Integrated Management of the Yallahs and Hope River Watershed Management Areas Project
GRT/FM-14607-JA

Mid-Term Evaluation
Final Report

Submitted to
National Environment and Planning Agency

By

Dr. Alicia A. Hayman
Mid-term Evaluator

May 20, 2018 (revds. May 28, 2018)

Acknowledgements

The Yallahs-Hope Watershed Management Areas Project Mid-term Evaluator wishes to express gratitude to the following institutions and individuals whose contributions were essential to the successful preparation of this report:

- The Executing Agency and Implementing Partners
- Project Manager, Mrs. Nelsa English Johnson and her team
- Inter-American Development Bank
- Supporting host government agencies
- Participating non-government and community groups
- Project beneficiaries from the respective watersheds

The evaluator also acknowledges the technical inputs of Mr. Maurice Mason, Ms. Karyll Johnston, Ms. Felicia Whyte and Ms. Elizabeth Morrison, provided in a timely and professional manner.

Table of Contents

List of Annexes

List of Tables

List of Figures

Acronyms and Abbreviations

ALAF	Alternative Livelihoods, Agriculture and Forestry
AOP	Annual Operational Plan
BOJ	Bank of Jamaica
CBO	Community Based Organization
CEO	Chief Executive Officer
CPI	Cost Performance Index
CSM	Carbon Stock Monitoring
DSS	Decision Support System
EA	Executing Agency
EFJ/FCF	Environmental Foundation of Jamaica/ Forest Conservation Fund
EMB	Ecosystems Management Branch
EMCD	Environmental Management and Conservation Division
FD	Forestry Department
FFS	Farmer Field School
GAP	Good Agriculture Practices
GCT	General Consumption Tax
GEF	Global Environment Facility
GIS	Geographical Information Systems
GOJ	Government of Jamaica
Ha	Hectares
IDB	Inter-American Development Bank
IP	Implementing Partner
IWRM	Integrated Water Resources Management
JAS	Jamaica Agriculture Society
JCDT	Jamaica Conservation and Development Trust
JIS	Jamaica Information Service
JFB	Jamaica Fire Brigade
KAPB	Knowledge, Attitudes, Practices and Behaviour
KMA	Kingston Metropolitan Area
M&E	Monitoring and Evaluation
ME&R	Monitoring, Evaluation and Reporting
MEGJC	Ministry of Economic Growth and Job Creation
MoFPS	Ministry of Finance and the Public Service
MOU	Memorandum of Understanding
MSJ	Meteorological Service of Jamaica
MTE	Mid-term Evaluation

MWLECC	Ministry of Water, Land, Environment and Climate Change
NEPA	National Environment and Planning Agency
NGO	Non-governmental Organization
NLA	National Land Agency
NO	No Objection
NWC	National Water Commission
OUR	Office of Utilities Regulation
PA	Partnership Agreement
PES	Payment for Environmental Services
PEU	Project Executing Unit
PIMSEC	Public Investment Management Secretariat
PIOJ	Planning Institute of Jamaica
PM	Project Manager
PMO	Production and Marketing Organization
PM4R	Project Monitoring for Results
PO	Project Officer
POD	Proposal for Operation Development
POM	Project Operations Manual
PP	Project Procurement
PPERD	Planning, Projects, Evaluation and Research Division
PPG	Project Preparation Grant
PPP	Public-Private-Partnership
PSC	Project Steering Committee
PEU	Project Executing Unit
RADA	Rural Agricultural Development Authority
REOI	Request for Expression of Interest
RFP	Request for Proposals
RM	Results Matrix
RMP	Risk Management Plan
SAR	Semi-Annual Report
SDC	Social Development Commission
SDG	Sustainable Development Goals
SLM	Sustainable Land Management
SLFM	Sustainable Land and Forest Management
SOW	Scope of Work
SPI	Schedule Performance Index
SRC	Scientific Research Council
STEPA	St. Thomas Environmental Protection Agency

STTA	Short Term Technical Assistance
TC	Technical Coordinator
TCA	Technical Cooperation Agreement
TOR	Terms of References
TWG	Technical Working Group
WAMM	Watershed Area Management Mechanism
WMU	Watershed Management Unit
WRA	Water Resources Authority
WTP	Willingness to Pay

Executive Summary

The "Integrated Management of the Yallahs and Hope River Watershed Management Areas" project (Yallahs-Hope WMU) is a five-year non-reimbursable project funded by the Global Environment Facility (GEF) and the Government of Jamaica (GOJ) and administered by the Inter-American Development Bank (IDB). The total budget for the project is US$12,781,798, of which US$3,909,441 is support from the GEF and US$8,872,357 is co-financing from the GOJ. In March 2018, the project's Executing Agency (EA) commissioned this Mid-term Evaluation (MTE) to analyse whether the project is on-track, what problems or challenges the project is encountering, and what corrective actions are required. The MTE assessed elements of project governance, management and implementation and operationalization and how these are advancing progress towards the objectives. The MTE utilized a mixed-methods approach that included direct stakeholder interaction with the EA, partner agencies and project beneficiaries. There was also a review of secondary data and information and use of rapid appraisal techniques such as key informant discussions, focus group discussions and site visits, using both quantitative and qualitative data collection. The MTE also conducted an inflationary analysis of the project budget to account for the time lag between project design and implementation.

The objective of this project is to improve the conservation and management of biodiversity and the provision of ecosystem services in the Yallahs River and Hope River Watershed Management Units (WMUs). Achievement of the project objective is through implementation of incremental activities under three components: i) strengthening institutions and building capacity for integrating biodiversity into watershed management, ii) creating economic and financial mechanisms to support sustainable biodiversity and watershed management and iii) implementing sustainable livelihoods, agriculture and forestry in watershed communities. After four years of implementation, the project is characterized by low levels of efficiency and effectiveness, with 15.8% of total GEF budget expended and 28% of deliverables completed as of March 2018

For Component 1, the project communications outputs and updates to the Watershed Policy of Jamaica were the major achievements. The hydrometeorological (hydromet) assessment has been re-executed and by May 2018 is expected to deliver project intervention sites for water quality monitoring, Payment for Ecosystem Services (PES) design, and reforestation activities. Component 2 activities are in early stages of execution, following a recent award of the PES Consultancy. Component 3 reflected the bulk of outputs to date with several farmer trainings, wild land fire management and partner capacity development sessions completed and some reforestation and forest maintenance work delivered. This component also shows the strongest partner

relationships and coordination as reflected in the convening of the Alternative Livelihoods Agriculture and Forestry (ALAF) Working Group.

The project has a sound technical design that builds on the lessons learned of previous Watershed Management projects, while adding new elements such as a sustainable finance mechanism that creates linkages between upper and lower WMUs stakeholders. The project also brings non-traditional stakeholders, such as the Office of Utilities Regulation (OUR), to the watershed management dialogue. A wide mix of stakeholders has been engaged to support the technical areas of the project. Other strengths include utilizing Implementing Partner (IP) internal resource capacities and experience in activity-level design and implementation (e.g. Rural Agricultural Development Authority (RADA), Forestry Department (FD), Water Resources Authority (WRA) and Meteorological Service, Jamaica (MSJ)). The project also has a strong communication plan that developed a range of activities that focus on the project's target audience. Another strength is the Executing Agency's (EA) project finance planning portfolio that adheres to the conditions of the financing agreement, as verified by the external audits and IDB's ex-post reviews.

The MTE established that across the project's three components, a number of the major activities were significantly delayed due largely to pre-implementation (IDB approval to eligibility) and implementation (second stage of IDB's project lifecycle) challenges. Pre-implementation challenges included extended mobilization associated with the negotiation of partnership agreements; low levels of pre-implementation stakeholder engagement which did not help to create buy-in and ownership needed to start implementation; a flawed (due to data quality, availability and adequacy issues resulting in inaccurate modelling outputs) hydromet assessment that needed to inform several activities; and inability to complete plans for reforestation prior to project start up. At the implementation stage, limited strategic level oversight, gaps in Project Executing Unit (PEU) capacity, procurement challenges as well as varying stakeholder engagement around project activities contributed to further delays. Weak coordination compromised the effectiveness of the intended strengthened governance framework for watershed management. The low rates of expenditure and implementation of Annual Operating Plans (AOPs) have resulted in underachievement of targets. This has resulted in the project being put on alert in 2015 and assigned problem status with the IDB for the last two years.

The time lag between project design and implementation affected project elements including budget where market prices and inflation affected the cost for project activities,

IPs advancing implementation through other financing arrangements, and change in agency personnel with institutional memory being lost.

Key findings of the MTE include:

Relevance and Design

1. The Yallahs-Hope WMU project is relevant and well aligned to GEF and IDB strategies, policies and plans. Nationally, it is relevant to Jamaica's National Development Plan; watershed management agencies' corporate and operational plans and helps to meet Jamaica's targets against the Sustainable Development Goals and other international obligations.
2. The project's design was ambitious but was found to be sound and coherent with a clear path to meet its objectives.
3. The design reflected an analysis of lessons learned from previous donor – funded projects that highlighted early community engagement, incentives for Sustainable Land Management (SLM) best practice adoption, coordination, and the use of Knowledge, Attitudes, Practices and Behaviour (KAPB) assessments as being key elements in watershed management initiatives.
4. The project design incorporated a range of methods and approaches that gave consideration to the types of stakeholders and activities.
5. In measuring progress towards intended outcomes and overall impacts the project had nine impact and outcome level indicators at design. The nine indicators were reduced to seven, as reflected in the 2017 IDB Project Monitoring Report (PMR). Of the seven, two were impact and five outcome level indicators. MTE findings revealed that:
    a. Impacts were adequate as stated, but associated indicators were not reflective of the impacts.
    b. Outcomes are well aligned, but are affected by implementation delays. Associated indicators are relevant, and range from being strong, not well-aligned to the outcome, affected by implementation status to having no planned activities to date.
6. There are three components and 12 outputs associated with the project's Results Matrix (RM). The components and outputs were found to be well-aligned and relevant, but in some cases were affected by implementation delays.

Efficiency

7. Project implementation is supported by AOP, Finance and Procurement Plans developed in a timely manner. However, they have not benefitted from significant stakeholder participation in their development and monitoring.

8. The project has sound financial controls and financial management practices, as confirmed by the external audits and IDB's ex-post reviews.
9. An MTE inflationary analysis indicates that the original project budget would need to be increased by approximately 9% or US$360,269.28 to reflect the true cost of the project. This accounts for the delay in implementation and annual inflation.
10. Project implementation has experienced significant delays in:
    i. Pre-implementation (a flawed hydromet assessment (due to data quality, availability and adequacy issues resulting in inaccurate modelling outputs); setbacks with signing of PAs with IP; approval of sites, species and silviculture plans for reforestation; inadequate stakeholder consultations and negotiations prior to project start).
    ii. Implementation (PAs completion times varied; full complement of PEU staff not on board at start-up ; gaps in capacity of PEU; weak project institutional structure and absence of strategic level decision making; poor coordination and inadequate engagement of stakeholders; procurement challenges; budgetary constraints for activities due to time lag between design and implementation; double taxation requirements for international consultants; lengthy review timelines; poorly developed monitoring and evaluation system; untimely delivery of activity inputs; inadequate monitoring of IP PAs).
11. The project utilizes stakeholder expertise for project technical oversight, which is a benefit of the multi-stakeholder approach to watershed management. This approach is also useful for building stakeholder relations, sharing data and information and coordinating efforts for implementation. This has been operationalized through the PSC and the ALAF Working Group for Component 3, but the level of coordination of efforts is less than optimal.
12. The PEU relates to NEPA for project management and technical implementation, but there is variation in the relationship with the different divisions and units.
13. The project has high visibility, with a strong communications plan that targets a range of publics.
14. The linkages between the KAPBs as a project technical activity and a tool for M&E was not well understood and failure to implement in a timely manner has undermined its use for M&E.
15. Absence of procedures, including those for communication, change control, and risk management, resulted in issues with stakeholder relationships and inability to address bottlenecks in a timely manner. It did not support a joined-up approach to implementation.

16. The project did not properly identify and fill gaps in partner capacity to ensure smooth implementation.
17. Utilization of IP capacity has helped to fast-track activity implementation (e.g., FD and RADA – personnel as well as training manual for FFS land husbandry training).
18. The IDB has provided management supervision with constant communication with the PEU and EA, supervision and technical missions, assistance with identification of short term technical assistance (e.g. for PES, CSM), and identification and acquisition of additional funds for project delivery.

Effectiveness

19. The analysis of planned versus actual results shows the project significantly behind in actual vis-à-vis planned outputs and expenditure. More than 50 percent of planned activities were not completed.
20. The most significant implementation progress was seen on Component 3 where over 160 farmers benefited from SLM training and fire management. Over 70 hectares replanted through reforestation and agroforestry. The re-drafting of the watershed policy was also completed during the period and over 30,000 persons engaged through a range of awareness and behaviour change programmes.
21. Key agencies responsible for watershed management are working together in the same space, and leveraging technical capacity to achieve the common improved watershed management objective.
22. Perception-focused interviews with farmers for this MTE established that the FFS training had a positive effect on farmers' knowledge of the innovations that can improve GAP adoption in the short, medium and long-term.

Impact and Sustainability

23. Although efforts have been made to mainstream activities in partner corporate and operational plans, a sustainability strategy has not been developed with IPs to ensure continuation of benefits beyond the life of the project.
24. Due to the delays in project implementation, the project has not achieved outcome and impact targets as defined in the projects RM.
25. Unintended impacts identified are:
    - Establishment of partnerships (e.g. FD and JFB, the ALAF Working Group)
    - Farmer field days to facilitate adoption of land husbandry practices

Good practices identified by the MTE include:

Project Management

1. Direct alignment of project activities with agencies' mandate builds ownership and commitment and increases the likelihood for smoother implementation. Mainstreaming of project activities in implementing partners' work plans results in greater levels of buy-in and support for project activities, including deployment of personnel and resources.
2. Merging related activities for implementation increases efficiency by reducing time taken and procurements required.
3. Project flexibility to undertake budget transfers that allow for savings in one area to be applied to enhance or support other areas that are underfunded.

Watershed Management

4. A multi-stakeholder approach to watershed management allows for access to partners' capacity for more effective activity implementation. It also provides opportunities for joint planning, implementation data and information sharing and expanding limited resources.
5. Access to IPs' internal resources (tools, personnel) enhances project delivery and can result in time and cost savings.
6. Data and information sharing supports robust decision making, helps to advance activity implementation, and ultimately builds trust.
7. Utilization of effective communication and public awareness tools in conjunction with on-site training and demonstrations helps to change behaviours and improves adoption of best practices.
8. The use of farmer-to-farmer assistance ("Day-for-Day" or "Field Days") facilitates adoption of innovations by individual farmers and ensures accuracy in their replication of innovations.
9. An additional outcome of the Farmer Field School (FFS) sessions, beyond improved communication, was increased frequency of meetings and group strengthening associated with cross-community coordination.

Important lessons learned include:

Relevance and Design

1. Consistent stakeholder involvement in project design is imperative to ensure that budgets and timelines are reflective of actual work orders to be carried out and the project reflects the local context. This will ensure buy-in and ownership for project strategies and activities. Failure to engage stakeholders can result in serious challenges during implementation and for achievement of project outputs and outcomes. Constant changes in scope during implementation further delays progress.

2. Partnership agreements should not be considered only as a project output, but more importantly, as an enabling condition for effective implementation.
3. Significant time lag between project design and implementation can be problematic with stakeholder priorities and personnel changes and activities being advanced through alternative financing, resulting in a need for project scope adjustments.

Project Implementation

4. Inter-agency cooperation is challenging but necessary and requires ongoing coordination by a central unit that has the potential to bring stakeholders together, work through disagreements and create an atmosphere for sharing. It requires dynamism, strong leadership and project management skills. Building trust and reciprocity among stakeholders is also important.
5. Delays affect linked actions where actions are dependent on a precursor milestone or output, and will have a domino effect. The link between components must be considered as a factor contributing to delays in achievement of the final product. Where components of a project are to be delivered sequentially, it is important to build necessary lags into the procurement plan.
6. The PEU must have the requisite capacity to adhere to donor conditions and procedures. Regular donor/executing agency/PEU communication and interaction can help to keep implementation targets on track and provides a forum for addressing concerns and issues in a timely manner.
7. Where project concepts are novel, design cannot be overly ambitious as project implementation will likely experience hiccups and not be implemented as planned. Continuous monitoring and management of risks will help to reduce potential for delays.
8. Engagement of local Non-Governmental Organisations (NGOs) and Community Based Organisations (CBOs), including their participation in project planning and oversight as well as implementation on the ground, is important for watershed management. Provision must be made in the project budget and requirements to enable their effective participation.

Impact and Sustainability

9. Considerations for long term impact and sustainability must be developed in a participatory way, involving implementation partners. It must be developed in the context of the project's governance and management structure and those of partner agencies.

Communication and Visibility

10. Ongoing dialogue and communication is necessary to build awareness and commitment to watershed management initiatives. This is also important for building trust and willingness to share. The EA must interface with stakeholders regularly to provide assurance and address issues as they arise.

The MTE identifies two project risks, with a high-risk rating:

1. "Lack of buy-in by the population of the Kingston Metropolitan Area (KMA), who are future beneficiaries of the ecosystem service, of the results arising from the PES". The delay in the PES consultancy resulted in a delay in activities to build awareness and sensitization to the PES. Delays with reforestation and agroforestry could affect the supply-side of the PES and water quality monitoring delays could compromise the credibility of the scheme, thereby affecting persons willingness to pay. Furthermore, the delays will also limit the viability of the PES Scheme.

2. "Project outputs not met in a timely fashion or within budget". This risk was elevated to a high rating by the MTE despite the current medium rating assessed by the PEU. Given the continued designation of problem status with the IDB, there is a risk of early termination that would compromise the intended impact and the partner relationships established. The planned project strategic level oversight to improve efficiency, if not sustained, could lead to continued implementation constraints.

Project Plan of Action

Based on the findings presented, and the need to significantly increase project expenditure and advance achievement of results and targets, the MTE provides a set of recommendations that must be applied in a strategic way. The recommended plan of action presented below addresses the prioritized implementation constraints that were found to revolve around the following issues:

- Delayed reforestation programme.
- Capacity limitations within the PEU.
- Procurement and project implementation limitations that led to undue delays.
- Limitations of the current GOJ institutional coordination structure (EA, IPs, Planning Institute of Jamaica (PIOJ), Ministry of Economic Growth and Job Creation (MEGJC), Ministry of Finance and the Public Service (MOFPS)).
- RM alignment with current project status and expected outputs, outcomes and impacts.

MTE game plan recommendations focus on improvements in project governance, procurement planning and execution, partner agency and stakeholder engagement,

technical programme structure and delivery and monitoring and evaluation; which are the main contributing factors to the project's current problem status.

Game Plan Summary Recommendations

A. Project Governance – Given the national significance of the project outcomes and the multi-agency implementation context, the GOJ must take the following immediate actions to address gaps in project oversight:

- **Negotiate a New Partnership Agreement (PA)**. Prepare one PA[1], that integrates new partners and lessons learnt, evolving roles and responsibilities (including communication, monitoring and evaluation, Technical Working Groups (TWGs)), and revised targets and post-project sustainability actions. This PA will set the tone for stronger cross-agency coordination.
- **Project Steering Committee (PSC) review to secure separation between project oversight and technical supervision**. Project governance should be strengthened with a separation between overall project oversight and technical supervision. The recommendation is that the Chair of the PSC reside at the Ministerial level with the Permanent Secretary of a core line ministry or a delegate (e.g., Chief Technical Director - MEGJC, GEF Focal Point, MOFPS and PIOJ). Heads of IPs and the EA should continue to sit on the PSC. This will give the PSC the necessary authority to implement at a multi-agency level using its TOR and associated responsibilities detailed in the POM (2016). The PSC will also operate as the project's Change Control Committee and will need to hold extra-ordinary meetings and use round robin to make decisions outside of regular meeting times. The PSC will continue to meet quarterly as originally planned and defined in the POM.
- **Expand TWGs to cover additional project areas**. Where current[2] PSC members are not agency heads, their contributions should take place as part of the existing or new TWGs of the PSC. The membership of the expanded working groups would include all key external partners/stakeholders, supported by the PEU, which will meet on a monthly basis. These would serve as a monitoring and evaluation intermediary reviewing work plans, reports and recommending preventative and corrective actions where necessary to the PSC, in collaboration with the newly

[1] If this recommendation is not accepted, existing PAs would need to be revised to reflect project adjustments to date and modifications made and the one in process with SDC finalized. However, creation of one PA for all partners serves to promote a unifying goal, define the linkages among stakeholders as well as enhance collaboration and coorperation.

