



Mid-Term Evaluation Report

Government of Jamaica/ Adaptation Fund
Programme: “Enhancing the Resilience of the
Agriculture Sector and Coastal Areas to Protect
Livelihoods and Improve Food Security”

DELIVERABLE 4

FINAL REPORT - MID-TERM EVALUATION

**“ENHANCING THE RESILIENCE OF THE AGRICULTURE SECTOR AND COASTAL AREAS TO PROTECT
LIVELIHOODS AND IMPROVE FOOD SECURITY”**

Submitted to the

PLANNING INSTITUTE OF JAMAICA

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EXECUTIVE SUMMARY

Jamaica, because of its physical location and its 'low adaptive capacity especially in the climate sensitive sectors of the economy'¹ is vulnerable to climate related hazards – especially hurricanes, floods, storm surges and droughts. This vulnerability to changing climate conditions is likely to increase unless comprehensive interventions to reduce such impacts are introduced.

A 42-month three-component programme titled: ***“Enhancing the Resilience of The Agriculture Sector and Coastal Areas to Protect Livelihoods and Improve Food Security”*** was introduced in November 2012 to address some of these concerns. With a grant of US\$ 9,965,000 from the Adaptation Fund, the National Implementing Entity established within the PIOJ was charged with implementing activities that would (i) Increase the climate resilience of the Negril coastline; (ii) Enhance the climate resilience of the agricultural sector by improving water and land management in select communities; and (iii) improve institutional and local level capacity for sustainable management of natural resources and disaster risk reduction in the targeted vulnerable areas and Awareness building and knowledge management (see Figure Exs 1). Activities under Component 1 are directed to the Negril area (Westmoreland and Hanover parishes); those under Component 2 are directed to seven central and eastern parishes (Manchester, Clarendon, Trelawny, St. Ann, St. Catherine, St. Mary and St. Thomas) while Component 3 benefits all nine parishes. The financing for each of the three components was US\$5,480,780.60, US\$2,503,725.00 and US\$785,500.00 for Components 1, 2 and 3 respectively. The balance of the grant was applied to Execution costs and a fee to the National Implementing Entity.

The Planning Institute of Jamaica (PIOJ) is the designated National Implementing Entity (NIE) for the Programme. Implementing partners include National Environment and Planning Agency (NEPA) partnering with the National Works Agency (NWA) for Component 1; the Ministry of Agriculture and Fisheries (MAF) with Rural Agricultural Development Authority Extension Services (RADA) and National Irrigation Commission (NIC) for Component 2 and the Ministry of Tourism and Entertainment (MoTE) partnering with the Office of Disaster Preparedness and Emergency Management (ODPEM) and the National Environment and Planning Agency (NEPA) for Component 3.

A mid-term evaluation of the programme was commissioned in August 2015 to achieve the following objectives:

1. Determine progress being made toward the achievement of outcomes and the extent to which programme objectives are being met and the programme is on a path to sustainability;
2. Highlight issues requiring decisions and/or actions with a focus on effectiveness, efficiency and timeliness of programme implementation; and

¹ Adaptation Fund Agreement, July 2012, p14.

3. Identify important lessons learnt about programme design, implementation and management.

A mixed method data collection approach was employed to generate data for the evaluation. Data were generated through the following process: Qualitative interviews with programme implementers, programme partners, stakeholders and beneficiaries; focus group discussions with participating farmers; and site visits to farms – private farmers and school farms. A desk review of programme documents provided by the NIE and from on-line sources helped to provide context for interpreting the primary data collected from programme beneficiaries, partners and stakeholders.

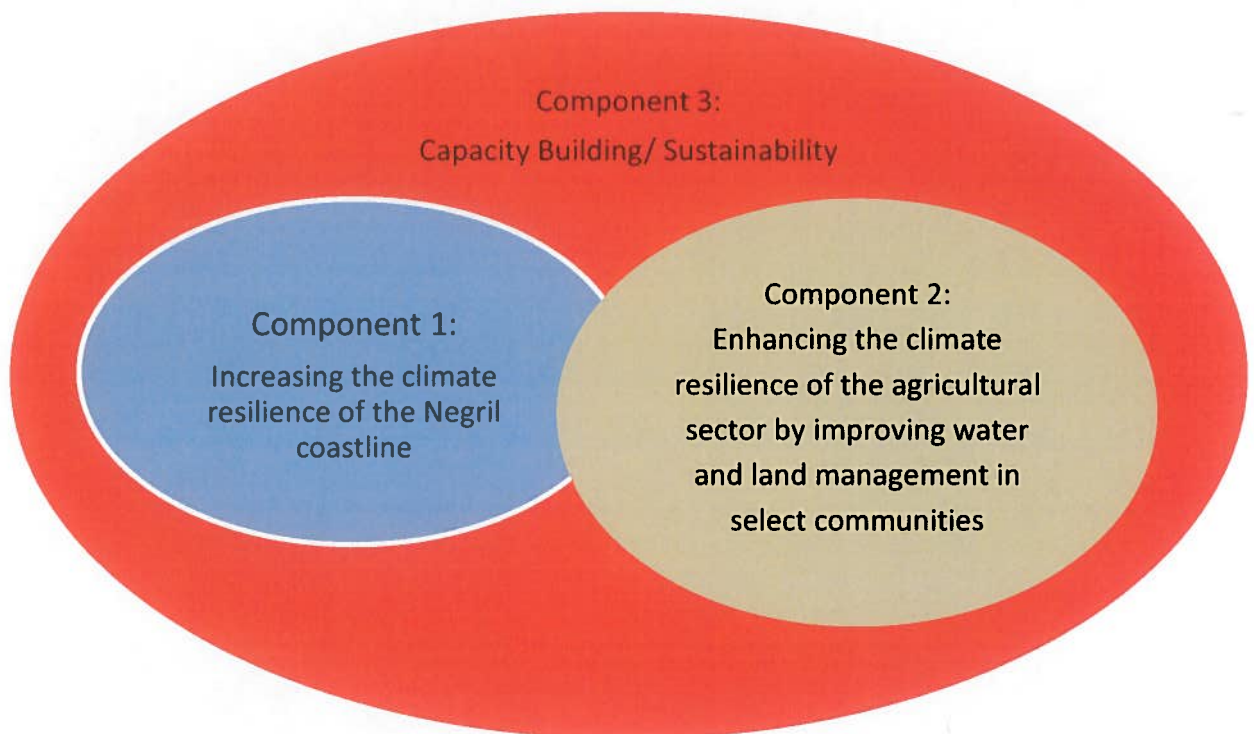


Figure Exs1: Schematic of the Relationship between the Three GOJ/AFP Components²

Summary of Key Findings

The evaluation findings can be summarised as follows:

For Component 1: Increasing the climate resilience of the Negril coastline.

- Extensive and successful preliminary work was completed to design and test the structural efficacy of breakwater structures in preparation for full roll out in the Negril Bay.

² Components 1 and 2 are represented in Venn format because both are expected to respond to livelihood enhancement (for fisherfolk and farmers respectively).

- There is a lack of agreement between stakeholders on the solution to the problem of beach/ coastal erosion in the Negril Bay.
- After a delay of almost 2 years, because of stakeholder objections and a lack of consensus on the approach to be adopted to mitigate coastal erosion, the matter has been referred to the Disputes Resolution Foundation for a negotiated settlement.
- The Cabinet is eager for a re-start of project activities because of the prevailing threat to livelihoods from continuing beach/ coastal erosion.
- In the intervening two years, community consultations were held; an Environmental Impact Assessment (EIA) process was completed and a series of stakeholder consultations were conducted.
- The Natural Resources Conservation Authority Board (NRCA) approved three beach licences, in November 2014, effectively providing the go-ahead to commence work on the breakwaters.
- The disagreement between the key players on the solution to beach erosions persists. All efforts to remove the intransigence are continuing.

For Component 2: Enhancing the climate resilience of the agricultural sector by improving water and land management in select communities

- Farmers³ in the 9 target parishes have benefited under the Programme.
- The proposed theory of change for this Component was modified. The revised theory of change includes actions that will contribute to improving the long term efficiency and effectiveness of farmers' groups to access extra-programme resources and to build social cohesion.
- A Rural Sociologist was hired in July 2015 to support the formation, strengthening and registration of farmers' groups.
- The proposed micro dam was not constructed. The feasibility (cost and energy requirement to operate the dam) of constructing and operating the dam in the suggested location was questioned by technical experts.
- A total of 180 of 210 on-farm drip irrigation systems were installed.
- Fourteen Water Users groups were established and 4 are now registered legal entities. Farmers, however, (especially those who farm on slopes) continue to be challenged by lack of water. They have (and have expressed) a need for more support to harvest and distribute water to their farms.
- Training for 30 RADA Extension Officers as Trainers in the Farmer Field School (FFS) methodology was successfully completed.
- Five demonstration plots were established in Clarendon. But farmers in St. Ann are requesting such a plot in their parish:

"... a demonstration plot, to introduce farmers to new farming ideas would be very good as people can see what them talking about" (St. Ann farmer).

³ The term 'Farmers' includes individuals whose livelihood is farming as well as students in Grade 9-11 in 12 high schools who are registered in agriculture-linked courses.

- The 30 RADA Extension Officer Trainers trained more than 1900 farmers using the FFS methodology.
- Farmer Field School, a training methodology that places emphasis on learning by doing, has become the 'extension services methodology' says the project manager in the Ministry of Agriculture and Fisheries.
- Farmers welcome the training in climate smart agriculture (land husbandry) – the new techniques, designed to maximize the use-effectiveness of fertilisers and water, and to mitigate erosion, have been taken on board by most of the farmers. Farmers speak with confidence and from a position of knowledge about the benefits/ advantages of 'planting smart'.
- Farmers, including student farmers from participating schools, have experienced significant crop yields and economic benefits from implementing the new farming techniques.
- A Climate Smart Agriculture curriculum was developed and is being printed for distribution.
- The inclusion of 12 rural schools in the Programme should serve to enhance the potential pool of young farmers, and youth as advocates and teachers – and ultimately agents of change.
- The produce generated from school farms provides needed and valuable input to the respective schools' feeding programmes.

For Component 3: Capacity building and Sustainability

- A Climate Risk Atlas has been drafted and is being reviewed by technical experts. A chapter on Risk Assessment was added following internal review of the Atlas. The Atlas is to be shared with stakeholders for feedback and validation.
- Some 150 residents from five communities in the target parishes of Hanover and Westmoreland were trained in elements of Disaster Risk Reduction and First Aid.
- A comprehensive Communication Strategy (2013-2016) was approved by the PMU and some of the proposed elements have been implemented. These include:
 - GOJ/AFP participation in public events and partner forums;
 - A website – which is used to inform partners and stakeholders of ongoing programme activities and achievements;
 - Media engagement activities - e.g. Editors' forum, and Jamaica Information Services Think Tank (YouTube link); and
 - Production of mass media elements (brochures, fact sheets and vignettes)

Assessing Achievement of the Evaluation Objectives

Evaluation Objective 1: Determine progress being made toward the achievement of outcomes and the extent to which programme objectives are being met and the programme is on a path to sustainability

Over the life of the Programme, implementation challenges have been encountered for Component 1 and changes have had to be made to the original implementation plan (for example, in Component 2 – the plan to construct a micro dam was abandoned and a Rural Sociologist was hired to support and facilitate the organization and registration of farmers' groups). Notwithstanding these risks, significant progress has been made in implementing all three components of the GOJ/AFP and a significant number of programme outputs have been achieved. These are detailed in Table 8 in the body of the report.

In terms of sustainability, many elements of the Programme place it on a path to sustainability – at least in the short and medium terms. What is the evidence?

- Implementing partners are making strategic links with other projects and programmes to leverage technical and financial resources and to replicate lessons learned.
- Farmers groups are being supported to organize themselves and register as legal entities.
- The Farmer Field School approach to training farmers has become the training model of choice for the Ministry of Agriculture and Fisheries.
- The Programme supports agriculture programmes in 12 rural high schools. The produce from school farms is used in the school-feeding programme and is reported to contribute significantly to improving students' nutrition. In addition, student farmers are learning and applying the basics of climate smart agriculture and are more likely than not to continue these practices if farming should become their livelihood.
- The Ministry of Tourism and Entertainment has added climate change to its existing multi-hazard programme.

The evidence is that at least one of the three components of the Programme (Component 2) is on a path toward sustainability in the short and medium terms. However, one can identify elements of that Component that will require sustained inputs in the short term. The list of inputs includes: material support for farmers to capture and distribute water; and material (funds or equipment) support for farmers to prepare the land for planting and support to maintain the Demonstration Plots. As for the other Programme Components, for Component 3, continued material and technical support will be required for capacity building in disaster risk reduction and management. In the longer term, support will be needed to update the Climate Atlas and to refresh and launch communication campaigns needed to re-engage the public on climate mitigation and adaptation measures.

Evaluation Objective 2: Highlight issues requiring decisions and/or actions with a focus on effectiveness, efficiency and timeliness of programme implementation

The evidence is that the National Implementing Entity (NIE), and the GOJ/AFP as a whole, was relatively efficient in responding to requests from programme partners. Timely approval was given, for example, to add two new positions to the management/administrative structure supporting implementation of Component 2.

The level of efficiency of partner agencies in several areas could have been better. Areas in which delays were identified were in: i) hiring consultants; ii) providing planting material for farmers; and iii) providing funds to pay for planting material delivered to farmers. These inefficiencies served to affect production (where planting was off schedule); sour relations between farmers and suppliers; and delay implementation of important programme elements.

The layered approach to Programme implementation in which the NIE contracted with an executing entity (EE) through a Memorandum of Understanding MOU, which in turn contracted with one or more implementing entities (IE), has its advantages but, can serve to reduce robustness and hamper flexibility especially where IE perceives that the EE does not have the technical capacity to support implementation. Where observed, this perceived skills gap served to delay processes, to disrupt communication between EE, IE and NIE, and contributed to a high level of frustration in the IE. The relationship between partners in the layers, while not adversarial, was not always collaborative and the role of the NIE in this layered structure was as broker rather than guide. It probably would have been more advantageous, and likely more time efficient, if MOUs were signed with the entity charged with implementation, or, as in the case of Component 2, where the MOU were signed with an agency with which the proposed IE had an existing working relationship.

Evaluation Objective 3: Identify important lessons learnt about programme design, implementation and management.

The experiences of the past 37 months have been mixed and several lessons would have been learned. These include:

1. The challenges experienced, especially with implementation of the main element of Component 1, may have been minimised if:

- ... a robust communication, public education and public relations campaign had been launched well in advance of the other activities in this component. As one stakeholder observed *"Folks need education"*.
- ... a deliberate strategy of audience segmentation, by social class and gender, had been applied when conducting the first series of stakeholder consultations.
- ... there had been wider engagement of all levels of the community in the discussions and decision making. In the minds of some key stakeholders the majority of

stakeholders were those *“representing wealth, upper class, light colour, and good education”*. One result is that stakeholders who did not ‘fit in’ felt intimidated and did not contribute in meetings. Another perception is that the persons who are *“fighting against the idea (breakwater) are not Jamaicans. They can pack up and leave when fisherfolk who lose their livelihood don’t mek yu sleep at night”*⁴.

And for Component 2, if:

- ... water harvesting systems, one of the key elements of Component 2, had been established well in advance of implementation of other Component 2 activities.
- ... ideal planting time and the availability of planting material were synchronized. In the absence of such synchronization, crops failed and maximum crop yields were not achieved.

The following more general lessons were learned:

Programme design:

A system that allows for direct contracting with the implementing agency rather than the “layered” approach used by the NIE to effect implementation should have been considered earlier in the programme process. The original often served to limit flexibility and, contractually, centres accountability on the agency signing the MOU, not on the agency implementing the works. One example is the case of Component 1 in which the MOU for implementing activities in that Component was signed between NIE and NEPA. NEPA, therefore, has responsibility for monitoring and evaluation and oversight of the Component while implementation of activities is the responsibility of the National Works Agency (NWA).

Programme implementation and management:

1. Sufficient time should have been allocated for completing start-up activities such as the review of and familiarization with programme documents, baseline investigations and pre-feasibility analyses, and institutional coordination. In the opinion of key stakeholders, such a strategy would have resulted in the development of implementation plans that were more realistic, albeit with later effective start-up dates, but with increased likelihood of success.

2. Communication is a critical requirement for programme success. A strong theory-driven behaviour change communication programme that relies on multiple media - interpersonal, print, electronic, etc. (Include social media component to disseminate information rapidly) should have been introduced earlier in the Programme before some of the other critical Components of the programme were implemented. This would have laid the foundation and may have minimised the level of the resistance to ideas – especially the breakwater construction proposed under Component 1.

⁴ Translation: when the fisherfolk who lose their livelihood become violent.

3. Community education (CE) and sensitization are fundamental building blocks for any successful community-based programme and require a commensurate allocation of resources. As well, if behaviour change is the goal of the communication and not merely information, education and communication (IEC), the communication efforts, especially those associated with Component 1 and Component 3, should aim to be strategic and intense and should precede implementation of the technical elements of the programme.

4. A layered approach to implementation as applied in this programme may not provide an effective and efficient management structure where there is a real or perceived absence of robust technical capacity and ability in the lead entity (EE). The entity signing an MOU should be technically competent, have credibility with stakeholders and capable of assuming management responsibility for implementation.

5. Effective collaboration requires on-going communication, review and adjustment of roles and responsibilities of partner agencies and entities. Strong coordination and communication among stakeholders is a key factor for a successful programme. This can only happen with clear communication procedures and predetermined processes, as well as clear roles. Having these procedures, processes and roles established before the start-up of a project were an important asset of the AFP.

6. Although the communication procedures and processes are in place and may be revisited frequently over the life of the programme, because of changes in key personnel in partner institutions, meeting with and briefing new players individually is not sufficient. It may be more advantageous for the Programme if all the parties come together (old players and new players) to review processes, procedures and roles. In this way, there will be reinforcement of knowledge for the old players even as new players are gaining new knowledge.

7. Farmers' learning curve for innovative farming techniques is not steep where:

- The implementing agency is known to and respected by the farming community;
- Farmers can appreciate the benefits of the new knowledge; and
- The training methodology used combines experiential education with community development concepts and where farmers can learn while doing.

8. A programme like the GOJ/AFP that attempts to respond to multiple issues, in this case, the risks posed by climate change to the national economy and to individual livelihoods, and that uses a matrix management structure, demands that attention is paid to both the vertical and the horizontal levels of collaboration. Success of such a programme requires collaboration across disciplines and scales, from local to national levels. There is evidence that the Programme Management Unit (NIE) works hard to balance the differing, and sometimes competing, priorities of the main stakeholders.

9. In a programme of this duration (close to 4 years) the risks associated with personnel changes in participating organisations and agencies are inevitable. Managing these personnel changes is made easier where there is a flexible and efficient risk management system to include the risk management plans developed by the EEs.

10. The PMU has applied sound financial management principles and has been disciplined in its management of Programme resources.

