Ms. Dana Kenney, Dr. Alicia Hayman and Ms. Dianna Gillespie (AILEG Climate Change Specialist.

ACRONYMS

AILEG	Analysis and Investment for Low Emission Growth
AIM	Action Impact Matrix
CC	Climate change
CDM	Clean Development Mechanism
CF	Carbon finance
CMI	Caribbean Maritime Institute
CPEIR	Climate Public Expenditure and Institutional Review
DBJ	Development Bank of Jamaica
EC-LEDS	Enhancing Capacity for Low Emission Development Strategies
EE	Energy efficiency
ENPEP	Energy and Power Evaluation Program
ESCOs	Energy services companies
GCF	Green Climate Fund
GEF	Global Environment Facility
GHG	Greenhouse gases
GoJ	Government of Jamaica
IMF	International Monetary Fund
Ja-REEACH	Jamaica Rural Economy and Ecosystems Adapting to Climate Change
JCM/BCOM	Joint Crediting Mechanism/Bilateral Offset Credit Mechanism
JNR	Jurisdictional and Nested
LEAP	Long-range Energy Alternatives Planning System
LEDS	Low Emission Development Strategies
LIFE	Local Initiative for the Environment
M&E	Monitoring and evaluation
MDA	Ministries, departments and agencies
MOU	Memorandum of Understanding
MSTEM	Ministry of Science, Technology, Energy and Mining
MTF	Medium-Term Socio-Economic Framework
MWLECC	Ministry of Water, Land, Environment and Climate Change
NAMAs	Nationally Appropriate Mitigation Actions
NEAP	National Energy Action Plan
NGOs	Non-governmental organizations
OUR	Office of Utilities Regulation
PCJ	Petroleum Corporation of Jamaica
Q&A	Questions and answers
RE	Renewable energy
REDD+	Reducing Emissions from Deforestation and Forest Degradation
RFP	Request for Proposals
SACDA	Saint Catherine Community Development Agency
SDC	Social Development Commission
SGP	Small Grants Program
SIDS	Small island developing states
SRC	Scientific Research Council
UNDP	United Nations Development Program
USAID	United States Agency for International Development

1. EXECUTIVE SUMMARY

The goals of the Analysis and Investment for Low Emission Growth (AILEG) activities in Jamaica were to build capacity of the Government of Jamaica (GoJ) and other stakeholders to analyze low emission scenarios and integrate them into economic development strategic planning and implementation, as well as conducting economic analysis to promote investment in low emission technologies and projects.

The activities of United States Agency for International Development-funded (USAID) AILEG Project in Jamaica culminated in a Final Project Symposium at the Jamaica Pegasus Hotel from July 9-10, 2013.

The Symposium promoted the role of a Low Emission Development Strategy (LEDS) in alleviating climate change (CC) effects in Jamaica and sought feedback from a wide range of local stakeholders on the results of the project's four major work streams:

1. Climate Change Data and Economic Modeling
2. An Update of Jamaica's National Energy Action Plan (NEAP)
3. Energy Efficiency (EE) and Renewable Energy (RE) Action Plans (in two communities)
4. Climate Finance Assessment for LEDS initiatives

Over 80 attendees represented a range of organizations including the GoJ, the private sector, non-governmental organizations (NGOs), and academia.

The Symposium also included panel discussions on "Community Engagement for Climate Change" and "Addressing Climate Change in Jamaica."

A majority of respondents found the Symposium useful and relevant to their work.

2. INTRODUCTION

The AILEG project was the first initiative in a three-year program for Enhancing Capacity for Low Emission Development Strategies (EC-LEDS) in Jamaica. AILEG provided technical assistance to the Government of Jamaica and other stakeholders to analyze low emission scenarios and integrate them into economic development strategic planning and implementation. The program also conducted economic analysis to promote investment in low emission technologies and projects. AILEG worked in collaboration with the Ministry of Science, Technology, Energy and Mining (MSTEM) and the Ministry of Water, Land, Environment and Climate Change (MWLECC).

The three priority areas of assistance under the AILEG project were: (1) Climate Finance Analysis, (2) Economic Modeling for Low Emission Development, and (3) Integration of Low Emission Development into National Development Planning. The activities under the work streams included:

Climate Finance Analysis

- Assessment of current climate finance flows
- New climate financing for Jamaica
    - Ability to access carbon markets
    - Small-scale energy efficiency and renewable energy lending by local banks
    - Analysis of transformative public and private finance mechanisms

Low Emission Development Economic Modeling

- Economic modeling capabilities and data needs assessment for EC-LEDS
- Recommendations for future technical assistance and training in economic modeling

LEDS Integration into National Planning

- Development of the Second National Energy Policy Action Plan (NEAP) 2013-2016
- Development of Community Energy Efficiency and Renewable Energy (EE/RE) Action Plans

The goals of the AILEG Symposium were to provide a forum for stakeholder engagement and dialogue on LEDS and examples of the process the context; and requirements for national planning in areas of decision making using LEDS economic modeling, financing, sector-specific action plans and local considerations for energy efficiency and renewable energy. The Symposium was also designed to provide a forum to define ways in which the AILEG processes and outputs could be further utilized in the GoJ's efforts to incorporate low emission development in national planning.

Day 1addressed incorporating LEDS in National Development Planning and a panel discussion on community engagement for climate change mitigation and adaptation. Day 2 focused on the Economic Modeling and Climate Finance work streams. Annexes A and D contain the presentations and discussion reports.

3. PROCEEDINGS

3.1. DAY 1 (Tuesday July 9, 2013)

3.1.1. Opening Ceremony

Remarks: Lt. Col. Oral Khan

Chief Technical Director, MWLECC

Col. Khan explained that MWLECC has signed a tripartite MOU with MSTEM and USAID for Enhancing Capacity for Low Emission Development Strategies (EC-LEDS) in Jamaica. The program is aimed at strengthening the capacity of government ministries.

Photo 1: Lt. Col. Oral Khan Speaking at the Symposium Opening Ceremony

Although Small Island Developing States (SIDS) are not major contributors to greenhouse gas emissions and that past efforts in Jamaica focused on adaptation, Col. Khan stated that Jamaica must also play a part in reducing emissions. LEDS opportunity exists for the country to balance adaptation and mitigation efforts. This will lead to a win-win situation in which the country will be able to reduce energy costs and pollution concurrently, while achieving its economic growth. Interventions such as AILEG will help Jamaica attract investments in LEDS technologies.

He stated that the project will allow the Ministry to build capacity and initiate efforts across the government to address climate change. Climate finance is of significant interest to. The Ministry is aware of the RE/EE efforts in the two AILEG pilot communities and wants to lead that effort to drive change across the island. Col. Khan emphasized that collaboration is necessary for finding climate change solutions. To achieve Vision 2030 objectives, Jamaica needs to support adaptation and mitigation actions

Remarks: Ms. Denise Herbol

Mission Director, USAID Jamaica

Photo 2: USAID Mission Director, Denise Herbol

Ms. Herbol explained that AILEG has been active in Jamaica over the last seven months. This symposium presents an opportunity for robust dialogue on how we can build on these activities. LEDS will not reduce Jamaica's carbon footprint and reinforce the message that cooperation is necessary for reducing emissions. AILEG is the first of many collaborations between Jamaica and the US Government. Ms. Herbol thanked the ministries, agencies and communities for the outstanding work that has been completed and stated that Jamaica is employing the right approach in developing policy to guide actions before seeking funding.

Keynote Address: Hon. Phillip Paulwell

Minister of Science, Technology, Energy and Mining

Photo 3: Honorable Phillip Paulwell, Minister of Science, Technology, Energy and Mining

In his opening remarks, Minister Paulwell stated that he is working closely with Minister Pickersgill on the USAID-supported EC-LEDS Program. Under AILEG, the Government of Jamaica (GoJ), received support in three priority areas. MSTEM worked closely with the AILEG team to develop the NEAP and Community Action Plans. The bio-diesel project reduced the sulphur content of diesel fuel from 5,000 ppm to 50 parts per million. The Rural Electrification Program (REP) is about to make photo-voltaic systems available in some remote communities, where transmitting electricity from the grid would be too costly. About 3 percent of the population lacks grid access.

Minister Paulwell challenged the private sector to begin producing solar panels for local and regional markets. The REP will initiate this process The Office of Utilities Regulation (OUR) was evaluating bids for developing for 115 MW of renewable electricity. After this process is completed, attention will focus on a Request for Proposals (RFP) for the Waste-to-Energy initiative. MSTEM has also embarked on a project with Miranda Bauxite, Petroleum Corporation of Jamaica (PCJ), and the Scientific Research Council (SRC) to demonstrate the viability of bio-fuels from castor and palm oil grown on marginal lands used for mining bauxite.