[2] A number of current PSC participants operate at the technical level within their organizations and for the project in particular.

mobilized Monitoring and Evaluation (M&E) team. It will also serve to further strengthen the bridge across multiple agencies.

- **Strengthen PEU/ Planning, Projects, Evaluation and Research Division (PPERD) Capacity in Key Technical and Project Management Areas**. To meet the accelerated implementation schedule needed to turn the project around, the project unit (within the PPERD) needs access to additional expertise to strengthen strategic oversight, planning, monitoring & evaluation, co-financing management and procurement.
    - *Improved M&E Management* - As an immediate next step, the EA , having overall coordination and integration responsibilities, should assemble an M&E team, comprising the PEU and Agency staff (Conservation and Protection Subdivision, Ecosystems Management Branch, National Spatial Strategy Branch/GIS Unit and Public Education and Corporate Communications Branch), that will ensure overall M&E functions are conducted. An IDB/GEF M&E technical mission should be mobilized to transfer capacity on donor M&E requirements for compliance to the team. The M&E team should report directly to the Chief Executive Officer (CEO) of the EA, through the PPERD and the TWGs of the PSC. Where PAs exist, the Memoranda of Understanding (MOUs) should be updated to reflect partner monitoring roles.
    - *Fill outstanding staff positions* – Following a Staff Gap Analysis conducted by the EA, fill all human resource gaps, e.g. the two additional Technical Coordinators (TCs), in line with the original design in the project document and emerging areas of need. Special consideration should be given to addressing capacity gaps in support of project management and coordination of co-financing tracking and reporting within PAs.

- **Establish Working Arrangements between NEPA (with responsibility as EA) and relevant NEPA Divisions to separate coordination and management from implementation functions** – To secure planned outputs requiring technical leadership from NEPA Divisions, Branches and Units, execute working arrangements between the project and relevant NEPA divisions to ensure:
    - alignment and complete absorption of project activities within the Operational and Divisional plans.
    - Standardization of project planning, execution and reporting across all project implementers (e.g., utilization of project planning and reporting templates).
- **Establish Communication Working Group**. To improve the promotion of project outputs and achievements, establish a team that includes personnel from Communications or Public Education Departments within each IP and co-opt the

Government Media Agency, the Jamaica Information Service (JIS). This team would also work closely with the PEU and major consultants to promote the different elements of the project.

B. Improved Procurement Planning and Execution – To accelerate project expenditure, it is imperative that procurements are executed in a timely manner by integration of the following actions:

- **Expand PEU procurement capacity in the short-term**. For improved procurement efficiency, expand procurement capacity within the PEU with the hiring of short-term procurement support or secondment of an additional NEPA procurement officer to accelerate project originated procurements.
- **Solicit pre-procurement support from implementing partners to reduce PEU workload.** Where the technical expertise needed to develop Terms of References (TORs), design works projects or provide goods specification, lies outside of the EA, these pre-procurement actions should be led by partner agencies with input from the TWGs to reduce PEU workload and accelerate implementation.
- **Consolidate procurement approvals in collaboration with the project's donor**. Consolidate the process of procurement approval (internal and external to the EA) with specific emphasis on areas of bottleneck identified in the MTE. For example, the number of no objection (NO) actions at multiple procurement execution phases. This is in keeping with the IDB's recommendation for packaging of NO requests that has been demonstrated since April 2018.
- **Improve procurement planning** by:
    - *Evaluating procurement actions (ongoing and planned) weekly* to inform procurement strategy revision (e.g. consolidate, accelerate, terminate) and to elevate any bottlenecks needing CEO or PSC intervention.
    - *Starting procurements at least three to four months prior to* planned mobilization date, depending on procurement type, for example goods or services; considering the full procurement cycle, and anticipate bottlenecks.

C. Revise Project Technical Components – To align with the remaining project implementation timeframe, and the current delayed status of major project components, the following activity revisions should be taken:

- **Forego remaining Knowledge, Attitude, Practices and Behaviour (KAPB) studies as part of the original M&E design** – Considering the delayed execution of the first KAPB, remaining planned KAPBs should be eliminated with the FFS M&E plan being revised to integrate *pre- and post-assessments* that capture changes in farmers' knowledge of Sustainable Land Management (SLM). In addition, a M&E

strategy should be integrated within the communication plan to poll its audiences on changes in attitudes and perceptions as part of intervention design.

- **Plan for PES design activity execution** – The timeframe for the PES Consultancy has been contracted from 30 to 18 months, with the number of deliverables remaining the same, but executed concurrently, rather than sequentially. A dedicated TC is needed to ensure efficient and effective implementation. Since raw data will be required from IPs, a focal point within each entity should be appointed and working through the respective heads of agencies to respond to data requests in a timely manner. Failure to implement these recommendations will jeopardise the project results and achievement of its overall objective.
- **Plan for PES Implementation beyond the project's life cycle** – Recognizing that the final PES design consultancy deliverable will be received one month before project closeout, a transition plan for PES implementation (including the execution of the market-based incentive scheme) should be defined in consultation with the key stakeholders to secure sustainability.

D. **Strengthen technical programme delivery** – To ensure delivery of project outputs and outcomes, the PEU and PSC must monitor consultancies to ensure deliverables are on time and of quality. Any delays should be communicated so proactive action can be taken by agency heads to address any emerging constraints in a timely manner. The following activities will require close coordination and monitoring:
    - **Assign PEU Technical Coordinators (TCs) to Components to coordinate and monitor activity implementation**. TCs will work with consultants in delivery of outputs by assisting with collection of documents and data, arranging meetings and workshops, arranging site visits and coordinating review and approval of reports. The TCs will work closely with the established TWGs to ensure timely delivery**.** Effort must be made to ensure that consultancy work plans are implemented in a timely manner.
    - **Procure monitoring equipment based on specifications provided by the WRA and MSJ**. The PEU should plan for and implement steps to procure equipment.
    - **Accelerate awareness and sensitization actions for the PES.** Communications actions for the PES should be fast-tracked and coordinated with the PES consultancy that is now underway.
    - **Continue to hold frequent PEU team meetings to review progress on activity implementation**. Use periodic (weekly) progress check-ins with all PEU team members and Projects Branch to identify bottlenecks that require team intervention or escalation to CEO or PSC levels. This will also help to build relationships between the EA and PEU.

- **<u>Engage other relevant stakeholders in activity implementation as needed.</u>** involve other IPs and stakeholders (e.g. National Land Agency, Jamaica Conservation and Development Trust (JCDT) in key tasks, where needed.
- **<u>Commence implementation of Component 3 Alternative Livelihoods Assessment and Community Group Strengthening</u>**: Develop and activate a plan of action for the Alternative Livelihood Assessment. Identify community groups and develop and implement a plan for community group strengthening. Revive ALAF Working Group and work with an assigned TC to coordinate and monitor implementation.
- **<u>Accelerate development and implementation of the agro-forestry incentive scheme with private large land owners</u>**: The PEU in collaboration with the ALAF Working Group and the EA will develop a multi-agency action plan for this sub-activity. The work plan should allow for actions to be implemented concurrently, where possible. Integrate awareness actions on this activity into the project communications strategy.
- **<u>As soon as the areas for project intervention are determined by the hydromet assessment:</u>**
    - *Commence preparatory reforestation work to ensure the targets and planting season requirements are met*: The FD will lead on this activity, in conjunction with the ALAF Working Group that will monitor and review plans and reports.
    - *Make necessary preparations and carry out actions to install monitoring equipment*: The WRA and MSJ will install gauges and weather stations in the project intervention areas for baseline and ongoing monitoring. The PEU should plan for and carry out work schedules in a timely manner. The PEU should ensure that all IP needs for these activities are met (e.g. transportation requirements). Conduct sensitization activities in the intervention communities

E. Project Management and Other Crosscutting Areas:

There are a set of cross-cutting project management actions that are also necessary to ensure timely implementation, coordination among project stakeholders and achievement of targets. The Project Manager (PM) should update these actions and processes in the Project Operations Manual (POM) and share with project Implementation Partners.

Meetings should be convened as follows:
Weekly Meetings:
- PEU Team and Project Branch
- IDB-PEU Meetings
- PM/ PPERD Director
- PPERD Director/PEU
- PM/NEPA CEO

Monthly Meetings:
- Technical Working Groups of PSC
- Communications Working Group

Quarterly Meetings:
- PSC
- PEU with PA Implementing Partners

As required by Consultants' Work Plans
- Progress update meetings with respective TWGs
- PEU/Consultant for follow up and determination of needs

- **Strengthen project planning using a participatory approach:** The PEU should utilize every opportunity to engage key stakeholders in project planning. Annual planning retreats with the PSC and TWGs are two key actions to be implemented. Use PSC and TWG meetings to engage stakeholders in ongoing planning and reflection as part of an adaptive management approach.
- **Update POM:** The PEU should revise and update the POM and include actions to:
    - Conduct regular meetings with stakeholder groups that will serve to update stakeholders and identify and address issues and challenges. This will also help build cohesion among key stakeholders and facilitate improved communication. Meetings should be convened with the PEU, PSC, TWGs, IDB and Consultants in the specified timeframes.
    - Develop and utilize a change control process and where needed, escalate change requests to the PSC (operating as the change control committee).
    - Develop and utilize a Lessons Learned Register and incorporate in IPs PA reporting requirements. Conduct sensitization sessions with IP Focal Points and other relevant personnel.
- **Following on MTE Recommendations, work with PSC and TWGs to finalize the revised Results Matrix (see Annex A-2):** Following approval of the MTE report, the PEU/PPERD should convene a meeting of the PSC/TWGs to discuss and agree on the MTE recommended revisions to the RM to be negotiated with the IDB/GEF. The PEU should then arrange for a follow up negotiation meeting with the IDB to discuss the revised RM and all other matters requiring approval. The summarized MTE recommendations that reflect the EA and PEU inputs and serve as the basis for discussion and finalization are listed below and detailed in Annex A-2:
    a) Impacts and Outcomes:
    - Indicator # 1- *Sedimentation in waterways*: Revise RM to reflect a measure of outputs from the installed gauges in collaboration with the WRA and NWC (e.g. change (decrease) in turbidity levels)
    - Indicator # 2 - *Payment for Environmental Services (PES) system functioning at NEPA*: In consultation with the FD and the Carbon Stock Monitoring (CSM) consultant, the project should agree on a new indicator using the outputs of CSM protocol development. In the interim, the project should work with the FD to develop and agree on a proxy indicator to reflect ongoing efforts to plant trees, reverse land degradation and increase soil cover (e.g. survival rates for new plantings and areas under improved management (reforestation, forest maintenance and SLM). Illustrative proxy indicators to be considered include i) survival rates of new plantings, and ii) area under improved management as a result of reforestation, forest maintenance and SLM activities in the WMUs.

- Outcome #1- *Improved management of biodiversity in the watersheds of the Hope & Yallahs Rivers & the Blue and John Crow Mountains*: Revise the title to remove "Blue and John Crow Mountains", given the status of the project's PA with JCDT and remaining implementation timeframe.
- Indicator # 3: Remove this indicator given there are no associated project activites.
- Indicator #4 - *Agencies updating data in DSS (Decisions Support System) according to agreed protocol*: For greater alignment with the intended outcome of improved management of biodiversity in the target WMUs, expand the associated indicator to capture how the data entered or updated in the DSS are being used in watershed level planning, intervention design and decision-making. Illustrative indicator revision - # of management actions (plans, strategies etc.) taken using data from the DSS.
- Outcome #2- *Functioning pilot Payment for Environmental Services (PES) system*: Given the remaining timeframe for the completion of outputs under the PES consultancy, revise Outcome 2, for example, to *PES designed and agreed on with key stakeholders.*
- Indicator # 5- *Contracts Signed* and # 6- *Area under contract*: In line with the revision to the outcome, revise the indicators to reflect agreed Component 3 revisions to expand the private landowner programme that can serve as an early pilot of the PES. Illustrative indicators - *# Of Contracts Signed with large private landowners* and *funding sources Identified through the PES consultancy.*

b) Components and Outputs:

- Output # 1.3- *Monitoring protocols implemented*: Remove *implemented* and replace with *designed and agreed on* based on the current status of the associated consultancy. MTE recommended revision - 11 hydro-met stations installed and Data protocols developed and agreed.
- Output # 1.4- *GIS-based decisions support system (DSS) for both watersheds implemented configured and implemented*: Given that until participating agencies are actively using the DSS for planning, execution and decision-making it cannot be considered as implemented. The MTE recommends removing *implemented* and replace with *designed and agreed on* based on the current status of the associated consultancy. MTE recommended revisions - GIS-based decisions support system (DSS) for both watersheds designed, configured and tested and Administrators and end users trained to use the DSS
- Component # 2 - *Design and implementation of a market-based incentive scheme* – to be revised to remove *implementation* and amend to read *Design and agreement* on a market-based incentive scheme.

- Output #2.2- *Payment for Environmental Services (PES) scheme, implemented*: the milestone should be revised to align with the outputs of the PES consulancy for example - PES operation manual finalized, PES Consultancy Outputs completed – micro-catchment level intervention plan, Sustainable financing plan, willingness to pay study, and PES Transition Plan Prepared (including agreed governance structure)
- Output #3.1- *Extension Program monitored*: Modified to read *Farm Extension Program implemented and monitored*
- Output #3.2 - *Communities' capacity improved*: Amend to read as *Farmers, and others with increased knowledge in SLM*
- Output #3.3- *Agriculture practices improved*: Amend to read as *SLM best practices adopted by project beneficiaries*

- **Conduct budget review and submit realignment request for donor approva**l. Conduct budget review to ensure upcoming activities are adequately accounted for and address issues related to inflation, changing market price, increased project management cost due to capacity gaps, thereby limiting future budget realignments. The revised budget should be submitted for donor approval.

F. Project Monitoring & Evaluation

In order to track project performance and achievement of targets, the project should commence implementation of its M&E Plan. To do this, the following key actions should be undertaken:

- The new M&E team, following IDB technical assistance mission support, should prepare an M&E implementation plan that clearly outlines roles and responsibilities for project monitoring, reporting and activity level evaluation (including a data collection strategy and flow chart) across the range of project stakeholders.
- Incorporate updated monitoring, evaluation and reporting responsibilities for partners in the revised MOU.
- Evaluate and build capacity within the PEU and the partner agencies for monitoring, evaluation and reporting; to include training, standardization of tools and increased awareness around the RM use.
- Evaluate the RM to make recommendations on key adjustments that align with the current delayed status of the project.

Immediate Next Steps

Following the completion of the MTE, critical next steps to sign off on and implement recommendations include:

1. Submit final MTE report to IDB.
2. CEO-hosted internal (NEPA and PEU staff) assessment of project implementation *vis a vis* MTE report finding.
3. Presentation of MTE findings, recommendations and game plan to key stakeholders (heads of agencies, PIOJ, MOFPS, GEF Focal Point and MEGJC) towards agreement on final action plan.
4. NEPA PEU meeting with all implementing partners to agree on workplan and targets. Targets should be written in PAs and associated M&E roles and responsbilities defined.
5. Negotiations between IDB and NEPA for sign off on the agreed action plan and RM revisions.
6. Internal review by the IDB to determine adjustments to be made to processes and procedures, that include:
    a. Potential modification to *ex-post* review thresholds.
    b. Frequency of IDB/PEU meetings.
    c. Capacity development assistance to the PEU, e.g. for M&E.
    d. Modifications to the Project Monitoring Report (PMR).
7. Once there is agreement on key items, revise the RM/PMR based on MTE findings and recommendations and additional input by using a participatory working meeting with both the IDB and NEPA.

1 Introduction and Background

The "Integrated Management of the Yallahs and Hope River Watershed Management Areas" project (hereafter called the Project) is a five-year project funded by the Global Environment Facility (GEF) and the Government of Jamaica (GOJ). The total budget for the project is US$12,781,798, of which US$3,909,441 is support from the GEF and US$8,872,357 is co-financing from the GOJ (Table 1).

Table 1. Sources of Financing for the Integrated Management of the Yallahs-Hope Watershed Management Area Project (JA-G1001)

Components	GEF (IDB) $US	GOJ Co – financing $US	Total $US
Component 1. Institutional Strengthening and Capacity Building	567,400	881,097	1,453,497
Component 2. Economic and Financial Incentives to Support Sustainable Biodiversity and Watershed Management	415,500	1,735,903	2,151,403
Component 3. Sustainable Livelihoods, Agriculture and Forestry in Watershed Communities	2,521,541	5,644,730	8,166,271
Management	315,000	601,627	916,627
Monitoring and Evaluation	50,000	-	50,000
Audit	40,000	-	40,000
Total	**3,909,441**	**8,872,357**	**12,781,798**

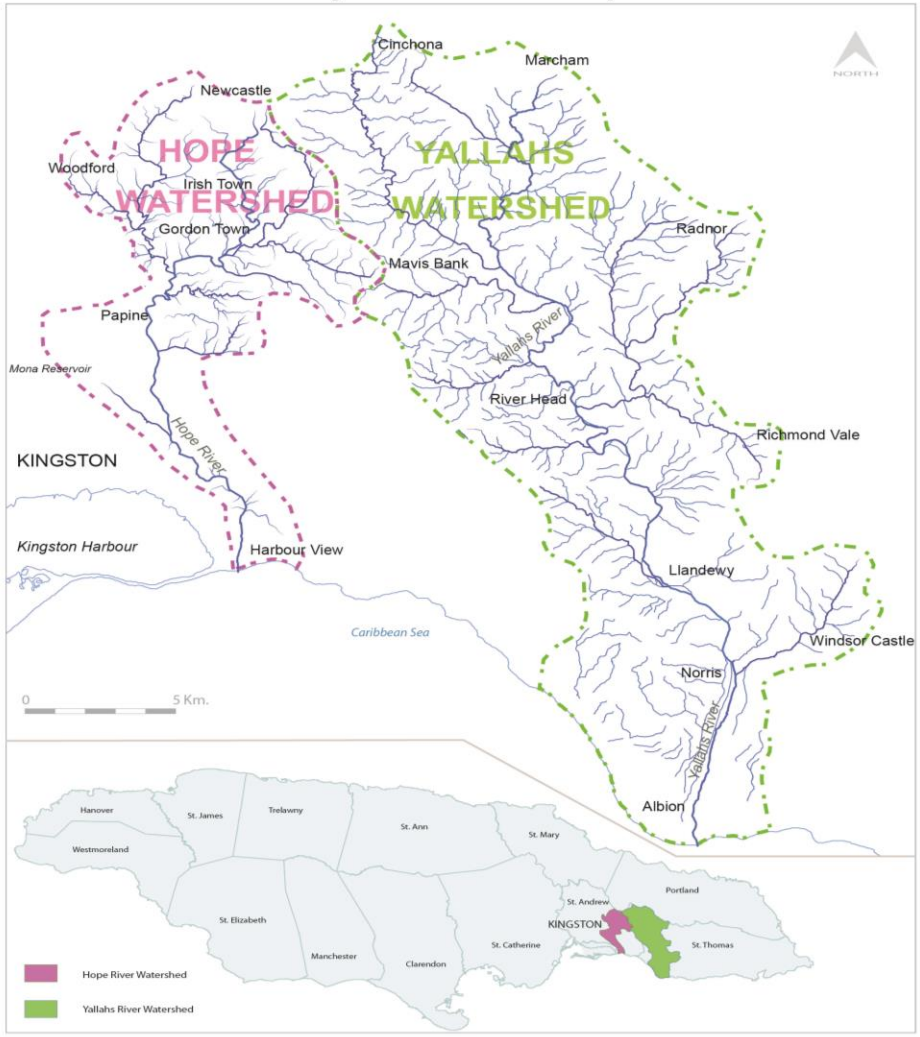
The non-reimbursable Financing Agreement (FA) GRT/FM-14607-JA was signed on October 1, 2014 (herein referred to as "the Agreement") between Jamaica and the Inter-American Development Bank (IDB), in their capacity as the Administrator of the GEF financing for this project. The EA for this project is NEPA. The project is being implemented in two priority areas, namely the Yallahs River and Hope River Watershed Management Units (WMUs) (Figure 1).