Conclusion and Recommendations

At the end of 37 months of a 42 month Programme, several of the objectives have been achieved and key elements of the Programme appear to be on a path to sustainability. Given some of the management challenges inherent in the layered implementation approach adopted by the Programme, management has been responsive to the needs of implementation partners – both in relation to requests made for strengthening the technical and management base of the respective partner agency as well as suggestions for modifying programme outputs in light of feasibility concerns. In an effort to better manage this complex programme, the PMU has also modified the recommended flow of communication between entities to improve efficiency and introduced additional methods of engagement to achieve improved stakeholder participation in the programme.

Having reviewed the available data, the conclusion is that the most significant Programme challenges are:

- For Component 1: the stalemate that has been reached with regard to the solution for beach erosion in the Negril Bay.
- For Component 2, the need for an expanded response to the water catchment and distribution challenges faced by farmers, especially those farming on hillsides.
- For Component 3: the fact that roll out of the approved Communication Strategy has not been effected and the absence of a clear plan to sustain the capacity building efforts in DRR and NRM.

1. Despite these and other formidable implementation challenges, the Programme remains relevant. The commitment of implementation partners to achieving success is also evident. So that, given the solid groundwork that has been laid to date, the Programme's objective could be fully achieved if additional time was available. We, therefore, recommend that:

- The Programme should be extended, at no cost, for another 18 months, at least, beyond the expected end date, to allow for the completion of the outstanding planned activities.

2. Although community sensitisation and education efforts began later than was ideal, the activities proposed have all been completed successfully. It is evident that greater effort is required to communicate to the general population as well as to key stakeholders and target groups in order to achieve two ends: first, to inform about climate change and related issues

and the Programme and, ultimately, to support the development of the attitudes and behaviours that will enable successful implementation of Programme elements. We recommend therefore that:

- The rollout of the Communication Strategy is given the highest priority over the next 12 months and, given the limited time available, all the necessary resources – financial and human – should be channelled, as quickly as possible, to this effort to assure achievement of the best results.

3. One of the positive effects of the Programme has been its influence on the practices and policies of implementing partner agencies. As a result of the Programme, the following changes have been effected: i) the MOAF has adopted the Farmer Field School methodology for training farmers in climate smart agriculture; ii) the MoTE has made a policy change and now includes climate change in its multi-layered programme offerings; and iii) Agencies and entities have learned, sometimes the hard way, the value of partnering and collaborating with entities that are already engaged in similar community activities. We recommend that as part of the Knowledge Management effort:

- Sufficient resources should be allocated to ensure that Programme experiences are documented and shared locally and internationally in ways that assure that they become part of the programme management and management science literature; and
- Opportunities for partnerships with the Management Science, Sociology and Business Schools in local tertiary institutions should be explored. The Programme should use its leverage to get these entities to recognize the importance of using the Programme, and its achievements and challenges, as opportunities to commission, or themselves, conduct ethnographic climate-related research.

4. Based on the evidence available, the Programme's most successful component to date is Component 2: **Interventions designed to improve land and water management for the agriculture sector**. The sample of farmers (adults and students) who participated in the evaluation was enthusiastic about climate smart agriculture. One tangible benefit of the new farming practices they have adopted is higher crop yields and concomitant increased income. The adult farmers are also grateful for the help they received in forming and registering farmers' groups as Benevolent/Friendly societies and appreciate that as legal entities, the potential for farmers to access funding and technical assistance will be strengthened. The work required to form and register groups is a time and labour intensive undertaking. Although a Rural Sociologist was hired to support this work, we recommend that:

- The Programme identify public or private sector community-based entities, like the Social Development Commission (SDC), which have the capacity and credibility to assist with group formation and registration, as well as group maintenance, and establish partnerships that are mutually beneficial and, so, assure that the plan to have farmers' groups formed and registered, can be fully realised.

5. Training and capacity development are often seen as necessary steps to achieving sustainability and sustainable development. Large investments of resources are directed to this endeavour and questions have been raised, about whether the approaches being used are building a critical mass of individuals with the abilities, relationships and values that will enable organizations, groups and individuals to improve their performance and achieve their development objectives⁵. Similar questions can be raised in relation to the training and capacity development interventions of Programme Components 1 and 3. We recommend that in the remaining months of the Programme:

- NIE encourage the MOTE and ODPEM to: i) develop a plan for assessing the effectiveness of the community sensitisation and the DRR training conducted to date; ii) re-visit their training plan with a view to making changes, if necessary, based on the assessment data; iii) scheduling updates for local trainers; iv) establishing a system for certifying participants; and v) expanding the cadre of community residents trained as first responders.

6. The interventions being introduced under the GOJ/AFP can be classified into two groups. One group includes interventions that can be replicated without modification (that includes most of the Component 2 interventions) and the other group are interventions that are location specific (main element of Component 1) and would not lend themselves to replication as is. We recommend that:

- Any scaling up that is undertaken focus on interventions that can be replicated without modification. In that regard, interventions introduced under Component 2 of the Programme would be selected for scale up.

We further recommend that:

- The PMU, as a priority in the next quarter, work with the EE to identify those interventions that can be scaled up without modification, and, for these, develop comprehensive scale-up plans.
- Scale up should be phased with the primary objective of the scale up in Phase 1 being to insure that **ALL** farmers in parishes participating in the GOJ/AFP are reached and exposed to the new climate smart farming practices.
- A comprehensive dissemination plan for the climate smart agriculture curriculum be developed – one that includes clear goals, objectives, description of the potential end users, the means of assessing whether and by whom the tool is being used, and the success of the dissemination exercise.
- Assure that an appropriate level of resources is made available for the communication and sensitization required to support scaling up exercises.

⁵ February 2016. Retrieved from <http://www.unep.ch/etb/areas/pdf/Microsoft%20Word%20-%20UNEP-ETB%20CB-Paper%20Starvanger-final%20draft.pdf>

- Phase 2 of the scale up of Component 2 interventions should be focused on reaching farmers in non-project parishes who experience similar climate related issues as farmers targeted by the Programme.

7. Like most development programmes, the GOJ/AFP was developed using the Logical Framework Approach (LFA). The resulting Logical Framework has extremely ambitious targets and one questions the likelihood that the Programme will achieve these targets given the resources (time, personnel, material and financial) invested and the fact that some of the assumptions made at the outset did not hold during the implementation process. We recommend, then, that the PMU:

- In the next three months, review the log frame with the relevant and concerned entities (donor, EE, IE), to prioritize indicators as the first step in focusing the end of programme evaluation;
- Take steps to identify the sources that will be used to provide baseline and end line data for each of the revised set of priority indicators and the strategy that will be used to ensure collection of those data; and
- Begin to generate baseline data and information, and where there are baseline data, as in the case of the Communication strategy, begin to plan the follow-up data collection actions that will enable the measurement of a) Reach; b) Recall; and c) Effectiveness of the strategy to increase knowledge and adjust attitudes.

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The consultant is also very grateful for the patience and understanding of the team at PIOJ as we navigated several personal and administrative challenges in completing this assignment.

Pauline Russell-Brown
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ACRONYMS AND ABBREVIATIONS

AFP	Adaptation Fund Programme
BCC	Behaviour Change Communication
DRF	Disputes Resolution Foundation
DRR	Disaster Risk Reduction
EE	Executing Entity
FES	Friedrich Ebert Stiftung
FFS	Farmer Field Schools
FGD	Focus Group Discussion
GOJ	Government of Jamaica
HS	High School
INMED	International Medical Services for Health (INMED Partnership for Children)
JnHS	Junior High School
LFA	Logical Framework Approach
MOTE (MoTE)	Ministry of Tourism and Entertainment
MOU	Memorandum of Understanding
NEPA	National Environment and Planning Agency
NIC	National Irrigation Commission
NIE	National Implementing Entity
NRM	Natural Resources Management
NWA	National Works Agency
NCRPS	Negril Coral Reef Preservation Society
ODPEM	Office of Disaster Preparedness and Emergency Management
PSC	Programme Steering Committee

RADA	Rural Agricultural Development Authority
SDC	Social Development Commission
TRC	Technical Review Committee
TWG	Thematic Working Group
WUG	Water Users Group

INTRODUCTION

The Planning Institute of Jamaica (PIOJ), as National Implementing Entity (NIE) for the Government of Jamaica/ Adaptation Fund Programme (GOJ/AFP), is mandated to ensure that a mid-term evaluation of the programme is completed. The contract to conduct that evaluation was awarded in August 2015.

The activities proposed in the Detailed Methodology and Work Plan submitted as contract Deliverable 1, and elaborated on in the Inception Report submitted as contract Deliverable 2, have been completed, as has a Draft mid-term evaluation report submitted as Deliverable 3. This report, Deliverable 4, is the final report of the mid-term evaluation exercise.

CONTEXT FOR THE GOVERNMENT OF JAMAICA/ ADAPTATION FUND PROGRAMME

The programme titled: *“Enhancing the Resilience of The Agriculture Sector and Coastal Areas to Protect Livelihoods and Improve Food Security”* was signed in July 2012 and had its official launch later that year in November 2012. To appreciate the choice of elements of this programme and how they are integrated, it is important to understand the development context within which the programme was conceived and designed.

Jamaica, because of its physical location and its ‘low adaptive capacity especially in the climate sensitive sectors of the economy’⁶ is vulnerable to climate related hazards – especially hurricanes, floods, storm surges and droughts. A recent climate modeling exercise conducted by the University of the West Indies (UWI) Climate Studies Group⁷ demonstrated that over time temperatures have risen and will continue to rise, at varying rates, across the island. In addition, they demonstrated that as we approach the end of the century, annual rainfall will decrease and that, like temperature, rainfall changes will be more pronounced in some areas than others. The projections are that the country’s vulnerability to changing climate conditions is likely to increase unless comprehensive interventions to reduce such impacts are introduced.

The impacts most likely to result from variations in climate include: i) a reduction in the safe yield from some water sources; ii) decrease in rainfall over time; iii) decrease in stream flow of major rivers; iv) sea level rise; v) more intense storms; vi) longer and more intense droughts; and vii) loss of coral reefs as a result of coral bleaching. Variations in climate will also significantly affect agriculture – both in terms of farmers’ ability to farm as well as crop yields - unless farmers are able to adjust their farming practices and water collection methods.

⁶ Adaptation Fund Agreement, July 2012, p14.

⁷ Observed climate change in the Caribbean: Current status and past studies. Presentation to Climate Data Workshop, May 2012. 2016, February 26, Retrieved from <http://www.mona.uwi.edu/physics/data-workshop>.

DESCRIPTION OF THE GOJ/ADAPTATION FUND PROGRAMME

It is in this context that the Government of Jamaica's Adaptation Fund Programme (referred to in this report as GOJ/AFP, AFP or the Programme) was introduced. The objective of the GOJ/AFP is: To protect livelihoods and food security in vulnerable communities by: i) improving land and water management for the agricultural sector; ii) strengthening coastal protection; and iii) building institutional and local capacity for climate change adaptation.

The programme has three **Components**: Component 1: Increasing the climate resilience of the Negril coastline; Component 2: Enhancing the climate resilience of the agricultural sector by improving water and land management in select communities; and Component 3: Improving institutional and local level capacity for sustainable management of natural resources and in disaster risk reduction in the targeted vulnerable areas.

Figure 1 is a schematic of the proposed relationship between the three programme components. Components 1 and 2 are similar in their focus and the issues they address – adaptation and livelihoods but are different in terms of the communities they are expected to benefit. In the case of Component 1 (coastal adaptation) beneficiaries include fisherfolk and tourism interests, and in the case of Component 2 (where the focus is on agricultural adaptation) farmers and high school agriculture programme are the primary beneficiaries. The elements of Component 3 are crosscutting - capacity building and sustainability.

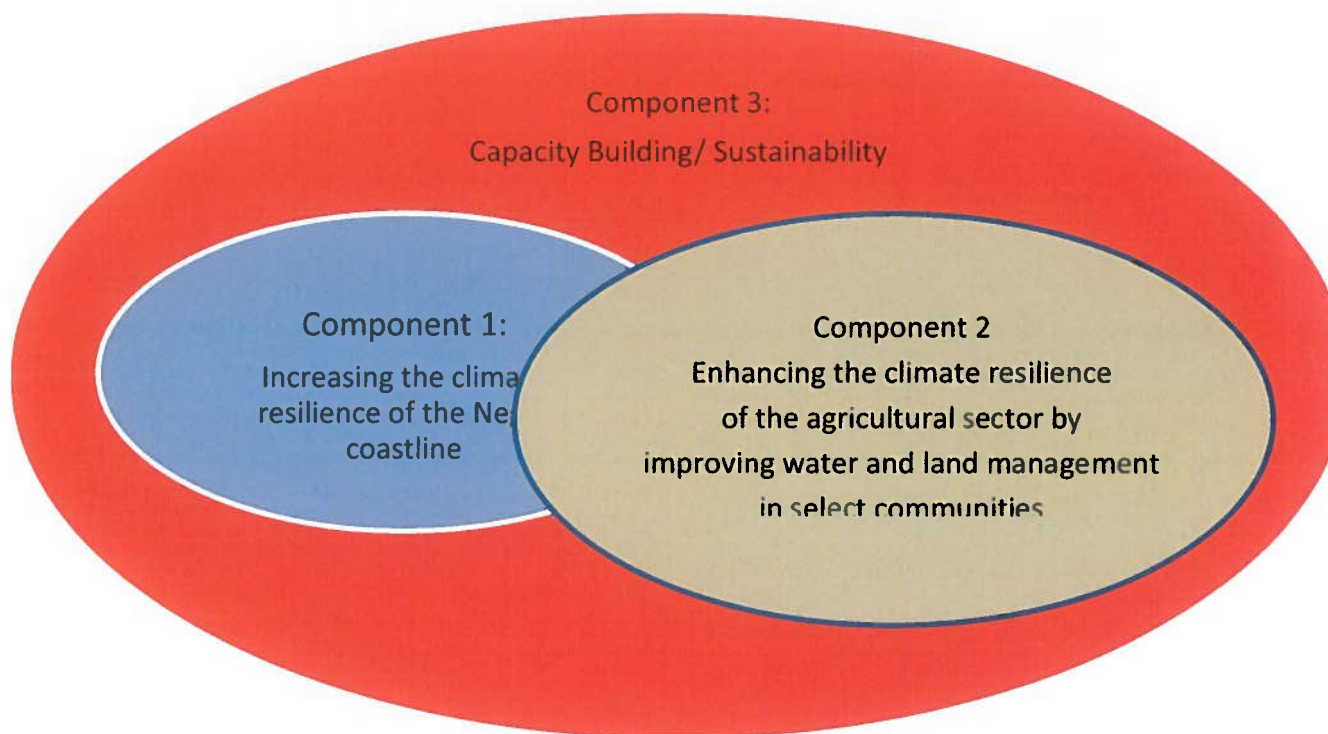


Figure 1: Schematic of Relationship of the Three GOJ/AFP Components

The interventions proposed for each of the three Programme Components are shown in Table 1.

Table 1: Proposed Response to Climate Hazards by Focus Area

PROGRAMME COMPONENT	HAZARD	INTERVENTION	LOCATION
Coastal adaptation	Storm surge	Breakwaters	Negril
	Sea level rise	Local capacity building	
	Intense storms		
Agricultural adaptation	Drought	Micro dam	Northern Manchester
	Intense rainfall	Soil conservation (land husbandry)	Trelawny, St. Ann, St. Mary, St. Thomas, St. Catherine, Clarendon
	Pests	Biological control	
	Intense Rainfall	Flood mitigation infrastructure	--
	Drought		
	Bush fires	Land husbandry and soil conservation techniques	Trelawny, St. Ann, St. Mary, St. Thomas, St. Catherine, Clarendon
	Landslides	Forest management	
	Drought Soil erosion	Rainwater harvesting Drip irrigation Soil conservation	Trelawny, St. Mary, St. Ann, St. Thomas, St. Catherine, Clarendon, Manchester
Capacity improvement	Lack of preparedness	Institutional strengthening Capacity building Knowledge management	All programme parishes and target communities

Source: Programme Agreement Document – p38

Altogether, 9 of Jamaica's 14 parishes were expected to benefit directly from the Programme (see Figure 2). Assignment of parish to programme component was based on need. The two western-most parishes - Westmoreland and Hanover – where coastal erosion is a concern - were assigned to receive interventions under Component 1. Seven parishes in central and eastern Jamaica – Trelawny, Manchester, Clarendon, St. Ann, St. Catherine, St. Mary and St.

Thomas – were assigned to receive interventions under Component 2. All nine parishes were expected to benefit from activities under Component 3.

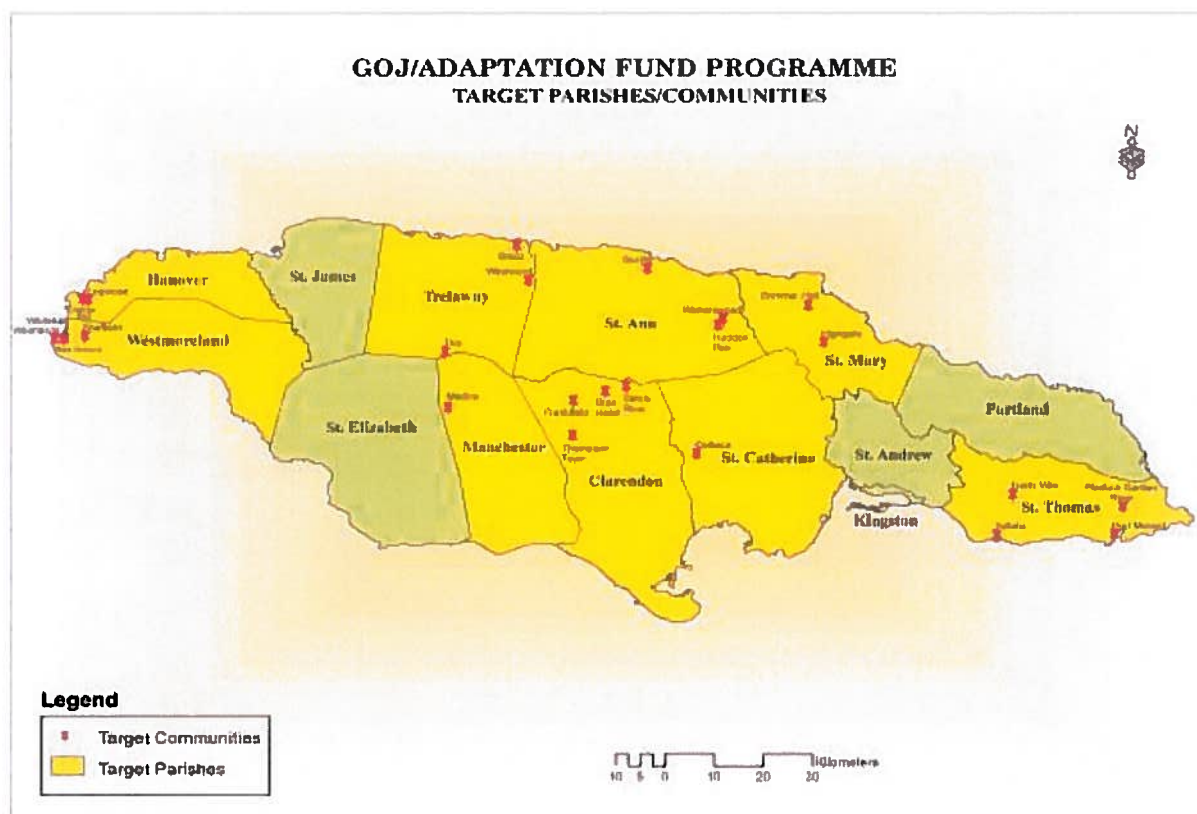


Figure 2: GOJ/AFP Target Parishes and Communities

PROGRAMME GOALS AND OUTCOMES

A grant of US\$ 9,965,000 was awarded to the National Implementing Entity NIE, namely the Planning Institute of Jamaica (PIOJ), to implement activities designed to achieve the Programme’s objectives. The long term outcomes expected to result from these activities are presented in Table 2. Table 2 also shows the outputs that are expected to enable achievement of the programme outcomes. This mid-term evaluation will focus only on the achievements, or not, of the programme outputs.