Many more projects will be undertaken as the country addresses the serious issues of CC. Although Jamaica is not a significant emitter of global greenhouse gases, Minister Paulwell acknowledged that the country must be part of the solution. The GoJ has taken some bold steps in planning by for climate change. The MWLECC had established a Climate Change Advisory Committee and was in the process of establishing a Climate Change Division.

The NEAP will guide implementation of the National Energy Policy (NEP) and keep the country focused on achieving the policy benchmarks. The Community Action Plans will be assessed to see if the process can be replicated across the island to bring solutions at the community level. Minister Paulwell encouraged the participants to continue their collaborations.

3.1.2. Low Emission Growth for Jamaica

Dr. Michael Hanowsky

USAID/Jamaica

The AILEG project was a significant component of the low emission work USAID supported in Jamaica to build the foundations of a vibrant and sustainable economy. Low emission strategies were targeted in Goal 4 of Vision 2030 Jamaica – National Development Plan. CC was mentioned over eighty times in the Plan, cutting across themes such as energy, security and tourism. The core idea of LEDS strategies was to promote long term, sustainable development and an economy and communities resilient to CC impacts.

Photo 4: Dr. Michael Hanowsky provides over-view of LEDS

Implementation of LEDS will reduce greenhouse gas (GHG) emissions and yield co-benefits, such as improved energy security, reduced disease and mortality from air pollution, reduced poverty levels through the stimulation of microenterprise, increased employment opportunities, improved resilience to natural disasters and enhanced environmental sustainability. Some common components of LEDS strategies:

- Setting objectives (such as those articulated in Vision 2030 Jamaica – National Development Plan)
- Collecting baseline for developing baselines for GHG emissions and monitoring and evaluation (M&E). Economic data are also needed to help ensure that targets will be realistic and measurable.
- Applying models to forecast future emissions and economic growth
- Setting priorities for actions
- Financing and implementation of the high priority actions

3.1.3. Analysis and Investment for Low Emission Growth – Global Program and Jamaica Component

Ms. Dana Kenney

AILEG Jamaica Country Manager

Ms. Kenney explained AILEG's focus is on investment, economic modeling, capacity strengthening, and data collection to pave the way forward for a LEDS process in Jamaica. AILEG helped to assess the current situation, data and modeling needs, and systems already in place.

Photo 5: Ms. Dana Kenney

The project reviewed scenarios and assessed

opportunities for "Climate action, including an update of the National Energy Action Plan and community interventions in EE and RE. It also included an analysis of potential financing for implementing LEDS and mitigation activities.

Despite time constraints, the g team had completed the following outputs:

- Recommendations for economic modeling;
- Identifying 16 priority projects through stakeholder consultations;
- Helping two communities identify local LEDS; and
- Analyzing potential projects for climate financing.

3.1.4. Second National Energy Action Plan (NEAP)

Mr. Fitzroy Vidal

Principal Director for Energy - MSTEM

Mr. Vidal noted that the National Energy Policy (NEP) 2010 proposed transforming Jamaica's energy sector over a twenty-one year period though seven three-year action plans. As the end of the first NEAP approached, USAID partnered with Jamaica on EC-LEDS. The second NEAP was developed when Jamaica continued to seek solutions to satisfy the requirements of the IMF Letter of Intent. Most air pollution comes from the energy sector and 20-30 percent of the GDP is spent on energy.

Photo 5: Mr. Fitzroy Vidal

- The process for developing the second NEAP was consultative and comprehensive, addressing the national budget, IMF Letter of Intent, and plans and policies of MSTEM and other Ministries, departments and agencies (MDAs). Two stakeholder workshops were held to set priorities for projects using the Action Impact Matrix (AIM). Table 1 lists the seven energy policy goals in the draft second NEAP, which were derived from the following principles
- Energy security,
- Sustainability of energy sources,
- Access to energy,
- Economic growth,
- Public participation,
- Multilateral cooperation,
- Private sector implementation, and
- Efficient public sector infrastructural support.

Table 1: National Energy Policy Goals for Jamaica

Goals	Priority Areas
Goal 1	Energy conservation and efficiency
Goal 2	Modernizing the country's energy infrastructure
Goal 3	Development of renewable energy sources such as solar and hydro
Goal 4	Security of energy supply through diversification of fuels as well as development of renewables
Goal 5	Development of a comprehensive governance/regulatory framework
Goal 6	Enabling government ministries, departments and agencies to be model/leader for the rest of society in terms of energy management
Goal 7	Eco-efficiency in industries

Draft Second National Energy Action Plan

Dr. Ruth Potopsingh

AILEG Energy Policy Consultant

In developing the current NEAP, the thirty-one projects from the previous action plan were reviewed. Only 13 percent of these projects had been completed. Of the projects that were not completed, 16 percent were on target, 23 percent were off target, 6 percent had not been started, and 36 percent had barriers to implementation such as lack of adequate/timely funding, communication weaknesses, inadequate support from other agencies, human resource constraints and legislative and regulatory hurdles.

Photo 6: Dr. Ruth Potopsingh (right)

A series of consultations and workshops were conducted with stakeholders for the second NEAP. The projects that were selected for the plan reflected a shift from government implementation to private sector implementation. The GoJ's primary role would be developing a supportive, enabling framework for carrying out the plan. Strengthening of the legislative and regulatory framework for enhanced efficiency and better governance was considered fundamental to all of the development goals.

Sixteen priority projects were identified for the second NEAP:

1. Power Sector Development and Capacity Replacement
2. Improvement of Electricity Distribution and Transmission Efficiency
3. Facilitating Private Investment in Sustainable Energy
4. Jamaica's Renewable Energy Program: Increase in Wind Energy Capacity
5. National Energy Education Program
6. The Renewable Energy and Efficiency Technology Training Program
7. Increased Application of Solar Technologies
8. Strengthening of the Policy, Legislative and Regulatory Framework

9. Promulgation of the Energy Sector Policies
10. Comprehensive Review of Energy Pricing – Fuels and Electricity
11. Generation Expansion Plan and Long-term Planning in the Energy Sector
12. Energy Efficiency and Conservation Program for National Water Commission
13. Jamaica's Renewable Energy Program: Implementation of Hydro power Capacity
14. The Development of Energy services companies (ESCOs)
15. Institutional Strengthening and Improved Governance in Rural Electrification Program
16. Development of Smart Grid Road Map

Next steps to be done included the development of an implementation plan for these projects and a risk analysis and M&E framework.

3.1.5. **Community Action Planning**

AILEG supported community action planning for clean energy in two communities, Content and Princessfield. Ms. Nellie Richards, the Director of the St. Catherine's Community Development Agency (SACDA) discussed their experience in community action planning. Content is a rural community where farming is a significant livelihood activity while Princessfield is more urban. SACDA worked with both communities throughout the process. Ms. Richards outlined the community engagement process, which included mobilization activities, baseline data collection through participatory appraisal and quantitative survey methods, visioning and action workshops, and a field trip to another community successfully using RE and EE technologies to drive socio-economic development. The outputs of the process included the communities' strategic objectives and five-year action plans for sustainable community development through the use of low emission strategies. The AILEG Climate Finance Consultant, Diego de Velasco, developed fundable proposals for these projects and donors have expressed interest in funding the projects. As of November 2013, the United Nations Development Program (UNDP) and the Global Environment Facility (GEF) approved the proposal for the Princess Field Solar Training and Cyber Centre with an award value of USD 50,000.00. Funding for the Content community has not yet been awarded.

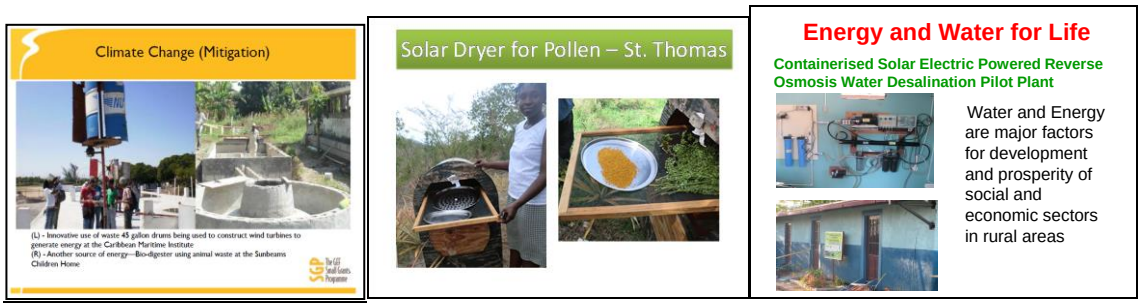
Ms. Lorraine Cole of Princessfield and Ms. Joan Laing of Content presented their community's five-year action plans and first-year implementation plans. Both communities proposed development of a training center for installation and maintenance of solar panels as their initial project. Other projects included conducting training for, agro-processing, public awareness and social marketing campaigns, retrofitting basic schools with clean energy technologies, distribution of CFL light bulbs, installation of solar street lamps, operation of a laundromat, and development of community organizations. Content also proposed activities to support agriculture, such as rainwater harvesting and greenhouse farming.