1.1 Objectives and Components of the Project

The overall objective of the Project is to improve the conservation and management of biodiversity and the provision of ecosystem services in the Yallahs River and Hope River WMUs. This is intended to contribute to the reduction of the pressures and threats to the natural resources in the Yallahs River and Hope River WMUs, by increasing the practice of SLM, and, thereby, resulting in the improved management of biological diversity and enhanced flow of ecosystem services that sustain local livelihoods.

Figure 1. Geographical representation of the Yallahs River and Hope River WMUs

Project Location Map



Source: PSC presentation August 2015

Project Components

The project is being implemented through incremental activities under three technical components.

Component 1 seeks to address capacities[3] of the resource management stakeholders to ensure forest and biodiversity conservation in the two WMUs. Key elements of component 1 include: development and implementation of an effective institutional framework; data collection to enable sound resource monitoring and management; provide spatially explicit data of watershed values and resources through a nationally accessible GIS database that informs decision-makers; Capacity building of personnel in key government institutions and building awareness and changing behaviours are also features of Component 1.

Component 2 seeks to address the lack of financial resources and incentives to promote the adoption of conservation and sustainable management activities in the watersheds. Under this component a PES System will be developed to provide financial resources to continue financing conservation activities at the end of the Programme.

Component 3 finances activities to increase public awareness of the importance and benefits of sustainably managing biodiversity and to increase the areas in which good practices for land, agro-forestry and forest management are used through the use of pilot projects. In the future these are to be scaled up with financing from the PES.

The three components are intricately linked in that improvement in land management practices will result in reduced sedimentation and improvement in water supply and quality on which an effective PES depends. Robust monitoring and adaptive management is important to maintain these services, which will rely on integrated water resources management mechanisms, stakeholders with the requisite capacity operating in a coordinated way, with a strong policy framework.

Overall, the implementation of all components of the Project is expected to generate a set of best practices that can be up scaled in the two WMUs as expected during PES implementation and replicated and implemented in other WMUs island wide. It will also

[3] Weaknesses including policy formulation, data gathering and processing, capabilities and low capacity for implementing and enforcing policies that support Integrated Water Resources Management (IWRM)

create a number of global environmental benefits related to the conservation of endemic and endangered species of flora and fauna, respectively. It will also increase the generation of services from forests through the increase of forest areas under SLM and taking into consideration the elaboration of land-use plans at the national and local levels and importantly, facilitate the collaboration across sectors and between government agencies on Sustainable Land and Forest Management (SLFM) and contribute to development and strengthening of the legal, policy and regulatory frameworks related to watershed management in Jamaica.

According to the Proposal for Operation Development (POD), the MTE[4] for the Project is to be conducted when 50% of the GEF resources have been disbursed or 30 months after the program contract goes into effect, whichever comes first. The MTE is being conducted at a point beyond 30 months but with less than 50% of GEF funds disbursed and is especially designed to provide feedback and guidance on the way forward.

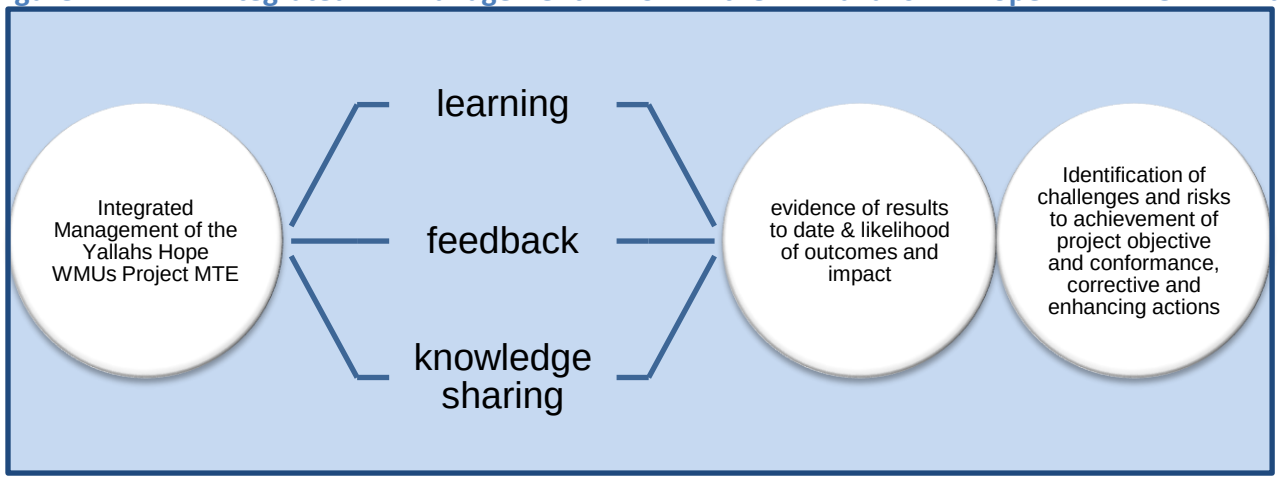
2 MTE Approach and Methodology

This MTE is being conducted to analyse whether the project is on-track, what problems or challenges the project is encountering, and what corrective and/or adaptive actions are required for the project to achieve maximum impact in the time remaining. The MTE assesses elements of project governance, management and implementation and operationalization and how these are advancing progress towards the objectives. The MTE TOR is presented in Annex B-2.

The MTE also provide a collection of lessons learned and good practices for both project management and watershed management respectively. These will be useful for the project and broader efforts for watershed management. The findings and recommendations of this MTE will feed back into the project's life cycle through an adaptive management approach (Figure 2).

[4] Originally planned for July 2017

Figure 2. Integrated Management of the Yallahs Hope WMU Mid-term evaluation purpose



The MTE TOR required a mixed-methods Methodologies were used to conduct the stated objectives. Tools included direct review of secondary data and information techniques such as key informant discussions and site visits, using both data collection. The MTE conducted an project budget to account for the time lag implementation. A summary of the analysis is provided. An analysis of the RM, also done to assess relevance vis-à-vis the outputs as reflected in the PMR. for RM revisions (Annex A-2) to improve project status and projected outputs and evaluation. Results Oriented evaluation and achieve the stakeholder interaction, and use of rapid appraisal discussions, focus group quantitative and qualitative inflationary analysis of the between project design and approach to the inflationary and associated indicators, was project's objectives and Recommendations were made alignment with the current outcomes at completion, and

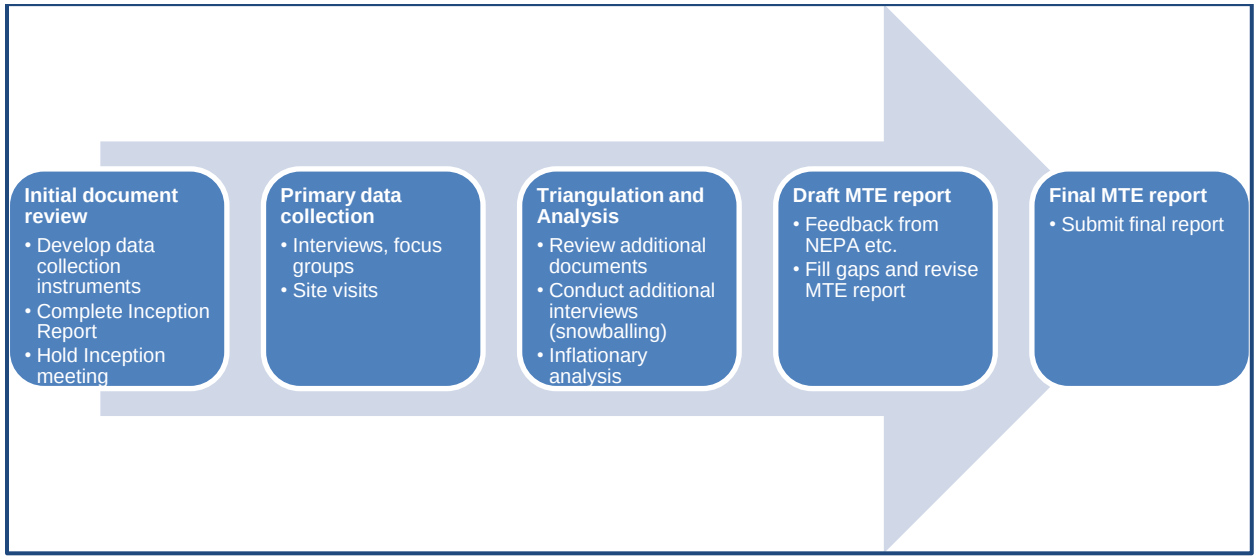
Approach to inflationary analysis for the Yallahs-Hope WMU Project

To address for loss of effective purchasing power arising from inflation the US interest rate derived from US Bureau of Labor Statistics was used as a proxy rate to adjust the budget line items. To account for the delay in implementation the budget estimates were cumulatively adjusted by the annual inflation rate in the US. The annual inflation was assumed to be equivalent to the average year rates. The total budget was iteratively adjusted to reflect inflation. The initial line item ratio to total budget was used to reallocate expenditure weights with the adjusted budget. A duplicate budget spread sheet was created from which inflation adjusted rates were estimated. All ratios of budget line item ration total budget were assured; hence the plausibility in reporting on the inflation adjusted line items. No inflationary adjustments were made for delays associated with project implementation due to the fact that such additional loss in purchasing power is not through project design but implementation inefficiencies.

indicator efficacy.

Annex B-3 provides the semi-structured and structured evaluation instruments utilized, while Annex B-4 provides details on stakeholders who participated and sites visited. Triangulation was used for verification and further substantiation. As per the agreed upon approach, the MTE was developed using a stepwise process as shown in Figure 3.

Figure 3. Steps in the Project MTE process



2.1 MTE Limitations and Constraints

The MTE was allocated a short time frame and this was the greatest limitations to the evaluator. With delays, data utlised for MTE analysis were extended in some instances from March to April 2018. Major constraints include:

1. Time available for data collection and analysis. This limitation is a critical one, and placed constraints on how activities were performed and the extent of probing.

2. Stakeholders' availability for meetings.
3. Untimely turnaround from the PEU for provision of documentation, logistics for meetings, reviews and feedback due to explained competing priorities. This was a key MTE assumption that was not met and placed various risks on the MTE timelines.
4. RM revisions reflected NEPA and the PEU's preliminary responses to MTE recommendations for revision, however, in some instances input lacked consensus hence and could not be finalized.

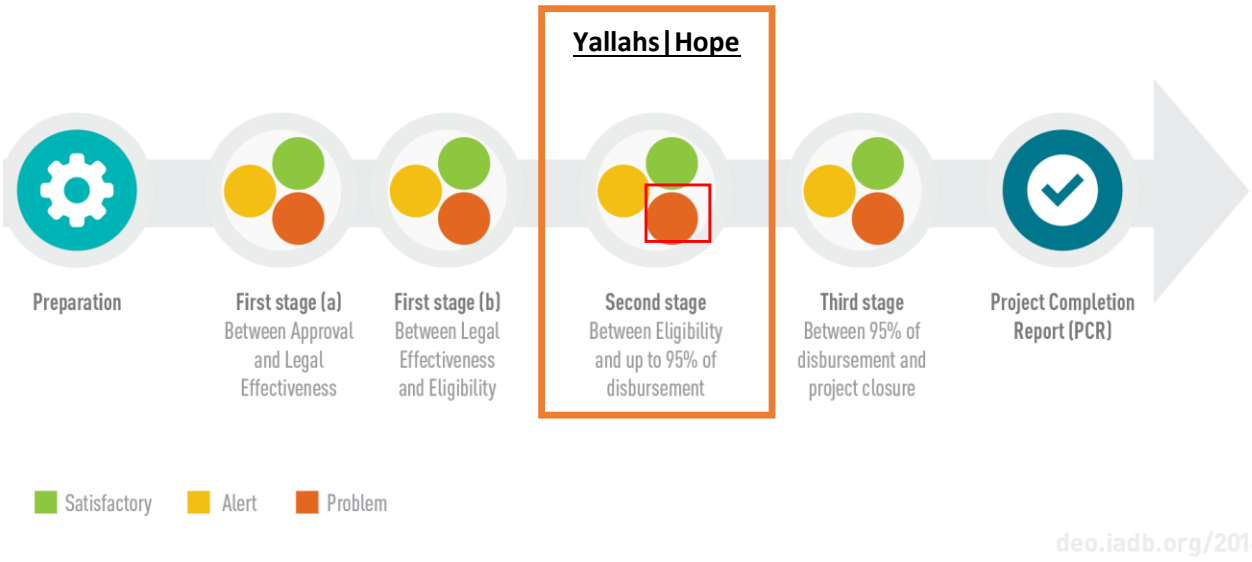
3 Findings

Based on the IDB's project lifecycle, the project is in *Second Stage*, which is between eligibility and up to 95% of disbursement (Figure 4). In order to produce a set of findings, the MTE prepared a chronology of events from project design to its current state (Figure 5 and Annex A-3). These were used to determine major challenges and constraints that led to the designation of problem status with the IDB (

). The timeline analysis also identified strengths and achievements, key milestones, points of delays as well as major challenges.

The FA between the IDB and the GOJ was signed on October 1, 2014 with conditions to first disbursement met and the official start-up of project implementation six months later in April 2015. The project is in its fourth year of implementation, having completed 43 months of effective execution.

Figure 4: Project Status in IDB Lifecycle



The first stage is divided in two lapses: (1) The first refers to legal effectiveness which relates to the signing of the contract between IDB and the host country. Sometimes this is done at the level of the executive power, and for other countries it also includes congressional retification. (2) Reaching eligibility involves meeting a number of conditions as they have been established contractually. Often, they relate to how the executing agency is set-up to implement the project. Once conditions are met, the projects becomes eligible to disbuse.

Three key PEU positions were hired in early 2015, and it was not until the end of 2017 that an additional two were hired, which still does not achieve the full staff complement defined in the POM (2016). According to the project implementation plan and RM, a partnership agreement should have been signed by five partners in the first year and an additional two in the second year. It was not until the end of the second year that the first two were signed, with an additional three signed in 2017. During the first year of implementation, the project received alert status from the IDB, on account of the low expenditure rate. This also raised a red flag in the 2015-16 external audit. In 2016 and 2017, the project's alert status was elevated to problematic, as a result of both low expenditure and lack of achievement of targets.

Table 2: Project Status Using IDB's Monitoring Indices

Stage 2: After Eligibility			
Indicator (I)	**2015**	**2016**	**2017**
Accumulated disbursements to country's historic disbursements	ALERT	PROBLEM	PROBLEM
Cost Performance Index (annual - CPI(a)	ALERT	SATISFACTORY	SATISFACTORY
Cost Performance Index – CPI	ALERT	PROBLEM	PROBLEM
Schedule Performance Index – SPI	ALERT	PROBLEM	PROBLEM
Schedule Performance Index (annual)- SPI(a)	PROBLEM	PROBLEM	PROBLEM

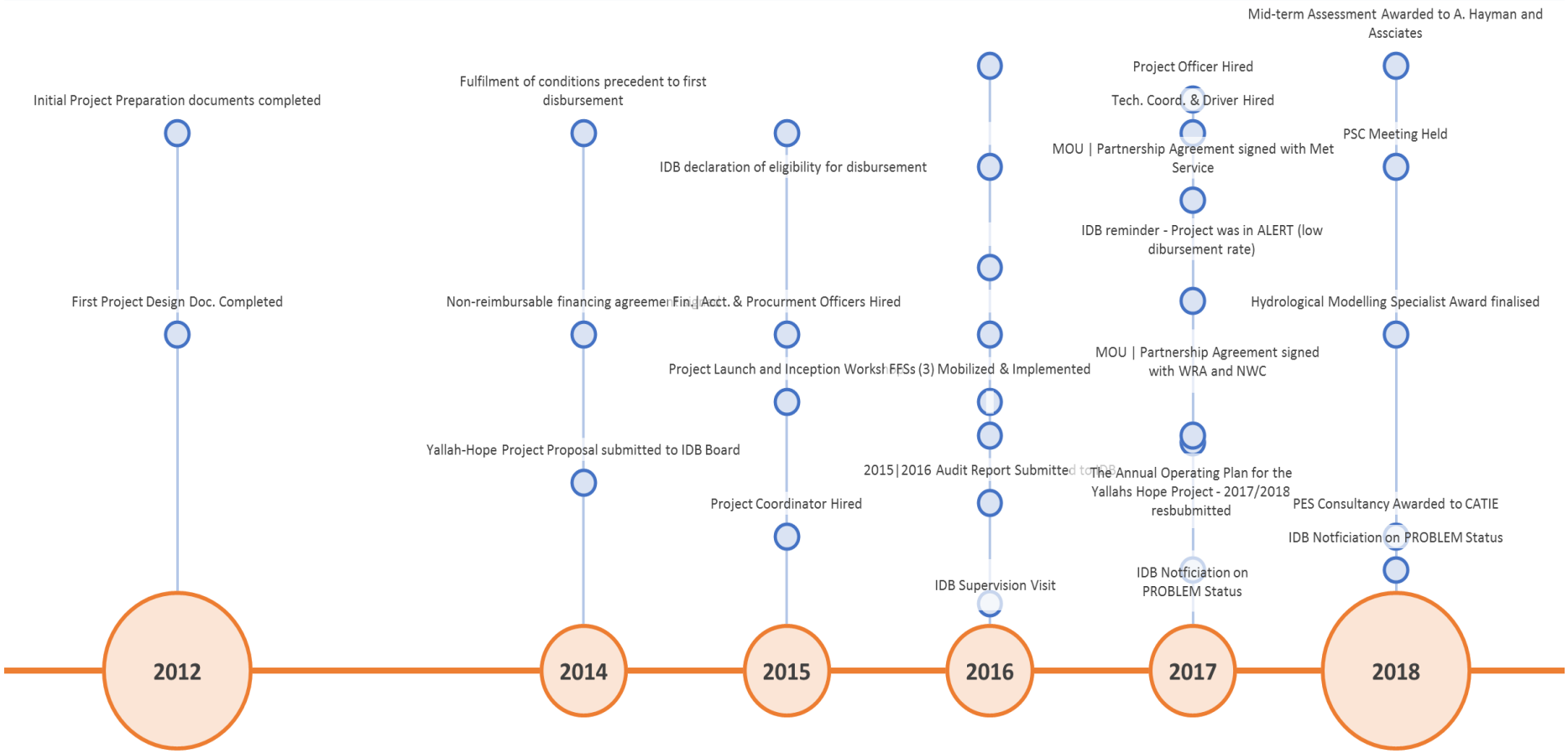
Although more favourable than the performance against IDB indicators, the overall ratings in the GEF Annual Project implementation Report (PIR) have declined from 2016 to 2017 (Table 3).

Table 3: Project Status Using GEF's Monitoring Indices

OVERALL ASSESSMENT	2016	2017
Likelihood of achieving project objective	**S**	**MS**
overall Implementation Progress	**MS**	**MS**
Project Risks	**L**	**M**

S – Satisfactory; MS – Moderately Satisfactory; L – Low; M- Medium

Figure 5: MTE Major Project Timelines



3.1 Design and Relevance

3.1.1 Project Objective and Logical Framework

The Yallahs - Hope WMU project is working to address the problem of poor water quality (high sedimentation levels) and low flow volumes in two of the urban centre's primary water sources. The problem analysis identified root causes to be *deforestation, forest degradation and poor agriculture and land management practices exacerbated by high levels of poverty*.

Project Design Considerations

The project's design, while ambitious, was found to be sound and coherent with a clear path to meet its objectives. The studies conducted during program preparation concluded that the key natural resources of the Yallahs and Hope watersheds face significant problems: (i) biodiversity habitats are threatened by deforestation and forest degradation; (ii) soil quality is being reduced as a result of a combination of inadequate agricultural practices and natural conditions, affecting income generation opportunities, particularly for small farmers; and (iii) the hydrological regimes (i.e. river flow volumes during the rainy and dry seasons) and water quality are affected by deforestation, land use changes, soil erosion, waste water disposal and the use of agrochemicals, particularly on coffee plantations.