More than half of the grant funds (a total of US\$5,480,775) were allocated to implementing activities under Component 1 – the component that is directed to increase the climate resilience of the Negril coastline (Westmoreland and Hanover parishes). A total of US \$2,503,725 (representing just over 25 percent of the grant) was earmarked to support activities under Component 2 – specifically directed to the seven central and eastern parishes listed earlier in the report – namely, Trelawny, St. Ann, St. Mary, St. Thomas, St. Catherine, Clarendon and

Manchester. Some US \$785,500 was allocated to finance Component 3 activities – activities that would benefit all 9 parishes. The rest of the grant (US\$1,195,000) was earmarked for Execution Costs and NIE Fee.

Table 2: Programme Goals, Outcomes and Outputs

COMPONENT	PROGRAMME OUTCOMES	PROGRAMME OUTPUTS
1: Increasing the climate resilience of the Negril coastline	Slowed rate of beach erosion and longer term beach restoration	Breakwater(s)
	Reduced exposure of coastal, social, economic and environmental assets, including Negril Great Morass, against storms and storm surges	
	Restoration and improved hazard reduction functions/ services of critical coastal and ecosystems – sea grass beds and coral reefs	
	Protected livelihoods – fishing, tourism interests (including farmers and locals who depend on tourism for their income)	
2: Enhancing the climate resilience of the agricultural sector by improving water and land management in select communities	Increased availability of and access to domestic and irrigation water supplies leading to increased productivity and increased food security.	Micro-dams Irrigation schemes Rainwater harvesting and gravity drip irrigation systems
	Decline in soil erosion and improved soil fertility	Climate smart farmer field schools
	Reduced downstream flooding and fewer landslides in upland communities.	Demonstration plots in Upper Rio Minho Watershed.
		Water user groups
	Reduced turbidity and pollution of coastal waters. Protection of coastal ecosystems.	

COMPONENT	PROGRAMME OUTCOMES	PROGRAMME OUTPUTS
3A: Improving institutional and local level capacity for sustainable management of natural resources and disaster risk reduction in the targeted vulnerable areas	Increased knowledge of climate change and adaptation options at the local level	Targeted training programmes in DRR and natural resource management
	Enhanced local capacity for sustainable use of environmental resources	Climate risk atlas
	Increased knowledge of and participation in disaster risk management and adaptation to climate change	Awareness raising audio-visual material
	New traditions of environmental good practices	Adaptation plans for vulnerable sections of Negril
	Standardised approach to beach restoration	Guidelines and standards for beach restoration, shoreline protection for Negril
3B: Awareness building and knowledge management	Better informed decision-making among farmers and local residents and reduced exposure to climate-related risks	
	Improved buy-in and ownership by local stakeholders	Community sensitisation, Training and capacity building
	Programme sustainability	
	Standard approach to adaptation across communities	

Source: Programme Agreement Document

IMPLEMENTATION ARRANGEMENTS

The major elements of the implementation arrangements of the GOJ/AFP are summarised in Figure 3. Implementation of the Programme was guided by the National Implementing Entity (NIE) supported by a Programme Steering Committee and three sets of Implementing Entities (IE) and Executing Entities (EE). A Programme Management Unit (PMU) was established in the PIOJ with responsibility for overseeing the day to day operations of the programme.

Two technical agencies of Government are responsible for implementing each programme component. As outlined in the Programme agreement, Component 1 is managed by the National Environment and Planning Agency (NEPA) in collaboration with the National Works Agency (NWA). Component 2 is managed by the Ministry of Agriculture and Fisheries in partnership with the Rural Agricultural Development Authority (RADA) and National Irrigation Commission (NIC). Component 3 is managed by the Ministry of Tourism and Entertainment with NEPA. Additional support was garnered from Office of Disaster Preparedness and Emergency Management (ODPEM) and the Social Development Commission (SDC) as needed.

A Memorandum of Understanding (MOU) was signed between the NIE and the Executing Entity (EE) for each Component – NEPA, MOAF and MOTE respectively – to ensure that the programme followed the GOJ procedures and the Adaptation Fund Guidelines. Each EE has its own independent management system but is responsible for: i) ensuring that the programme activities are executed according to the results framework; ii) administering programme funds as agreed; iii) providing technical and financial reports as scheduled; iv) keeping records of all activities; and v) conducting on-going internal monitoring. Each executing agency is required to name a manager who is responsible for communicating with the PMU.

In terms of technical advice and project oversight, the NIE received support from a Technical Review Sub-committee and the Thematic Working Group. The Thematic Working Group (TWG) is part of the monitoring framework for Vision 2030, Jamaica’s National Development Plan and the relationship with the Thematic Working Group was established as a means of insuring that the GOJ/AFP is aligned with the broader national development objectives.

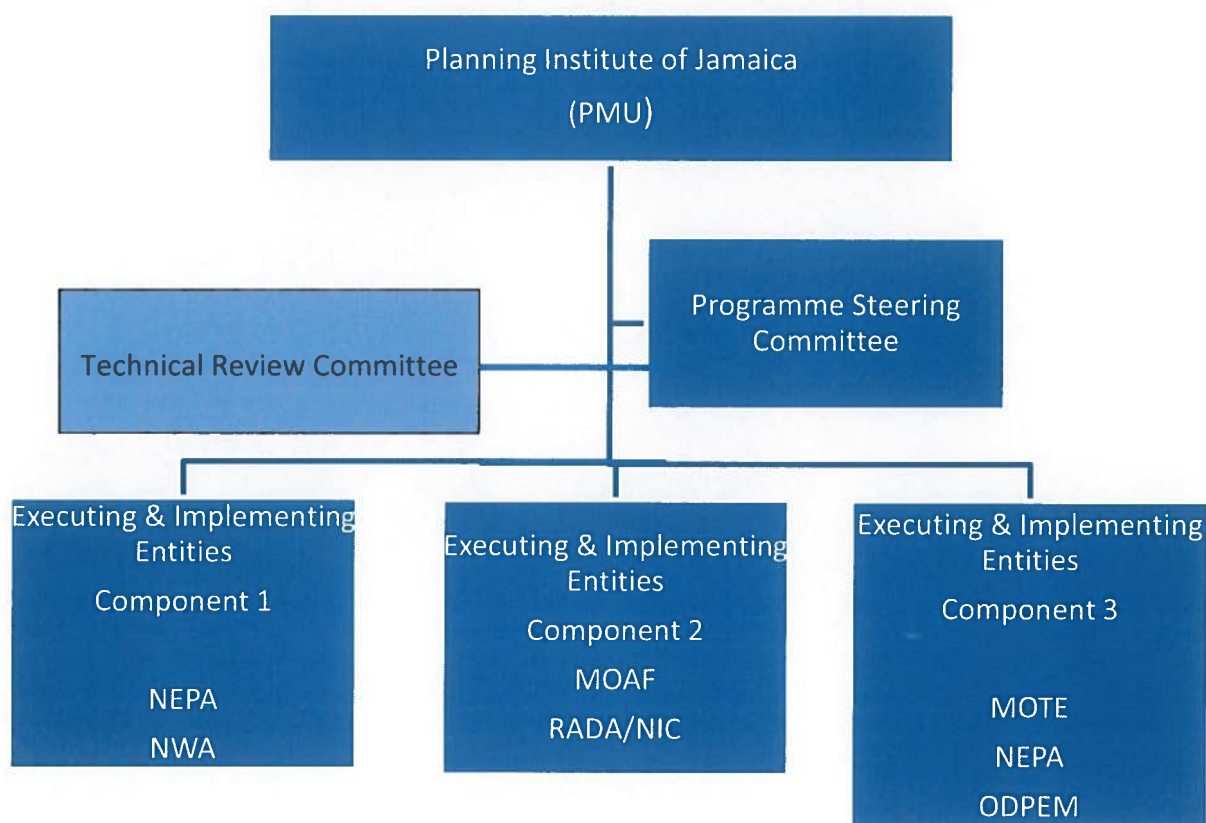


Figure 3: Agencies with Direct Responsibility for Implementing the GOJ/AFP: Adapted from Programme Agreement Document p78.

A Programme Steering Committee (PSC) comprising management and senior representatives from key organisations as well as technical experts meets quarterly. The PSC is chaired by the

Director General of the PIOJ. Generally, project coordinators and representatives from the Executing Entities and partner agencies attend these meetings. The Programme Manager attends the PSC meetings to report on progress and answer any questions raised by members.

Another group – the Programme Management Group (PMG) - was established by the NIE to i) support the EE in resolving day-to-day issues involved in achieving planned deliverables; ii) 'hub' of information for stakeholders; iii) focus on improving coordination among executing partners; support team building; and iv) effect risk management and monitoring. The PMG is chaired by the Programme Manager in the NIE and meets, on average, twice each quarter. Membership in this group includes managers of Components and other project team members. One focus of this group is to foster team building and collaborative problem-solving among Executing Entities.

THE EVALUATION

1. Objectives

This mid-term evaluation is expected to achieve three specific objectives:

1. Determine progress being made toward the achievement of outcomes and the extent to which programme objectives are being met and the programme is on a path to sustainability;
2. Highlight issues requiring decisions and/or actions with a focus on effectiveness, efficiency and timeliness of programme implementation; and
3. Identify important lessons learnt about programme design, implementation and management.

These three objectives were converted into 8 specific evaluation questions that were used to inform decisions about the evaluation methodology, its instruments and protocols and served as guides for the evaluation process. The specific evaluation questions are:

- i. What progress, if any, has been made toward achieving the Programme's outcomes?
- ii. To what extent are programme objectives being met?
- iii. Is the GOJ/AFP on a path to sustainability?
- iv. How effective has the management been in its decision-making and in taking actions required?
- v. How efficient has the management been in its decision-making and in taking actions required (or) Has management made its decisions and taken action in a timely manner?
- vi. What important lessons have been learned about programme design?
- vii. What important lessons have been learned about programme implementation?
- viii. What important lessons have been learned about programme administration and management?

2. Methods

The data required to answer the evaluation questions were collected from multiple sources using a relatively simple but comprehensive mixed method data collection approach. Two types of data were used – Secondary data and Primary data (see Figure 4). The secondary data were generated through – a desk review of existing programme documents; and the primary data derived from (a) Consultations (and guided qualitative interviews) with key stakeholders; (b) Focus group discussions with programme beneficiaries; (c) Consultations with beneficiaries; and (d) Observation visits to farms, schools, and other relevant sites of Programme Components 1 and 2⁸. Additional details related to data sources used to generate primary data are shown in Table 3. In the end, data from these multiple sources were triangulated to provide a cohesive and coherent picture of the Programme’s progress towards achieving its objectives.

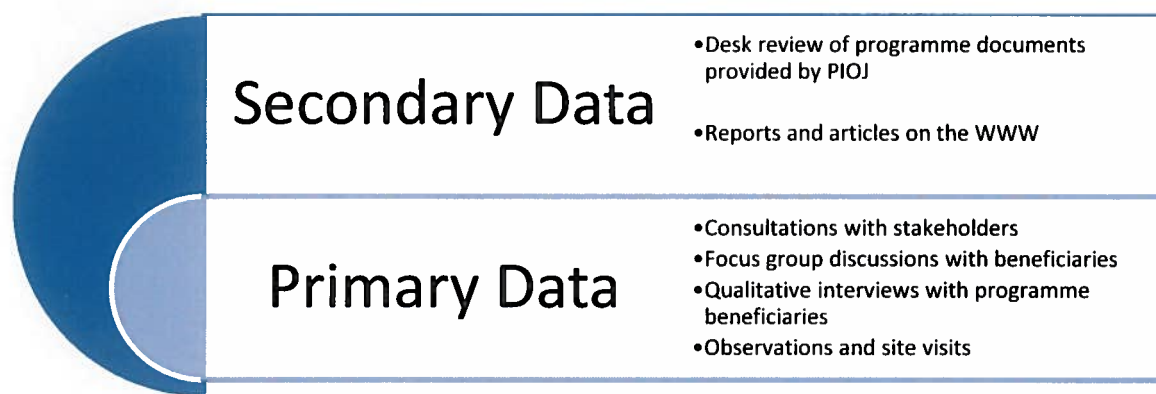


Figure 4: Sources of Data for Mid-term Evaluation of GOJ/AFP

3. Limitations

Every effort was made to generate representative samples of farmers for the focus group discussions, of farms and schools for the observation site visits, and stakeholders for qualitative interviews and consultations. However, because of difficulties reaching the selected individuals or entities by telephone or because some selected individuals were not available for interview (either because they were on vacation or had changed jobs), convenience samples⁹ were used instead.

⁸ Additional details on each of the methods used to collect/ generate data for this mid-tem evaluation – and the justification and rationale for using each method - are attached as Attachment 1

⁹ Convenience sampling is a specific type of non-probability sampling method that relies on data collection from population members who are conveniently available to participate in study. Convenience sampling is a type of sampling where the first available primary data source will be used for the research without additional requirements. In other words, this sampling method involves getting participants wherever you can find them and typically wherever is convenient. This method has the advantage of being cost effective and makes sampling simple and the research easy especially when the time for data collection is short. This method can be highly vulnerable to selection bias and sampling error (2016, February 25) Retrieved from (<http://research-methodology.net/sampling/convenience-sampling/>)

The modifications made to the sample selection process, very likely, would have contributed some selection bias. However, by combining multiple data collection methods and empirical materials, any weakness or intrinsic biases stemming from the sampling process should have been minimized. In addition, data triangulation would have allowed a convergence of different perspectives on the same issues and so enabled us to confirm many of the findings.

Table 3: Primary Data Sources - Evaluating Each Component of the GoJ/Adaptation Fund Programme

Data Source	Programme Component	Details	
		# completed	Individual/Location
Consultations with stakeholders and programme partners	Components 1, 2 & 3	7 telephone consultations and 2 face-to-face consultation	Director and Programme Manager GOJ/AFP Director of Programmes, NCRPS Programme Manager – Component 2 Rural Sociologist Representatives from NEPA (Component 1), Representatives (x2) from MoTE (Component 3) Executive Director, Negril Area Environmental Protection Trust Chairman Resort Board/ Chairman Negril-Green Island Area Local Planning Authority
FGD with farmers	Component 2	3 farmers' groups	Seville, St. Ann Bushy Park, Manchester Thompson Town, Clarendon
Interviews and Observation Site Visits	Component 2	4 schools	Robert Lightbourne HS, St. Thomas Muschette HS, Trelawny William Knibb HS, Trelawny Brimmervale HS, St. Mary
	Component 2	2 farms	Nine Turn, Clarendon Thompson Town, Clarendon
Qualitative interviews	Component 1	7 interviews (4 individuals affiliated with the GOJ/AFP; 3 non-affiliated individuals).	Negril, Westmoreland Representatives of: <ul style="list-style-type: none"> ▪ Negril Coral Reef Preservation Society ▪ Negril Environmental

Data Source	Programme Component	Details	
		# completed	Individual/Location
			Protection Trust <ul style="list-style-type: none"> ▪ Negril/ Green Island Area Local Planning Authority ▪ Negril Fishing Cooperative 1 hotelier in Negril 2 route taxi drivers in Negril
Desk Review	Components 1, 2 and 3	NA	Review of documents provided by NIE, EE and material accessed on-line.

KEY: HS - High school

EVALUATION FINDINGS

Reporting of the mid-term evaluation findings is organised to reflect the fact that, as shown in Figure 1, the Government of Jamaica Adaptation Fund Programme has three distinct, but mutually reinforcing, components.

Programme Component 1:

Increasing the climate resilience of the Negril coastline.

Focus Area: A review of programme documents¹⁰ and interviews conducted with key programme partners for this Component, indicate that the Component has two distinct areas of focus:

1. Construction of breakwaters to mitigate the problems of storm surge, sea level rise and effect of intense storms, and support coastal renewal; and
2. Community empowerment through capacity building

I. Coastal renewal

Implementation of this element of Component 1 has experienced an almost 2-year delay. The following comment from a stakeholder in Negril characterizes the present situation. He observed: *“Breakwater was at the forefront but now there is a stalemate”* (Negril-based stakeholder).

After an initial successful stage in which there was extensive environmental research¹¹ and consultations with local stakeholders and potential beneficiaries, and the designing and testing of breakwater structures for efficacy, forward movement is stalled because of disagreements

¹⁰ GOJ/AFP Agreement and Progress Reports

¹¹ Mondon, E. M. and Warner, P.S. 2012. Evaluation of a proposed solution to beach erosion at Negril. Caribbean Journal of Earth Science, Volume 43, 11-23. Available online: 2nd July 2012. © Geological Society of Jamaica.

between two key stakeholder groups. The disagreement is not about the nature and extent of the problem: rather, it is about how to address the problem of beach erosion.

The two main factions in the struggle to agree on a solution to the problem of beach erosion in the Negril Bay, classified, for convenience, as – “anti-breakwater”¹² and “pro-breakwater”¹³ each desires a different solution to the beach erosion problem. Data from interviews with representatives of the “anti-breakwater” group indicate that their preference is for beach re-nourishment only – an approach which has been shown to be very expensive and for which medium and long term sustainability¹⁴ is not guaranteed but which would allow less disruption to beach use in the short term. Interviews with individuals from the “pro-breakwater” group, on the other hand, indicate support for the construction of breakwaters combined with beach re-nourishment, or not.

“Breakwater was at the forefront but now there is a stalemate” (Negril-based stakeholder).

The “anti-breakwater” group is opposed to the construction of breakwaters and argues that the construction of one such, or a series of breakwaters, will not only temporarily disrupt beach use, it will, in the long term, negatively affect the visual appeal of the beach.

In terms of the science and best practices globally, there are several possible solutions to the problems identified in Negril Bay – some are defined as ‘soft’ measures others classified as hard engineering measures. Each solution has its unique advantages and challenges. One ‘soft’ solution is Beach nourishment; another is coral gardening or Biorock. The construction of one large breakwater or a series of smaller breakwaters – considered hard engineering measures – are other solutions to the problems identified in the Negril Bay.

The literature suggests that beach erosion solutions, whether hard or soft, may be adopted individually or may be introduced in combination. It appears that the construction of a series of breakwaters (hard measure) is the option to be implemented under the GOJ/AFP.