3.1.6. **Panel Discussion – Scaling Up Community Engagement for CC Mitigation and Sustainable Livelihoods**

<u>Panelists:</u>

- Donor: Ms. Hyacinth Douglas, Global Environment Facility, Small Grants Program (SGP)

- Renewable Energy Provider: Mr. Osric Forrest, Caribbean Maritime Institute (CMI)
- NGO/Community: Ms. Velva Lawrence, Local Initiative for the Environment (LIFE)
- Government: Mr. Philbert Brown, Ministry of Local Government and Community Development
- Moderator: Mrs. Karyll Aitcheson, Chief of Party for the USAID/Jamaica Rural Economy and Ecosystems Adapting to Climate Change (Ja-REEACH) Project



Summary of Panel Presentations

The presentations discussed activities to support climate change mitigation and adaptation in Jamaica, such as bee-keeping, hillside stabilization, use of renewable energy, and income generation opportunities.

Ms. Douglas described the work of the GEF's Small Grants Program (SGP) in demonstrating innovation in adaptation and mitigation projects and discussed scaling up and replicating successes across Jamaica and elsewhere.

Mr. Brown presented the MLGCD's focus areas for CC mitigation and RE and EE projects going forward in Jamaica and other countries.

He acknowledged that the communities were leading the Ministry, which was "playing catch up" with the relevant support framework for implementing the actions mentioned at the community level and many others underway.

He proposed using climate change committees for information sharing. This could be done through existing committees, with the Ministry's Social Development Commission (SDC) as a vehicle for the discussions.

He acknowledged that there needs to be a shift in planning approaches from the business as usual model where planners sit in an office and develop work programs that affect communities. The planning horizon of the local authority needs to extend beyond the usual three-to-five year period to look at possible longer term impacts of climate change. Although climate change will have to compete with other issues on political and economic agendas, it is no longer a side issue. Orientation programs for political representatives should build their awareness of climate change. Climate change considerations should also be included in the local government reform process.

3.2. DAY 2 (Wednesday July 10, 2013)

3.2.1. LEDS Economic Modeling

Dr. Abdullahi Abdulkadri,

AILEG Economic Modeling Consultant

Dr. Abdulkadri presented an analysis of planning processes for EC-LEDS and capabilities for economic modeling. The analysis addressed agriculture, climate change mitigation and adaptation, energy, forestry, housing, transport and tourism. Data were collected from the public sector MDAs, private sector associations, utility companies and universities.

Photo 6: Dr. Abdullahi Abdulkadri presenting his Economic Modeling findings

Findings

The GoJ has a well-developed framework for economic development planning, planning in some sectors and CC adaptation planning. However, CC mitigation planning is at a basic level. However, the GoJ has not emphasized CC mitigation because of Jamaica's relatively small contribution to global emissions and classification as a non-Annex I country under the UNFCCC.

The energy sector is at the forefront of GHG mitigation planning in Jamaica. However, some plans, strategies and targets have not been adequately supported by scientific data and analyses. The models that have been used by the GoJ included:

- Threshold 21 (T21),[1]
- Energy and Power Evaluation Program (ENPEP),[2]
- Model for Analysis of Energy Demand (MAED),[3]
- Model for Energy Supply Strategy Alternatives and their General Environmental Impact (MESSAGE),[4]
- Financial Analysis of Electric Sector Expansion Plan (FINPLAN),[5]
- Wien Automatic System Planning (WASP),[6] and
- Highway Development and Management Model (HDM).[7]

Nevertheless, economic modeling expertise in the GoJ is scarce, with only one or two persons in the organizations that use these models being experts. Other hurdles that will have to be overcome include challenges with data availability and accessibility.

[1] T21 is a dynamic simulation model used for national macroeconomic planning that was designed by the Millennium Institute. This model allows for comparative analysis of policy options.
[2] ENPEP was developed by the Argonne National Laboratory for the United States Department of Energy. It addresses energy demand and supply and the environmental implications
[3] MAED was developed by the International Atomic Energy Agency (IAEA) to be a flexible tool for diverse energy consumption patterns
[4] MESSAGE is a system engineering optimization tool for medium- to long-term energy system planning, energy policy analysis, and scenario development. This model developed by the IAEA differs slightly from the other energy models developed by the agency in that it accounts for both the supply and demand side of energy flows through "energy chains".
[5] FINPLAN, developed by the IAEA, assesses the long-term financial viability of expansion plans and fora power generation projects. The method includes preparing cash flows, income statements, balance sheets, and financial ratios.
[6] WASP is an optimization tool for electricity capacity planning and regulation developed by the Tennessee Valley Authority and the Oak Ridge National Laboratory to compare the economic competitiveness of nuclear power to other alternatives for electricity supplies for a country or region.
[7] HDM, developed by the World Bank, is used for engineering and economic assessment of road investments and maintenance and transport pricing and regulation.

Recommendations for Capacity Building

- Sensitize senior management of MDAs on the importance of economic modeling.
- Expand the economic modeling expertise at MSTEM through new hires and retrain previously trained staff in other MDAs on the use of ENPEP, which is currently in use at MSTEM. Prior familiarity with ENPEP will make it easier for MSTEM staff to regain the ability to use this model and learn other economic models. The use of ENPEP should expand from current MSTEM analysis of energy policy decisions and their sectoral impacts to include analysis of the environmental impacts of the power generation sector.
- Integrate ENPEP and MESSAGE to link emissions and other energy goals.
- Commission an economic modeling study on reforestation to plan no regrets projects.
- Adopt LEAP[8] in MDAs with identified needs for LEDS economic modeling and train staff in its use. The use of LEAP avoids the multiplicity of tools across MDAs and allows efforts to be concentrated on building expertise on a few essential tools, such as ENPEP, as opposed to gaining limited familiarity with multiple tools.
- Enhance available databases for energy and environmental data through cross-sectoral data-sharing and centralized coordination of data archiving.

Institute a system of rotational assignments in modeling for GoJ economists to deepen skills Recommendations for Technical Assistance

- Establish an economic modeling center at the University of the West Indies (UWI). This could create a pool of experts to provide technical assistance for the GoJ.
- Fund a multidisciplinary research collaboration between UWI and the University of Technology, Jamaica (UTECH) to develop economic modeling expertise across the two institutions to provide technical assistance to the GoJ on LEDS modeling.
- Grant academic researchers full access to the T21 model to support and expand the modeling work being done at the Planning Institute of Jamaica (PIOJ).

Opportunities for LEDS modeling exist in MWLECC, MSTEM, MLGCD, Ministry of Transport, Works and Housing, Ministry of Tourism and Entertainment, Ministry of Agriculture and Fisheries, Forestry Department and National Environment and Planning Agency.

3.2.2. **Climate Finance Analysis**

Mr. Diego de Velasco,

AILEG Climate Finance Consultant

Findings

Special carbon finance (CF) vehicles are available in the form of grants (including technical assistance) and loans. CF targets projects in energy efficiency, renewable energy, reforestation, reducing deforestation, climate-smart agriculture and coastal protection. Two Jamaican

Photo 7: Mr. Diego de Velasco

[8] LEAP is an interactive system of tools that enables economic developers and consultants to conduct targeting, economic development evaluation and strategy

companies have been involved in carbon finance -- Wigton Wind Farm Limited and Eco Tech Limited. Other CF flows to Jamaica have supported GoJ projects with at least USD 197 million in grants and loans and non-GoJ managed flows of at least USD 5.5 million. Increasingly, CF is shifting from project-based initiatives to program initiatives and from Clean Development Mechanism (CDM) Programs of Action to Nationally Appropriate Mitigation Actions (NAMAs) linked to LEDS.