The analysis done during the Project Preparation Grant (PPG) phase concluded that these environmental problems are induced by a combination of economic, social and institutional factors, that can be grouped as follows: (i) institutional weaknesses and conflicting policies, particularly in relation to land use, extension/transfer of technology efforts, monitoring and control of forest extraction. Most agencies responsible for the management of the WMU are operating with significant financial constraints and limitations in data and information that hamper their ability to carry out their promotion activities and enforce the laws they are mandated to; (ii) low productivity-subsistence agriculture by farmers with significant lack of knowledge of sound resource management techniques and low levels of capital (land, physical, and financial resources).

Many community members live on the margins of poverty as a result of low wages and low productivity of labour in agriculture. Seventy-four percent of farmers have only completed primary level education or less and only 3 percent had vocational or tertiary training. Besides the lack of awareness about environmental problems and possible solutions, beneficiaries are often remote from where ecosystem services are generated and there are few incentives for upper watershed dwellers to maintain forest cover or introduce soil conservation practices, since they do not perceive the benefits from the ecosystem services generated.

The design also reflected an analysis of lessons learned from previous donor – funded projects that highlighted early community engagement, incentives for SLM best practice adoption, coordination, and the use of KAPB assessments as being key elements in watershed management initiatives.

Beneficiaries and Stakeholders

The main beneficiaries of the program are:

1. The public agencies involved in the management of the two watersheds (NEPA, RADA, FD, National Water Commission (NWC), WRA) that will be provided with more and better information to carry out their activities and a coordination framework given by the MOUs and a new watershed management policy.
2. NWC and the residents of the Kingston area that will get reductions in sediments at the water intakes on the Hope and Yallahs rivers, as well as conservation of the Blue and John Crow Mountains National Park and forested areas.
3. Farmers and large land owners located above the NWC water intakes on the two watersheds that will continue to receive information and financial incentives to implement soil conservation and improved agricultural practices as a result of having a strengthened extension service and financial resources provided by the PES.

Analysis of the Project RM (Yallahs River and Hope River WMU Project Causal Logic)

This narrative that summarizes the project's causal logic is to be read in conjunction with the accompanying diagram (see Figure 6).

Before the long-term objective of *improved management and conservation of biodiversity and provision of ecosystem services* in the targeted watershed can be met, there are **four necessary preconditions** (outcomes): a) improvements to the management of biodiversity in the target sites, b) the definition of an incentive system where users pay for the desired ecosystem services, c) farmers and major landowners know about and are applying SLM best practices, and d) farmers and landowners realized economic benefits (income) from their application of conservation and production improving best practices.

Revisions to the legal, policy and decision-support framework for watershed management and biodiversity conservation will provide a cohesive and coordinated framework for watershed management as the watershed policy is updated and approved by Cabinet, and decision-makers make informed decision having accessed site specific geological, meteorological, ecological and biophysical data. The drafting of legal and financing arrangements and a sustainable financing plan will create a new framework for water users in the lower watershed

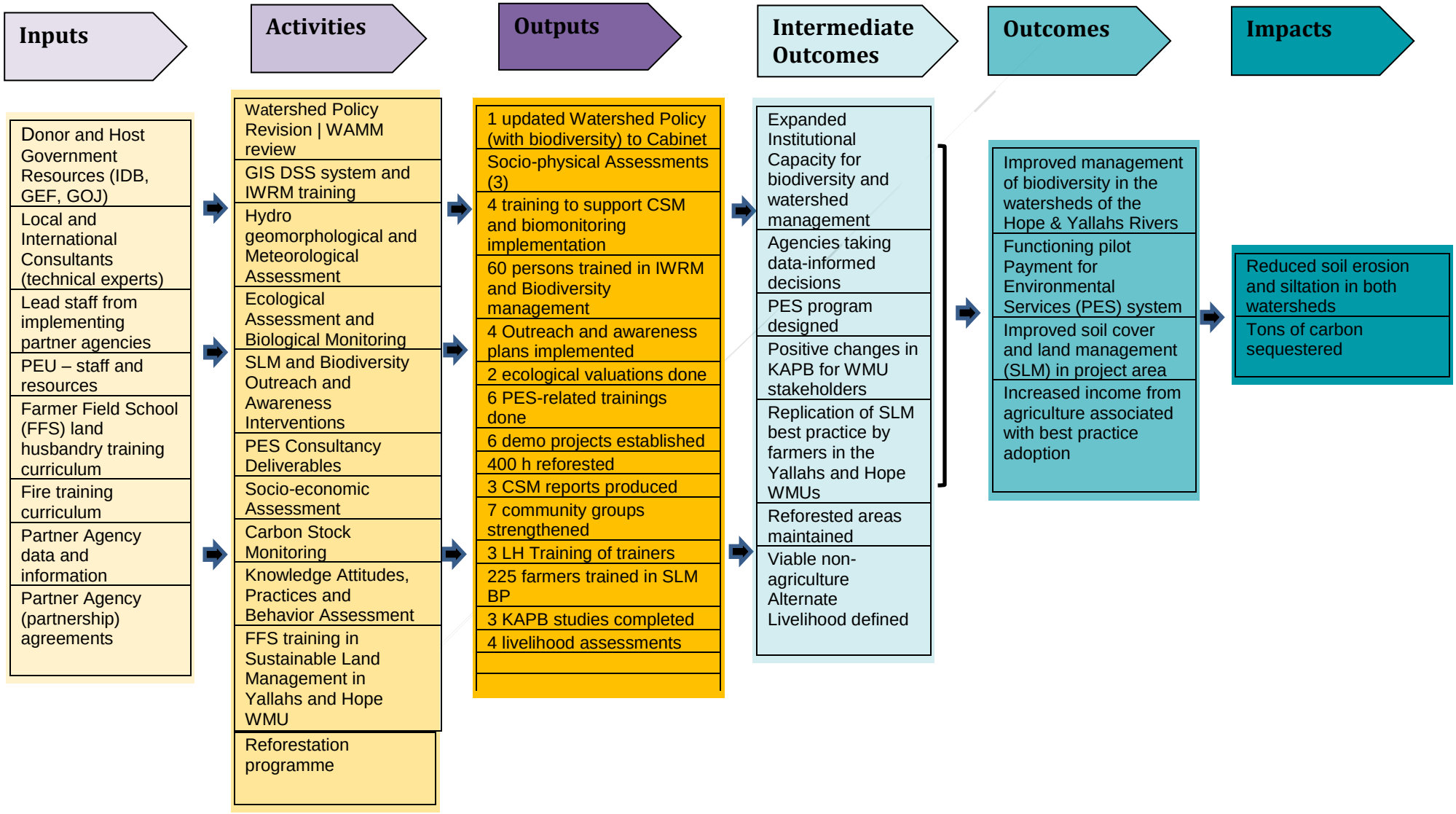
to pay farmer and landowners in the upper watershed (willing to commit to SLM best practices) for sustained access to clean and reliable driving water. As a result of the incentives received, upper watershed stakeholders (farmers and large land owners who are trained and sensitized through awareness programmes) will expand the application of SLM best practice. It is assumed that the SLM activities will be expanded at sufficient scale across the WMUs that over time this will lead to impact level changes in tree cover, as well as water quality. The incentives will also generate resources for forest restoration and maintenance within the WMUs.

The main outputs expected from the program are:

1. Improved institutional arrangements to manage the Hope River and Yallahs River WMUs, which includes having an MOU signed by NEPA, FD, WRA, RADA and JCDT creating a framework for cooperation, a biodiversity monitoring protocol and data collection for a biological and ecological inventory that will help define priority areas for monitoring and conservation, a GIS-based decision support system with relevant information to support management decisions and training of government staff.
2. A PES system designed and implemented that will sign contracts with beneficiaries of the biodiversity and hydrological services provided by these watersheds and with farmers that will implement conservation practices on their farms.
3. Three thousand farmers will have received information on better SLM, 750 farmers will be participating in demonstration projects about different types of conservation and better land use practices with a total of 420 ha with better SLM practices implemented and 716 ha reforested.

Figure 6. Logic Model Diagram Yallahs Hope Project

Objective: To Improve the conservation and management of biodiversity and the provision of ecosystem services in the Yallahs River and Hope River watersheds.



The following **key assumptions** underpinned the project's design:

1. Farmers have some tenure security or land use rights that allows them to attempt new techniques for a period long enough to recover investment costs.
2. Farmers will adopt the best practices they can see on fields in nearby areas with similar conditions.
3. Lower watershed users are willing to pay to access improved ecosystem functions such as better (less siltation) and more constant water availability.
4. There will be sufficient replication to offset current degradation trends.
5. Partner agencies have sufficient capacity (personnel and time) to lead and guide implementation.
6. Implementation timeframes allows the full cycle of interventions to be completed and needed programme adjustments integrated (e.g. replanting programme, and timing of the hydromet assessments).
7. Preparatory Phase assessments are adequate to guide execution and Partnership agreements and silviculture plans are negotiated prior to project implementation.

Methods and Approaches used in Design

Table 4 provides a list of methods and approaches in design and provides a rapid assessment of the relevance of these approaches and methods. The Project approaches address gaps in and challenges associated with integrated watershed management, including a sustainable source of financing and seek to incorporate biodiversity considerations in its policies. The combination of approaches and activities implemented in a timely manner and in the correct sequence provides for enhancement of watershed management practices. However, implementation has not adequately utilized these methods and approaches to effectively improve the practices of integrated watershed management. It was expected that a pre-feasibility hydro-met study would have paved the way for effective implementation, with this important study informing (1) a communication and awareness plan (ii) design of the PES and (iii) improvement of livelihoods, agriculture and forestry practices in the upper watershed areas. Early into implementation, stakeholders identified the study as flawed and time and resources had to be made available to carry out a new study during project implementation. Issues with the initial hydromet assessment included data quality (e.g., scale incompatibilities using digital elevation model at 10,000 m^2 to make predictions at the farm level), availability and adequacy (sparse land cover data) that led to accuracies of the modelling outputs. This had serious implications for project implementation and achievement of results in a timely manner.

Table 4. Project design methods and approaches and their relevance

Project Objective	Component	Methods and Approaches	Factors contributing to relevance to the sector and targeted beneficiaries and consistency with overall project outputs, results and intended impacts
Improve the conservation and management of biodiversity and the provision of ecosystem services in the Yallahs River and Hope River WMUs.	Institutional strengthening and capacity building for Integrated Biodiversity and Watershed Management	Consultants – short-term technical assistance (STTA) assignments	• Conduct surveys and assessments to inform project activity focus • Help fill gaps in limited technical knowledge and plan appropriately for meeting project objectives
		Acquisition of equipment and tools (water quality monitoring, computer hardware and software)	• Build capacity for analysis for more informed decision making • Enhancing data gathering and processing capabilities
		Capacity building/training	• Important for knowledge transfer • Builds relationships among watershed management entities
		Appropriate media for dissemination	• Build awareness among watershed stakeholders
		Partnership Agreements (MOUs)	• Enhance coordination and collaboration among key watershed management entities • Improve data and information sharing and carry out more robust decision making
	Creating economic & financial incentives to support biodiversity & IWRM	Studies (valuation of ecological services-hydrological impacts on water flow, willingness to pay study)	• Inform development of the PES • Understand importance of water services for water users

Project Objective	Component	Methods and Approaches	Factors contributing to relevance to the sector and targeted beneficiaries and consistency with overall project outputs, results and intended impacts
		Planning (design of the PES-financial and legal arrangements)	• Establish norms and procedures for implementation of financial mechanisms
	Implementing sustainable livelihoods, agriculture, and forestry in watershed communities.	Capacity development/training	• Enhances the adoption and adaptation of technologies and techniques (FFS) • Important for technology and knowledge transfer (land husbandry techniques, fire prevention and management) • Build relationships in community groups and wider communities • Build relationships between GOJ entities and communities
		Public-Private Partnerships (engagement of private land owners; ALAF Working Group)	• Increase opportunities for adoption and for improving SLM in watersheds with multiple benefits of increasing productivity, improving livelihoods, enhancing water quality and quantity and conserving biodiversity • Joint planning and decision making

Relevance

The five-year time lag between project design and implementation resulted in numerous issues that have affected smooth project implementation. Priorities had shifted, and activities advanced since 2010. For example, the Forestry Department secured funding to reforest some of the areas deemed vulnerable and in need of reforestation and these were no longer available for the project.

During design the IDB commissioned an Institutional Capacity Assessment of NEPA as the Executing Agency. A key finding of the assessment conducted in 2011, was that NEPA had the necessary capacity to undertake the responsibilities for project implementation. There was no assessment of capacity of the partner agencies, and this established a premise that they had the requisite capacity to implement project activities. Further to this, between design and start-up of the project there were no actions taken towards development of project partner agreements with key stakeholders. Neither were roles and responsibilities of the IPs negotiated. This became problematic as the development and signing of the PAs were significantly delayed as they worked out the details of the partnerships. Although the project design was for one PA with all partner agencies, implementation was through individual agreements. This perpetuated an individualized approach, lacking in cohesion and coordination among partner agencies.

The project's objectives and components are clear, and at the design and preparation phase, were considered feasible within the timeframe, especially given several supporting assessments and technical studies were conducted prior to implementation and assuming that these would allow for smooth implementation once started. In addition to the assessments, the design and preparation of the project benefitted from the incorporation of lessons learned from previously implemented projects[5] that were able to overcome challenges and issues identified. Additionally, project design would have been influenced by other projects with similar focus that were being implemented by NEPA, implementing partners and the donor. These lessons learned have not however adequately translated to implementation. The FFS model for building farmer knowledge and awareness on good land husbandry practices responded to Lesson #2.

[5] Eco-friendly Coffee Production Project; Eastern Jamaica Agricultural Support Project; Hope Rover Watershed Slope Stabilization Project; Ridge to Reef Watershed Project; Trees for Tomorrow Project; Integrated Watershed and Conservation Area Management Project (POD 2013)

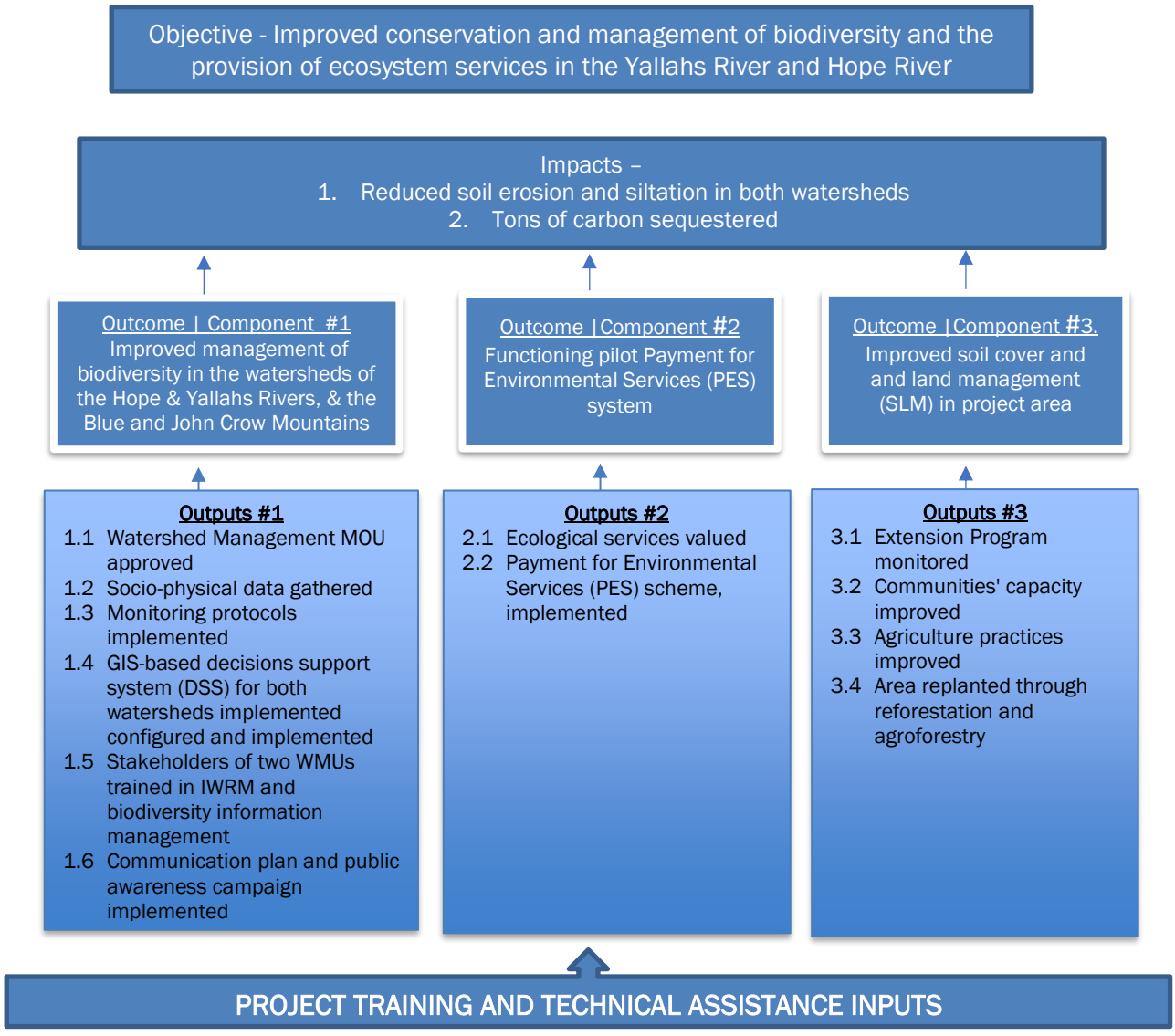
Lessons learned from other projects used in Project design (POD 2013)

1. Use early involvement of local communities to fine tune project design through communications that include non-written forms and rely on visual means to increase awareness and understanding of key environmental concepts for watershed management.
2. Successful awareness raising and education programs have relied more on in-situ demonstrations within farming communities, improving extension services
3. Since traditional attitudes and practices are difficult to change, a concerted effort by government agencies working along with NGOS and CBOs is required and the use of Knowledge, Attitudes and Practices (KAPB) studies have proven to be valuable in starting the process of community involvement and gathering baseline data to help identify activities with high probability of adoption
4. Programs that supported alternative livelihood options were well received by the communities and more likely to generate a longer-term impact.

Relevance and Appropriateness of RM Indicators

Figure 7 represents the project diagrammatically, using the 2017 IDB PMR that documents the project's impacts, outcomes, components and related outputs.

Figure 7. Diagrammatic Representation of the Yallahs-Hope WMU project



In measuring progress towards intended outputs, outcomes and overall impacts the project had nine impact and outcome level indicators at design. The MTE analysis established that the RM was amended, however the MTE was unable to ascertain the processes (who and when) that led to the amendment. To ensure relevance of the recommended changes the MTE used the 2017 version of the RM as laid out in the PMR. The nine indicators were reduced to seven, as reflected in the 2017 IDB PMR.

The assessment of relevance and appropriateness of the project's indicators is a function of how each of the performance measures produced information that project stakeholders can use to assess implementation progress and take decisions on corrective actions.

Analysis of Impacts and Outcomes

Of the seven indicators, the project used two impact and five outcome level indicators as listed in Table 5.

Table 5. Project Indicators (by Result Matrix Elements)

PROJECT RESULTS	INDICATOR	STATEMENT ON RELEVANCE
Impact #1. Reduced Soil Erosion	1. Sedimentation in waterways	The measure of sedimentation level is relevant as improved SLM application in the watershed will over time translate to reduced soil erosion and waterway contamination. However where 'gauges' is used as the measure of sedimentation in waterways (as documented in the PMR) impact cannot be assessed.
Impact #2: Tons of carbon sequestered	2. PES system functioning at NEPA	This measure was not found to generate the information needed to assess the expansion of tree cover that serves as carbon sinks
Outcome #1: Improved management of biodiversity in the watersheds of the Hope & Yallahs Rivers & the Blue and John Crow Mountains	3. Watersheds covered by development orders that include land cover and soil management	This measure reflects the improved institutional framework for watershed management, however, there was concern about the fact that there is no activity in this project to support this outcome
	4. Agencies updating data in Decisions Support System (DSS) according to agreed protocol	The indicator's relevance as a measure of improved decision support capacity could be strengthened by assessing agency's use of the data entered to guide watershed-wide decisions e.g. intervention-level action plans
Outcome #2: Functioning pilot Payment for	5. Area under contract	These indicators were found to be relevant at design, however, must be revisited given the delays in mobilising
	6. Contracts signed	

PROJECT RESULTS	INDICATOR	STATEMENT ON RELEVANCE
Environmental Services (PES) system		the PES
Outcome #3: Improved soil cover and land management (SLM) in project area	7. Area of land in soil cover and SLM program	This indicator was found to be relevant at design and continues to be a strong measure of the adoption to SLM best practices by farmers and land owners

MTE analysis of the RM elements and their associated indicators revealed that both **Impact #1 and #2** were adequate to assess the project's results and were aligned with the project objective. For each associated indicator:

• Indicator #1 is sound but where the PMR states the method of "observation" for the indicator[6] as "# of gauges" to measure sedimentation in waterways the intended impact cannot be assessed.