It is likely that the present stalemate will end soon. The current situation is this: after several months of impasse, the Cabinet has directed that a two-pronged approach should be adopted: the first is to move forward with construction of two breakwaters and, second, initiating timed-mediation with the two factions. Even as the Cabinet has asked that the project be re-activated, the National Implementing Entity (NIE), in accordance with the disputes resolution mechanisms

¹² Some hotel and tourism interests and the Negril Chamber of Commerce

¹³ Includes fisherfolk, farmers, NGOs and government entities

¹⁴ It is estimated that the sand needs to be replenished every 4-5 years.

Key Component 1 Outputs

- i) *Environmental research reports with recommendations on the way forward.*
- ii) *Designs of breakwater structures.*
- iii) *Reports on the efficacy tests conducted on each design.*
- iv) *Three beach licenses approved by the Natural Resources Conservation Authority Board (NRCA) – providing the go-ahead for work on the breakwaters.*

outlined under the programme, has asked for the intervention of the Disputes Resolution Foundation (DRF). Despite several attempts by the DRF to convene a meeting, none has been scheduled to date. The outcome of the DRF intervention is uncertain. However, a local resident - a fourth generation Westmorelander of fisherfolk heritage – provided this guidance for the implementers. He suggested:

“Listen to the voices of the sensible small man – they know the sea”

Given the composition of the ‘pro-breakwater’ group, this comment implies support for the breakwater solution.

II. Community empowerment (Training in Disaster Risk Reduction (DRR) and Natural Resources Management (NRM)): The main aim of the Training in DRR and NRM was to empower the residents of Negril with the capacity and knowledge to assist in efforts to build the area’s resilience to the impact of hazards and to manage their natural resources. Details of the DRR are reported later in the report as a Component 3 activity.

The community empowerment strategies employed are expected to build on ongoing livelihood enhancement efforts¹⁵ previously introduced in the two target parishes by PIOJ, with support from the European Union and the United Nations Environment Programme. The livelihood enhancement interventions were seen as necessary because, with increasing denudation of fishing banks, fishing has become increasingly untenable. When interviewed, fisherfolk reported that not only do they now travel great distances to fish, the banks they are able to access yield smaller and smaller catches. These two factors – greater travel distance to fishing banks and small catches per trip – result in diminished earning power of fisherfolk. The economic survival of these fisherfolk, therefore, is increasingly being challenged.

III. Programme inputs

Inputs to support Component 1 activities have been both i) Financial; and ii) Technical. The financial input to date is approximately JA\$31m – less than 5% of the amount allocated for the Component. Most of that expenditure has been invested in designing and testing the structural efficacy of breakwater structures.

In terms of technical inputs to the Component, both NEPA and NWA, as co-implementers for Component 1, have provided technical oversight to the breakwater design and testing activities. They have, together with the NIE, been engaged also with stakeholders in education and negotiation interventions to arrive at agreement on an acceptable solution to the beach erosion problem.

¹⁵ Irish moss farming in Little Bay and establishment of Royal Palm nursery. The second intervention uses an integrated approach to address multiple issues of deforestation and carbon sequestration.

IV. Programme outputs

Outputs produced to date from Component 1 of the GOJ/AFP include: i) Environmental research reports with recommendations on the way forward; ii) Designs of breakwater structures; iii) Reports on the efficacy tests conducted on each design; and iv) Three beach licenses which have been approved by the Natural Resources Conservation Authority Board (NRCA). This provides the go-ahead to commence work on the breakwaters.

Some of the other outputs, including those associated with building community capacity to adapt to climate change, are reported on under Component 3.

Programme Component 2:

Enhancing the climate resilience of the agricultural sector by improving water and land management in select communities.

The findings reported in this section of the report represent information collected from multiple sources. First, three focus group sessions were conducted with: farmers - one group of onion and potato farmers in Seville, St. Ann; a group of vegetable¹⁶ farmers from Bushy Park/ Medina, Manchester; and a group of banana farmers in Thompson Town, Northern Clarendon. Second, observation site visits were made to four (4) high schools – 2 in Trelawny¹⁷, 1 in St. Mary¹⁸ and 1 in St. Thomas.¹⁹ The data also include qualitative interviews with RADA Extension Officers and with Programme personnel from the Ministry of Agriculture and Fisheries as well as data abstracted from quarterly and annual reports submitted by MoAF to the NIE.

In this section of the report we attempt to document the programme inputs to Component 2, the activities completed and achievements made, and the challenges experienced and benefits gained by farmers in the programme. We frequently use farmers' words (represented in "quotes") instead of ours in an attempt to give a more accurate sense of farmers' attitudes towards and perceptions about the Programme.

I. Description of the farmer population

Data from the Planning Institute of Jamaica PMU office indicate that close to 2500 farmers from the seven (7) programme parishes are beneficiaries under Component 2 of the Programme. The highest percentage of these farmers (38%) resides in Manchester. St. Thomas with 5.5% of the farmer population has the smallest percentage of participating farmers followed by Clarendon with 5.7%.

Data provided by the MOAF further indicate that the majority (77%) of the farmer population served by the Programme are male (Table 4) and that the ratio of male to female farmers participating in the Programme varies by parish. As shown in Figure 4, the male to female ratio in St. Catherine is 1 to 1.5, and about 2 to 1 in St. Mary. Manchester and St. Ann show the

¹⁶ Sweet pepper, tomato, cabbage and potato

¹⁷ Muschett and William Knibb High Schools

¹⁸ Brimmervale High School

¹⁹ Robert Lightbourne High School

highest male to female ratios of close to 6 to 1. The rates in these two parishes are higher than the national rate of 70% to 30% reported by RADA²⁰.

The GOJ/AFP is expected to contribute to an increase in the proportion of female farmers and young farmers (that is, farmers who are younger than 35 years). The following comment made by a St. Ann farmer suggests that the potential exists to achieve that objective.

"I believe this programme is good in drawing the young people. We see where farming can make money, and the young people them see it too now, my son them use to say – 'Mummy from me born me see you a farm till now and me no see where it a help you', but now them see say it can make money",

The available data (see Table 4) do not support this contention, however. The majority (98%) of farmers in the Programme are 35 years or older. In fact, only 3% of the female farmers in the Programme are younger than 35 years and the percentage of male farmers younger than 35 years of age is even lower - only 1.3%. It should be noted that these statistics do not include the potential farmer population reached by the school-based intervention discussed later in the report.

II. Theory of Change for Component 2

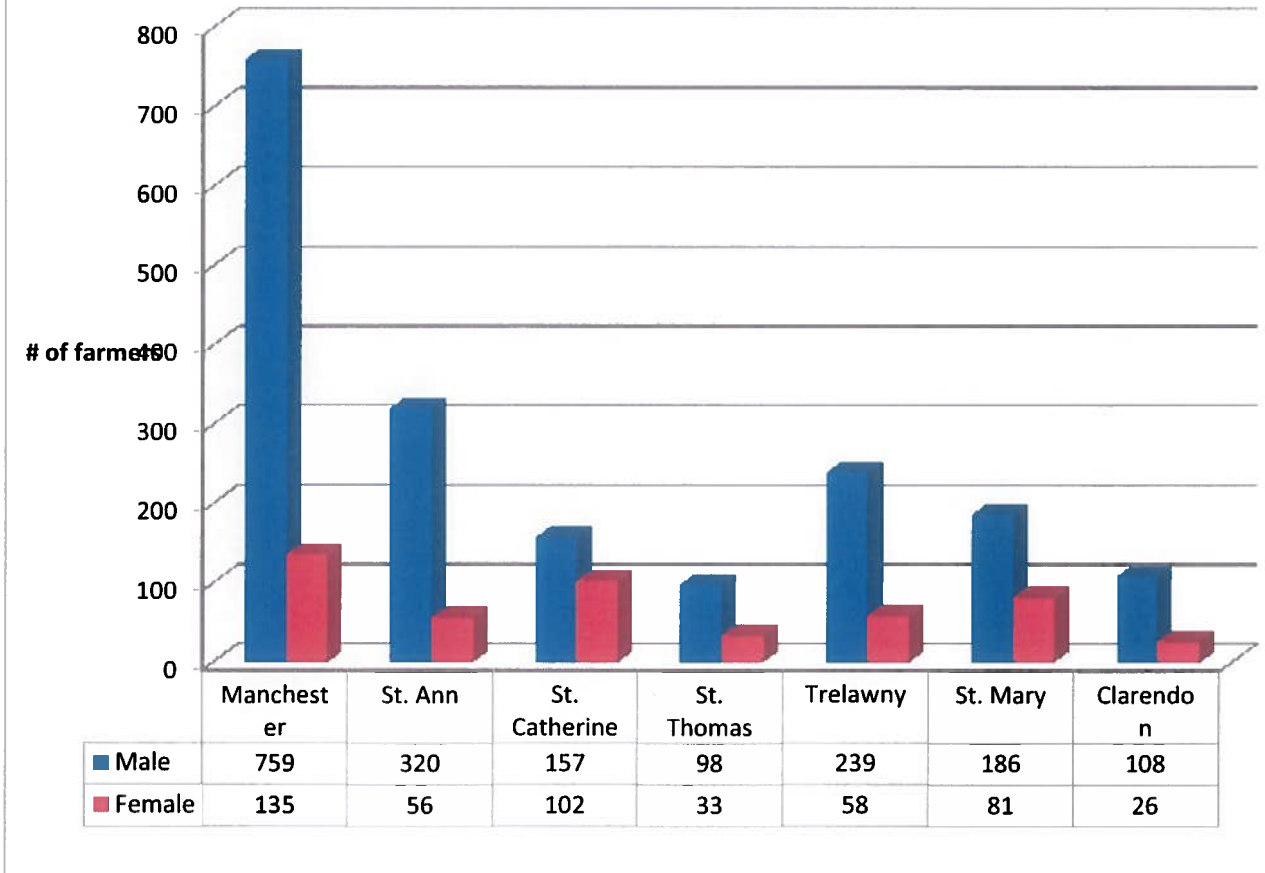
The initial logic model (theory of change) for Component 2 of the GOJ/AFP was one that implied that the best outcomes for the Component would be achieved if the Programme inputs were organised around three discrete sets of activities:

1. Training for farmers to use climate smart agricultural techniques;
2. Providing farmers with planting material, fertilisers and access to water; and
3. Offering farmers technical support as needed (see sections of Figure 6 coded in blue).

This logic model was modified (see Figure 6) in Year 2 of programme implementation based on field observation and experiences which provided compelling evidence that, farmers, given the current approach to marketing their produce – one which is focused on the individual farmer - could not take full advantage of economies of scale. It was argued that farmers would be best served if they organised themselves into groups and if these groups were registered – in other words – became legal entities. Consequently, a fourth element (Support for the organisation and registration of farmers' groups) was added to the logic model (see section of Figure 6 coded yellow).

²⁰ RADA, reports that, to date, it has registered 144,685 farmers, cultivating on 259,358 ha of land. Of these, 43,808 or 30% are women farmers, most being within the age group 35-54. A further look at the data reveals that the average plot size cultivated by women is 1.4 ha in comparison to an average of 2.6 ha cultivated by male farmers. (2016, February 25) Retrieved from <http://www.moa.gov.jm/AgroNews/AGRONEWS%202011.pdf>

Figure 5: Number of Participating Farmers by Gender and Parish



A Rural Sociologist was hired in July 2015 to facilitate farmers organizing themselves into groups as well as supporting the strengthening of existing farmers' groups and the formalization of farmers' organizations. The adoption of this new approach required that farmers (group members) were trained in group dynamics, communication, conflict management and resolution and in team building and strengthening. In addition to the training, the groups (Farmers' Groups and Water Users' Groups) were given assistance that enabled them to become registered as legal entities (Friendly or Benevolent Societies). Reports are that, to date, 4 groups have been registered; and another 3 groups are in the forming stages.

Table 4: Age and Sex Distribution and Crops Planted by Farmers in GOJ/Adaptation Fund Programme

Parish	Crop/Intervention	Age /Sex						Total
		Male			Female			
		NK	<35	35+	NK	<35	35+	
Manchester	Sweet Pepper	-	2	5	-	1	1	9
	Tomato	-	-	2	-	-	-	2
	Cabbage	-	-	-	-	-	1	1
	Irish Potato	-	-	750	-	-	132	882
St. Ann	Onion	-	1	22	-	-	2	25
	Irish Potato	-	10	287	-	3	51	351
St. Catherine	Onion	1	-	21	-	-	4	26
	Irish Potato			135			98	233
St. Thomas	Onion	39	6	28	11	1	5	90
	Irish Potato			25			16	41
Trelawny	Onion	-	3	5	-	-	2	10
	Hot Pepper	-	1	7	-	-	-	8
	Water Harvesting	-	-	2	-	-	1	3
	Irish Potato	-	-	221	-	-	55	276
St. Mary	Irish Potato	-	-	186	-	-	81	267
Clarendon	Irish Potato	-	-	108	-	-	26	134
Total		40	23	1804	11	5	475	2358

Key: NK – not known

Source: PMU, Planning Institute of Jamaica

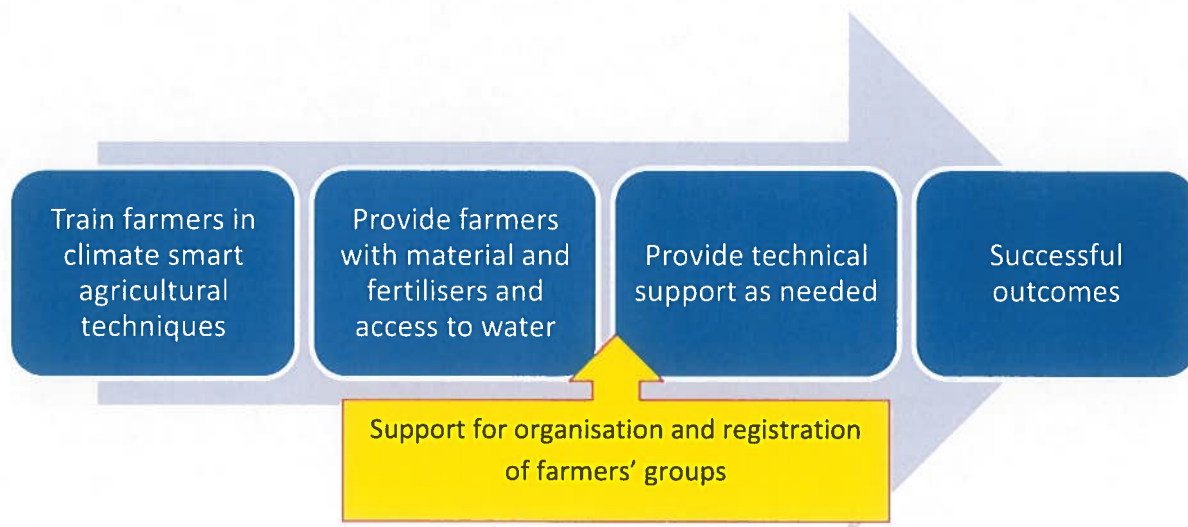


Figure 6: Current Implementation Logic Model for Component 2 of GOJ/AFP

III. Intervention in Schools

The decision to include the strategy of supporting school-based agriculture programmes to the mix of Component 2 interventions should prove important in assuring sustainability and the achievement of the long term goals of the GOJ/AFP. The targeting of schools that include agricultural science in their curricula has been a relatively successful innovation. A total of 12 schools, representing 4 of the 7 programme parishes have benefitted (see Table 5).

Table 5: Programme Participating Schools Selected for Consultation Visits in Mid-Term Evaluation by Parish.

Parish	School	Initial Sample	Final Sample
St. Ann	Walkerswood All Age	Yes	No
	Teen Challenge	Yes	No
St. Mary	Highgate Primary	No	No
	St. Mary Technical	No	No
	Brimmervale HS	Yes	Yes
St. Thomas	Port Morant Pri & JHS	No	No
	Robert Lightbourne HS	Yes	Yes
Trelawny	Cedric Titus HS	No	No
	Muschette HS	Yes	Yes
	Westwood HS	No	No
	William Knibb HS	Yes	Yes
	Troy HS	Yes	No –

Applying the original logic model for Component 2 to the school-based intervention, young people (students) were trained in the basics of climate smart agriculture and participating schools provided with technical and material support to enhance their agriculture programmes in the hope that they will achieve successful agriculture outcomes. In addition, the outreach to schools is expected to enhance the potential of youth as teachers and advocates, and ultimately agents of change in climate smart agriculture.

A convenience sample of 4 of the 12 participating schools was visited by the evaluation team. Two of the 4 schools selected are in Trelawny (Muschett High School and William Knibb High School) and one each in St. Mary (Brimmervale High School) and St. Thomas (Robert Lightbourne High School).

An estimated 1436 (or 34%) of the 4250 students enrolled in the 4 schools visited are involved in the GOJ/AFP. These students are from Grades 7-9 and Grades 10 and 11. Participation in the Programme is mandatory for students in Grades 10 and 11 who choose the Agricultural Science option. Student involvement is voluntary for the other students.

Programme Inputs to Schools:

Inputs to support interventions implemented in the schools included both material and technical assistance to introduce drip irrigation systems.

- All 4 schools reported receiving some or all the elements required to create a drip irrigation system.²¹
- The 4 schools each received a water tank.
- Three of the 4 schools received guttering material to enable the water harvesting effort.
- One school did not receive the guttering material because it had not been budgeted for. In this case, the 1,000 gallon water tank was placed in a class room for safekeeping until installation could be effected. Reports are that the tank has been in storage for some 2 years. The hose was in a cupboard and the concrete base is outside on the farm.
- One school received the material to build the base of the tank.
- One school supplemented the material they received to build the base of the tank.
- RADA representatives assisted with building the base for the tank in one of the 3 schools in which a tank was installed.

²¹ 1,000 gallon water tank, water pipes, guttering.

Other material inputs provided to support the programme in schools included supplies of seeds and fertilizer from RADA. Technical guidance and training in land husbandry was also provided by RADA Extension Officers.

Programme Outputs - Schools:

Primary outputs: The most obvious primary output of the intervention with schools is a functioning drip irrigation system observed in 3 of the 4 schools visited. The following photographs attempt to capture and show some of those primary outputs generated from the GOJ/AFP inputs to schools.

The knowledge students have gained in regard to water conservation and in how to mitigate the effects of soil erosion is another important primary output of the Programme.

Secondary outputs: Secondary outputs resulting directly from the Programme inputs include: i) vegetable crops produced on the farms; ii) the nutritional benefits of these crops that accrue to beneficiaries of the school feeding programme; and iii) income from the sale of crops that helps students cover their examination fees and other school-related expenses. These secondary outputs, if they can be sustained, should contribute significantly to the achievement of the food security and poverty alleviation objectives of the GOJ/AFP.



Photo: Installed water tank (right) and pre-installed irrigation system (left) – School in Trelawny



Photo: Drip irrigation and land husbandry being practices – School in Trelawny



Photo: Drip irrigation system and land husbandry in early stages of implementation at school in Trelawny.