The global carbon compliance market is dormant due to oversupply. However, some opportunities exist for small, voluntary market projects. There are CF opportunities under the Reducing Emissions from Deforestation and Forest Degradation (REDD+) mechanism. REDD+ projects are expensive to develop, but some funders, such as USAID, will finance REDD+ readiness work to formulate projects.

Recommendations for GoJ:

- Develop a guidebook for developers of CF projects
- Set up a virtual support center (web portal)
- Support project developers in accessing carbon finance. However, the recommendation for this CF stream is to watch the market to see if positive changes emerge

Recommendations for increasing financing for small scale EE and Reinvestments

- Review and improve the Development Bank of Jamaica's (DBJ's) Credit Enhancement Facility (loan guarantees) and reconsider the need for concessional rates
- Structure an institutional energy services company (ESCO), which would be a commercial or non-profit business that would provide larger lending capacity for bankable EE and RE projects; higher technical capacity for project feasibility assessment and implementation; and ultimately generation of a pipeline for EE and RE projects.

Recommendations for a CF strategy

- Quantify and track GoJ spending in CC adaptation and mitigation
- Increase CF readiness using the UNDP Climate Public Expenditure and Institutional Review (CPEIR) framework, which is a methodology for analysis that reviews how climate change-related expenditures are integrated into national budgetary processes.
- Participate in negotiations to set up the Green Climate Fund (GCF).
- Develop a NAMA policy and strategy by sector, aligning it with Jamaica's development priorities and plans, focusing first on EE, which has short-term potential.
- Develop a REDD+ policy and strategy, using the Jurisdictional and Nested (JNR) approach. The resulting framework would establish a clear pathway for existing and new subnational jurisdictional activities and projects to be integrated (or "nested") within broader (higher-level) jurisdictional REDD+ programs.
- Investigate opportunities under the Joint Crediting Mechanism/Bilateral Offset Credit Mechanism (JCM/BCOM) that would facilitate reduction in GHG through assessment and implementation of low carbon technologies, products, systems, services, and infrastructure.

- Establish a National Climate Trust Fund to support the collection, blending, coordination and accounting of climate finance at the national level.
- Engage the private sector as part of national planning and investment priority-setting processes
- Ensure that the Climate Change Division in MWLECC has the means to fulfill its climate finance mandate through the hiring of both a climate finance/resource mobilization expert with a solid knowledge of CCM finance sources and procedures and the development of local professional capacity for NAMA design and implementation.
- Set up a debt for adaptation swap following the Nature Conservancy (TNC) model

3.2.3. **Panel Discussion – Addressing Climate Change in Jamaica**

The objective of this panel was to provide the participants with an understanding of MWLECC plans; and opportunities to mainstream climate change in national, sectoral and local policies, plans and programs, and the findings and recommendations of the AILEG project. Emphasis was placed on charting directions for climate change initiatives; processes for planning and opportunities for financing as well as the use of data and analysis for LEDS decision making. The crossover between adaptation and mitigation was also explored.

Topics and Panelists:

- Status and Way Forward for Climate Change
  - Lt. Col. Khan, MWLECC
- Current Climate Change Projects and Future Policy Directions
  - Ms. Le-Anne Roper, Planning Institute of Jamaica
- The Relevance of Climate Change Negotiations to Jamaica
  - Ms. Rachel Allen, Senior Advisor to the Minister on Climate Change, MWLECC
- Opportunities and Challenges for economic modeling
  - Mr. Omar Alcock, MSTEM
- Opportunities for financing climate change projects for MSMEs
  - Mr. Christopher Brown, Development Bank of Jamaica
- Potential for funding climate change initiatives
  - Mr. Thomas Opperer, Head of Section, Infrastructure and Rural Development, European Union Delegation to Jamaica

Photo 8: Dr. Alicia Hayman Moderating the Panel Discussion on "Addressing Climate Change in Jamaica"

SUMMARY

Dr. Hayman noted Lord Stern's concerns are worse than he had predicted and the World Bank's "Turn Down the Heat" Report is alarming. The International Monetary Fund's (IMF) April 2013 Jamaica Letter of Intent, Memorandum of Economic and Financial Policies, and Technical Memorandum of Understanding (MOU) stated that Jamaica is not coping with disasters as quickly as the country did in previous years. With all of this, it would be prudent to take a precautionary approach to climate change.

- Coordination of CC across the GoJ
    - MWLECC intends to enact legislation that will give the Climate Change Division the mandate to coordinate climate change response activities. The Division will set up a network of CC Focal Points across GoJ ministries to coordinate information from MDAs working in climate change and creating an efficient reporting system. The Climate Change Advisory Committee has representation beyond the MDAs to gather information from outside the government.
    - The Ministry of Finance and Planning also recently introduced a framework to set priorities for funding programs and projects. All GoJ ministries will be required to include a climate change line in their budgets. Some climate change priorities will be funded through regular budget allocations.
- The Role of Academic Research
    - Jamaican universities need to be familiar with the technical assistance needs of that government will need so that curricula can be developed for addressing these needs. Increased attention should be paid to economic modeling for EE and RE. The models are not be a substitute for thinking but should support thought processes.
- Vision 2030 is a solid guide for CC
    - Part of the thrust of Vision 2030 Jamaica – the National Development Plan is to ensure that the country's budget is aligned with the objectives of the Plan, especially the Medium-Term Socio-Economic Framework (MTF). The

Ministries and funding partners also align planning and assistance with the MTF to ensure that funding is available.

- International Experts: Climate Finance Opportunities need to be pursued
    - A USD 100 billion Global Climate Facility is being set up under the UNFCCC. Jamaica needs to work towards should obtain a seat on boards such as these so that the country can have representation at the decision-making level.
    - Blending is one climate finance strategy that can be pursued for projects that could be economically viable but need some additional input like technical assistance to prepare feasibility studies or grant resources to reduce startup costs.
- Is Coal an Option for EE?
    - A Jamaican team visited a region that uses coal and found that they have technologies in place to control emissions. However, the capital cost for putting in coal-based infrastructure and adding emission reduction technology is prohibitive, and multilateral financial institutions are moving away from financing coal plants in the region, so it is better to concentrate efforts on using cleaner energy sources. The Ministry of Health was clear that it does not support the use of coal because of the associated health risks when adequate emission mitigation measures are not applied. President Obama's Climate Action Plan discusses coal as an energy source, so this document can be consulted by participants.
- Capacity Development in CC for Jamaica
    - Training and capacity development are imperative for successful use of economic models in planning. Most GoJ staff lack the capacity to critically assess the accuracy of the outputs of models, so data has to be accurate before it is used to populate the models.

Dr. Hayman emphasized the need to coordinate the results of the AILEG project to achieve development results. There are opportunities for cross-linkages in the AILEG work streams. The next step for the NEAP is implementation planning. The recommendations of the Climate Finance work stream should be incorporated into planning and funding the actions. The products developed under the AILEG Jamaica community engagement and action planning activities should be incorporated into national planning processes. MWLECC should take the lead on coordination. Information from the AILEG project should be shared within the MWLECC so that work plans can be developed. The Climate Change Division will take responsibility for carrying the recommendations forward. Support for the process will be received under the broader EC-LEDS MOU.

3.2.4. **Next Steps**

Ms. Dana Kenney, AILEG Jamaica Country Manager, noted that the team will be reviewing the results of this symposium, and what the roles and responsibilities are for the Government of Jamaica and USAID.

She committed the AILEG team to the completion and sharing of the final reports in each of the four work streams. She also noted the feedback from the USAID EC-LEDS Coordinator that the work of the project in low emission development planning is state-

of-the-art and will need to be integrated into Government and Private Sector planning to make the best use of this work.

3.2.5. **Thanks**

Mr. Malden Miller, USAID Management Specialist thanked participants on behalf of Ms. Suzanne Ebert, USAID Office Director, Environmental and Health. He noted that attendance was 98 people on Day 1 and 70 on Day 2.

He thanked the Government of Jamaica, in particular, Minister Phillip Paulwell, Lt. Col. Oral Khan, Ms. Rachel Allen, and the Hon. Minister Pickersgill.

Mr. Miller thanked the communities of Princessfield and Content and their representatives Ms. Lorraine Cole and Ms. Joan Laing as well as Ms. Nellie Richards of the St. Catherine Development Agency.

Mr. Miller thanked Mrs. Karyll Aitcheson, and the facilitators, Prof. Dale Webber and Mrs. Karen McDonald Gayle as well as the AILEG Team led by Dr. Alicia Hayman and Ms. Janet Bedasse and Ms. Dana Kenney and Ms. Dianna Gillespie in Washington, and supported by Dr. Abdullahi Abdulkadri Mr. Diego de Velasco, and Dr. Ruth Potopsingh.