• Indicator #2 where the PMR used "Payment for Environmental Services (PES) system functioning at NEPA" as a measure of Tons of carbon sequestered there is concern regarding alignment.

At the outcome level, the MTE's analysis established that:

For Outcome #1 there are no arrangements with JCDT to support the portion of the outcome related to the Blue and John Crow Mountains given the status of the project's PA with JCDT and the remaining implementation timeframe. For each associated indicators:

• Indicator #3 is sound but to date there is no project activity reported or planned to achieve this outcome.

• Indicator #4 is relevant but does not reflect use of the DSS protocol as a measure of improved management of biodiversity.

For Outcome #2 the delays in PES consultancy procurement, and other associated activities, will not allow the project to implement the PES in its remaining timeframe.

• Indicator #s 5 & 6 though relevant at design "*area under contract*" and "*contracts signed*" are not reflective of the current status of the project.

Outcome # 3, was found to be well aligned with the current project status.

• Indicator #7: "Area of land in soil cover and SLM program" was found to be relevant at design and continues to be a strong measure of the adoption to SLM best practices by farmers and land owners.

[6] See the 2017 IDB PMR

Analysis of Project Components and Outputs

The MTE observed three components and 12 outputs associated with the project's RM. Generally the componets and associated outputs were found to be well aligned at design. The section that follows assess each components and output witin the context of the current project status. The following are the MTE findings:

a. Component # 1 – was found to be well aligned. For each of the associated outputs:
   - Output # 1.1 - well aligned and relevant.
   - Output # 1.2 - well aligned and relevant.
   - Output # 1.3 - well aligned at design, however requires revision based on current project status.
   - Output # 1.4 - well aligned at design, however requires revision based on current project status.
   - Output # 1.5 - well aligned and relevant.
   - Output # 1.6 - well aligned and relevant.

b. Component # 2 - was found to be well aligned at designed, however the delays in several components' activities (e.g. PES and hydromet assessment) will impact the results of this Component, and the "implementation" of the PES. For each of the associated outputs:
   - Output # 2.1 - well aligned and relevant.
   - Output # 2.2 - well aligned at design, however requires revision based on current project status.

c. Component # 3 – was found to be well aligned. For each of the associated outputs:
   - Output # 3.1 – SLM activity outputs are largely focused at the farm level (large and small). Opportunity exists for minor revision to improve alignment.
   - Output # 3.2 – While the output is well aligned and relevant, the associated milestone related to *community group formation and strenghtening* is not aligned to partners' decision to not form new groups.
   - Output # 3.3 – while aligned and relevant this output does not adequately capture the progess being made in promoting adoption and replication of SLM practices by beneficiares.
   - Output # 3.4 - well aligned and relevant.

Counterpart Resources put in Place Prior to Implementation

Other issues associated with project preparation and readiness relate to counterpart resources (staff, funding and facilities) and the project management arrangements that have been put in place. Approximately 8.9 million USD in counterpart resources were

identified for the project, but by the time implementation started some had already been exhausted, for example projects that were underway at the time of design.

Alignment with National and Donor Priorities

The project is of relevance to Jamaica, supporting Goals 3 and 4 and Outcomes 12, 13, 14 and 15 of the National Development Plan, Vision 2030. Areas of relevance include food security, rural development, sustainable management and use of environmental and natural resources and disaster risk reduction and climate change. While the project identified a strategy to Develop and Implement Mechanisms for Biodiversity Conservation and Ecosystems Management, its concept is also focused on developing efficient and effective governance structures for environmental management. The project, having a focus on sustainable agriculture in the WMUs, also supports agricultural, forestry and water strategies. The inclusion of the PES in the project also elevates this project to one that can help to spur economic growth, around a focus on clean, reliable supply of water for the population of the KMA cycled with SLM practices to also enhance farm production and productivity and improve incomes and livelihoods. The project focuses attention on two WMUs, ranked by NEPA as very important and highly vulnerable. By successfully implementing the project, it will satisfy SDGs #6, 11 and 13. It is also of relevance to the key implementing partners, in carrying out their commitments through their management, strategic and operational plans.

The Project is also relevant to and aligns with the IDB's Country Strategy for Jamaica at the time of design and start of implementation (2013-2014) through strategic areas of disaster risk management and climate change adaptation and (2016-2021) through its cross-cutting strategy related to resilience to climate shocks. The Project also aligns with GEF-6 biodiversity strategy to maintain global significant biodiversity and the ecosystem goods and services that it provides to society and aligns with objectives to sustainably use biodiversity and mainstream conservation and sustainable use of biodiversity into production landscapes/seascapes and sectors.

3.2 Efficiency of Implementation

Analysis of efficiency requires consideration of developments prior to, and during implementation. Design started in 2010 and produced a series of assessments and studies in support of project development for approval by the GEF and IDB. There is no evidence of stakeholder consultations between the production of the design documents and submission of the POD (2013) and supporting documents for approval. At the time of the Project Launch and Inception Retreat, stakeholders were sensitized to the elements of the project and contents of the final POD (2013).

Adequacy of implementation using the project's implementation approach

The POM (2016) is the basis for analysis of the project's implementation strategy, which highlights two main elements, namely: Preparation, implementation and review of AOP and Procurement Plan; and Eligibility of activities and investments.

1. Preparation, implementation and review of AOP and Procurement Plan

AOPs and supporting procurement plans have been submitted, with the first almost mid-year due to the official start of the project being on April 1, 2015. Other AOPs and procurement plans have been ahead of or on time. Modifications to the submitted AOPs and procurement plans are undertaken and resubmissions made signifying the recognition of the dynamic and adaptive nature of the project. AOPs are prepared with input from IPs, through completion of AOP templates. PEU personnel work together to craft the respective documents. According to the Project Manager (PM), an opportunity for feedback from IPs is at the PSC meetings, where a presentation is made and feedback sought. They are then revised and submitted to the IDB for approval. It is not clear whether the project has a set procedure for communicating these documents to IPs once they are approved[7].

AOP and Procurement Plan Year	Date submitted
2015/2016	May 30, 2015/August 31, 2015
2016/2017	November 30, 2015 (resubmitted)
2017/2018	February 8, 2017

2. Eligibility of activities and investments.

All activities approved in the AOP and Procurement Plan are eligible for financing. Procurement methods have had to be adjusted on occasion to respond to the challenges faced during the process. This resulted in the need for additional NOs from the IDB prior to making adjustments. The NO process has been time-consuming as with the ex-ante review process at every step of procurement a request must be made and NO given before the next step can proceed. Documentation shows that the PEU has followed the process but this has taken significant time from request to receipt of no objection.

On-farm implementation pilot projects

The POM (2016) also defined associated operational steps for Component 3 activities. Criteria for on-farm implementation pilot projects were defined and these linked to the PA signed with RADA. The MTE was unable to verify whether farm plans were completed, and the selection criteria utilized. There is no evidence that these plans were submitted to the IDB for NO prior to starting the FFS training.

[7] FD reported that since 2016 they have not received a procurement report

During a site visit to the demo plot in Content Gap, the RADA Land Husbandry Officer advised that the plot was not the original demonstration site selected for that community but with an unexpected departure of the farmer from the community, a quick adjustment had to be made for continuation of the FFS sessions, after the first two sessions were already held. There was no documentation on this change, neither was the PEU aware.

Reforestation and restoration of degraded lands

According to the POM reforestation activities were to proceed using the eligibility criteria, as described in the project "Climate Change Adaptation and Disaster Risk Reduction Jamaica". Reforestation activities were to be concentrated in lands in the upper watershed areas. This activity encountered hiccups as the FD was not fully aware of the criteria for selection of areas to be "Crown Lands located on the upper reaches of the WMUs" as determined by the Hydrologic model, and lands above the NWC intake. There were also inconsistencies regarding where reforestation activities would take place which also put into question FD's responsibility with the planned 400 ha. The issue resulted in implementation delays that were related to:

1. Signing of the partnership agreement by FD.
2. Selection of sites for reforestation above the NWC intake, given the hydrological modelling study was flawed and would have to be redone and sites determined.
3. Development of silviculture plans for areas to be reforested, identifying the species to be utilized, that should also not include invasive alien species or species that were water retentive.

Noteworthy too is that all three issues were to be addressed during the project preparation phase and now created a major implementation set back. The FD's response was that with the criteria for replanting and once sites were recommended by the hydromet assessment, it would be only be able to reforest 150 ha.

The reforestation activity has faced other issues that included limited engagement of labour due to perceived low rates for field activities, vis a vis what was being offered by other agricultural employers; distances to the various sites of work; presence of criminals in the area; the inhibitive terrain to be traversed and the presence of agricultural squatters on the lands earmarked for reforestation. The FD had to seek and transport contractors from other communities, distances away, which proved to be costly and time consuming. There was an issue with the availability of the project vehicle for maintenance activities on scheduled days, and this has been a cause of great inconvenience to the FD and contractors. Additionally, payment to contractors is often delayed and the process not well articulated early in activity implementation. According to the FD the procedure for cheque preparation are not always adhered to.

On September 29, 2015, a decision was taken to adjust the ratios for replanting and agroforestry. Of the 400ha target, 150ha would be for reforestation and 250ha for agroforestry among others[8] and working in particular with large private landowners. Subsequent to this, the FD worked with the National Land Agency (NLA) and communities to conduct a land assessment and identify potential parcels of lands that could be used, largely in agroforestry. Three communities[9] were identified for further analysis and ultimately engagement with the private landowners. There is an expectation that RADA will lead on this activity but concerns have been raised by the entity regarding its capacity and responsibilities (pers. Comm 2018).

3.2.1 Efficiency of Implementation of Project Components

The project was designed with the signing of PAs as a Component 1 activity, although it was a precursor to all other project activities and required leadership and active participation of the IPs. As an enabling factor it might have been better placed as a Condition to first disbursement in order to create the framework for partnerships among the IPs for more cohesive project execution. The assumption that it would have been achieved fairly quickly was not met and created a bottleneck from the outset. It was almost two years after signing of the FA that the first two PAs were signed making the way for Component 1 and 3 activities to commence. Further to this, there were extended periods of deliberations on the details of activities to be implemented, coupled with the lengthy procurement processes that magnified the delays.

Noteworthy too is that the PAs were developed as five individual agreements between NEPA and the IPs rather than one agreement with commitment by all parties. An advantage of having one agreement would be to signify a commitment to working together to achieve the results and objectives for the Project. A joint agreement would also indicate dependency among partner agencies to achieve one common objective.

The importance of the policy framework to effective watershed management cannot be over emphasized. Revision of the policy document responds to an outdated policy dating back to 1996. The activity was to revise the existing document that had already benefitted from the scrutiny of the Cabinet, to include biodiversity and other developments. Given the scope of the assignment, it was expected to be completed in a month. The activity commenced November 13, 2017 and was completed March 29, 2018. The approach to revision of the policy is unclear and feedback was received that the consultancy did not

[8] 400ha over the years will be from a combination of efforts and initiatives (agroforestry, re-forestation, riparian forests, coffee farmers etc.)
[9]The communities included Monkey Hill, Farm Hill and Abbey Green

produce an action plan that should accompany the policy document. The action plan was instead prepared by a working group.

At the programmatic level, there was a need to review and revamp the Watershed Area Management Mechanism (WAMM) and the project responded with a supporting activity. However, procurement for this consultancy proved to be problematic, and to date it has not started.

An unfortunate situation for the project was that the initial hydro-meteorological (hydromet) assessment conducted during the Project's preparation phase was considered flawed and had to be redone with the correct parameters. A number of key activities[10], depended on the results of this assessment and its delay also became a major impediment to implementation.

Issues associated with the repeated hydromet assessment included:

- Lack of available local technical skills in hydrological modelling which required outsourcing (with IDB's assistance)
- A new GOJ requirement for international consultants to pay General Consumption Tax (GCT) on contracts and for which the consultant was not aware

After a series of renegotiations the contract was finally signed on February 20, 2018. This activity now activates PAs with WRA and MSJ, whose personnel will work closely with the consultant to deliver the new hydromet assessment and receive capacity development in hydrological modelling. Based on the consultant's work plan of April 2018 the new recommendations for project upper watershed intervention areas are to be delivered on May 17, 2018. Timely delivery of these results is absolutely essential to minimize the potential for further delays

The IDB provided support for the capacity building in CSM. Five (5) officers from the FD participated in a series of online CSM precursory courses offered by the World Bank Institute. Several challenges delayed the hiring of a consultant/firm to develop the CSM protocols and conduct training that include:

- Protracted document development and review times.
- Slow responses from potential consultants.
- Inability for firms to meet the requirements.
- Need to change procurement method.

[10] Component 1 monitoring sites; Component 2 site selection for PES development; and Component 3 site selection for reforestation and agroforestry

On April 18, 2018, a request for NO for TOR, Specific Procurement Notice (SPN), evaluation rubric and evaluation report for placement of advertisement in the GOJ Procurement Notices. This request was in keeping with a recent recommendation by the IDB for packaging of NO requests. A revised Procurement Plan was submitted to the Bank with the change in procurement method from direct contracting to Selection Based on Consultants Qualifications.

At the time of this MTE, three other Component 1 consultancies have also been significantly delayed and are in early stages of procurement (or repeat) include: GIS DSS[11]; Ecological Assessment and Biomonitoring Training[12]; and Socio-economic assessment[13].

The Communications Consultant started working in July 2016, after a one year hiring process that included:

- Protracted TOR development process with multiple rounds of reviews.
- Revision of advertisement of the position in the IDB's template.
- Extended time for final contracting.

A communications plan has been developed and implemented with a diverse target audience using three communications components, namely, advocacy, social mobilization and behaviour change communication. The project is visible and creating awareness on watershed issues. The Communications Consultant collects activity level data designed to assess the impact of the communication efforts, however, an analysis of change among the targeted audiences was not available.

Delays affecting start of the PES consultancy included:

1. Hydro-meteorology assessment not completed
2. Budgetary constraints for the activity given the lag time between design and implementation where market prices had changed significantly
3. Inability to procure a consultant in a timely manner
4. Double taxation issues (Jamaica and Costa Rica)

Component 2

Establishment and utilization of a PES scheme was novel to Jamaica and required much learning along the way. IDB's assistance on the activity included:

- Support from a PES expert for initial PES

[11] RFP issued March 14, 2018, entity indicated interest to submit and also requested clarification on March 28, 2018 and a response was communicated on April 24, 2018. The RFP deadline has been extended to May 11, 2018.

[12] RFP issued March 13, 2018. The entity requested clarification on March 23, 2018 and a response was communicated on April 23, 2018. The RFP deadline has been extended to May 15, 2018.

[13] NO requested on April 27, 2018 for TOR, SPN, evaluation rubric and evaluation report for placement of advertisement in the GOJ Procurement Notices.

sensitization in June 2015 followed by a site visit and workshop with recommendations[14].

- Development of TORs for seven (7) supporting consultancies, which were later merged into one PES consultancy.

Three entities[15] expressed interest in the consultancy, and a multi-sector evaluation committee reviewed their technical and financial proposals. During negotiations the preferred bidder noted that it was not in possession of the relevant GOJ compliance documentation to work within the borders of Jamaica. A process was initiated that included: application for a Tax Registration Number and a Tax Compliance Letter; registration for tax exemption, which was granted but for which the GOJ had to identify fund to cover these taxes.

It was later realized that the available funds were grossly inadequate to complete the consultancy and the IDB identified an additional US$300,000 from the IDB's Special Program for Biodiversity and Ecosystem Services to support development of the PES for which necessary documentation and deliberations with the GOJ were facilitated. In order to receive the funds, the GOJ needed to provide an official letter of request and this process also took significant time as the PEU had to submit a proposal to the Public Investment Management Secretariat (PIMSEC), followed by a presentation and request to the MoFPS. The official request from the MoFPS was received on September 1, 2016. The IDB supported the project with preparation of the required documentation and the Technical Cooperation Agreement was signed between the IDB and MoFPS on October 13, 2017. The contract with CATIE was initiated in February 2018. This activity had a planned duration of 30 months but due to the many delays and time left on the project has been contracted to 18 months with a completion timeline of August 2019. With twenty-two (22) deliverables expected, component coordination, including timely reviews is critical. The Consultant's approach to efficient implementation involves completion of deliverables concurrently, rather than sequentially.

Component 3

Component 3, implemented in partnership with RADA, FD and NEPA, demonstrates the most advanced implementation progress of the three project components. However, there were significant delays, with partnership agreements signed in late 2016. The challenges included unresolved issues with reforestation sites and targets, methodologies, and species

[14] Recommendations of August 2015 PES consultant included commissioning of a Hydrology study to accurately determine intervention sites for the PES System and further exploration of land tenancy issues within both WMUs

[15] International Center for Tropical Agriculture (CIAT); The Tropical Agriculture Research and Higher Education Center (CATIE); Técnica y Proyectos, SA (TYPSA).

to be utilized. There is also no arrangement that details the activities and responsibilities of NEPA divisions. To augment the biodiversity in the Windsor Castle area, in addition to trees, non-timber plants (shrubs and herbs) are to be reintroduced as important components of a functional ecosystem that various faunal species depend on. NEPA was tasked with collecting and propagating the non-timber species for subsequent reintroduction, however the implementation strategy has not been well-articulated at the project level.

The link between the KAPB studies and Component 3 extension and awareness activities was defined at project design in the POD (2013), FA (2014) and further expanded in the M&E Plan (undated). The initial KAPB was to be used by RADA, FD and NEPA to fine tune the extension program, and public education activities; the second conducted halfway through the implementation of the program to determine its effectiveness and possible adjustments required, and the last, near the end of the program to contribute to the evaluation process. The process to engage a consultant for the first KAPB started in early 2016, and although there were no major issues, the contract was not signed until November 6, 2017. The study has been delayed by two years as it will be completed in 2018. The baseline data from KAPB 1 was not available to inform development of the FFS curriculum neither did it set the baseline for monitoring the extension programme. The utility of the KAPB at this time is questionable as the baseline is being established post interventions. On a positive note, however, RADA had already developed a Land Husbandry Best Practices Farmer Field Curriculum, and so the delays did not affect the implementation of the FFS activities associated with Output 3.2.

Activities reported as being completed in the project manager's report included land husbandry trainings for 2016 and 2017 (using the farmer field school approach), stakeholder engagements, and forest fire management trainings. The FFS training schedules and curriculum topics were noted in the document review. Forest Fire Management training sessions were successfully held between August and September 2017. The FD also reported conducting additional Forest Fire Training between January and March 2017 in collaboration with the Jamaica Fire Brigade through which it was able to leverage some of its partner resources to support the trainings.

To date, based on the PM's recent reports, major outputs include: 2,055 stakeholders engaged, 280 farmers trained in land husbandry, 6 communities trained in fire management, and 114 hectares reforested[16] (based on PM's March 2018 report), in addition to some forest maintenance work. Agroforestry activities were initiated with 93 farmers in both WMUs. KAPBs were to be used by IPs in design of extension program and public

[16] A combination of reforestation and agroforestry.

awareness activities, adaptive management, and M&E. While component activities have progressed significantly, KAPB 1 that was to have established the baseline and inform the design of the community and farmer training programmes, was not done prior to the trainings and is still incomplete.

The reforestation program encountered problems as the project partners negotiated with the IDB on the technical approach for the planting programme (revisions to the silviculture plan and approval of species selection and planting approach). In keeping with biodiversity objectives, Windsor Castle, although below the NWC intake, was selected for reforestation that provided an early intervention. The hydromet assessment that was needed to inform the most appropriate selection of the land management sites and the post-intervention monitoring was also not done to align with the land management interventions completed to date. However, the intervention sites (with the exception of Windsor Castle) were all selected above the NWC intake to accrue positive benefits.