IV. Achievements for Component 2

The achievements in this Component of the Programme are impressive. Evidence culled from monthly progress reports submitted to the NIE, from consultations with programme implementers and interviews with farmers, and from site observation visits with farmers and schools indicates major achievements for this Component.

1. Water Harvesting and Water User Groups:

A total of 180 of the 210 on-farm irrigation systems proposed have been installed. Fourteen Water Users groups were established and 4 are now registered legal entities.



Photo: Land prepared for planning and irrigation system in place at one of the schools in Trelawny.

'The main benefit (of the programme) is the organization of the farmers group, we are excited about farming, we have been revitalized and on our way to becoming legal. There is 86 farmers in the group and every meeting there is more and more joining'.

2. Farmer Field School Methodology

The Farmer Field School (FFS) methodology was adopted by the GOJ/AFP with great success²². Programme partners in the MOAF and RADA are of the opinion that the methodology is well suited to adult learners because it is an active teaching methodology that focuses on learning by doing.

A Train-the-Trainer approach was adopted by the GOJ/AFP as a means of maximizing the effectiveness of the methodology as well as to assure long term sustainability of the training inputs. The Programme supported the training of 30 RADA Extension Officers, as trainers, in the FFS methodology. Trainers, in turn trained farmers using the five demonstration plots implemented as training laboratories. It is reported that RADA Extension Officers trained more than 1900 farmers using this FFS methodology. The 'Farmer Field School has become the extension services methodology' says the Programme Manager in the Ministry of Agriculture and Fisheries.



Photo: Farmer Field School in progress. Source: PMU. Presentation to AF NIE Seminar, July 2015.

²² Farmer Field School is a group-based learning methodology developed in Asia in the 1990s and adapted for use in Jamaica by the MAJIC training programme, funded by the United States Agency for International Development (USAID) and jointly implemented by the MOA and the Agricultural Cooperative Development International/Volunteers in Overseas Cooperative Assistance (ACDI/VOCA), a United States-based private, international development non-profit organisation.

3. Training in Climate Smart Agriculture

Farmers have welcomed the training in climate smart agriculture (land husbandry). The new techniques, designed to maximize the use-effectiveness of fertilisers and water and to mitigate erosion, have been taken on board by most of the farmers exposed to the approach. Several of the farmers encountered during the data collection phase of the evaluation spoke eloquently and with confidence about the benefits/ advantages of 'planting smart'. Farmers have experienced significant improvements in crop yields and, as a result, increased economic benefits from the adoption of the new farming ideas and techniques.

4. Climate Smart Agriculture curriculum:

A Climate Smart Agriculture curriculum was developed by the GOJ/AFP. It is currently being prepared for printing and distribution.

5. Changing the Crop Mix: Improving Land Management

AS indicated, focus group discussions were conducted with three groups of farmers – one from each of the listed parishes – Clarendon, Manchester and St. Ann. The group of farmers in St. Ann who participated in the focus group discussion was initially planting a variety of cash crops. They admit: *"We were all farming onion, carrots, peppers, bananas, sweet potatoes, everything"*

The RADA Extension Officers approached them in December 2014 to discuss the GOJ/AFP programme. By January 2015, farmers received planting material (potato seeds). With RADA's intervention, farmers switched from farming the wide variety of cash crops to growing Irish potato²³.

"Me farmed irish potatoes last year; because RADA said the soil on my farm was good for the potatoes. Me had a good crop, a very good crop me all a turn movie star on JIS, talking about me potatoes. Me happy, very happy" (Farmer, St. Ann).

They (the farmers) "... also went into onion farming in a big way" (St. Ann farmer). Farmers in the group also reported that 13 farmers in the area are now growing onions; another 3 farmers will start growing Irish potatoes in November 2015.

6. The Learning Curve: Farmers' inexperience with water harvesting/land husbandry

Farmers' honesty regarding their lack of knowledge of climate smart agricultural practices was very refreshing to observe. They admitted their lack of knowledge about some of the basics of farming and demonstrated an openness to take these on. This Clarendon farmer, for example, observed:

²³ RADA has implemented a National Irish Potato Programme with collaboration between Caribbean Hunger Fund (CHF) project and the GOJ/AFP. CHF provides planting material (seeds) and AFP contributes fertilizers, pesticides and training.

"We don't have any experience in land husbandry ... we just doing what we use to do. The farmers group is very new, so we just getting started, these are some of the things we will be looking at. We will be learning from and helping each other" (Clarendon farmer)

The evidence is that farmers grasped the concepts, especially of land husbandry, very quickly and were able to apply them. Farmers were also able to provide credible and accurate explanations when asked to do so by the evaluation team. It would be valuable to ascertain which of the factors contributed to the steep learning curve: was it the methodology applied (the Farmer Field School), the monitoring conducted by RADA officers, the attitude of the participating farmers or all three combined.

V. Challenges

The achievements of Component 2 of the GOJ/AFP are impressive but may be better appreciated in the context of the challenges encountered by the farmers. Access to water remains a major challenge for farmers in the programme parishes. The proposed micro dam was not constructed because the plan was determined to be not feasible given the location proposed.

Farmers participating in the St. Ann (Seville), Manchester (Bushy Park) and Clarendon (Thompson Town) focus group discussions identified the following farming challenges that the GOJ/AFP has not been able to address sufficiently. A common set of challenges was mentioned by farmers from the three parishes. The ones most frequently mentioned were:

1. High cost of preparing land for planting: The cry for help to prepare land was heard by the MOAF and, through their efforts, an approach was made to Food for the Poor for assistance. In September 2015, Food for the Poor donated 22 hand-tractors to the Programme to assist with more efficient land preparation. Despite this input, the following comments were heard during the focus group discussion with farmers:

"We needed money to help with land preparation, we were not able to extend the farming, it hard work preparing the land, some of us farm on the hillside, when the land flat it bad but not too bad but the hill side farming very difficult, it takes weeks to prepare an acre of land. Men are charging \$1,400 to \$1,500 a day to prepare a piece of land, and if you have 5-6 acre that can run into thousands of dollars" (St. Ann farmer)

"Not having enough money to pay for land preparation, and tools, we could do with that help that would go a far way. Well we had to do the best we could. Me had to do it; we never get no help, so we could have produced more if we did get the help" (St. Ann farmer).

2. Lack of water or the lack of resources to harvest and distribute water to where it is needed. The decision to not construct the micro-dam in North Manchester was a major setback and the fact that plans for water harvesting in the Northern Clarendon area are not on track make for challenging situation for some farmers.

Farmers, especially those who farm on slopes, continue to be challenged by a lack of water. They have (and have expressed) a need for more support to harvest and distribute water to their farms.

The following are comments heard in relation to the need for water during the focus group discussions with farmers:

“Water harvesting and irrigation would be helpful as there is no water at the farm gates, there is no irrigation programme. We have wells in the area where we can get water if we had help to get it” (St. Ann farmer).

“we need water – we need a pump to bring the water up to the field” (Clarendon farmer).

“We need help with water. Parish manager told the community that water harvesting was not earmarked for Thompson Town” (Clarendon farmer).

“National irrigation come and look at our water source, we need to set up something, but some people farm on the hill, it going to be hard to get water up the hill” (St. Ann farmer)

“A small pump to help in pumping the water would help us” (St. Ann farmer).

3. Farmers’ inability to access planting material or delays experienced in receiving planting material promised by the Programme²⁴; and
4. Lack of tools
“We could have done with some tools as well”.

VI. Farmers’ Views about the Programme and Recommendations for Change

Farmers are enthusiastic about the programme and its potential to *“make things better”*. The following comments support that opinion:

“Things going good, we can see improvement in the farmin”.

²⁴ Procurement of planting material is made even more challenging when payment to farmers doing the procurement is slow and unpredictable.

'The main benefit is the organization of the farmers group, we are excited about farming, we have been revitalized and on our way to becoming legal. There is 86 farmers in the group and every meeting there is more and more joining. 100 acres will be used to produce onion alone. We are waiting eligibility for potato and hot pepper farming. The National irrigation have visited our water source, we have the land and we are experienced, and we support each other, we have benefitted tremendously'

"If I had better treading I would have had a better crop, but what I got I'm happy with (smiling), I produced 3500 pounds of onion, it was good, but could have been better, me happy".

'... Once we are able to prepare the land and have water we have no problem'.

'Once we have the produce we have the market. We sell to higglers, hotels in the area, local markets and (a wholesale market). RADA extension officer communicate with the wholesale and farmers every week to see what is available and then she tells Glastonbury then arrange collection of produce'.

Farmers' Suggestions for Improving the Programme:

If farmers were going to restart implementation of Component 2 of the GOJ/AFP what would they do differently? Here is one suggestion from a farmer in St. Ann which captures the views expressed by most of the farmers who participated in the focus group sessions:

"Give us the seeds early, provide training and help to clear the land. I think with the GOJ (Adaptation) fund the young people then see the production can make money. Money can make through farming this will attract the young people" (St. Ann farmer).

VII. Commendations: Farmers were asked to sum up their feelings about the Programme in one sentence. The comments received were all positive. Here is a sample of farmers' answers:

- *'Feel good, this one me feel the spirit, very good, good vibes'.*
- *'I see a large amount of young people who are interested in Irish potatoes and sweet potatoes. This programme has a lot of interest. Ms. Jones (Rural Sociologist) is she brought this programme, we will accept all who are interested, we have the land'.*
- *"We are more of a group, we thank GOJ, we appreciate the programme, 57 farmers will benefit from this programme".*
- *"We thank RADA and the GOJ for providing the assistance, we building a better life, we touching more farmers which is helping to build good relationship with RADA and farmers in the area".*

Programme Component 3:

Improving institutional and local level capacity for sustainable management of natural resources, and in disaster risk reduction, in the targeted vulnerable areas and raising awareness for behaviour modification.

Component 3 of the GOJ/AFP is different from the other two Components. The other Components include activities specific to that Component. Component 3, on the other hand, includes both elements that are crosscutting – that is, elements that are expected to support the other two Components of the programme – as well as elements that are unique to one Component. Community Sensitization, and Training and Capacity Building are the activities that cut across the other two components; the unique element is the Compilation of a Climate Risk Atlas – an element that benefits Component 1.

Implementation of activities under Component 3, as it was for the other two, relied on Partnerships and Collaboration. The MOU for this component of the programme was signed with the Ministry of Tourism and Entertainment (MoTE). The Office of Disaster Preparedness and Emergency Management (ODPEM) was contracted by Ministry of Tourism and Entertainment (MoTE) to implement the technical components. Other implementation partners included the Social Development Commission (SDC), the Jamaica Red Cross and the Jamaica Fire Brigade. These other partners supported implementation of the Training in Disaster Risk Reduction.

I. Climate Risk Atlas: The development of a Climate Risk Atlas for the Negril area supports Component 1 (Coastal Adaptation) of the programme but was implemented as a Component 3 activity. The Climate Risk Atlas aims:

‘to address the gaps in development planning information and will provide the technical details for the redefinition of setbacks and high watermarks. The risk atlas will also allow for mapping of the most vulnerable areas in Negril; and the development of corresponding risk mitigation approaches by communities and stakeholders’²⁵.

A comprehensive set of six activities was completed to assure the development and future use of the Climate Risk Atlas. First, a detailed mapping of all the physical assets along the Negril coastline was carried out between August and December of 2013. Second, Community Hazard mapping exercises were completed in 6 communities in Negril between February and April 2014. Third, the hazards maps were digitized and superimposed on existing hazard and vulnerability maps to create a more “robust and accurate representation of the hazard and vulnerability profile of the area”²⁶. Fourth, in order to increase community understanding of the

²⁵ Source: Report Prepared by the Tourism Policy and Monitoring Division, Ministry of Tourism and Entertainment, November 2015

²⁶ Report Prepared by the Tourism Policy and Monitoring Division of Ministry of Tourism and Entertainment

map and how it can be used, the digitized map was presented to the concerned communities in June 2015 for their validation and approval. Fifth, detailed Storm Surge Modeling and Sea Level Rise scenarios were developed. Finally, the Atlas was reviewed. Reviewers of the first draft of the atlas suggested that a chapter on **Risk Assessment** should be included. Once that chapter is completed, the Climate Risk Atlas will be digitized for dissemination. This work is on-going.

II. Community sensitization (to support Component 1): Select communities in Hanover and Westmoreland (Negril area) were identified to receive inputs in respect of this activity. Sensitization sessions were conducted to empower members of the communities to integrate climate change and natural resources management elements into all economic, social and environmental operations in their communities.

The main objectives of the sensitization sessions were to: i) introduce and sensitize community leaders and members – especially in Hanover - to the GOJ/Adaptation Fund Programme; and ii) educate and increase awareness of community leaders and members about climate change. A total of 25 members from two communities in Hanover (Logwood and Orange Bay) and 16 members from three communities in Westmoreland (Whitehall, Sheffield and Westland Mountain) completed the sensitization sessions.

III. Training in Disaster Risk Reduction (DRR) and Natural Resources Management (NRM): The main aim of the Training in DRR and NRM was to empower the residents of Negril with the capacity and knowledge to assist in efforts to build the area's resilience to the impact of environmental hazards and manage their natural resources.

The training in DRR targeted a cross-section of groups including, fisherfolk, small vendors, small business owners, and leaders of civic community organisations. The training was offered in modules that included general and specific aspects of disaster management with a focus on preparedness, response, recovery, risk reduction, hazard mapping, search and rescue, first aid, and business continuity planning. Table 6 provides a summary of the number of persons who completed each module of the DRR training.

The data indicate that Programme Sensitization and Basic DRM Introduction were the modules with the highest number of trainees – with 123 and 131 participants respectively. Approximately two times as many females as males took these courses. The modules which had the lowest participation were Climate Change Awareness [only 41 persons – 17 (41.0%) males and 24 (59%) females completed the training] and Drought Safety with 45 persons [10 (22.0%) males and 35 (78%) females] completing the module. Less than half the number of persons who registered for the Programme Sensitization and Basic DRM registered for Climate Change Awareness and Drought Safety. The reason for differences in the size of the groups was not investigated.

Table 6: Number of Persons who Received Training in Disaster Risk Reduction and Natural Resources Management by Training Module, Parish and Sex.

Training Module	Number of Persons Trained				Number of Persons Trained ²⁷
	Parish		Sex		
	Westmoreland	Hanover	% Male	% Female	
Basic DRM Introduction	93	38	32.0	68.0	131
Programme Sensitization	98	25	36.0	64.0	123
Initial Damage Assessment	41	41	22.0	78.0	82
Fire Safety / Light Search and Rescue	30	39	20.0	80.0	69
Earthquake and Landslide Safety	34	32	26.0	74.0	66
Hurricane and Flood Safety	13	38	33.0	67.0	51
Standard First Aid (Certificate Course)	21	29	12.0	88.0	50
Drought Safety	13	32	22.0	78.0	45
Climate Change Awareness	16	25	41.0	59.0	41

Source: Report Prepared by the Tourism Policy and Monitoring Division, Ministry of Tourism and Entertainment, November 2015

These data allow us to compute the number of persons (and the sex composition of each group) who received training in a specific module. We are, however, unable to ascertain the number of persons who would have received the number of modules required to qualify them as first responders in disaster risk management²⁸. This is an area of weakness in the Programme as implemented. If the Programme is extended, the appropriate adjustments should be made to the training strategy to assure that there is a plan for the certification of participants and that past and future graduates take all the modules required to become certified first responders.

IV. Communication Strategy

A comprehensive communication strategy for the GOJ/AFP was developed and approved by the NIE in the first quarter of 2014. However, a full roll out of the strategy is still to be effected.

In the period since the Communication strategy was approved, several of the recommended mass media communication elements have been produced. They include: i) Fact Sheets and Brochures: A brochure was developed for each of the three Components to answer "Frequently Asked Questions"; ii) Vignettes; and iii) Newspaper articles. The following recommended mass media platforms have also been extensively exploited: i) Newspapers; and ii) a Website:

²⁷ Column numbers cannot be summed.

²⁸ Note that it is reported elsewhere in this report that 150 community members have been trained as first responders.

adaptia.pioj.gov.jm. The website also serves as a repository for climate change-related information for the Programme.

Key Outputs from Component 3

- Climate Risk Atlas completed and being prepared for dissemination.
- 41 community leaders and residents from five Westmoreland and Hanover communities sensitized to the GOJ/AFP.
- 9 modules of the Disaster Risk Reduction training delivered.
- Fisherfolk, small vendors, small business owners and leaders of civil society groups trained to serve as first responders.
- Comprehensive communication strategy developed and approved.
- Select mass media elements of the communication strategy have been produced and introduced.
- Beneficial partnerships established with local and international public and private sector agencies and entities.

Other communication efforts employed by the Programme have included:

1. The Climate Change awareness training programmes for community leaders and members in Westmoreland and Hanover detailed earlier in this section of the report;
2. Participation of GOJ/AFP-linked personnel in public events and partner forums, notably with JaREEACH, the International Medical Services for Health (INMED Partnership for Children), and PANOS Caribbean;
3. The hosting of annual National Stakeholders' Consultations for all three components; and
4. Planned media engagement activities including, Editors' forum, and Jamaica Information Service (JIS) Think Tank.

The mass media communication material that has been developed is routinely distributed at these events.

The communication elements and platforms mentioned here are being used to support the Programme's efforts to raise awareness and increase knowledge both about the Programme as well as about climate change and related issues. The reach and effectiveness of the Programme's communication efforts are still to be assessed.

V. Linkages and Partnerships

The creation of strategic linkages and partnerships has been a guiding principle of the GOJ/AFP and has influenced the implementation of all three its components. As indicated, the Programme is being implemented in partnership with a mix of local and international, public and private sector agencies and entities. Over the life of the Programme, the establishment of synergistic relationships between all relevant stakeholders has been fostered and encouraged.

The primary objective of creating these linkages and partnerships was to leverage resources in order to maximise the benefits to stakeholders without duplicating effort. Implicit in this approach is the objective of assuring sustainability of the respective Programme element.

The nature of the partnerships has varied – ranging from the provision of technical support for training and capacity building, to donating hand

tractors to farmers to assist them with land preparation, to assistance to improve access to water supplies through the installation of drip irrigation systems. A sample of the many partnerships and collaborative arrangements established by the GOJ/AFP are listed in Table 7. The Table details the nature and effect of each selected partnership/collaboration included.