ANNEX A: AGENDA AND PRESENTATIONS

MINISTRY OF SCIENCE, TECHNOLOGY, ENERGY AND MINING

MINISTRY OF WATER, LAND, ENVIRONMENT AND CLIMATE CHANGE

USAID FROM THE AMERICAN PEOPLE

AILEG ANALYSIS AND INVESTMENT FOR LOW EMISSION GROWTH

ANALYSIS AND INVESTMENT IN LOW EMISSION GROWTH (AILEG) PROJECT

PROJECT SYMPOSIUM

JULY 9-10, 2013

PROJECT OBJECTIVE:

The goals of the AILEG activities are to build capacity of the Government of Jamaica and other stakeholders to analyze low emission scenarios and integrate them into economic development strategic planning and implementation, as well as conducting economic analysis to promote investment in low emission technologies and projects.

SYMPOSIUM OBJECTIVES:

1. Provide a forum for stakeholder engagement and dialogue on:
    a. LEDS and examples of the LEDS process;
    b. LEDS in the Jamaican context; and
    c. Requirements for low emission considerations in national planning, specifically in areas of decision making using LEDS economic modeling; financing; sector-specific action plans and local level considerations for energy efficiency and renewable energy.
2. Discuss the status and way forward for policy, programming, planning and financing for climate change.

AGENDA

DAY 1

8:30-9:00am **REGISTRATION**

9:00-10:30am **OPENING CEREMONY**

- *Prayer – Rev. Gary Harriott, General Secretary, Jamaica Council of Churches*
- *Opening Remarks – Master of Ceremonies – Prof. Dale Webber*
- *Greetings – Min. Ian Hayles, State Minister, MWLECC*
- *Greetings – Ms. Denise Herbol, Mission Director, USAID*
- *KEYNOTE SPEAKER- Hon. Minister Phillip Paulwell, MSTEM Video "Voices for Climate Change"*
- *National Anthem*

10:30-11:00am **BREAK**

11:00am-11:10am **Introduction to the symposium sessions- Dr. Alicia Hayman, AILEG Jamaica Country Coordinator**

11:10am-11:50am ***Low Emission Growth for Development*** **– Dr. Michael Hanowsky USAID Jamaica,**
Low Emission Development Strategies and Plans- Global View and Importance **- Mrs. Andrea Garcia-Guerrero, USAID Columbia**

11:50am -12:00pm **Analysis and Investment for Low Emission Growth – Global Program and Jamaica component- Ms. Dana Kenney, AILEG Jamaica Country Manager**

OUTPUTS OF THE AILEG TECHNICAL ASSISTANCE
INTEGRATION OF LEDS IN NATIONAL DEVELOPMENT

12:00pm-1:00pm **Second National Energy Action Plan (NEAP)**

- **Presentation of NEAP development process- Mr. Fitzroy Vidal, MSTEM**
- **Presentation of draft NEAP – Dr. Ruth Potopsingh**

1:00pm-2:00pm **LUNCH**

2:00-3:00pm **Community Energy Efficiency and Renewable Energy Action Planning**

- **Community engagement process and definition of strategic objectives – Mrs. Nellie Richards, St. Catherine Development Agency**
- **Presentation of plans**
  - **Content- Ms. Joan Laing**
  - **Princessfield – Ms. Lorraine Cole**

3:00-3:15pm **BREAK**

3:15-4:30pm **PANEL DISCUSSION- COMMUNITY ENGAGEMENT FOR CLIMATE CHANGE**
Moderator: Mrs. Karyll Aitcheson, JA-REEACH
Panelists:
Donor- Global Environment Facility, Small Grants Programme, Hyacinth Douglas
Provider: Mr. Osric Forrest, Caribbean Maritime Institute
NGO/Community: Ms. Velva Lawrence, LIFE
Ministry– Mr. Philbert Brown, Ministry of Local Government and Community Development

4:30pm **DAY 1 CLOSURE**

DAY 2

9:00 am-9:15am **SUMMARY DAY 1**

OUTPUTS OF THE AILEG TECHNICAL ASSISTANCE contd.

9:15 am-10:30am **LEDS Economic Modeling – Dr. Abdullahi Abdulkadri**

10:30am-10:45am **BREAK**

10:45am-12:00pm **Climate Finance for Jamaica- Mr. Diego de Velasco**

12:00-1:00pm **LUNCH**

1:00-2:30pm **PANEL DISCUSSION: ADDRESSING CLIMATE CHANGE IN JAMAICA**
Moderator: Dr. Alicia A. Hayman, AILEG Jamaica Country Coordinator

- **Status and Way Forward for Climate Change – Dr. Alwin Hales *Permanent Secretary/Lt. Col. Khan, MWLECC***
- **Climate Change Project Management and Coordination – Mr. Hopeton Peterson, Planning Institute of Jamaica**
- **The Relevance of Climate Change Negotiations to Jamaica. *Ms. Rachel Allen, Senior Advisor to the Minister on Climate Change, MWLECC***
- **Opportunities and Challenges for economic modeling- Omar Alcock*, Ministry of Science, Technology, Energy and Mining***
- **Opportunities for financing climate change projects for MSMEs – *Mr. Christopher Brown, Development Bank of Jamaica***
- **Potential for funding climate change initiatives – *Mr. Thomas Opperer, European Union***

2:30pm-2:35pm **Next Steps – Ms. Dana Kenney, AILEG Jamaica Country Manager, Abt Associates**

2:35pm-2:45pm **VOTE OF THANKS– Ms. Suzanne Ebert, Office Director, Environment and Health, USAID/Jamaica**

CLOSURE

ANNEX B: LIST OF PARTICIPANTS

No	Organization	Acronym	Post	Name	M/F	Contact info (email or phone)
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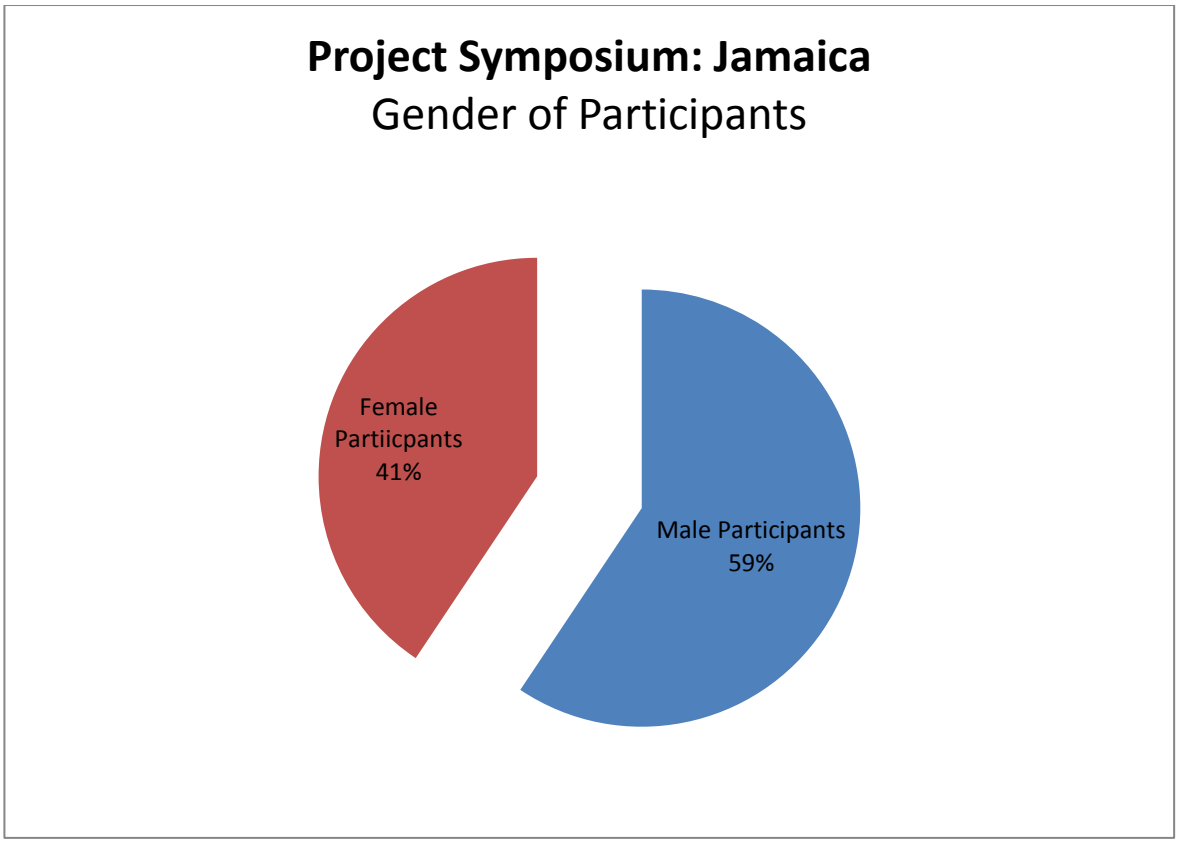
Project Symposium: Jamaica
Gender of Participants
Female Partiicpants 41%
Male Participants 59%