Table 6: Status of Component 3 implementation as at April 2018

Milestone	Projected Start Date	Actual Start Date	Projected End Date	Actual End Date	Delay	Status
Six (6) Partnership Agreements	1-Jan-2017	1-Jan-2017	30-Jun-2017		10 months	IN PROGRESS[17]
Watershed Policy Review	19-Jun-2017	13-Nov-2017	31-Jul-2017	29-Mar-2018	7 months	COMPLETE[18]
WAMM Programme Review	3-Jul-2017		3-Sep-2017		7 months	NOT STARTED[19]
Hydro-meteorological Study	19-Jun-2017	20-Feb-2018	31-May-2018			IN PROGRESS
Socio-economic Assessment	18-Sep-2017		31-Dec-2017		4 month	NOT STARTED
Ecological Assessment & Biological Monitoring	21-Aug-2017		21-Jul-2018			NOT STARTED
Carbon Stock Monitoring	1-Jul-2017		30-Jun-2019			NOT STARTED
GIS Decision Support System and information management training	1-Sep-2017		30-Jun-2019			NOT STARTED

[17] **In Progress** is defined as the contract or partnership agreement has been signed or purchase order issued and the implementation of the activity has begun.
[18] **Complete** is defined as final deliverables are submitted and approved or activity completed
[19] **Not Started** is defined as a contract or partnership agreement has not yet been signed or a purchase order issued.

Milestone	Projected Start Date	Actual Start Date	Projected End Date	Actual End Date	Delay	Status
Communication plan and awareness Campaign Implemented **(2016)**	1-Jan-2016	1-Jul-2016	31-Dec-2016	31-Dec-2016		COMPLETED
Communication plan and awareness Campaign implemented **(2017)**	1-Jan-2017	1-Jan-2017	31-Dec-2017	31-Dec-2017		COMPLETED
Communication plan and awareness Campaign implemented **(2018)**	1-Jan-2018	1-Jan-2018	31-Dec-2018			IN PROGRESS
Communication plan and awareness Campaign implemented **(2019)**	1-Jan-2019		30-Jun-2019			NOT STARTED
PES Scheme	1-Sep-2017	28-Feb-2018	30-Jun-2019			IN PROGRESS
KAPB Study (1)	1-Jul-2017	14-Nov-2017	31-Dec-2017		4 month	IN PROGRESS
KAPB Study (2)	11-Jan-2019		04-Jun-2019			NOT STARTED
Land Husbandry Training for 100 farmers **(2016)**	1-Jul-2016	1-Jul-2016	31-Dec-2016	31-Dec-2016		COMPLETED
Land Husbandry Training for 100 farmers **(2017)**	1-Jun-2017	1-Jun-2017	31-Dec-2017	31-Dec-2017		COMPLETED
Land Husbandry Training for 120 farmers **(2018)**	1-Jun-2018		31-Dec-2018			NOT STARTED
Community Group Formation & Strengthening	29-Jun-2017		15-Jul-2018			NOT STARTED
Stakeholders informed of good agricultural practices* (1,000 persons engaged) **2017**	1-Jan-2017	1-Jan-2017	31-Dec-2017	31-Dec-2017		COMPLETED
Stakeholders informed of good agricultural practices* (1,000 persons engaged) **2018**	1-Jan-2018	1-Jan-2018	31-Dec-2018			IN PROGRESS
Stakeholders informed of good agricultural practices* (1,000 persons engaged) **2019**	1-Jan-2019		30-Jun-2019			NOT STARTED
Forest Fire Management Training	1-Jul-2017	1-Jul-2017	1-Sep-2017	19-Sep-2017		COMPLETED
Local communities trained and non-agricultural livelihoods	1-Jan-2019		30-Jun-2019			NOT STARTED

Milestone	Projected Start Date	Actual Start Date	Projected End Date	Actual End Date	Delay	Status
Agricultural practices improved (2017)	1-Jan-2017	1-Jan-2017	31-Dec-2017	31-Dec-2017		COMPLETED
Agricultural practices improved (2018)	1-Jan-2018	1-Jan-2018	31-Dec-2018			IN PROGRESS
Agricultural practices improved (2019)	1-Jan-2019		30-Jun-2019			NOT STARTED
Reforestation and Agroforestry of 520 ha*	1-Sep-2016	1-Sep-2016	30-Jun-2019			IN PROGRESS
Mid-Term Project Evaluation	1-Jul-2017	16-Mar-2018	31-Aug-2017		8 months	IN PROGRESS
Final Project Evaluation	1-May-2019		30-Jun-2019			NOT STARTED
Project Audit 2015/2016	02-May-2016	16-May-2016	29-Jul-2016	29-July-2016		COMPLETED
Project Audit 2016/2017	15-May-2017	15-May-2017	31-Jul-2017	28-Jul-2017		COMPLETED
Project Audit 2017/2018	1-May-2018		31-Jul-2018			NOT STARTED
Project Audit 2018/2019	1-May-2019		31-Jul-2019			NOT STARTED
Project Audit Final	1-Oct-2019		2-Jan-2020			NOT STARTED

Adequacy of the Project's Institutional Structure

The Project's institutional structure, in theory, demonstrates partnership arrangements for programme implementation through three components, and a project executing unit for coordination, management and administration and monitoring and evaluation. Specifically, the POM (2016) outlines "*The implementation of the project involves the participation of a number of GOJ agencies which will be delegated with specific responsibilities based on their overall mandate, functions, experience and presence in the Yallahs and Hope River WMUs*". The PSC, a multi-agency oversight body is expected to facilitate effective inter-institutional coordination and collaboration and engender partnership building for the project. Given the gap in coordination and collaboration amongst watershed management entities, this project would provide a medium for strengthening the relationships and enhancing coordination among the entities, with an expectation to be sustained until the Watershed Policy is approved. The various levels of governance are analysed in Table 7.

Table 7. Analysis of levels of governance for the Yallahs-Hope WMU Project

Level of Governance	Responsible entity(ies)	Adequacy
Strategic leadership	PSC	Existing composition largely technical; guidance and decision making but limited. Highest level in agencies not sufficiently involved
Supervision	IDB	Offers support technically, financially, administratively; have been some delays but generally work with PEA and PEU to alleviate issues; processes and procedures

Level of Governance	Responsible entity(ies)	Adequacy
		challenging to PEU
Technical leadership	PSC, collaborative among IPs (WRA/MSJ; ALAF WG); utilization of watershed entities with mandates to implement	Offered at PSC, donor/agency meetings; multi-agency activity implementation; as involved based on what is presented to them.
Coordination	PEU	Weak, not been able to build the traction needed with the IPs, efforts very individualized and momentum not consistent
Administration	PPERD, PEU, IPs	Challenging for PEU for a long time, with no PO until end of 2017. Capacity now improved and evident. IP administration vary, and needs the monitoring of MOUs by PEU and IP focal point and CEO
Operations	Component 1 NEPA, WRA, MSJ	No PA with NEPA as IP; data sharing activated
	Component 2 WRA, MSJ, NWC	NWC engagement low, involve OUR, no official sign off for PES as a sustainable finance mechanism
	Component 3 RADA, FD, NEPA	Very active, ALAF Working Group established; other IP partnerships utilized (e.g. FD-JFB; FD-NLA; NEPA-SRC/Hope Gardens)
Monitoring, Evaluation and Reporting	PEU, IPs, external consultants	Key activity KAPB survey not implemented as planned to allow for use in M&E, first one delayed but underway; Reporting structure for IPs in PAs; ME&R as planned for project; varies among IPs; potential duplication of M&E activities between PEU and KAPB
Support	GEF Focal Point, MoFPS, PIOJ	Present, PIOJ assists at technical and other levels; MoFPS participates at PSC, monitors and provides fiscal space for project

Project Steering Committee

According to the TOR for the PSC, the body is expected to meet four times per year "*on the third Thursday of the second month of each Quarter (3rd Thursday in February, May, August and November) unless otherwise agreed*". Instead, on average, the PSC has met twice per year and three times in 2017 (Table 8). Table 8 also lists the membership, according to its TOR. In 2015, NEPA's CEO chaired the meetings, which were subsequently chaired by the NEPA PPERD Director. In large part, the named agency representatives in the Project's Initial Report did not attend meetings and a TWG was not established as was stipulated in the POM to "*review and approve all Technical Reports/Outputs/Deliverables*". There is no evidence related to the PSC's responsibility (h) to "Facilitate the preparation of a quarterly project brief on project progress to be submitted to Cabinet, portfolio ministers and local

government entities". At the November 2015 meeting, the Chairman instructed that going forward all political stakeholders were to be engaged; formal letters to be sent to these representatives providing updates as to the progress made within the project and next steps. There is also no evidence of this continuous communication, although IPs make efforts to include political representatives at the local level (PSC, August 2016).

Meetings have provided adequate opportunities for technical engagements and deliberations but opportunities for strategic leadership and guidance for the project have been limited, especially where high-level decisions needed to be taken to steer the project. The PM indicated that meetings were held at the times noted due to competing activities and events. Although participation has been good, critical issues may not have been placed on the agenda, to offer members the opportunity to provide guidance. For example, the status of the project with the IDB was not discussed at the PSC level and the Semi Annual Reports (SARs) were not distributed to PSC members, which might have otherwise made them aware of the situation.

Table 8. Project Steering Committee Meetings held to date (from PSC Minutes 2015-2017)

PSC MEMBER	PSC MEETING DATES							
	Aug-15	Nov-15	Aug-16	Nov-16	May-17	Sep-17	Nov-17	Mar-18
NEPA	*	*	*	*	*	*	*	No information available - minutes under preparation
FD	*	*	*	*	*	*	*	
RADA	*		*		*	*	*	
NWC	*		*				*	
WRA	*	*	*	*	*	*	*	
PIOJ	*	*	*	*		*		
MOFPS		*	*	*		*	*	
MWLECC/MEGJC			*		*	*	*	
MSJ		*	*	*		*	*	
JCDT					*			
STEPA		*	*			*		
OUR	No participation in PSC meetings but initial deliberations held with MoFPS and OUR invited to some early meetings							
IDB (OBSERVER)		*	*		*			

Project Executing Unit

The PEU is responsible for overall management, administration and execution of the Project, focusing on coordination, planning, reporting and monitoring. Project implementation required that the PEU would be established and fully functional within the

first year, as the project initiation got underway. Although the PEU was established in the first quarter of 2015, it was not until December 2017 that the Unit was near full capacity[20]. The Communications Consultant, who was hired to implement Output 1.5 of Component 1, is also housed in the PEU.

Table 9. PEU staffing engagements

Personnel	Date hired	Staffing status	Funded by
Project Coordinator (Project Manager)	February 15, 2015 (revised March 24, 2017)	Consultant	GEF
Finance/Accounting Officer (Finance and Administration Officer)	April 13, 2015 (revised March 24, 2017)	Consultant	GEF
Procurement Officer	April 13, 2015	Project Staff	GOJ
Technical Coordinator	September 4, 2017	Project Staff	GOJ
Project Officer	December 4, 2017	Project Staff	GOJ
Driver	September 30, 2016 (replaced October 9, 2017)	Project Staff	GOJ
Communications Consultant	July 6, 2016 (revised March 24, 2017)	Consultant	GEF

The inability to fully staff the PEU early in the project resulted in several challenges and constraints:

- An initial 3-member PEU that was later increased to five, undertaking tasks for the full complement of 7.
- Inability to fully execute PM responsibilities and functions, e.g., continuous update of POM, monitoring of PAs with IPs, fully executing the project's M&E plan and the level of engagement and communication needed with project partners. The PM had to focus attention on administration and logistics (up to December 2017), and was overburdened with both technical and management responsibilities.
- Inability to fully service the coordination type activities. E.g., Output 3.3, Component 3, requires joint implementation between FD and RADA, but mechanisms to facilitate this have not been sufficiently executed by the PEU.

[20] Full capacity of the PEU included the Project Coordinator, Finance and Accounting Officer, Procurement Officer, 3 Technical Coordinators (one for each technical component), Project Officer and a Driver.

- Identifying partners for participation in project activities, regardless of whether the activities were directly related to the IPs project activities. An example of this is the Million Tree Initiative, a communication tool with key activities that relate the Forestry Department. The FD was not involved in the planning and execution of the initiative, and could have provided guidance in its development. Additionally, the new agroforestry initiative with private landowners, involves RADA but also FD, NLA and JCDT. While key partners provided input to the development of the incentive package, there is no evidence of a strategy for collaboration among these entities for implementation.
- Less than adequate levels of verbal and written communication, both internally and externally. E.g., The February 1, 2017 meeting with Forestry Department was not followed with written communiqué. There has also been little or no follow-up with IPs who have not been meeting PA reporting obligations. Thirdly, was the seeming miscommunication between PEU and JCDT regarding development of a PA, for which discussions eventually broke down.

Despite these challenges the PEU possesses the following strengths:

- Strong reporting capabilities: The PEU consistently met both technical and financial reporting obligations to NEPA, MoFPS, and IDB. Additionally, the quality of reporting improved over time.
- Compliance with applicable procedures and guidelines: The financial operations of the PEU complied with pertinent financial regulations and procedures. Requirements for no-objections have been generally followed.
- Developing interpersonal relationships with partners and other stakeholders: Despite being short-staffed for a long time, the PM maintained contact with key partners and other stakeholders.
- Project visibility created and maintained: From its launch, the project has received attention from the highest levels of government, media, private sector, schools, and especially the communities within the project areas.

Given the current status of the project, successful implementation will require a strong, highly skilled and well-experienced PEU to drive implementation. Table 10 provides a rapid assessment of PEU capacity based on the requirements as outlined in the POM (2016). The assessment identifies the current Project team responses to effectively and efficiently implement the Project. Gaps and weaknesses in skills and capabilities are highlighted and include areas of coordination across the project cycle; facilitation of inter-institutional mechanisms to promote collaboration and foster trust building among watershed institutions and sharing of resources; communication, documentation; efficiency with procurement processes; participatory planning and M&E.

Table 10. Analysis of PEU capacity for project implementation

Required PEU Skills (*as stated in* POM 2016)	Current PEU Status	Gaps
General coordination, planning and monitoring	a. Coordination evident through PSC and for consultancies. Communication Consultant facilitates coordination of project and non-project communication activities.	a. Coordination: Inadequate opportunities created for joint implementation and lack of a through stakeholder analysis to ensure participation of relevant stakeholders in activities
	b. Planning: IPs submit plans, PEU develops AOPs and shares through presentations in PSC meetings. PEU prepares procurement, finance Plans and staff work plans	b. Planning: Absence of: i) joint annual face-to-face project review and planning for development of AOPs and supporting documents; (ii) regular PEU planning meetings. Inadequate working relationship between PEU and NEPA units.
	c. Monitoring: IP submission of quarterly reports vary. PEU has responsibility for monitoring and evaluation. PEU tracks implementation and prepare monthly, semi-annually and PSC meeting presentations	c. Monitoring: Inadequate monitoring and communication regarding partnership agreements; Inadequate monitoring of PEU Staff performance
Defining and establishing the inter-institutional coordination mechanisms with other public and private organizations related and/or beneficiaries of the project.	Stakeholders have been identified and are participating to various degrees. The mechanisms used include the PSC, the ALAF Working Group Another example is the train-the-trainers FFS for government, NGOs that involved multiple stakeholders	The institutional structure is not adequately operationalized, with inter and intra-institutional communication gaps. PSC not established as designed, with high-level strategic decision-making absent. Opportunities to provide guidance and oversight and for

Required PEU Skills (*as stated in* POM 2016)	Current PEU Status	Gaps
		participation in planning and monitoring are limited by information shared. The ALAF working group has been discontinued, though considered an effective mechanism.
Support the implementation of public awareness campaigns and contribute to ensuring stakeholder participation.	The Communications Consultant hired in July 2016 developed a detailed communications plan that is revised periodically. Implementation of the plan focuses on using a range of tools and media for building public awareness and stakeholder participation. Efforts have been made to involve stakeholders in activities. Meetings are held with IPs, the PSC to provide updates on implementation status, plan for upcoming activities, and to provide an avenue for decision-making.	PES sensitization and awareness has been delayed, but the PEU reported to commence now that the PES consultancy is underway. Absence of ongoing sensitization of key stakeholders on project objective and logic as well as coordinated strategic planning.
In close coordination with technical and administrative staff of NEPA, undertaking the strategic and operations planning activities, including the development of the Annual Operations Plan (AOP), the Procurement Plan (PP), the Financial Plan (FP), and other pertinent documentation, in compliance with	All plans developed in a timely manner. Relationship between CC and NEPA Pub. Ed. Branch and between FAO and NEPA FA fair. The PM shares her NEPA monthly reports with PIOJ's External Cooperation Management Division; MoFPS Project Officer within Debt Management Division. The Project's Finance and Administrative Officer also prepares a monthly financial report for the MoFPS that is submitted to the Project Officer.	Involvement of NEPA technical and administrative staff in planning and operations vary. EMCD not directly involved in project planning but project activities are included in their processes and plans. Procurement Office gets PP when completed and not always up to date.

Required PEU Skills (*as stated in* POM 2016)	Current PEU Status	Gaps
the requirements of MWLECC, the Ministry of Finance and Planning (MOFP) and the Inter-American Development Bank (IDB).	NEPA also sends financial reports to the MEGJC on a monthly basis through the Finance and Accounts Branch.	
Monitoring the activities of the Project in compliance with its strategic objectives and those of its individual components, as well as the targets established in the AOP.	Tracking done for production of PSC updates and monthly and semi-annual reports. Monitored against project targets. Quarterly and annual reporting templates provided to the IPs to monitor implementation.	Inadequate project performance monitoring against the results framework. Discrepancy in use of PM4R and IDB's PMR (PEU not using the updated RF). Absence of an M&E implementation plan for the project's M&E Plan. Inadequate monitoring and reporting of co-financing and leveraging. IP reporting inconsistent especially for co-financing. Inadequate follow-up from PEU. The M&E role of the PEU has not been adequately developed, with no evidence of an implementation plan associated with the project's M&E Plan. Baselines associated with various indicators were not established at the start as specified and this affects M&E implementation The KAPB and CSM results are important to project M&E and the absence of their baselines and mid-term data compromises the M&E utility and adaptive management functions.
Preparing the periodic physical and financial progress reports to be	Timely submission of SAR to IDB; monthly reports to NEPA (project, PM, FO, PO, CC); Project reports are submitted to the MEGJC on	Low levels of communication on the reports done by IPs (other than submission via email) and on

Required PEU Skills (*as stated in* POM 2016)	Current PEU Status	Gaps
submitted to the MWLECC, MOFP, the Project Steering Committee (PSC), and the Bank.	a quarterly basis through NEPA's regular reporting system and financial reports are submitted monthly to the MoFPS. PEU uses reports from IPs to develop larger reports.	delinquency with reporting, which renders project reporting incomplete (e.g. co-financing). PSC reporting via PowerPoint presentation, physical documents not tabled (e.g. SARs; AOPs). No reporting done to Cabinet as specified in TOR for the PSC.
Present to the Bank the required information, reports and documentation of the Project as a whole and its individual components, as established in the Technical Cooperation Contract.	The submission of NO requests,	Farm plans for the demonstration plots that should have been submitted to IDB for NO prior to implementation of the FFS, were not developed. No evidence of annual reviews submitted

The project was designed to improve inter-agency coordination for watershed management, but efforts to facilitate interaction and joint implementation have not produced the cohesion and results expected. There is no evidence of project procedures to guide interaction with project stakeholders. For example, steps to escalate issues have not been clearly defined and this has resulted in extended delays and unfavourable outcomes. In other instances, there seemed to be miscommunication between PEU and stakeholders, affecting project delivery. Inadequate follow up and documentation also exacerbates the issue. Inadequate procurement capacity and failure to maintain strong communication with the NEPA Procurement Officer and other relevant stakeholders external to NEPA has also resulted in delays, some of which could have been avoided. PEU capacity to monitor co-financing and prepare reports is limited. Furthermore, there is inadequate follow-up from the PEU with the IPs and some IPs have indicated that they do not have the capacity to prepare co-financing reports. The result of this is inconsistencies with submission of co-financing reports.