Table 7: Examples of Partnerships and Collaboration under the GOJ/AFP

Name of Collaborating Partner	Nature of Collaboration	Result of Collaboration
Jamaica Red Cross	In partnership with ODPEM, provided First Aid Training	50 persons trained and certified in Standard First Aid in select communities in the parishes of Westmoreland and Hanover
Jamaica Fire Brigade	Disaster Risk Management and Safety Wardens Training sessions conducted in collaboration with ODPEM and the Ministry of Tourism	10 tourism stakeholders (hotel staff) trained in Basic Disaster Risk Management, including basic specific hazard safety
Food for the Poor	Provided 22 hand tractors to build productive capacity of the Water Users Groups/Farmers Groups	Farming communities more efficient in land preparation
Ja REEACH Project/ACDI/VOCA	In collaboration with RADA and the MOAF, facilitated a 2-week Trainer of Trainers (TOT) workshop in which 30 Extension Officers were trained to deliver climate smart land husbandry best practices using the Farmer Field School methodology. Exhibitor in the JAREEACH Climate Change Youth Conference at the Jamaica Conference Centre on September 25, 2015	30 Extension Officers trained in FFS methodology Establishment of small scale irrigation systems and production/ productivity schemes Information on GOJ/AFP shared with students from approximately 70 schools thereby increasing the awareness of the GOJ/AFP and climate change adaptation efforts
Jamaica Social Investment Fund/ REDI Project	Supplemented on-farm drip irrigation system to facilitate the Irrigation & Productivity Schemes	Over 200 systems installed; more than 100 acres of onions cultivated and irrigated
Canadian Hunger Foundation/PROPEL	Contributed Irish potato seeds to support the Production and	Approximately 800 hectares of Irish potato established - yielding

Name of Collaborating Partner	Nature of Collaboration	Result of Collaboration
project	Productivity Programme (PPP)	7000 MT of produce
INMED	Harvest the Future Symposium in Montego Bay, June 2015. Presentation was made by PIOJ's Director-General on ' Building Resilience to Climate Change Through Agricultural Innovation '. Harvest the Future is an annual gathering designed as a platform for sharing the latest advancements and initiatives in small scale climate-smart agriculture. Participants included farmers, fisherfolk, schools, youth groups, women-led cooperatives, private- and public-sector leaders and development practitioners.	Public education re the GOJ/AFP. As a sponsor, the GOJ/AFP also received significant visibility during the symposium.
FES/Institute for Gender & Development Studies, Mona Unit	Facilitated a teach-in on 'Gender and Climate Change' for beneficiaries from target communities in rural Jamaica.	20 stakeholders/beneficiaries had awareness raised regarding how to integrate gender and Climate Change into project implementation.

Source: Data provided by the PMU.

Answering the Evaluation Questions

This section of the report is organised to answer the following eight evaluation questions:

1. What progress, if any, has been made toward achieving the Programme's outcomes?
2. To what extent are programme objectives being met?
3. Is the AFP on a path to sustainability?
4. How effective has the management been in its decision-making and in taking actions required?
5. How efficient has the management been in its decision-making and in taking actions required (or) Has management made its decisions and taken action in a timely manner?
6. What important lessons have been learned about programme design?
7. What important lessons have been learned about programme implementation?
8. What important lessons have been learned about programme management?

Evaluation Question 1: Progress towards achieving programme outcomes

The focus of this evaluation exercise was on Programme outputs and the achievement, or not, of lower level objectives. It is to these outputs we look to assess whether there is progress to achieving the proposed outcomes for each of the Programme Components are shown in Table 2.

Progress towards achieving these outcomes is observed for all three components of the programme. However, greater progress has been made in relation to achieving outcomes associated with Components 2 and 3 than for Component 1. The evidence on which this assessment is based is summarised in Table 8.

Table 8: Evidence of Progress to Achieving Programme Outcomes

COMPONENT	PROGRAMME OUTCOME	EVIDENCE OF PROGRESS TO ACHIEVING OUTCOMES
1: Increasing the climate resilience of the Negril coastline	Slowed rate of beach erosion and longer term beach restoration	Achievement of the primary output for this component - Installation of breakwater structures – is stalled for the past almost 2 years. However, considerable preliminary work has been done. For example, the design and technical works to support the breakwaters; Community consultations were held; an Environmental Impact Assessment (EIA) process conducted. Stakeholder consultations. Approval by the Natural Resources Conservation Authority Board (NRCA) of three beach licences in November 2014, effectively providing the go-ahead to commence the works.
	Reduced exposure of coastal, social, economic and environmental assets including Negril Great Morass against storms and storm surges	
	Restoration and improved hazard reduction functions/ services of critical coastal and ecosystems – seagrass beds and coral reefs	
	Protected livelihoods – fishing, tourism interests (including farmers and locals who depend on tourism for their income)	
2: Enhancing the climate resilience of the	Increased availability of and access to domestic and irrigation water supplies leading to increased	180 on farm irrigation systems in place.

COMPONENT	PROGRAMME OUTCOME	EVIDENCE OF PROGRESS TO ACHIEVING OUTCOMES
<p>agricultural sector by improving water and land management in select communities</p>	<p>productivity and increased food security.</p>	<p>3 rain water harvesting structures implemented.</p> <p>14 water users groups established – 4 are registered. Other groups are in the process of registration.</p> <p>Compelling evidence of progress observed at 3 of 4 schools visited. They had been supplied with most or all of the basic elements and the technical assistance needed to establish the drip irrigation system.</p> <p>Plans for water harvesting in the Northern Clarendon area not on track.</p>
	<p>Decline in soil erosion and improved soil fertility</p>	<p>30 Extension Officers trained to train farmers in climate smart agriculture and land husbandry.</p>
	<p>Reduced downstream flooding and fewer landslides in upland communities</p>	<p>5 demonstration plots implemented.</p> <p>An estimated 1900 farmers benefit from land husbandry demonstration plots.</p> <p>Demonstration plot in Thompson Town (north Clarendon) used to train farmers in the community. Farmers had applied the new techniques in land husbandry to prevent land slippage.</p> <p>Banana farmer in Nine Turn (north Clarendon) was able to explain the changes in farming methods he had made based on training received from RADA trainers. He understands the value of the new farming techniques.</p>
	<p>Reduced turbidity and pollution of coastal waters.</p>	<p>This was not included in this evaluation.</p>

COMPONENT	PROGRAMME OUTCOME	EVIDENCE OF PROGRESS TO ACHIEVING OUTCOMES
<p>3A: Improving institutional and local level capacity for sustainable management of natural resources and disaster risk reduction in the targeted vulnerable areas</p>	<p>Protection of coastal ecosystems.</p>	
	<p>Increased knowledge of climate change and adaptation options at the local level</p>	<p>Climate risk atlas drafted. Review of the document being conducted by technical experts. Next step will be consultations with partners and potential partners and finalisation distribution.</p>
	<p>Enhanced local capacity for sustainable use of environmental resources</p>	<p>Estimated 150 community members from Westmoreland and Hanover trained in disaster risk management techniques to enhance competence to become first responders in the event of the disaster.</p>
	<p>Increased knowledge of and participation in disaster risk management and adaptation to climate change</p>	<p>Sensitization workshops conducted with RADA Extension Officers.</p>
	<p>New traditions of environmental good practices</p>	<p>14 Water user groups established.</p>
	<p>Better informed decision-making among farmers and local residents and reduced exposure to climate-related risks.</p>	<p>Land husbandry and Water management curriculum developed by RADA – should be printed and ready for dissemination by end 2015.</p> <p>Training: 18 Climate Smart Agriculture training sessions conducted (384 farmers benefited)</p> <p>Demonstration plots and farmer field schools established and operational – develop solutions and farmer-led demonstration of good practices.</p>
<p>3B: Awareness building and knowledge management</p>	<p>Standardised approach to beach restoration</p>	<p>Guidelines and adaptation plans are not on target.</p>
	<p>Improved buy-in and ownership by local stakeholders</p>	<p>Institutional strengthening and capacity building</p>
	<p>Programme sustainability</p>	<p>Bring young farmers on board –</p>

COMPONENT	PROGRAMME OUTCOME	EVIDENCE OF PROGRESS TO ACHIEVING OUTCOMES
	Standard approach to adaptation across communities	through community outreach and support to school –based agriculture programmes.

At the end of the mid-term evaluation period, the following activities were still not completed:

Component 1: Construction of Breakwaters

Component 2: Water harvesting

Component 3: Natural Resources Management Training; Roll out of the Communication Strategy; Dissemination of the Climate Risk Atlas; Guidelines for beach restoration/ adaptation plans.

Evaluation Question 2: To what extent are programme objectives being met?

The **overall objective** of the GOJ/AFP is to protect livelihoods and improve food security in vulnerable communities by:

1. improving land and water management for the agricultural sector;
2. strengthening coastal protection; and
3. building institutional and local capacity for Climate Change Adaptation and Disaster Risk Reduction.

Sub-objective 1: Improving land and water management for the agriculture sector

The evidence (Table 8) is that the Programme is well on its way to achieving sub-objective 1. However, there is still work to do in terms of water harvesting and management as seen from farmers’ comments listed earlier, and preparing farmers groups to become registered entities.

Sub-objective 2: Strengthening coastal protection

There has been an almost two year delay in implementing the activities that are designed to achieve one of the sub-objectives (Sub-objective 2: Strengthening coastal protection). Considerable preliminary work has been done, however. For example, the design and technical works to support the breakwaters have been completed. These are, reported to be, consistent with best practices and have involved modeling studies and testing done at the Centre of Applied Coastal Research Ocean Engineering Laboratory, University of Delaware in the United States of America. Also completed are the community consultations in the two parishes and an Environmental Impact Assessment (EIA) exercise that involved conducting a biophysical survey, natural resource valuation, community surveys and stakeholder consultations (355 stakeholders surveyed and four Focus Group discussions held in Negril between January and March 2014). Public consultations were held in July 2014. The EIA process culminated with the approval by the Natural Resources Conservation Authority Board (NRCA) of three beach licenses in November 2014, effectively providing the go-ahead to commence the works.

“Listen to the voices of the sensible small man – they know the sea”
(4th generation Negril resident).

Sub-objective 3: Building institutional and local capacity for Climate Change Adaptation and Disaster Risk Reduction.

Project partners responsible for implementing activities designed to achieve sub-objective 3 indicate that each of the three proposed elements (i) Climate Risk Atlas; (ii) Disaster Risk Management (DRM) Training in select communities; and (iii) National Resources Management (NRM) training is well advanced. The Climate Risk Atlas is said to be 85% complete. Reviewers of the draft Atlas recommended the inclusion of one additional chapter. Once that chapter is written, the document will be reviewed by a team of national technical experts before it is finalised and widely disseminated.

At the time of this evaluation, the NRM training was outstanding. To a large extent, the delay in implementing the NRM is due to the delay in reaching agreement on how to restore the beaches of Negril. In the interim, however, the NRM curriculum and training manual are being developed and it is projected that the training will begin in the first quarter of 2016.

Of the three elements of sub-objective #3, the Disaster Risk Reduction training is the most advanced. All training planned in this area has been completed. In all, more than 150 individuals in five communities in Westmoreland²⁹ and Hanover³⁰ have participated in the training. The goal of the training was to help to create a community disaster risk management group of first responders in each community. To enable that process, MoTE and ODPEM have worked in coordination with the national Parish Disaster Committees. After a few missteps, the Social Development Commission was engaged and given the responsibility for the recruitment of participants for the DRR training. Altogether more than 150 individuals were trained and said to be competent to serve as local first responders in the event of a disaster. The results of the training would be more convincing, however, if graduates had been tested and certified when they completed the required number of modules.

Evaluation Question 3: Is the GOJ/AFP on a path to sustainability?

Sustainability can be considered the ability to continue a defined behavior indefinitely.³¹ There is an abundance of evidence that sustainability concerns were taken into account in designing the GOJ/AFP. Thirty-four months into implementation of programme activities, we conclude, based on the evidence made available during the evaluation, that Yes, the AFP is on a path to sustainability – several of the elements of the Programme will be able to continue, if not indefinitely, as least beyond the life of the Programme.

What are the elements in place that would assure sustainability of the Programme? At least five groups of factors that should assure short term sustainability of programme approaches and ideas can be identified. They are:

²⁹ Communities in Westmoreland are: Red Ground, Sheffield, Westland Mountain and White Hall

³⁰ Communities in Hanover from which participants were drawn for DRR training are: Logwood and Orange Bay)

³¹ From Daly, H. E. 1990a. Boundless bull. Gannett Center Journal 4(3):113–118. —Daly, H. E. 1990b. Toward some operational principles of sustainable development. Ecological Economics 2:1–6.

1. Institutional strengthening

- A cadre of community members from five communities in Westmoreland and Hanover have received disaster risk management training that will enable them to become local first responders in the event of a disaster;
- Partnership relationships have been established with MoTE, ODPEM, the Parish Disaster Committees and the Social Development Commission that should assure the availability of support, if needed, by the cadre of local first responders;
- RADA has provided training for Extension Officers (EO) working in target communities, and also for other EO as well, to insure that programme reach goes beyond the target communities.
- School agricultural science teachers and their students are learning new environmentally friendly and climate smart agricultural techniques. These efforts should assure that future farmers will be taught and ultimately practice climate smart agriculture.
- The Climate Risk Atlas will enhance planners' ability to map most vulnerable areas in Negril and to provide technical details for redefining high-water marks and setbacks.

2. Motivating young farmers (bringing young farmers on board through student involvement)

- Although less than 20% of the current farming community is younger than 35 years old, there are two factors that should serve to increase the pool of younger farmers in the future. They are:
 - The positive experience of older farmers who are using the new methods. They have experienced increased yields that translate into higher incomes and are expending less on fertilizers, etc. because of improved land husbandry.
 - The support provided to high schools – especially those in rural areas - to strengthen their agricultural science programmes. By the end of the Programme, an estimated 3000 students would have been exposed to the agricultural inputs provided to the 12 participating schools. Teachers report that the level of student interest in and enthusiasm for becoming engaged in the “new agriculture” is high.

3. Transfer of knowledge

- Training farmers to use the new farming techniques that produce higher yields and by extension – greater income. There is evidence that farmers have taken the new farming ideas on board and, because they can see the benefits of adopting the new practices, will continue to apply the new techniques and transfer that knowledge to peers and younger farmers.

- Disaster Risk Reduction (DRR) training should result in a cadre of persons who understand the link between climate change and development and who are equipped to be first responders in a disaster.
4. Empowerment of communities
 - Through the work of the rural sociologist hired in Year 2 of the Programme, communities of farmers are learning how to better organise themselves and become registered entities. Having legal status will make farming groups more effective as bargaining units and better able to access funding and achieve economies of scale.
 - Farmers are provided with training in conflict resolution and elements of social bonding and group cohesiveness.
 - The availability of small grants to farmers' groups that are registered will act as an incentive for farmers to organise.
 5. Engaging with partners and implementers to leverage funds from other projects.
 - Examples of this strategy and their outcomes are summarised in Table 8. The list of partners includes Canadian Hunger Foundation/ PROPEL project, JaREEACH project, Jamaica Red Cross, Food for the Poor and Jamaica Social Investment Fund/ REDI Project.

The evidence that the Programme is on a path to sustainability is compelling. We should caution, however, that the GOJ/AFP is not likely to be completely sustainable in the long term. There will be, at a minimum, need for on-going technical and financial inputs to support the following: capacity building (basic preparation and refresher updates); procurement of equipment and tools; re-construction of farm infrastructure (e.g. Demonstration Plots) damaged by disasters (floods, hurricanes, etc.) and for public education and monitoring and review.

Evaluation Question 4: How effective has the management been in its decision-making and in taking actions required? Evaluation Question 5: How efficient has the management been in its decision-making and in taking actions required – or - Has management made its decisions and taken action in a timely manner? These two evaluation questions will be handled together.

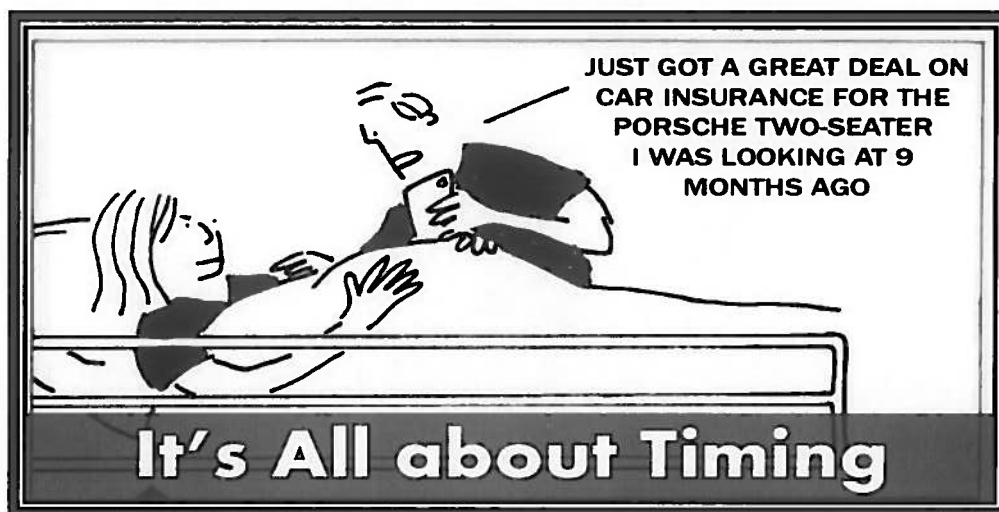
The response to these questions is mixed. The available evidence suggests that on some matters, the management response was very time efficient. Of note is the hiring of the Rural Sociologist and the Procurement Officer – actions required to support implementation of Component 2 activities. Neither of these positions was written into the Programme initially. However, once the argument was made and the justification given for creating the positions, management agreed and responded in a timely manner.

On the other hand, the hiring of consultants by implementing partner agencies was not always time efficient. The evidence indicates that where the management was not efficient in hiring consultants, the delay was associated with, the implementing partner agency doing the hiring not following established procedures.

Another area in which time between decision and action was lengthy was reported by participating farmers in Clarendon and St. Ann. From the perspective of the Clarendon farmers who participated in focus group discussion sessions, managers at the implementing partner level were not efficient in disbursing funds to farmers to pay for planting material they were authorised to purchase. Farmers were concerned that this practice could lead to farmers losing credibility with suppliers with the result that relationships would be jeopardised and, ultimately, farmers' ability to purchase high quality planting material from reputable suppliers could be destroyed.

A second complaint about management inefficiency heard from farmers concerned the schedule for distributing planting material. The following comment reinforces that contention.

"The only regret we get the seeds late, and because of the drought my onions them small, 50 of my onions weighted 1lb! them small so, (farmer shows size of the onion) the earlier we get the seeds the more produce we get. We have to prepare for the rain, if we miss the November rain them we will have a problem" (St. Ann farmer).



In an effort to increase efficiency, the PMU recommended an adjustment to the original system of communication. Rather than a hierarchical system of communication in which the IE would communicate directly with the EE and EE, in turn, communicates with the NIE, the recommendation was that a parallel system be implemented. In the parallel system, the IE could communicate with the NIE and EE simultaneously on matters needing the urgent attention of the NIE. That process has served to increase the timeliness with which actions are taken on matters referred to the NIE.

Evaluation Question 6: What important lessons have been learned about programme design?

Although a programme may appear technically and theoretically sound, the feasibility of the design is only known when the programme is being implemented. Consequently, programmes need to be sufficiently flexible to allow for modifications mid-stream.

In the case of the GOJ/AFP, the design is both logical and theoretically sound. However, three areas of criticism about the design of the Programme were heard during the evaluation from implementation partners and stakeholders during the evaluation. They are listed here.