ANNEX C: EVALUATION REPORT

Name of Event:	Analysis and Investment for Low Emission Growth (AILEG)Project Symposium: Jamaica
Dates:	July9-10, 2013
Venue:	Jamaica Pegasus Hotel, Kingston, Jamaica
Total Number of Participants	83 (+16 Abt Staff, Consultants, Contractors)
Total Number of Evaluations Received	53

Method: The participants were asked to complete an Evaluation Sheet that was delivered in each Symposium packages. They were asked to evaluate:

- The "Contents and Coverage" of the AILEG presentations;
- The "Usefulness" and "Time Allotted" for the Panel Presentations;

The participants were also asked to rate the logistics and facilitation (in particular registration, time management, materials, facilitation and sound system). The rating system used to rank the presentations, the panel discussions and the Logistics and Facilitation Support was: A – Excellent; B – Good; C – Neutral; D – Fair; and E- Poor. Time allotted was ranked as A – Perfect; B- Adequate; or C – Inadequate. In addition, stakeholders were asked to share their personal lessons learnt and information on the value of the presentations to them.

Only participants who completed the form received a jump drive of the presentations.

EVALUATION SUMMARY

The Symposium received mainly positive feedback from the 53 persons who completed the evaluation forms. Ninety-six percent of those who responded to the question thought that the *materials presented* were Good or Excellent. Similarly, a majority (76 percent) thought the *management of time for activities and presenters* was Good or Excellent. It was noted, however, that the higher negative comments (still in the minority) were received for individual times allotted, in particular for the presentations of Dr. Potopsingh (13 percent) and Dr. Abdulkahdri (23 percent) and the Panel Discussion on Addressing Climate Change (37.5 percent).

Most persons acknowledged an increased knowledge of CC, and EE and RE overall and especially in the Jamaican context. A number suggested alliance and connections made or to be made as a result of the Symposium.

Evaluation of Sessions

Session Topics	**Contents and Coverage**							**Time Allotted**				
	A-Excellent	B-Good	C- Neutral	D-Fair	E - Poor	No Answer	**Total**	A - Perfect	B- Adequate	C- Inadequate	No Answer	**Total**
Low Emission Growth for Development - Mike Hanowsky	16	26	0	0	0	11	**53**	17	20	2	14	**53**
Global Program and Jamaica component - Dana Kenney	11	23	3	1	0	15	**53**	15	18	2	18	**53**
NEAP Development Process - Fitzroy Vidal	13	27	3	0	0	10	**53**	9	25	4	15	**53**
Presentation of draft NEAP - Ruth Potopsingh	18	23	1	1	0	10	**53**	10	23	5	15	**53**
LEDS Economic Modelling - Abdullahi Abdulkadri	20	12	3	0	0	18	**53**	10	13	7	23	**53**
Climate Finance for Jamaica - Diego de Velasco	26	12	0	1	0	14	**53**	13	18	4	18	**53**
Next Steps - Dana Kenney	9	16	2	1	0	25	**53**	12	11	2	28	**53**
Panel Discussions	**Usefulness**							**Time Allotted**				
Community Engagement for Climate Change	20	12	2	0	0	19	**53**	7	20	4	22	**53**
Addressing Climate Change in Jamaica	18	15	3	0	0	17	**53**	5	15	12	21	**53**

Logistics and Facilitation	**Rating**					No Answer	**Total**
	A-Excellent	B-Good	C- Neutral	D-Fair	E - Poor		
Registration Process	35	14	0	2	0	2	**53**
Managing time of activities and presenters	15	23	7	4	1	3	**53**
Materials	29	20	2	0	0	2	**53**
Facilitation of Questions and Answers	21	22	4	3	0	3	**53**
Management of Communications (sound system)	30	18	2	1	0	2	**53**

Summary of Comments:

Important Lessons/Topics	Will Symposium Enhance Your Work?	Other Comments
• World Bank Report "Turn Down the Heat" • Heightened importance of NAMAs • Carbon Finance – subset of Climate Finance • Significant role of economic modeling for securing climate financing • New options for a Climate Finance Strategy • Significant level of awareness of stakeholders on the importance of CC • Increasing need for public awareness of GoJ initiatives • Use of baseline data at the community level very instructive in mobilizing support and funding for community development • Conduct research in the Climate Finance Market before accepting certain arrangements like Climate Bond • Need for data and inclusion of Economic Modeling in policy and implementation • Information is key to Climate Mitigation • Community groups need to be more informed as there are projects they can access • A lot of information is out there that I very useful. • Learning (re CC) is important • Feedback on our community indicate that we are doing good work • Capacity Building is very important moving forward. • Ideas on community engagement • MWLECC plans and stat of CC policy • With climate change, We must Change • Every country has different priorities • You can achieve your goal by teamwork • The elements needed for success in working at the national and community level. • Options for Climate Finance and the potential role of Development Banks • Analysis of Economic Modeling capabilities related to emissions tracking in Jamaica. • Opportunity and Challenges for EE and RE • The low level of use of CFL bulbs in communities • NEAP Development Process • The importance of disaster mitigation and how it complements Energy Efficiency. • CC is broader and bigger than originally thought • Voluntary actions and green bonds. • Community members need to be directly involved in CC/Funding projects. • Funding agencies/banks locally need to be sensitized to longer loan periods in light of recent Debt Exchange program. • There is a need to establish a central modeling unit for Jamaica. • Lack of data for informed Policy Making and Modelling.	• USAID/Jamaica: will provide guidance/inform 5 yr strategy going forward • MWLECC: Looks forward to final reports • Body of Work from the Project will inform the Ministry of Energy on those activities that are critical – the next step will be to engage private sector and develop an implementation plan to effectively implement the recommendation from the studies. • The contacts gained will enhance my work. • I am better able to achieve the mitigation project as I received a lot of useful information. • Assist in "Big Picture" development of Renewable Energy implementation • Increase in Renewable Energy and Energy Efficiency Projects • Support for in-house (Petroleum Corporation of Jamaica) capacity building. • Provide valuable info on the AILEG project. • I have learnt a lot about CC and its dangers. • It has allowed me to understand the state of LEDS in Jamaica and where Jamaica wants to go with LEDS. • We will be developing more RE and EE activities • We will be addressing CC and mitigation-type projects, especially public education and awareness programs. • I will be in a better position to pass on information to communities on how to conserve energy and to educate them more on the topics of RE and EE, CC etc. • Identifying relevant Climate Financing to facilitate implementation of mitigative solutions. • This Symposium should be repeated in another 3-4 years to follow up on our achievements. The information garnered will enhance my work	• Persons should have identified themselves during questions and answers (Q&A). • High commendation for Dr. Hayman and the team for the energy and expertise that was brought to the entire process. • The recommendations from the various presents under AILEG are very sound and applicable. It is evident that significant work has been done with respect to the consultancy under AILEG. • Thanks! • Streamlining of processes going forward is essential to reducing overlapping responsibilities and actions. • I am very impressed with how much was done in such a short time. I saw very concrete and high quality outputs. The workshop was also very well run and coordinated. It also contained a lot of helpful and technical info. Congratulations! • A very good 2-day symposium – well organized, full of information and learning. There were good networking opportunities. It laid the foundation for further work in EE and RE and will ultimately impact National Development. • I hope the project becomes a success. • Younger persons needed to be involved. Min of Health reps should have been invited to discuss coal for energy production in connection with the Sugar Industry. • More educational institutions could have