There were at least two instances when PEU staff undertook tasks in support of activities that at project design the M&E Plan assigned to specific consultancies (e.g., the KAPB). The Communication Consultant expended effort to design the KAPB questionnaire instrument in February to March 2017 and in November 2017 the Technical Coordinator developed a routine M&E plan for Land Husbandry Training through Farmer Field Schools activity, which seems to produce similar results, rather than complementing those of a KAPB study. The routine M&E Plan does not clearly show linkages with the externally-administered KAPB study. There was also a missed opportunity to involve RADA in the M&E activities.

Only one of the three Technical Coordinator positions have been filled, which impacts the coordination and monitoring of component implementation, especially since all components have activities that are underway. For example, after significant delays, the PES design consultancy commenced in February 2018 and planned implementation time has contracted from 32 to 18 months. Adding to this, the consultancy consists of 22 deliverables and so for successful implementation, it is assumed that processes are tight and well-coordinated. Furthermore, given the delays in implementation, the problem status the project has with the IDB and the time left for completion, one TC with multiple responsibilities is inadequate to track, coordinate and respond to consultancy requirements.

While effective project management is dependent on the people involved, it is also dependent on them being equipped to carry out tasks. The project has one vehicle that services the PEU, IPs and consultants and this is inadequate for a project that has significant amount of field activities. Although there are provisions in the PAs for use of partner vehicles as co-financing or

reimbursement for costs incurred, there are IPs that require use of the project vehicle. The FD has identified challenges with the agreed schedule for use of the vehicle, with last minute postponements of planned maintenance activities due to its unavailability. Consultations with MSJ indicated that they will require use of the project vehicle during installation of weather stations, and they have raised concerns that a similar issue might occur. Inadequacy of project resources places additional risks to the project.

It was not until March 2018 that the PEU got its own office space and facilities. Prior to this, they were located in different areas within the Agency. This would have reduced opportunities for them to plan and manage the project as a team. The PEU reported periodic team meetings, however in the absence of supporting evidence from the PEU, the MTE is unable to conclude that these meetings were used for joint planning, brainstorming, discussions on challenges, corrective and preventative actions that need to be taken and team building. There is also no evidence of the PEU creating a medium for stakeholder participation and interaction in planning and reflection as part of an adaptive management process, other than the PSC meetings. This would provide an opportunity to bring partners up to date with the project, engage them in planning and create a common understanding of the overall project plan for the next year.

According to the POM, the PEU relates directly to relevant internal departments, divisions and units of NEPA and are expected to work closely with them to ensure efficient project delivery. This relationship varies across Units and has not been adequately developed in some cases. The Project's Procurement Officer is to be under direct supervision from NEPA's Procurement Office, but this relationship is still weak. An impact is errors in procurement being recognized only after processes have been advanced. In an effort to improve the relationship and communication, the Project Manager more recently sends listings of future procurements and updated procurement plans to NEPA's Procurement Office.

There have been good working relations in other areas. For example, the Communications Consultant and NEPA's Public Education Division work closely together, with frequent information exchanges and collaboration on communication and public education initiatives. Similarly, the PEU works closely with the Environmental Management and Conservation Division, which contribute to implementation of parts of Components 1 and 3.

The procurement portfolio, inclusive of the preparation phase and GOJ and IDB processes, has been onerous on the PEU and has required much attention from the staff, and at times, would

have taken them away from their substantive duties. Additionally, the staff grappled with meeting the requirements of both GOJ and IDB procedures.

The Project Manager and Technical Coordinator have responsibility for project monitoring and evaluation. Periodic reporting instruments have also been used by the PEU to facilitate M&E of project results and impacts, as well as adaptive management. These have included day-to-day monitoring of the annual workplan, monthly staff reports, and the semi-annual reports to the IDB and annual project reports. The PM and Communications Consultant deliver project update presentations to the PSC at their regular meetings. Since the Technical Coordinator was hired in late 2017, a technical M&E plan for Component 3 was devised but not yet implemented. This mid-term evaluation is being facilitated through the PEU as part of the project's M&E portfolio.

Project Partnerships

Design of the project featured a multi-agency approach to watershed management, which has been addressed largely in an uncoordinated way. Though there is no evidence of a full stakeholder analysis in design or early implementation stages, stakeholders have been identified for participation, with key agencies with watershed management mandates included as key implementing partners. It is noted that while the IDB conducted an institutional capacity assessment of NEPA as Executing Agency; there is no evidence of capacity assessments of IPs, which would also be useful for smooth implementation. Gaps in IP capacity would also have to be negotiated during PA development.

The project sought to utilize partnership agreements with the primary IPs, with a target of six (6) MOUs signed for the project. As per the project's RM in the POD the project would utilize one (1) MOU signed by the key IPs as a critical partnership tool for cooperation, coordination and collaboration. An institutional specialist was hired in to lead on development of MOUs with IPs. Delays were caused by lack of agreement due to unresolved programmatic issues on reforestation targets, methodologies, and species to be utilized for reforestation and lengthy review time associated with iterative review processes of the draft MOU. Due to the delays, a no-cost extension had to be granted to the legal specialist (NO granted on October 13, 2015) for completion of the work on the PAs. The project assumed that Pas would have been negotiated prior to implementation and would have been signed off very early in the project, in Year 1. However, it was not until the end of 2016 that the first two were signed (Table 11). Of note also is that the two signed with WRA and NWC at the end of March 2017 were conditions for disbursement for Component 2. MSJ's PA was delayed as it had difficulty in generating the required financial reports as the entity does not retain its own accounting staff. This MTE found that this capacity issue is more prevalent across the IPs. A decision was made to forego the PA

with the JCDT due to reasons expressed as inadequate capacity and inability to utilize a reimbursement system as was expressed in the NO received on January 23, 2018. There seemed to have been miscommunication between the PEU and JCDT as reports have been conflicting. The PEU has since decided to pursue a partnership with the Social Development Commission (SDC) and the Institute of Jamaica.

NEPA has signed PAs in its capacity as Executing Agency but there is no agreement with the Agency in its capacity as an Implementing Agency and having technical responsibility for most of Component 1 and part of Component 3 reforestation activity. No PA has been developed with a local government entity as specified in the POD.

Table 11. Partnership agreements signed for the Yallahs-Hope WMU Project

Implementing Partner	Date MOU signed
Forestry Department	November 2, 2016
Rural Agriculture Development Authority	November 2, 2016
National Water Commission	March 30, 2017
Water Resources Authority	March 31, 2017
Meteorological Services Jamaica	August 16, 2017

The individualized nature of MOUs (NEPA/IP) did not help to create the level of cohesion expected or required, and the focus remained on individual implementation of activities, or implementation with only specific entities, as in the case of MSJ/WRA/NWC. In large part the project did not therefore benefit from the enhanced sharing and coordination expected. Project reports identify this as a major challenge and recognize the need for greater synergies amongst the IPs, but those have not been actualized.

The quality of IP PAs vary, being very detailed on contribution to Project targets in those related to five (5) outputs[21]. All other outputs rest largely with the NEPA for which there is no agreement for implementation. Implementation of PAs also vary, depending on the status of key activities for related Outputs. All IPs are represented on the PSC, which is a stipulation of the PAs. While IPs are aware of the POM, it is not a document used in delivery of their activities. IP implementation follows annual work plans and procurement plans that they submit to the PEU, but PAs are not regularly monitored by the IP or the PEU. This was evident from instances

[21] Outputs 1.1, 1.2, 2.1, 2.2, 3.2, 3.3. Linkages with Output 1.3 are noted.

where requirements were not met. For example, RADA did not submit "Farm Development Plans" for IDB NO before starting work on demonstration plots and there was no follow up on this. This reemphasizes the need for procedures that reflect a common approach across the project Components and activities.

Technical reporting has also been an issue with stipulated reporting timelines not always adhered to. Monitoring of the PAs do not have the rigor required to ensure that both NEPA and the IPs meet the requirements of the PAs. PEU/IP communication on these was found to be inadequate. Furthermore, with various project adjustments, it was noted that changes to approved targets and/or activities did not result in adjustments to the MOUs.

Unplanned partnerships have emerged, largely in execution of Component 3. The ALAF working group was established on May 6, 2015 as a mechanism to ensure the necessary level of collaboration required to successful implement the activities. MTE interviews revealed that all participating stakeholders found this group to be useful and highly beneficial. Monthly meetings were valuable in keeping stakeholders informed about status of the activities and utilize their technical guidance for implementation. This WG was effective in building cohesion, sharing and planning among key stakeholder entities for implementation of Component 3 but its last meeting was held on September 7, 2016. Another unplanned project partnership was established between the FD and the Jamaican Fire Brigade for the fire prevention and management training. RADA also participated in the planning and execution of fire management trainings held to date.

ALAF WG members

- RADA (both parishes and corporate)
- Jamaica Organic Agriculture Movement
- Forest Conservation Fund/Environmental Foundation of Jamaica
- NEPA
- Jamaica Conservation and Development Trust
- Jamaica Fire Brigade
- Forestry Department

Management and supervision of the project by the IDB country office

Project implementation has been managed and supervised by the IDB through the Project's Team Leader, Operations Analyst and finance and procurement staff. The IDB's support was evident early in the project from Launch, when they provided a facilitator for the initial sensitization and planning retreat in April 2015.

The IDB has worked with the PEU to identify expertise for activities, especially where they do not exist locally. Guidance is

IDB-supported sensitization & training

Project Management

- Project awareness building
- Strategic planning
- Development effectiveness
- Annual audit

Technical

- Carbon stock monitoring

provided on an ongoing basis on procurement, especially where changes to procurement method may be warranted.

The IDB attended initial PSC meetings in an observer capacity, conducts annual technical review Missions and have conducted multiple virtual monthly meetings with the PEU. Where necessary, the IDB also holds special meetings with stakeholders (e.g. NEPA, FD and RADA to discuss site selection and replanting issues).

Responsiveness of the IDB was an issue in 2017 when the Project's Team Leader was transferred and the project was in a transition to the new Team Leader and Operations Analyst. At other times, the IDB has had to delay NOs, due to other requirements from the PEU, among others. NOs are mostly timely, provided in days (Annex A-4). In some instances, the NOs have been delayed with need for clarification or when the IDB awaits further documentation from the PEU.

The IDB has assisted with backstopping, such as in design of the reforestation component. Technical support included selection of sites; species for reforestation and feedback on the silviculture plan. The IDB also facilitated the PES consultancy and was supportive in securing the additional US$300,000 for the PES when there was an identified shortfall. Support has also been given in preparation of TORs and provision of technical assistance (Carbon Stock Monitoring).

While the IDB's procurement rules are different from that of the GOJ, the team has been flexible and is usually focused on compliance with IDB procedures. The IDB Team Leader and Operations Analyst are accessible and communication is usually timely.

3.2.2 Financial Planning

From all indications (audit reports, IDB *ex-post* reviews), the financial controls for the project are in place and records are generally maintained in a satisfactory manner. The system of internal controls provide management with reasonable assurance that the assets are safeguarded against loss from unauthorised use for disposition; transactions are executed in accordance with management's authorization and in accordance with the terms of the contract and transactions are recorded properly to permit the preparation of the statement of cash flow. The financial controls allow the project's management to make informed decisions regarding the budget and allow for proper and timely flow of funds for the payment of satisfactory project deliverables throughout the project's lifetime and these were consistent with the IDB guidelines. The annual audits revealed that the accounting records were maintained and the

financial statements were consistent with the General Conditions of the IDB Financing Agreement and guide for financial reports. In addition, project funds received from the IDB are deposited to a special account established for the project to facilitate project-only expenditures.

In addition, the PEU is situated at NEPA within the Project Branch to which monthly performance reports are submitted. Additional oversight is provided by a multi-agency PSC and two semestral reports are submitted to the IDB. With strict adherence to the accounting standards of both NEPA and the IDB, there is evidence that the fiduciary and cash flow management is in accordance with the international financial controls, including reporting, and planning.

There are three tiers of approval for financial plans in NEPA. The demand for cash or upcoming budget is established by the project accountant, then vetted by the PM, after which it is submitted to the Director of the PPERD, followed by the CEO. The AOP, inclusive of the Financial Plan, is then submitted to the IDB by November 30 of each year. During the first quarter of the following year, the AOP **(**implementation plan, procurement plan, financial plan) is further scrutinized for synergies and consistency with the overall project objective. Planned expenditures in the AOP receive a no-objection only if they are found to be consistent with the project objective. Receipt of a no-objection signifies adherence to financial controls. Project procurement must adhere to the procurement guidelines of the GOJ and the IDB. There have been instances of errors in procurement[22], but generally, the project follows both GOJ and IDB guidelines.

3.2.3 Efficiency of spend and schedule performance

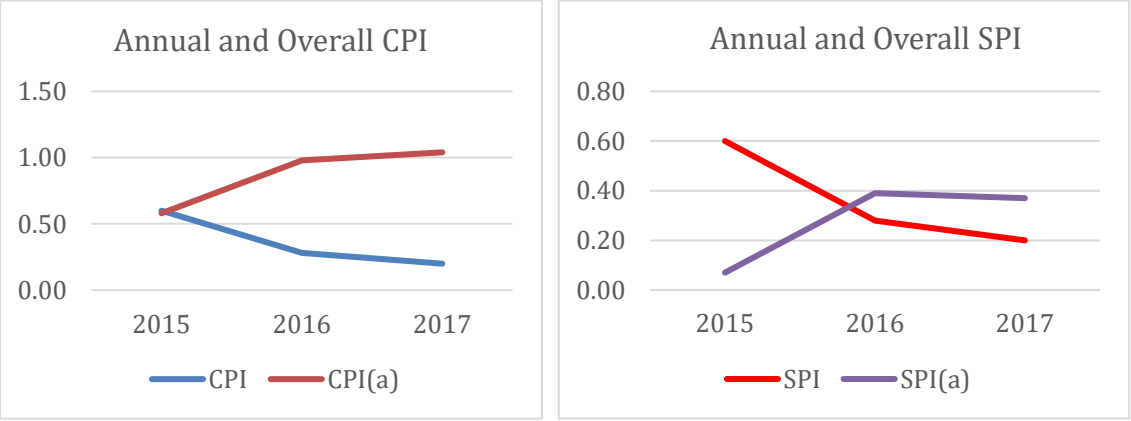
After 43 months of effective project execution, the project has expended 16% of the GEF allocation **Error! Not a valid bookmark self-reference.**). The project's low disbursement and expenditure rates of 16% has resulted in it being ascribed "problem" status classification (Table 2) by the IDB. In 2018, expenditure increased significantly due to two large consultancies (PES and Hydromet) commencing in February. Disbursements have been granted as requested by the PEU.

[22]In 2017, the PEU initiated a procurement process for fruit tree seedlings, which had a government entity (Ministry of Industry, Commerce, Agriculture and Fisheries) and a private entity (R&B Nursery) participating in the same competitive procurement process. The IDB gave the approval to proceed, but reminded the PEU that the procurement policy articulates that government agencies are not allowed to participate in the same competitive procurement process with private entities.

Table 12. Analysis of the project's Cost Performance Index (CPI) and Schedule Performance Index (SPI)

Component	Approved Budget	Approved (amended) Budget	Total Expenditure	% of Amended Budget Expended	Balance on Budget
Component 1	572,399.00	619,400.00	80,057.01	13%	539,342.99
Component 2	415,500.00	620,843.00	82,441.69	13%	538,401.31
Component 3	2,521,540.00	2,239,837.10	242,483.15	11%	1,997,353.95
Component 4	300,000.00	329,360.90	193,608.59	59%	135,752.31
Component 5	100,000.00	100,000.00	26,831.85	27%	73,168.15
Totals	**3,909,441.00**	**3,909,441.00**	**625,422.29**	**16%**	**3,284,018.71**

Figure 8: SPI and CPI Analysis (IDB's PMR 2015-2017)



The trend in the project SPI is positive, indicating that more project activities are being implemented as time progresses. The earned value also increase at a faster rate than the planned value. The SPI analysis also indicates that only 55% of planned value is currently achieved as of March 2018, though significantly improved from 6% in June 2016. The trend in project CPI is also positive, indicating that the project has improved spending against budgeted resources annually. However, the overall CPI has declined and maintained a 0.24 average

between 2016 and 2017. This signifies an overall low level of efficiency of budgeted resources, which results in a slow rate of implementation and project targets unmet.

As an implementing partner, GOJ contributes to the project in both cash and kind via their Capital 'B' budget. The GOJ component supports the project in the acquisition of goods and services and the employment of project staff. Significant challenges in tracking the co-financing provided through project implementing partners have included lack of IP in-house finance and accounting capacity and non-compliance with reporting requirements, resulting in inconsistencies in overall co-financing reported. The PEU has responsibility for monitoring co-financing, but the capacity to establish and maintain a robust monitoring system has been weak. The inadequacy of co-financing data from IPs has made it difficult for the PEU to develop comprehensive co-financing reports. At the time of this MTE, there were no co-financing reports available for analysis or evidence presented for resources leveraged. Notwithstanding, the PEU has provided assistance to IPs, e.g. the MSJ, with their co-financing reporting obligations.

Findings of Project Financial Audits

Article 7.04 of the Financing Agreement provides information on requirements for project audits. On June 9, 2015, the IDB provided the NO to a waiver of the audited financial statements for the period ending March 31, 2015. It was noted that the initial audit would have a scope from date of eligibility (February 9, 2015) to March 31, 2015. To date two external audits have been completed: for 2015-16 and 2016-17 and the 2017-18 audit is currently underway. The summary findings of project external audits are presented Annex A-5. Generally, the audits found that:

- Financial controls were sound.
- Financial management practices were good.
- Project implementation was delayed and continued at a slow rate, with low rates of expenditure and targets achieved.
- The frequent missed deadlines in the finalization of the MOUs was the key contributing factor to the under-utilization of budgeted resources.
- In 2015-16, there was non-compliance with contractual arrangements.

The executing agency has responded favourably to the audit reports and in post-audit implementation (Annex A-5). However, the project continues to be constrained by a number of other issues, which are discussed in other sections of the report.

3.2.4 Inflationary analysis

The inflationary analysis became necessary and was alerted by the need to raise an additional US$300,000 through the IDB Special Fund for Biodiversity to support Components 1,2 and 4. In addition, there were two cases with an "international component" to procurements that required funds to be transferred across line items to facilitate such purchase. For example, the motor vehicle was purchased at a cost above the initial outlay.

Table 13: Inflationary impact

Budget line	Budget Line Description	Projected expenditure US$	Budgetary allocation US$	Shortfall US$
1.2	Hydro-meteorological study	75,000.00	28,000.00	47,000.00
2.0	Design of PES Scheme	920,843.00	715,500.00	205,343.00
4.1	Programme Management	329,360.90	300,000.00	29,360.90
				281,703.90

The project was conceptualized in 2010 with the completion of the prefeasibility study, from which the initial budget estimate of US$3.9 M was established. The actual implementation of the project effectively started in 2015, almost five (5) years subsequent to the initial design of the project and establishment of the budgets. Changes in the local macroeconomic environment when compared to that of the previous two decades seemed stable, but the variation of such variables are still volatile especially during this post global recession and fiscal austerity period. The outcome is an inability to predict for the next 18 months until the close of project. Consequently, this MTE has sought to conduct an inflationary analysis to determine the true value of the project at this time. The methodology used for the analysis is described in Section M. Table 6 gives the results of the analysis and breaks down the project by component and year. The inflationary analysis indicates that the original project budget would need to be increased by approximately 9% or US$360,269.28 to reflect the true cost of the project.