1. Important to introduce a communication strategy early in the programme: Several partners and stakeholders voiced the opinion that the Programme was compromised by insufficient community awareness and sensitization about the Programme and about climate change and related issues before the specific components were implemented. The Communication Strategy developed for the programme has still not been completely rolled out. Although implementation of the Programme is well advanced it would not be inappropriate to invest the necessary human and financial resources to enable a full and robust roll out the Strategy.

2. A robust mechanism that enables farmers to operate collectively is vital to achievement of programme results. As indicated earlier in the report (in presenting the findings for Programme Component 2) the initial theory of change for Component 2 appears to have assumed that the proposed outcomes for that component could be achieved if the Programme trained the farmers, provided them with planting material and access to water and provided technical guidance in farming practices.

That design was assessed as not likely to achieve sustainable outcomes. The theory of change was adjusted during the second year of the Programme. The revised design included inputs that would encourage and support farmers to establish and register farmers' groups and, through training in group dynamics and communication, help to build group cohesion (see Figure 6). When farmers operate in groups, rather than individually, their ability to access markets and exploit opportunities for funding and technical assistance is maximised^{32, 33}. This deficiency in the programme design was identified sufficiently early and programme management was sufficiently nimble in responding so that timely action was taken on the matter.

3. Implementation of a complex matrix management structure requires an infrastructure that is built on mutual respect among partners and allows flexibility in communication. A matrix management approach was recommended for this Programme. In this structure, persons with similar skills were grouped for assignments in the various Components. In this structure there was more than one reporting line and cross functional lines. The matrix management approach

³² John Ikerd, Small farmers, big markets: Working together for sustainability. (2016, February 26) Retrieved from (<http://web.missouri.edu/ikerdj/papers/Sikeston-LU-SmFm.htm>)

³³ Daniela Roetiger, 2015. Agricultural finance for smallholder farmers: Rethinking traditional microfinance. Risk and cost management approaches. (2016, February 25) Retrieved from <https://books.google.com/books?isbn=3838267850>).

has advantages, especially as it can contribute to the efficient use of resources. But it can also result in turf battles and a lack of clarity in relation to the flow of communication. Where both of these challenges occur simultaneously, as occurred in the GOJ/AFP, the ability to manage effectively becomes increasingly difficult.

The approach adopted by the Programme was made even more complex with the adoption of a layered implementation approach. The plan was for the PIOJ to sign Memorandum of Understanding (MOU) with key Executing Entities (EE) and they in turn would work with and through the identified Implementing Entity (IE). So, for Component 1, for example, the MOU was signed with National Environment and Planning (NEPA) who would work through the National Works Agency (NWA). For Component 2, the MOU was signed with the Ministry of Agriculture who worked with and through RADA and National Irrigation Commission (NIC) to implement activities. The MOU for Component 3 was signed with the Ministry of Tourism and Entertainment who was expected to work with the Office of Disaster Preparedness and Emergency Management (ODPEM) and NEPA to complete programme activities.

In theory, all things being equal, this layered implementation approach should work effectively to assure successful implementation. There was muted dissatisfaction, however, across the board, with the partnerships that were established through these MOUs. In some cases, key informants indicated that the EE assigned to the Component did not always have the technical expertise to contribute meaningfully to completing activities proposed under the respective component. In addition, because of personnel changes over the life of the Programme, new members of some EE and IE teams were not always clear on the rationale for the choice of management approach being used.

As well, the layered approach may have contributed to blurring the lines of communication. The communication flow recommended initially was for all communication to go through the EE. The plan was modified, for improved efficiency, to allow "parallel" communication (see blue lines in Figure 7). There is evidence that, contrary to the agreed practice of communicating simultaneously with the EE and the NIE, in a few cases IEs were communicating directly with the NIE/ PIOJ and not informing the EE.

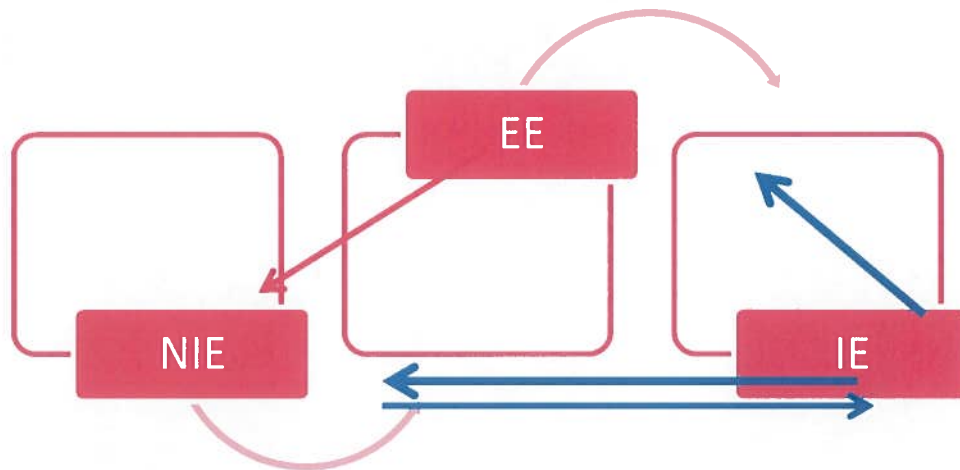


Figure 7: Expected Lines of Communication between Local GOJ/AFP Entities

Evaluation Question 7: What important lessons have been learned about programme implementation?

The information in this section of the report represents data collected during consultations and qualitative interviews with stakeholders and programme partners.

Analysis of the evaluation data indicates that the challenges experienced, especially with the implementation of Component 1, might have been minimised if:

1. ... a robust communication, public education and public relations campaign had been launched well in advance of the other activities in this component. As one stakeholder observed *"Folks need education"*.
2. ... audience segmentation, by class and gender, had been applied when conducting the first series of stakeholder consultations. Although there is evidence of stakeholder engagement and involvement, the group dynamics where a group includes representation from all social classes, genders and ethnicities often favours those with the perceived "higher" status. Their sense of entitlement, combined with the fact that the persons perceived to be of "lower status" may give up their power when placed in settings in which they are not comfortable, can result in group decisions that do not represent all views.
3. ... there was wider engagement of all levels of the community in the discussions and decision making. In the mind of some key stakeholders the majority of stakeholders were those "representing wealth, upper class, light colour, and good education". There was an imbalance. One result is that stakeholders who did not fit in felt intimidated and did not speak in meetings.

Another perception is that the persons who are *“fighting against the idea (breakwater) are not Jamaicans. They can pack up and leave when fisherfolk who lose their livelihood don’t mek yu sleep at night”*.

The following lessons learned about programme implementation were more general in nature – not specific to any one Component of the Programme.

1. The complaint was heard from partners and stakeholders, associated with Components 1 and 3, that the mechanism established for internal communication between the NIE and project partners and stakeholders is weak and, in the words of another programme partner representative, “messy”. It appears that programme partners who were expected to be the transmitters of information in their group/ agency are not doing a good job. Individuals who do not attend meetings in Kingston do not know what is going on with the programme. Some of those who attend the monthly/quarterly meetings organised by the NIE are also critical of the meeting format used: “the time is spent in meetings doing administrative work, technical issues are not discussed”. Another criticism is that “There is no bulletin to keep folks up to date on what’s happening with the programme”.

2. MOUs should have been signed with the agency responsible for implementing the works: A system that allowed for direct contracting with the implementing agency rather than the “layered” approach used by the NIE to effect implementation should have been considered earlier in the programme process. One example is the case of Component 1 in which the MOU for implementing activities in that Component is between the NIE and NEPA. NEPA, therefore, has responsibility for monitoring and evaluation and oversight of the Component. Implementation of Component 1 activities is, however, the responsibility of the National Works Agency (NWA). This arrangement did not always work well and, in some cases, limited flexibility. Contractually, it centres accountability on the agency signing the MOU, not on the agency implementing the works.

3. Additional time should have been allocated for start-up activities such as review of and familiarization with programme documents, baseline investigations and pre-feasibility analyses, and institutional coordination. In the opinion of managers, this would most likely lead to the development of more realistic implementation targets, albeit with a later effective start-up, but with greater possibility of Programme success.

4. Farmers’ learning curve for innovative farming techniques is not steep where:

- The implementing agency is known to and respected by the farming community;
- Farmers can appreciate the benefits of the new knowledge; and
- The training methodology used combines experiential education with community development concepts and where farmers can learn while doing.

5. The lack of dedicated personnel hampers implementation progress. The level of Programme-dedicated staff was not adequate given the ambitious goals that needed to be achieved in the 42 months. Consequently, there was high reliance on non-project personnel and a related increase in the level of effort needed by the PMU to bring them on board with the Programme.

Evaluation Question 8: What important lessons have been learned about programme management?

- Insufficient time was spent at the front end of the implementation process to create the environment needed to successfully introduce changes of the magnitude required of the Programme. Breaking down institutional and cultural barriers to change were critical requirement for programme success. A strong theory-driven behaviour change communication programme that relies on multiple media - interpersonal, print, electronic, etc. (Include social media component to disseminate information rapidly) should have been introduced earlier in the Programme before some of the other critical Components of the programme were implemented. This would have laid the foundation and may have minimised the level of the resistance to ideas – especially the breakwater construction proposed under Component 1.
- Community education and sensitization are fundamental building blocks for any successful community-based programme. The level of resource allocation to those efforts was not sufficient for the level of effort required in this regard. The level of investment in Component 3 should have been as substantial as it was for the other programme elements. As well, if community behaviour change is the goal of the communication and not merely information, education and communication (IEC), the communication efforts, especially those associated with Component 1 and Component 3 should aim to be strategic and intense and should precede implementation of the technical elements of the programme.
- The ability and willingness of management to be responsive to the needs of implementation partners is essential for programme success. There are examples of the management making adjustments to the design of the Programme in order to assure successful outcomes. Three specific changes that were observed are: i) additional personnel approved to support implementation of Component 2; ii) adjustment of the recommended communication flow between the three key entities (NIE, EE and IE) to allow for “parallel” instead of hierarchical communication; and iii) adjustments to the contractual arrangements to allow for shared responsibilities between the EE and the IE in Component 3.
- A layered approach to implementation as applied in this programme may not provide an effective and efficient management structure where there is a real, or perceived, absence of robust technical capacity and ability in the lead entity, the Executing Entity.

The entity signing an MOU with NIE should be technically competent, have credibility with stakeholders and have the capacity to assume management responsibility for implementation.

- Effective collaboration requires on-going communication, review and adjustment of roles and responsibilities of partner agencies and entities. Strong coordination and communication among stakeholders is a key factor for a successful programme. This can only happen with clear communication procedures and predetermined processes, as well as clear roles. Having these procedures, processes and roles established before the start-up of a project were an important asset of the AFP. The lesson learned, however, is that although these procedures and processes are in place and may be revisited frequently over the life of the programme (because of changes in key personnel in partner institutions) meeting with and briefing new players individually is not sufficient. Although it may be repetitious for the old players, it may be more advantageous for the Programme if all the parties come together (old players and new players) to review processes, procedures and roles. In this way, there will be reinforcement of knowledge for the old players even as new players are gaining new knowledge.
- A programme like the GOJ/AFP that attempts to respond to multiple issues, in this case, the risks posed by climate change to the national economy and to individual livelihoods, and that uses a matrix management structure, demands that attention is paid to both the vertical and the horizontal levels of collaboration. Success of such a programme requires collaboration across disciplines and scales, from local to national levels. Such a multi-stakeholder collaboration requires ongoing negotiation and trade-offs. One of the main roles of the NIE has been to bring together the perspectives, knowledge and expertise of different stakeholders through an iterative process of consultation and planning. There is evidence that the Programme Management Unit (NIE) works hard to balance the differing, and sometimes competing, priorities of the main stakeholders.
- In a programme of long duration (close to 4 years) the risks associated with personnel changes in participating organisations and agencies are inevitable. Managing these personnel changes is made easier where there is a flexible and efficient risk management system that includes the risk management plans developed by the EEs. In addition, organisations should be encouraged to develop a succession plan. Having such a plan will insure that there are qualified and motivated employees (or a means of recruiting them as needed) who can assume programme/project responsibilities at short notice when individuals affiliated with the programme/ project separate from the respective partner organization.

- The quality of the financial management of the Programme does not appear to have been adversely affected by the complexity of the management and implementation structures. The financial audit conducted in 2015 did not identify any shortcomings.

Conclusion and Recommendations

At the end of 37 months of a 42 month Programme, several of the objectives have been achieved and key elements of the Programme appear to be on a path to sustainability. Given some of the management challenges inherent in the layered implementation approach adopted by the Programme, management has been responsive to the needs of implementation partners – both in relation to requests made for strengthening the technical and management base of the respective partner agency as well as suggestions for modifying programme outputs in light of feasibility concerns. In an effort to better manage this complex programme, the PMU has also modified the recommended flow of communication between entities to improve efficiency and introduced additional methods of engagement to achieve improved stakeholder participation in the programme.

Having reviewed the available data, the conclusion is that the Programme has faced and will continue to face formidable challenges. The challenges for each component are:

- For Component 1: the stalemate that has been reached with regard to the solution for beach erosion in the Negril Bay.
- For Component 2, the need for an expanded response to the water catchment and distribution challenges faced by farmers, especially those farming on hillsides.
- For Component 3: the fact that roll out of the approved Communication Strategy has not been effected and the absence of a clear plan to sustain the capacity building efforts in DRR and NRM.

Despite these and other formidable implementation challenges, the Programme remains relevant. The commitment of implementation partners to achieving success is also evident. So that, given the solid groundwork that has been laid to date, the Programme's objective could be fully achieved if additional time was available. We, therefore, recommend that:

- *The Programme should be extended, at no cost, for another 18 months, at least, beyond the expected end date, to allow for the completion of the outstanding planned activities.*

Although community sensitisation and education efforts began later than was ideal, the activities proposed have all been completed successfully. It is evident that greater effort is required to communicate to the general population as well as to key stakeholders and target groups in order to achieve two ends: first, to inform about climate change and related issues and the Programme and, ultimately, to support the development of the right attitudes and behaviours that will enable successful implementation of programme elements. We recommend therefore that:

- *The rollout of the Communication Strategy is given the highest priority over the next 12 months and, given the limited time available, all the necessary resources – financial and human – should be channelled, as quickly as possible, to this effort to assure achievement of the best results.*

One of the positive effects of the Programme has been its influence on the practices and policies of implementing partner agencies. As a result of the Programme, the following changes have been effected: i) the MOAF has adopted the Farmer Field School methodology for training farmers in climate smart agriculture; ii) the MoTE has made a policy change and now includes climate change in its multi-layered programme offerings; and iii) Agencies and entities have learned, sometimes the hard way, the value of partnering and collaborating with entities that are already engaged in similar community activities. We recommend that:

- *As part of the Knowledge Management effort:*
 - *Sufficient resources should be allocated to ensure that Programme experiences are documented and shared locally and internationally in ways that assure that they become part of the programme management and management science literature; and*
 - *Opportunities for partnerships with the Management Science, Sociology and Business Schools in local tertiary institutions should be explored. The Programme should use its leverage to get these entities to recognize the importance of using the Programme, and its achievements and challenges, as opportunities to commission, or themselves, conduct ethnographic climate-related research.*

Based on the evidence available, the Programme's most successful component to date is **Component 2: Interventions designed to improve land and water management for the agriculture sector**. The sample of farmers (adults and students) who participated in the evaluation was enthusiastic about climate smart agriculture. One tangible benefit of the new farming practices they have adopted is higher crop yields and concomitant increased income. The adult farmers are also grateful for the help they received in forming and registering farmers' groups as Benevolent/Friendly societies and appreciate that as legal entities, the potential for farmers to access funding and technical assistance will be strengthened. The work required to form and register groups is a time and labour intensive undertaking. Although a Rural Sociologist was hired to support this work, we recommend that:

- *The Programme identify public or private sector community-based entities, like the Social Development Commission (SDC), which have the capacity and credibility to assist with group formation and registration, as well as group maintenance, and establish partnerships that are mutually beneficial and, so, assure that the plan to have farmers' groups formed and registered, can be fully realised.*

Training and capacity development are often seen as necessary steps to achieving sustainability and sustainable development. Large investments of resources are directed to this endeavour and questions have been raised, about whether the approaches being used are building a critical mass of individuals with the abilities, relationships and values that will enable organizations, groups and individuals to improve their performance and achieve their development objectives³⁴. Similar questions can be raised in relation to the training and capacity development interventions of Programme Components 1 and 3. We recommend that in the remaining months of the Programme:

- *NIE encourage the MOTE and ODPEM to: i) develop a plan for assessing the effectiveness of the community sensitisation and the DRR training conducted to date; ii) re-visit their training plan with a review to making changes, if necessary, based on the assessment data; iii) scheduling updates for local trainers; iv) establishing a system for certifying participants; and v) expanding the cadre of community residents trained as first responders.*

The interventions being introduced under the GOJ/AFP can be classified into two groups. One group includes interventions that can be replicated without modification (that includes most of the Component 2 interventions) and the other group are interventions that are location specific (main element of Component 1) and would not lend themselves to replication as is. We recommend that:

- *Any scaling up that is undertaken focus on interventions that can be replicated without modification. In that regard, interventions introduced under Component 2 of the Programme would be selected for scale up.*

We further recommend that:

- *The PMU, as a priority in the next quarter, work with the EE to identify those interventions that can be scaled up without modification, and, for these, develop comprehensive scale-up plans.*
- *Scale up should be phased with the primary objective of the scale up in Phase 1 being to insure that ALL farmers in parishes participating in the GOJ/AFP are reached and exposed to the new climate smart farming practices.*
- *A comprehensive dissemination plan for the climate smart agriculture curriculum be developed – one that includes clear goals, objectives, description of the potential end users, the means of assessing whether and by whom the tool is being used, and the success of the dissemination exercise.*
- *Assure that an appropriate level of resources is made available for the communication and sensitization required to support scaling up exercises.*

³⁴ February 2016. Retrieved from <http://www.unep.ch/etb/areas/pdf/Microsoft%20Word%20-%20UNEP-ETB%20CB-Paper%20Starvanger-final%20draft.pdf>

- *Phase 2 of the scale up of Component 2 interventions should be focused on reaching farmers in non-project parishes who experience similar climate related issues as farmers targeted by the Programme.*

Finally, to the issue of measurement and the end of Programme evaluation. Like most development programmes, the GOJ/AFP was designed using the Logical Framework Approach (LFA) and is expected to be monitored and evaluated based on that framework. The Programme's Logical Framework (LF) lays out the activities, outputs, outcomes (purpose) and goals with their associated indicators (measures of achievement) and means of verification. In the LFA, activities constitute the means to achieve the goals and outputs are the direct results of the activities that are implemented within the framework of the project.³⁵ The LFA assumes that IF the programme activities are completed and the stated Risks and Assumptions were accurate THEN the outputs will be achieved. At the higher level, IF the Risks and Assumptions are accurately projected and expected outputs are accomplished THEN the outcomes will be achieved and so on up to the level of the Goal.