Important Lessons/Topics	Will Symposium Enhance Your Work?	Other Comments
• The importance and link between CC and other sectors of the economy. • Jamaica's focus as with many other states, on adaptation and mitigation rather than reduction. • Policy frameworks available with initiatives in MWLECC. • A lot of technical jargon became clearer • Need to have academic institutions more involved in facilitating the creation of useful information • There needs to be more action on plans already available • The alignment with Vision 2030 • The likely sustainability and coordination with Local authorities. • MSTEM action plan needs to be publicized • The degree to which communities have strategically addressed CC • The EE and RE programs at Caribbean Maritime Institute. • Critical role of energy sector in CC	• MSTEM: the need to coordinate with MWLECC • Lots of ideas for Capacity building in modeling. • More information, networking with experts and policy-makers. • My investment decisions need to include CC assessment. • How information is collected and collated and the slant to be taken • Will improve awareness of actions taken and available opportunities. • Loan structuring for RE and EE loans. • CC (both adaptation and mitigation) is a reference point for all work in Env. Mgt. and Dev. Planning.	been involved. • How do we overcome the cultural barriers and information gaps? • Provide list of participants. • The info in economic modeling is very important in informing next steps • Should be an annual event • Invite students (Univ Geog and Life Sciences) • Policies need to target large scale developers • Projects need to be prioritized • Policies needed on: o Incentives for persons who have implemented energy efficient strategies o Access to capital for conversion to EE mechanisms o LEDS in schools

PROJECT SYMPOSIUM

July 9-10, 2013 – Kingston, Jamaica

We are interested in your assessment of the Project Symposium and would like to ask you to complete this evaluation form. This will help us improve the quality of our work.

1. Evaluation of the session topics

Contents and Coverage: A – Excellent; B – Good; C – Neutral; D – Fair; E - Poor
Time Alotted: A – Perfect; B – Adequate; C – Inadequate

Please enter A, B, C, D or E, or A, B, C below

SESSION TOPIC	CONTENTS and COVERAGE	TIME ALLOTTED
Low Emission Growth for Development Dr. Michael Hanowsky USAID Jamaica **Analysis and Investment for Low Emission Growth – Global Program and Jamaica component** Ms. Dana Kenney, AILEG Jamaica Country Manager	_____ _____	_____ _____
<u>Second National Energy Action Plan (NEAP)</u> **Presentation of NEAP development process** - Mr. Fitzroy Vidal, MSTEM **Presentation of draft NEAP** - Dr. Ruth Potopsingh	_____ _____	_____ _____
LEDS Economic Modeling - Dr. Abdullahi Abdulkadri	_____	_____
Climate Finance for Jamaica - Mr. Diego de Velasco	_____	_____
Next Steps - Ms. Dana Kenney, AILEG Jamaica Country Manager	_____	_____

Evaluation of the Panel Discussions

Usefulness[9]: A – Excellent; B – Good; C – Neutral; D – Fair; E - Poor
Time Alotted: A – Perfect; B – Adequate; C – Inadequate

Please enter A, B, C, D or E, or A, B, C below

PANEL DISCUSSIONS	USEFULNESS[1]	TIME ALLOTTED
Panel discussion- Community Engagement for Climate Change	_____	_____
Panel Discussion - Addressing Climate Change in Jamaica	_____	_____

[9] *How useful was the panel discussion?*

II. Evaluation of Logistics and Facilitation Support

A – Excellent; B – Good; C – Neutral; D – Fair; E - Poor

Activities	Rating
a. Registration process	a. _____
b. Managing time of activities and presenters	b. _____
c. Materials	c. _____
d. Facilitation of Questions and Answers sessions	d. _____
e. Management of communications (sound system)	e. _____

Please state three important lessons/topics that you have learned during the Symposium:

_____

_____

_____

_____

_____

_____

How will the Symposium help to enhance your work?

_____

_____

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_____

Any other comments:

_____

_____

_____

_____

_____

Name and signature of participant (optional) _____

Agency/Organization (required) _____

ANNEX D: DETAILED Q&A SESSION NOTES

LOW EMISSION GROWTH IN JAMAICA

DR. MIKE HANOWSKY-USAID JAMAICA

DETAILED DISCUSSION NOTES

QUESTION/COMMENT	RESPONSE	RESPONDENT
How will the collapse in the carbon market affect climate financing?	There are many sources of financing for climate change projects; carbon trading is just one of them. Most development has not been funded by carbon trading, but by the private sector. Therefore, climate finance strategies need to address ways of engaging the private sector and development banks. It is also important to ensure from the outset that activities can be financed. Carbon finance can be helpful for small projects but not for larger ones.	Dr. Hanowsky Mr. de Velasco
MSTEM's thrust is for the uptake of RE technologies, especially solar panels. The growing trade disputes between Europe and China might result in increased prices for solar technologies in Jamaica. How can this be mitigated?	The cost of electricity in Jamaica is in excess of USD 0.45/KWH. At this cost there are a lot or RE technologies that are economically feasible and will have a 2-6 year payback period. Therefore, if policies are in place to support the uptake of RE/EE technologies the benefits will be realized. Co-benefits such as energy security should also be considered.	Dr. Hanowsky
One of the government's economic diversification activities is port expansion. What role can EC-LEDS play for reducing emissions from the maritime industry? Are there any case studies from other countries?	No work has been done on maritime fuels in other countries. EC-LEDS can lead to the development of transport sector policies. Additionally, the economic models can be used to forecast GDP and other economic indicators, so AILEG modeling can help development planners to think about the impact of port expansion in terms of economic value and environmental costs, so that mitigation measures can be put in.	Dr. Hanowsky

NATIONAL ENERGY ACTION PLAN

DR. RUTH POTOPSINGH, AILEG ENERGY POLICY CONSULTANT

DISCUSSION

QUESTION/COMMENT	RESPONSE	RESPONDENT
Some of the responses submitted by stakeholders during the AIM Prioritization workshops indicated that some persons did not have a clear understanding of some of the fundamentals of the decisions that were being taken. There is no scientific basis (cost reduction analysis) for the projects that were selected so the NEAP could be considered flawed.	The process for the selection of projects included several criteria, not just the AIM results. Additionally, in a participatory voting situation there will not be perfect agreement as each individual will bring his/her own perspective to the voting. Mr. Vidal stated that he did not agree with the suggestion that the stakeholders lacked the capacity to vote on the projects, as they represented key partners from government MDAs, the private sector and academia. The process was valuable and the objectives were achieved. It could not be expected that all persons would vote in the same manner. He added that most of the persons who attended the workshops were senior officers in their respective organizations. A few may be new, but this was not sufficient to skew the voting and derail the objectives. The costing of projects could not be done under AILEG due to the short duration of the project. Costing will be done in the Implementation Plan which will be developed for the NEAP. However, it should be remembered that many of the projects will be implemented by the private sector, so the GoJ will not be able to provide costing estimates.	Facilitator Mr. Vidal Dr. Potopsingh
What happened to exploration for fossil fuels?	This did not emerge as a priority action in the stakeholder consultations. However, a number of non-priority projects will be listed in the NEAP and fossil fuel exploration is among them.	Dr. Potopsingh
Net billing is mentioned in the Plan, but what about power wheeling? What have we done in term of transparency in pricing?	The government has a schedule for the introduction of power wheeling. Preliminary work has been done and a comprehensive review will be done during the period of the NEAP. The power wheeling regulations will be in place by mid-2014	Mr. Vidal Dr. Potopsingh
Dr. Potopsingh presented a pie chart which showed that 13 percent of the projects under the first NEAP were completed. Were they completed within budget and on time? What were the desired outcomes and lessons	The majority of the completed projects are those that were fully within the remit of MSTEM. The expansion of Wigton Wind Farm from 20.7MW to 38MW was completed within schedule and budget; The EE potential study was done by ECLAC within schedule and budget; Establishment of the OLADE Caribbean Sub-regional Office was done on time but the project went a little over budget; The National Energy Information Clearinghouse was established within budget but was extended a little beyond schedule; The Energy Security	Mr. Vidal