The Logical Framework (LF) for the GOJ/AFP has extremely ambitious targets. One questions the likelihood that the Programme will achieve these targets given the level of resources (time, personnel, material and financial) invested and the fact that, although the majority of projected activities were completed, some of the assumptions made at the outset did not hold during the implementation process. We recommend, then, that the PMU in the next three months:

- Review the log frame with the relevant and concerned entities (donor, EE, IE), to prioritize indicators at the outcome (purpose) and goal levels as the first step in focusing the end of programme evaluation;
- Take steps to identify the sources that will be used to provide baseline and end line data for each of the revised set of priority indicators, and the strategy that will be used to ensure collection of those data; and
- Begin to generate baseline data and information, and where there are existing baseline data, begin to plan the follow-up data collection actions that will enable appropriate measurement. In the case of the Communication strategy, for instance, organise to measure a) Reach; b) Recall; and c) Effectiveness of the strategy to increase knowledge and adjust attitudes.

³⁵ Kari Örtengren. 2004. A summary of the theory behind the LFA method The Logical Framework Approach. (February 2016). Retrieved from http://eejp.org/resources/lfa_approach.pdf

Attachment 1

DELIVERABLE 2

INCEPTION REPORT

"ENHANCING THE RESILIENCE OF THE AGRICULTURE SECTOR AND COASTAL AREAS TO PROTECT LIVELIHOODS AND IMPROVE FOOD SECURITY".

Submitted to the

PLANNING INSTITUTE OF JAMAICA

Oxford Road
Kingston 5

PEY & Associates

Pauline Russell-Brown, DrPH

October 12, 2015

Resubmitted October 28, 2015

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INTRODUCTION

The Planning Institute of Jamaica (PIOJ), as National Implementing Entity (NIE) for the Government of Jamaica/ Adaptation Fund Programme (GoJ/AFP) is mandated to ensure that a mid-term evaluation of the programme is conducted. The contract to complete that evaluation was awarded in August 2015.

This Inception Report represents the second of four deliverables required under the contract. The submission date for this report is later than projected in the Detailed Methodology and Work Plan submitted August 31, 2015. The reasons for the delay are outlined later in this report under: *Work Plan and Time Line*.

PROPOSED EVALUATION

Objectives and Evaluation Questions:

On August 24, 2015, the PIOJ awarded a contract to conduct a mid-term evaluation of the GOJ/ Adaptation Fund Programme titled: *“Enhancing the Resilience of The Agriculture Sector and Coastal Areas to Protect Livelihoods and Improve Food Security”*. As outlined in the Terms of Reference for the assignment, the objectives of the mid-term evaluation are to:

1. Determine progress being made toward the achievement of outcomes and the extent to which programme objectives are being met and the programme is on a path to sustainability;
2. Highlight issues requiring decisions and/or actions with a focus on effectiveness, efficiency and timeliness of programme implementation; and
3. Identify important lessons learnt about programme design, implementation and management.

These three objectives have been translated into the following nine evaluation questions:

- i. What progress, if any, has been made toward achieving the programme’s outcomes?
- ii. To what extent are programme objectives being met?
- iii. Is the AFP on a path to sustainability?
- iv. How effective has the management been in its decision-making and in taking actions required?
- v. How efficient has the management been in its decision-making and in taking actions required.
- vi. Has management made its decisions and taken action in a timely manner?
- vii. What important lessons have been learned about programme design?
- viii. What important lessons have been learned about programme implementation?
- ix. What important lessons have been learned about programme management?

Method

The mid-term evaluation exercise was designed to use data from multiple sources to answer the evaluation questions. These sources were to be: (i) Secondary data from – a desk review of existing programme documents; and (ii) Primary data from (a) Consultations (and interviews) with key stakeholders); (b) Focus group discussions with programme beneficiaries; and (c) Observation of programme outputs in each of the three project components. In the end, these data would be

triangulated to provide a cohesive and coherent picture of the programme's progress towards achieving its objectives.

These sources are being used to generate data but a fourth primary data source - consultations with representatives from participating schools - was added after the desk review was completed.

The following five sections (1-5) of this report detail, for each data source, the actions that were proposed, the actions taken to date, the process to completing those actions and some of the more significant challenges encountered in the process.

1. Desk Review:

A comprehensive review of project documents made available by the NIE (PIOJ) was completed during the first 2 weeks of the assignment. These documents included the Agreement between the Adaptation Fund and the PIOJ, the Programme Proposal Document, the Memoranda of Understanding (MOU) between PIOJ and Executing Entities, Programme Performance Reports (PPRs) and reports from Executing Entities. Other material considered useful for this evidence-based evaluation will be sourced from the NIE.

These documents were valuable in providing a framework that enabled the consultant to understand the rationale and purpose of the programme as well as the rationale for the implementation approach and changes made to the implementation plan over the life of the project to date. The insights gained from the review helped considerably in assuring that the data collection instruments developed (consultation guides, FGD guides and observation checklists) would be appropriate.

2. Stakeholder Consultations

Individual and group consultation sessions were to be conducted with agency representatives engaged in the management and implementation of the programme. This list includes representatives of the NIE, Executing Entities, partner agencies, and members of the Programme Steering Committee and schools.

Consultations with stakeholders are geared to determine stakeholders' perceptions of the effectiveness of the programme management mechanisms, and governance including stakeholder involvement. The outline and tools to be used in the consultations were submitted to the NIE for approval before they were used. A copy of the approved tool for stakeholder consultations is attached as Attachment i.

The decision, whether to conduct a group or individual consultation (interview), is determined by the stakeholder's preference. To date, all the stakeholders contacted have opted for the telephone interview. The length of these interviews has varied from 20 minutes to 45 minutes.

3. Focus Group Discussions (FGD):

Initially it was proposed to conduct at least three (3) FGD with beneficiaries/'end users' involved in and/or impacted by the programme. Groups were to be convened by programme Component. One group was to be conducted with beneficiaries in Component 1 and two with beneficiaries from Component 2.

It was expected that the sample of beneficiaries for the two FGD for Component 2 would be selected by parish and not by project. In that way, one would get a mix of beneficiaries and a resulting richness to the discussion of: i) issues; ii) specific experiences in relation to the relevance and appropriateness of the interventions; and iii) change(s) in the lives of beneficiaries as a result of the project. As well, this mix would allow one to assess the extent to which implementation of the programme has been inclusive and equitable.

After reviewing the beneficiary data provided by the NIE office (see Table 1) and speaking with representatives from the Rural Agricultural Development Agency (RADA), it became clear that the methodology originally proposed for recruiting participants into the focus groups had to be modified. A very diverse group will not be possible because of distance between the communities and difficulties in having farmers meet in a central location. Therefore, the richness anticipated from having a diverse group of farmers who were growing different crops (onion, Irish potato, tomato, sweet pepper) in the same group might not be possible. Instead, because of geography and its effect on travel cost and time, farmers were best selected by community/ crop grown (individual RADA extension area). One exception may be in Manchester where farmers in the Bushy Park extension area are engaged in growing sweet pepper and cabbage. Every effort is being made to convene a mixed group of these farmers.

Table 1: Age and Sex Distribution and Crops Planted by Farmers in GoJ/ Adaptation Fund Programme

Parish	Crop	Age /Sex						Total
		Male			Female			
		NK	<35	35+	NK	<35	35+	
Manchester (19)	Sweet Pepper	-	2	5	-	1	1	9
	Tomato	-	-	2	-	-	-	2
	Cabbage	-	-	-	-	-	1	1
	Irish Potato	-	-	6	-	-	1	7
St. Ann (55)	Onion	-	1	22	-	-	2	25
	Irish Potato	-	10	1	-	3	16	30
St. Catherine (26)	Onion	1	-	21	-	-	4	26
St. Thomas (90)	Onion	39	6	28	11	1	5	90
Trelawny (21)	Onion	-	3	5	-	-	2	10
	Hot Pepper	-	1	7	-	-	-	8
	Water Harvesting	-	-	2	-	-	1	3
Total		40	23	99	11	5	33	211

Key: NK – not known

Source: NIE Office, Planning Institute of Jamaica

If selection of participants for FGD was based only on size (large size) of the participating farming community, St Thomas with 90 participating farmers, St. Ann with 55 and St. Catherine with 26

participating farmers would have had an increased likelihood of having their farmers selected. However, because of the prompt response of the St. Ann RADA parish office to the consultant's outreach, St. Ann was selected for the first FGD activity. That FGD will take place in Seville, St. Ann on October 14, 2015.

Ultimately, the three focus group discussions are expected to be:

1. Component 1: To be determined
2. Component 2: Onion farmers – Seville, St. Ann¹
3. Component 2: Irish potato farmers or a mixed group (Manchester)

As with the stakeholder consultations, the discussion guide for the FGD was submitted for approval before it is applied. See Attachment ii.

4. Qualitative Interviews with Beneficiaries

Another change to the methodology submitted as Deliverable #1 is the inclusion of observation site visits with interviews to two farmers groups in north Clarendon. The interventions taking place in five communities in north Clarendon form a major plank of Component 2 in better land and water management. They include demonstration plots and crop assistance.

Site visits will be scheduled with farmers in two of the five communities - Thompson Town and Nine Turn. Each farm will be observed and the respective farmers interviewed.

5. Consultations with beneficiaries (Schools)

Initially schools were not included in the evaluation plan. However, as a result of the desk review, the consultant proposed that they be included. The plan was to stratify the 12 participating schools by parish and randomly select 4 of the 12 - one from each parish. That plan has had to be modified because of difficulties in reaching some of the schools selected. Table 2 lists the four schools included in the final sample as well as the other three schools initially selected but which had to be discarded because of the consultant's inability to contact the school. A copy of the approved consultation guide is attached as Attachment iii.

6. Observation:

Each visit to the field (whether to consult with participating schools or with farmers about crops or water harvesting) is being used as an opportunity to observe the physical 'state of the world' as well as the physical and infrastructural outputs of the programme. Photographs will be taken as appropriate to supplement and enhance the observation experience.

¹ RADA St. Ann's prompt response to the consultant's outreach assured that they were selected for one of the focus groups.

Table 2: Four of the 12 Programme Participating Schools Selected for Consultation Visits in GOJ/AFP Mid-Term Evaluation

Parish	School	Included in initial Sample	Included in Final Sample
St. Ann	Walkerswood All Age	Yes	No – Unable to make contact with school
	Teen Challenge	Yes	No – Unable to make contact with school
St. Mary	Highgate Primary	No	No
	St. Mary Technical	No	No
	Brimmervale HS	Yes	Yes
St. Thomas	Port Morant Pri & JHS	No	No
	Robert Lightbourne HS	Yes	Yes
Trelawny	Cedric Titus HS	No	No
	Muschette HS	Yes	Yes
	Westwood HS	No	No
	William Knibb HS	Yes	Yes
	Troy HS	Yes	No – No reply to several telephone messages

Work Plan and Time Line (Revised)

The evaluation was expected to be completed in 7-8 weeks. Instead it is projected to be completed in 11 weeks.

Two factors have contributed to the 3-4 week delay. First, the consultant was called away on September 5, 2015 on an urgent personal matter which required an absence of two weeks. Second, it has taken a much longer time than anticipated to schedule consultations and focus group discussions. In some cases, either the telephone contact information was not accurate or the telephones are not in operation. In other cases, email outreach to potential participants has resulted in very slow/ poor response - necessitating several attempts to follow-up by telephone or email. The follow-up process is time consuming.

A summary of the revised time line is shown in Figure 1 with revised dates in red font. The original end date of the assignment is marked by a bold black vertical line.

Figure 1: Proposed and Revised Time line for Completing Evaluation Activities

ACTIVITIES	WEEKS AUGUST 24– OCTOBER 16, 2015								WEEKS October 19- November 6, 2015		
	1	2	3	4	5	6	7	8	9	10	11
Prepare and submit Deliverable #1 (Methodology and Work Plan)											
Complete desk review of relevant reports and other documents											
Refine methodology											
Submit evaluation instruments											
Evaluation instruments approved							X				
Schedule stakeholder consultations							X	X	X		
Conduct stakeholder consultations							X	X	X		
Complete stakeholder consultations									X		
Conduct group interviews with beneficiaries								x	x		
Data processing and analysis									x	X	
Submit Deliverable #2 (Evaluation Inception Report)								X			
Submit Deliverable #3 (Draft Evaluation Report)										x	
Edit report – based on reviewers' comments											X
Submit final report											X

Attachment i:

Guide for Consultations

Method: Consultations may be conducted by telephone, email or face to face. Individual and group consultation sessions will be conducted with agencies representatives engaged in the management and implementation of the programme. This will include representatives of the NIE, Executing Entities, partner agencies, and members of the Programme Steering Committee. The decision to conduct a group or individual consultation (interview) will be determined by the availability of the stakeholder. These consultations will be geared to determine stakeholders' perceptions of the effectiveness of the programme management mechanisms, and governance including stakeholder involvement.

Introductions

1. Individual's role(s) in the programme. Describe. Reporting relationships? Describe.
2. Perceived success(es) of the project to date.
3. Perceived success(es) for the respective Component:
 - a. Component 1: Westmoreland/Hanover (Negril): Increasing climate resilience of the Negril coastline.
 - b. Component 2: Manchester, Trelawny, St. Mary, St. Ann, St. Catherine, St. Thomas, Clarendon: Improving water and land management.
 - c. Component 3: All programme parishes (Westmoreland/Hanover) plus Manchester, Trelawny, St. Mary, St. Ann, St. Catherine, St. Thomas, Clarendon: Capacity building
4. Actual successes of the project to date. [PROMPT RESPONDENT(S) BASED ON REPORTED SUCCESSES]
5. READ PROJECT OBJECTIVES TO RESPONDENT(S) – ASK: Will project achieve its objectives? Why not?
6. Perceived challenge(s) of project to date
7. Perceived challenge(s) of component you were involved with.
8. Practical solutions to the challenges raised?
 - 9a. If you were asked to redesign the overall project what changes would you make? Why?
 - 9b. If you were asked to redesign the component you are engaged with what changes would you make? Why?
10. What changes would you make to the:
 - a. Concept and why? Describe proposed concept.
 - b. Management and governance structures and why? Describe revised management and governance structures.
 - c. Implementation plan and why?
 - d. Established guidelines, procedures and reporting requirements to assure greater efficiency?
11. Is GoJ/AFP mainstreamed into your organisations's programme? How/to what extent?
12. Any comments?

Mid-Term Evaluation

Government of Jamaica/ Adaptation Fund Programme

Guide for Group Discussion with Farmers

Welcome the group

Explain purpose of meeting: Planning Institute of Jamaica is conducting a mid-term evaluation of the GoJ/ Adaptation Fund Programme. We will be speaking with other farmers, having discussions with other persons who have benefited from the programme, members of the programme staff from RADA, PIOJ, etc.

We will keep whatever you say confidential. We do not need your names.

Introductions

Questions:

1. When did you become a beneficiary of the AF programme? RECORD IN TABLE BELOW]
2. How were you selected to be part of the GoJ/ Adaptation Fund Programme?
3. What were you doing before the programme started? IF FARMING - ASK: What crop(s) were you farming?
4. What did farmers in this group become involved in? [LIST THESE AND USE THIS LIST TO GUIDE THE REST OF THE DISCUSSION] - ONION FARMING, IRISH POTATO FARMING, TOMATO, SWEET PEPPER, CABBAGE.
5. How did farmers choose which crop to grow - onion farming, irish potato farming, etc?

Type of farming	# of participants
Onion	
Irish potato	
Tomato	
Cabbage	
Sweet pepper	
Water harvesting	
Land husbandry	

[ASK THE SAME SET OF QUESTIONS OF BENEFICIARIES IN EACH 'SUB-GROUP']

IRISH POTATO FARMING

- a) Why did you choose to do _____
- b) How did project help you to get started? Money/ material/ training/etc.
- c) Which agency/ organisation provided these things? [PROBE]
- d) What other help did you need that the project did not provide?
- e) How are things going?
- f) Are there benefits? What are the benefits to you? Your family? The community?
- g) Production issues
- h) Marketing? Where? Who sell to? Process to get produce to market?
- i) What are the challenges to doing this work? What problems have you encountered along the way? How did you solve these problems? Who helped? [PROBE]
- j) Any regrets about participating in this programme? What are they?

ONION FARMING

- a) Why did you choose to do _____
- b) How did project help you to get started? Money/ material/ training/etc.
- c) Which agency/ organisation provided these things? [PROBE]
- d) What other help did you need that the project did not provide?
- e) How are things going?
- f) Are there benefits? What are the benefits to you? Your family? The community?
- g) Production issues
- h) Marketing? Where? Who sell to? Process to get produce to market?
- i) What are the challenges to doing this work? What problems have you encountered along the way? How did you solve these problems? Who helped? [PROBE]
- j) Any regrets about participating in this programme? What are they?

[ASK THE SET OF QUESTIONS (A-J) ABOVE FOR EVERY OTHER TYPE OF ACTIVITY CARRIED OUT UNDER THE PROJECT BY BENEFICIARIES].

Tomato farming

Cabbage farming

Sweet Pepper farming

3. Let's talk about water harvesting and land husbandry - did any of you benefit from any of those in this programme?

4. Describe the experience with water harvesting/ Describe the experience with land husbandry.

5. How have you benefited?

General questions:

6. How has the programme affected your life and the life of your family? [PROBE].
7. How has the programme affected the life of your community? [PROBE] INTERVIEWER - WHERE GROUPS ARE MIXED (FROM MULTIPLE COMMUNITIES) BE SURE TO ASK RESPONDENT TO IDENTIFY HER/HIS COMMUNITY WHEN ANSWERING THIS QUESTION]
8. If we were going to start this programme again, knowing what you do about the programme, what would you suggest we do differently? What should we continue doing in the same way?
9. Give me one sentence that sums up how you feel about this programme.

THANK YOU VERY MUCH FOR YOUR COOPERATION

Attachment iii

Guide for Conversation with Principals/ Other School-based Officer(s)
Government of Jamaica/ Adaptation Fund Programme

Name of School Visited: _____

Date of Visit: _____

Person(s) Interviewed:

Name: _____

Title: _____

1. What support did your school receive from the GoJ/Adaptation Fund Programme? (PROBE – ANY THING ELSE?)

2. Material support? _____ Technical support: _____

3. When did you start receiving support? Month and Year? _____

4. Is the material support continuing? Yes/ No?

If "No" When did it end? _____

5. Is the technical support continuing? Yes/No?

If "No: When did it end? _____

6. How was your school selected to receive support from the GoJ/AFP? _____

7. How has your school benefited from the GoJ/AFP? _____

8. Would you say that individual students at this school have benefited from your school's participation in the GoJ/AFP? Yes/ No

If "Yes" In what way have individual students benefited? _____

9. The GoJ/AFP ends soon, what plans has your school made to ensure that these benefits are not just short term benefits? _____

10. Any other comments/ thoughts? _____

Description of School:

Total school population: _____

students enrolled _____

students involved in the GoJ/AFP at this school?

What Grade(s)? _____

% of student body involved in GoJ/AFP? _____

Student involvement mandatory / voluntary? _____

THANK YOU.

INTERVIEWER: ASK PERMISSION TO TAKE PHOTOGRAPHS OF THE FARM/ WATER