QUESTION/COMMENT	RESPONSE	RESPONDENT
learnt?	and Enhancement Project is in implementation and on schedule; The Energy Efficiency for the Public Sector Project is behind schedule but momentum is expected to increase; The Caribbean Energy Action Program is on target; The introduction of E10 gasoline was completed a little off schedule but within budget. Under the new NEAP the regulatory environment will be strengthened through support from the Inter-American Development Bank (IDB) and the World Bank (WB). This will facilitate more active participation of the private sector for better achievement of results. The draft NEAP has status updates for all the projects that were included in the first NEAP.	
There is a conspicuous absence of projects for the transport sector in the Plan.	After the transport sector project was established in 2010, there was a new ministerial directive to focus on electricity price reduction. The aim was to focus on one issue that will affect the bottom line for all Jamaicans. However, some projects from the transport sector have been carried forward so they will be represented.	Mr. Vidal
What is the philosophical basis for prioritizing the development of the smart grid?	The smart grid will create opportunities for consumers to have greater control over their demand. Building intelligence into the power grid will allow stakeholders to have access to different applications as the power grid will provide tremendous communication capabilities, allowing consumers to have greater choices and optimization of resources. Policymakers did not deem it prudent to allow the utility company to implement technology driven solutions on its own. The development of the smart grid roadmap with stakeholder participation will create a framework that is responsive to needs of utility company and consumers.	Mr. Vidal
Is net billing an option for Jamaica?	The problem with net billing is that some persons who want to do it cannot meet the standards for connecting to the grid. Jamaica Public Service Co. Ltd. successfully implemented a demand side management program which was funded by the World Bank a few years ago. Consumers were able to acquire solar water heaters and applied excess energy produced to their electricity bills. So seminal work is there, but the logistics for charting the way forward need to be worked out.	Dr. Potopsingh

COMMUNITY ENERGY EFFICIENCY AND RENEWABLE ENERGY ACTION PLANNING

DISCUSSION

QUESTION/COMMENT	RESPONSE	RESPONDENT
What is the population size of the communities and what percentage was surveyed for the baseline study?	Princess Field : Population – 2,500; Sample size – 331 Content : Population – 1,500; Sample size – 313 A 5 percent margin of error was used of the survey	Ms. Bedasse
The objective of low emission growth is micro enterprise development. How can this project provide employment and entrepreneurial opportunities outside of cyber and solar centers?	The Year-1 activities (establish solar training centre and cyber centre) are intended establish the foundation on which employment and business generation will be built. The presentations focused in detail on these Y-1 activities. However, the community action plans contain five years of development activities and these include other business and employment opportunities.	Ms. Bedasse
The community could submit requests for support for the agro-processing activities to the Scientific Research Council and approach HEART TRUST NTA for training.	THE COMMENT WAS NOTED	
The community only had three months in which to develop the action plans. Was this a constraint? What would you have done with more time? Was the methodology used applicable to the community?	Three months created a very hectic schedule. The community members had to be pushed. With a longer time frame the project would have been implemented at a slower pace, allowing community members time to develop a better understanding of the RE and EE concepts that underpinned planning processes. The methodology used was applicable to the community and can be replicated for other projects, especially income generation and training.	Ms. Richards
Petroleum Corporation of Jamaica can be approached for assistance with the CFL project.	THE OFFER WAS NOTED	
Has the community considered outsourcing or partnerships for training? The Caribbean Maritime Institute (CMI) can assist in this regard.	CMI was considered and written into the action plans. The Climate Finance expert suggested training persons to install and maintain solar panels, as solar energy uptake is expected to increase in Jamaica.	Ms. Bedasse

PANEL DISCUSSION:
COMMUNITY ENGAGEMENT FOR CLIMATE CHANGE

DISCUSSION

QUESTION/COMMENT	RESPONSE	RESPONDENT
Community projects should be taken from the grant stage to becoming economically feasible. Return on Investment and economic feasibility perspectives must be brought to the table.	The MLGCD has a National Coordinator for Community Economic Development. The Ministry has also taken on board a Local Economic Development Manager and advertised for parish/local officers. This arrangement is intended to facilitate the development of economically feasible community projects.	Mr. Brown

LEDS ECONOMIC MODELING

DR. ABDULLAHI ABDULKADRI, AILEG CONSULTANT

DISCUSSION

QUESTION/COMMENT	RESPONSE	RESPONDENT
ENPEP was used by the Sugar Industry Research Institute (SIRI) to identify the potential for the sugar industry to apply cogeneration from as early as 2005. This was overlooked in the consultant's research	MSTEM trained a number of stakeholders in the use of ENPEP and the model was promoted for use in a number of organizations. SIRI participated in the training. Various stakeholders (JPS, PCJ, Petrojametc) built their own networks with respect to energy demand and supply and the results were brought together at the end of the project. 2006 was used as the base year so the models need to be brought up to date so that forecasting can be done. The suggestion to establish an Economic Modeling Centre is a good one and ENPEP can be used. Sensitization on the benefits of using models needs to be done to get the buy-in of senior managers and supervisors. The modeling that is being done at SIRI will be included in the final report.	Mrs. Barrett Edwards Dr. Abdulkadri
Was emission reduction included in SIRI modeling	ENPEP does not cover emissions. This is done with MESSAGE. The idea was to use a composite of models.	Mr. Whyte (Sugar Industry Authority)
Can the work that is being done with models be incorporated into AILEG?	The AILEG project is coming to an end, but the symposium generated recommendations that will be incorporated into the final reports.	Mrs. Kenney
Dr. Abdulkadri mentioned that ENPEP and MESSAGE can be used together for analyzing emissions. Can any other models be used?	LEAP could be used in MDAs that do not yet have models.	Dr. Abdulkadri
Did the consultant find a general awareness in MDAs of the data sets that need to be collected to facilitate the use of models?	Awareness levels varied among the MDAs from zero to very aware. In some cases persons were not aware of which MDA should collect the data.	Dr. Abdulkadri
A data plan should be developed so that the MDAs will know what data is to be collected and which MDAs are responsible.	This is an important point for charting the way forward.	Mrs. Bedasse
<u>CLOSING COMMENTS MADE BY DR. HANOWSKY</u> These types of technical exercises are important and the opportunities they create are tremendous. At the international level, the mantra is that those countries that develop their actions based on data		

QUESTION/COMMENT	RESPONSE	RESPONDENT
analysis and stakeholder participation will have greater access to funding from banks and the private sector. If a country wants to access climate financing, modeling will have to be included in the approach as scientific analysis must be demonstrated. The use of models takes effort and it must be included in the policy agenda. The countries that are most successful at modeling are the ones that take the modeling capacity out of government and place it in academia. Some sectors are hesitant to embrace LEDS. Their thinking is that energy is important to productivity so why jeopardize economic development by adopting LEDS? This is why modeling is important, as it will prove the impact that the strategies will have on GDP so that planning can be done in an informed environment. The co-benefits that can be achieved from LEDS should also be considered.		

CLIMATE FINANCE ANALYSIS

MR. DIEGO de VELASCO, AILEG CONSULTANT

DISCUSSION

QUESTION/COMMENT	RESPONSE	RESPONDENT
The consultant mentioned that climate change investments in Jamaica would be expensive. Are there links between the macroeconomic environment or the opportunity cost of capital and treasury bill rates?	A country's macroeconomic context influences investment attractiveness to equity investors that want to invest in clean energy. Jamaica needs to improve the country outlook and address regulatory risks in order to attract private capital.	Mr. de Velasco
When Jamaican consumers invest in clean energy they want to see reductions in their energy expense in the next month. Financial institutions need to be sensitized so that they will lend over longer periods.	Banks need to contribute to country goals. But they need to be sensitized so that they can see the business benefit of clean energy loans. Commercial banks will need technical assistance in designing these loans.	Mr. de Velasco
A survey of manufacturers was conducted to determine why the uptake of RE loans is not higher than current levels. The findings revealed that Jamaicans want to see it work for someone else before investing. Other variables such as poor customer service from suppliers and the fact that commercial banks do not understand the product and how to finance it compound the problem. There are also no RE loans available at the commercial banks for households.	Development Bank of Jamaica (DBJ) provides RE loans for households. If residential customers are having difficulty accessing DBJ loans through the commercial banks they should inform the DBJ which will try to solve the problem Buyers have to be made aware that if the tenure of their loan is increased, they will see the energy savings derived from using RE technology	Ms. Bedasse Mr. C. Brown (DBJ) Mr. de Velacso
An overarching issue that has emerged in the symposium is the need to rethink training. Academic institutions	The RE industry is just over 1 year old and what has been accomplished in the year is significant. A road map could have been developed at the outset to include training. However, these issues are now being addressed through training and certification programs.	Mr. Chang (Jamaica Solar Energy Association)

QUESTION/COMMENT	RESPONSE	RESPONDENT
need to look at the emerging needs and develop curricula to address these needs.		
The country needs to consider opportunities that RE and EE will generate in terms of employment.	THE POINT WAS NOTED	
The consultant was asked how he would rank Jamaica in terms of climate finance readiness.	This analysis has not been done but it is clear that Jamaica needs new capacity and data gaps need to be addressed. Efforts need to be placed on developing NAMAs to tap into new climate financing. On a scale of 1-10 Jamaica would be rated at about 5 as a lot of work needs to be done.	Mr. de Velasco