Table 14: Inflation Adjusted Budget

		Inflation Adjusted Budget					
	Category	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
I. PROGRAM MANAGEMENT	Original Est.	60,000	60,000	60,000	60,000	60,000	300,000
	Inflation Adj	64,495.72	65,672.76	65,909.25	65,688.89	65,721.13	327,488
Component 1:	Original Est.	40,167	162,833	142,500	35,000	35,000	415,500
	Inflation Adj						624,226

	Inflation Adjusted Budget						
	Category	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
		151,708.26	222,557.70	113,839.92	64,776.54	71,343.94	
Component 2:	Original Est.	40,167	162,833	142,500	35,000	35,000	415,500
	Inflation Adj	43,176.30					454,595
			178,228.58	156,534.46	38,318.52	38,337.33	
Component 3:	Original Est.	418,996	729,858	620,454	370,037	382,195	2,521,541
	Inflation Adj						2,754,576
		450,391.21	798,863.48	681,561.25	405,122.25	418,637.93	
III. MID-TERM AND FINAL EVALUATION	Original Est.	0	0	25,000	0	25,000	50,000
	Inflation Adj	-			-		54,244
			-	27,370.37		26,873.21	
IV. AUDIT	Original Est.	10,000	10,000	10,000	10,000	10,000	50,000
	Inflation Adj	10,945.46					54,581
			10,984.87	10,948.15	10,953.52	10,749.29	

3.2.5 Project Procurement

The procurement of goods, works and consultants are required to conform to all applicable IDB and GOJ guidelines and policies [23]. The orderly, efficient, timely, and transparent implementation of procurement processes is facilitated through a Procurement Plan (PP) that specifies the procurement activities to be conducted, the methods to be used, cost estimates and timeline for each activity as well as whether the activity will be subject to ex-ante or ex-post review by the Bank. The procurement plan typically covers 18 months of project implementation and should be updated as necessary. The plan and any subsequent updates require IDB no-objection.

The PEU is responsible for procuring all works, goods and services of the project, and has to prepare, on an annual basis or as required, the PP to be submitted to the Bank for NO. The PEU is also responsible for ensuring the quality and efficiency of procurement processes for project partners. In support of the PEU executing its procurement-related functions, a Procurement Officer/Specialist was hired in March 2015.

[23] In October 2017, the MOFPS distributed a circular on the agreement for the partial use of the National Procurement System of Jamaica for Inter-American Development Bank-financed projects". The implementation arrangements for using the National Prcourement System are in progress.

Status of Project Procurements

The initial procurement plan (which formed part of the approved project documents), indicates that 70 -85% of GEF funds should have been used up and/or committed via contracts (Annex A-6) by this point in project implementation (between year 3 and year 4). However, this is not what transpired. The initial PP also indicated that all procurements of goods and services would be subject to ex-ante review. However, by 2016, an email from the Bank to the Procurement Officer revealed that IDB had approved ex-post processes for the following methods: Consultants Qualifications (CQS), price comparison/shopping and 3 CVs, up to US$10,000.

Notwithstanding, majority of the PP activities are still subject to ex-ante reviews, which has contributed to the overly long procurement processes that have affected the project. While the rationale for review and approval systems is understood, there is a need for greater efficiency in the implementation of these control systems. An additional issue is that the procurement load of the project is quite heavy, with over 200 procurements completed to date. This number includes many small procurements that combined require considerable time and effort, but which have not led to an increase or improvement in project output delivery. Furthermore, one Procurement Officer being principally responsible for leading the preparation, development and coordination of a significantly high number of procurement processes has contributed to the delays and inefficiencies in procurement execution.

The many procurement challenges, issues and constraints have largely been the root cause behind the delays experienced across all project components. For example, the technical activities of Component 2 only started in 2018, and this late start was due to the inordinately lengthy (in excess of 600 days) procurement process for the PES Consultancy. This overly long process, which far exceeded the expected timeframe for such procurements (Annex A-6), was as a result of the extra time required to seek additional funds for the consultancy and also to resolve taxation issues.

Additional procurement challenges, issues and constraints which have been experienced by the project include:

- Lengthy review processes by NEPA and IDB personnel.
- Scheduling of meetings (e.g., to review and evaluate submissions).
- Some processes having to be reinitiated owing to receiving inadequate number of submissions.
- Differences in GOJ and IDB Procurement guidelines.

To date, the PEU has identified several strategies to deal with procurement-related challenges, such as:

- Advertising as widely as possible to avoid bidders' fatigue.
- Conducting bulk purchases of inputs.
- Using GOJ resources where possible to purchase items for which 3 quotations are not received.
- Working more closely with NEPA's Procurement Unit.
- Making requests in advance to Procurement Officer, with enough lead time so that the goods and/or services will be delivered by the expected time.

Notwithstanding the strategies above, a comparison of the Procurement Officer's report for July 2017 and March 2018 highlights the project's inability to successfully overcome the procurement challenges encountered to date, with very similar response strategies identified over the period, but with very limited improvements. That is, the project remains largely unsuccessful at navigating challenges and efficiently conducting procurements so that project execution can occur within the established timeframe and deliver the expected benefits.

Although procurement has been a major hurdle for the project, it should be noted that they are usually conducted in accordance with applicable guidelines and policies of the IDB and GOJ. That is, even though there have been a few procurement missteps, there has been no evidence of mis-procurements. This has been one of the key benefits of the multi-level review and approval procurement processes (internal and external to NEPA), as errors are usually caught before it is too late. These processes, however, contribute to lengthy procurement durations as stated before.

Procurement for goods and general services have been shown to take between 3 and 10 weeks (Annex A-7), which is an improvement on the forecasted duration of 3-4 months (Annex A-7) indicated in the process flow for shopping (method used frequently by the project to procure goods). The procurement process flow (Annex A-7), prepared by the PEU, shows that for goods and services, there is an 11-step process before a purchase order can be issued. Navigating the multiple approval points (NEPA and IDB) can delay the procurement process and extend the time it takes before a supplier/service provider can be engaged. As such, the 3 to 10 week timeframe maintained by the project can be deemed acceptable, especially when factors such as time granted for initial document preparation, suppliers' submissions and multi-level review and approval of procurement documents, evaluation reports and contract preparation, negotiation and execution are considered.

Procurement processes for consultants (firms and individuals) have been considerably longer, with an estimated actual duration of 1.5 to 22 months (Annex A-6). It should be noted that the start date used in the Procurement Officer's reports (when calculating procurement process duration) was taken to be the date IDB *first* granted no-objection to proceed with the procurement activity. Consequently, the durations specified do not factor in the time for preparation and internal review and approval of the initial procurement document, e.g., a TOR. As such, the entire procurement process for consultants would take more time than the 1.5 to 22 months reported. It should also be noted that the PEU's procurement process flow indicates that the expected duration for procurement of consultants (firms and individuals) is between 5 and 14 months, depending on the procurement method to be used.

These processes are lengthier because they are usually of a more complex nature and involve many more steps. For example, procurement of consultants using quality-based selection has up to 22 steps, based on the PEU's procurement process flow (Annex A-7). The multi-level review and approvals required for the preparation and dissemination of specific procurement notices, terms of references, requests for expressions of Interest, request for proposals, evaluation of submissions, preparation of evaluation reports, preparation of contracts, negotiations with consultants and execution of contracts have led to numerous delays. The review and approval points are both internal to the PEU and NEPA and external (IDB, and in some instances GOJ (National Contracts Commission and Cabinet)). In addition to delays associated with review and approval processes, the project has also experienced delays on the part of the PEU in the preparation and/or revision of procurement-related documentation. All the procurement delays (regardless of cause) have contributed to significantly reduced project effectiveness and efficiency.

With approximately 1.5 years remaining on the project, effective procurement execution is even more critical. Of 104 procurements in the most recent Procurement Plan (adjusted April 2018), 25 have been completed, 79 are in progress, or are to be started. The most recently completed procurements have caused a slight improvement in the state of the project on account of an increase in funds committed via contracts or purchase orders. In January 2018, only US$626,112.54 or 16% of GEF/IDB budget was used up and committed via contracts, but this was increased to US$1,360,853.54 or 35% of GEF/IDB budget in April 2018, on account of mobilization payments for the PES and hydromet consultancies.

Although most of the procurement processes for the major consultancies have been completed or are near completion, the number of procurements to be conducted prior to the end of the project's disbursement period is not insignificant. With 79 procurements remaining and a

challenge-riddled procurement history, the PEU has to work assiduously as a team and with its partners/stakeholders to ensure that the remaining procurements are timely executed to support delivery of project outputs. That is, from initial procurement document preparation to contract signing or issuing of a purchase order, there is little or no room for re-initiations, cancellations and/or delays. Consequently, the procurement focus of the project has to be on conducting the remainder of procurements as efficiently and in as short a timeframe as possible to ensure that the project's implementation rate is not further compromised.

Table 15: Summary of Current Procurement Plan

Procurement Category	Completed Procurements as at April 2018		Procurements Planned for 2018-2019	
	Number of Procurements	Estimated Value	Number of Procurements	Estimated Value
Goods	7	121,332.00	23	861,767.84
Non-Consulting Services	7	19,381.54	47	1,321,208.03
Consulting Firms	4	665,706.00	7	326,612.00
Individual Consultants	7	554,434.00	2	39,000.50
Total	**25**	**1,360,853.54**	**79**	**2,548,588.37**

Source: Procurement Plan, January – December 2017 (adjusted April 2018)

Of note too is that there is in place a process for implementation of partial use of the GOJ procurement system for IDB financed activities as per GOJ Circular #10 (2017). This process is being finalized with capacity building for project units as of May 2018.

3.2.6 Project risk management

Risk management is a continuous process with the following key actions: (i) Identify Risks, (ii) Analyse/Evaluate Risks (impact and probability), (iii) Mitigate Risks, and (iv) Monitor risks. In analysing how risks were managed by the project, emphasis was placed on investigating the extent to which the fundamental risk management actions outlined above were employed.

Project's Risk Profile

A Risk Mitigation Plan (hereafter referred to as the 2014 Risk Mitigation Plan (RMP)), formed part of the initial approved project documents. Thirteen (13) risks were identified, evaluated (probability and impact assessed), ranked and relevant mitigation strategies identified (see

Table 16). Of these 13 risks, 2 were classified as “high”, 5 as “medium” and 6 as “low”. Roles and responsibilities for mitigation responses were also identified within the 2014 RMP.

Throughout the course of implementation, the risks outlined in the 2014 RMP were revaluated and reported upon in the Semi-Annual Progress Reports. Where necessary, the risks were reassessed and the risk rating changed based on current conditions at time of reporting. Table 16 presents the changes in the risk profile for the 13 initial risks, at different points in the project. The table shows that the risk profile of the project had worsened by the end of December 2017, with 4 risks classified as “high”, 6 as “medium” and 3 as “low”.

Table 16: Changing Profile of Risks Identified at the Start of Project Implementation

Risk	2014 RMP		SAR Ending Dec 2015		SAR Ending Jun 2016[24]		SAR Ending Dec 2017	
	Value	Level	Value	Level	Value	Level	Value	Level
High risk of extreme weather in the island of Jamaica	3	High	3	High	3	High	3	High
Changes in prices of agricultural commodities	3	High	3	High	3	High	3	High
Low rate of adoption of proposed technologies by farmers	2	Medium	2	Medium	2	Medium	2	Medium
Lack of buy-in by the population of the KMA, who are beneficiaries of the ecosystem service, of the results arising from the PES (Wording in initial Risk Matrix: Lack of buy-in by the NWC of the results arising from the PES)	2	Medium	2	Medium	3	High	3	High
Project outputs not met in a timely fashion or within budget (Wording in initial Risk Matrix: Delays in Project Implementation)	2	Medium	2	Medium	2	Medium	2	Medium
Reduced fiscal space during Project execution	2	Medium	2	Medium	2	Medium	2	Medium
Interruption in the adoption of sustainable land management practices by farmers beyond the life of the Project	2	Medium	2	Medium	2	Medium	2	Medium
Lower than expected impacts of Project's actions to have a measurable effect	1	Low	1	Low	3	High	3	High
GOJ agencies not working together as anticipated	1	Low	1	Low	2	Medium	2	Medium

[24] SAR ending December 2016 was not available.

Changes in Government Administration	1	Low		1	Low		1	Low		1	Low
Negative perceptions from the farmers and areas not selected for intervention by the Project	1	Low		1	Low		1	Low		1	Low
Possible weaknesses in the efficiency of the implementing agency in the financial administration of the Project	1	Low		1	Low		1	Low		1	Low
Low or limited efficiency in procurement administration	1	Low		1	Low		2	Medium		2	Medium

As the project progressed, more detailed tracking and reporting of risks was done. In 2014, 13 risks were identified and in January 2018, 23 risks were identified, of which 14 were classified as "high" (see Table 18). The risks identified in 2016, 2017 and 2018 were captured in monthly "Risk Assessment Matrix" [25] documents prepared by the PEU. Although, these monthly risk reports included risks that were not part of the 2014 RMP, the RMP was not updated to reflect the changing risk landscape. That is, while these monthly risk matrices were used to assist the PEU to in its risk tracking efforts, they did not form part of reports to the IDB.

Table 17: Number and Types of Risks Identified at Beginning of Project and in January 2018

	No of "High" Risks	No. of "Medium" Risks	No. of "Low" Risks	Total No. of Risks Identified
Beginning of Project	2	5	6	**13**
January 2018	14	8	1	**23**

Table 18: Summary of Risk Management and Reporting (2014- 2018)

Year	Summary of Risk Management (based on documentation made available as part of MTE)
2014	• 13 risks identified in 2014 Risk Mitigation Plan that forms part of approved project documents. Risks were evaluated (probability and impact) and ranked. Mitigation Strategies identified for 12 of 13 risks
2015	• Tracking of 13 original risks and updating of risk rating, where applicable. Mitigation strategies identified for risks with "high" rating. (SAR for January – June 2015 and July – December 2015)
2016	• Tracking of 13 original risks and updating of risk rating, where applicable. Mitigation strategies identified for risks with "high" rating. (SAR for January – June 2016) • 3-4 risks identified per month. No mitigation strategies identified in matrix (Risks Assessment Matrix for

[25] The risk assessment documents for the following months were made available as part of the evaluation: September – November 2016, April – November 2017 and January 2018.

	September, October and November 2016)
2017	• Tracking of 13 original risks and updating of risk rating, where applicable. Mitigation strategies identified for risks with "high" rating. (SAR for January – June 2017 and July – December 2017) • More detailed risk tracking on a monthly basis; risk mitigation strategies identified (Risk Assessment Matrix respectively for April, May, June, July, August, September, October and November 2017)
2018	• More detailed risk tracking on a monthly basis; risk mitigation strategies identified (Risk Assessment Matrix for January 2018)

The introduction of new concepts, approaches or technology into a project is usually associated with a high level of risk project. In the case of this project, the PES and CSM were novel approaches that posed risks to smooth and timely project implementation. However, the issues have not necessarily been a result of the risks posed by the PES and CSM, since the delays in these activities were largely procurement-related.

The worsening risk profile of the project, which really would not have occurred if effective risk management was employed, attests to the validity of the original 13 risks. Risk Assessment throughout the project was done using a Probability Impact Matrix that assisted with the prioritization of risks, identifying those risks which require an immediate response. The inability of the project to effectively mitigate risks has led to several of them (e.g., those relating to procurement limitations, coordination challenges and implementation delays) becoming the major issues currently affecting the project. Additionally, at least two risks identified with a medium rating in 2016 and 2017 should have received a high rating, since they are contributory causes to the project being assigned problem status by the IDB. Those risks are "Project outputs not met in a timely fashion or within budget" and "Low or limited efficiency in procurement administration".

Assessment of Risk Management Efforts

Based on the documents reviewed to date, the project staff performed fairly well at identifying risks. Risk identification, tracking and planning (and documenting) risk responses formed a key part of the management, monitoring and reporting activities of the project. The consultations revealed that in support of risk reporting efforts, each staff member of the PEU would regularly identify risks, which would be sent to the project manager for compilation. However, the lack of success at risk management cannot be ignored. The risk profile of the project has considerably worsened, which has no doubt played a role in the slow pace of implementation, given that effective risk management is a contributory factor to project success, that is, where risk management has been successful, the risk profile of the project should improve as implementation is advanced.

The worsening risk profile of the project could be on account of several reasons, including: risk mitigation strategies were identified, but were not (effectively) implemented; risk mitigation strategies were inadequate; responsibility for mitigation actions was not very specific (e.g., in the RMP, responsibility assignments were not very specific); secondary risks (new risks arising from already identified risks) were not identified, evaluated and addressed. The lack of success at risk management should also be viewed within the context of the PEU's resource/capacity constraints, specifically the fact that the PEU has been understaffed for most of project implementation. This would have significantly impacted the PEU's ability to effectively plan for and mitigate risks.

One of the major deficiencies of the risk management efforts was that risks were not appropriately monitored and/or addressed and, as such, went on to become major project issues. One example of this is procurement, which was initially a low risk, but went on to become a major issue for the project. In 2014, the RMP identified "Low or limited efficiency in procurement administration" as a risk with a low rating. In the December 2016 and December 2017 SAR, this risk rating was revised to a medium rating. In the monthly Risk Assessment Matrix for April 2017 and January 2018, several procurement-related risks were identified, most with a high rating; for example, "Timely preparation and submission of documents for purchases by Project Procurement Officer" was one such high risk. Notably, the risk response strategy was the same in April 2017 and January 2018. That is, the PEU kept on documenting the same risk response strategy, even when the risk rating had worsened. This calls into question the effectiveness of risk management practices employed by the PEU. The issue of roles and responsibilities in risk response and mitigation is key. All project risks cannot be addressed at the PEU level, and as such, the PEU has to escalate risk mitigation, especially for those risks with high probability and impact.

3.2.7 Adaptive management

There is little evidence of a structured, iterative process of robust decision-making in the face of various risks and uncertainty with ongoing opportunities for reflection and adjustments. Notwithstanding, the project has been responsive to challenges and constraints for which adaptive actions are evident. These include, for example:

- Budget transfers from Component 3 to Components 1, 2 and 4 based on identified need.
- Shifting major focus on Component 3 "areas replanted through reforestation and agroforestry" from reforestation to agroforestry, to ensure that target of 466.30ha is achieved.

- GOJ paying for the GCT on international consultancies to address the double taxation issue.
- Merging Component activities such as GIS DSS and IWRM training; ecological assessment and bio monitoring; and hydrological, geomorphological and meteorological assessments for greater efficiency.
- Changing procurement methods to respond to issues arising.

Change control has been limited; with no evidence of a systematic approach to managing all project changes. There is also inadequate documentation making it difficult to understand the justification for changes. An example is the decision to conduct two additional FFS training, having met the target for the project. There is no evidence of review and assessment of the initial training, so that lessons learned could be incorporated.

3.2.8 Catalytic Role and Replication

The FA and POD indicates that project design was informed by lessons and good practices from previous projects but incorporation of these into implementation modalities and approaches have been minimal. For example, the use of the KAPB to establish baselines has not been achieved and the "baseline KAPB" is currently underway, in Year 4 of the project. One lesson from other projects that has been utilized is the in-situ capacity development that is reflected in the FFS Land Husbandry training on demonstration plots.

The project has benefitted from IPs' capacity in reforestation, fire prevention and management and land husbandry training[26] as well as existing data and information that reside in the agencies. For capacity building activities in Component 3, IPs' capacity helped to shorten time for preparation for training with both personnel and information ready for activity implementation. Furthermore, partnerships built for implementation of activities have been beneficial (e.g. FD with Jamaica Fire Brigade and the establishment of the ALAF WG). Other capacities being utilized for enhanced project delivery and further capacity development include data and information from IPs for the hydromet assessment and land assessment for the agroforestry intervention; and the WRA and MSJ working with the hydromet consultant to conduct the assessment while building theirs and Jamaica's capacity in hydrological modelling.

[26] The FD had already developed a fire management training manual and RADA a FFS Land Husbandry manual. Both were readily available for use in project implementation, with project recourses being used to finalise the fire mnagement manual.

The project develops on existing watershed management approaches in Jamaica by introducing a sustainable financing approach to IWM, which is a novel concept for sustainable financing in the country. The project is structured to cover a range of key components of an integrated watershed management approach and has been designed to address policy and programmatic strengthening, data collection and analysis for informed decision-making, financing and capacity building. With a strong governance framework, it can be a springboard for scaling up and replication in other WMUs. The best practices and lessons from this project are critical to further work, but these have not been adequately captured.

The project is not only innovative with efforts to apply a PES scheme but also utilizes and builds on the work of its IPs. This includes rolling out of a new agroforestry incentive scheme especially for work with the private land owners and complements FD's forestry incentive programme. A multi-agency approach to implementation of this activity is important and should benefit from the experiences of key stakeholders like the FD and the NLA.

Information sharing and awareness raising have been useful tools for spreading the results achieved to date, for example videos showing FFS sessions and interviews with participating farmers. The communication tools utilized have documented good practices from upper watershed areas and efforts must continue to share these more widely. Roadshows/tools developed by the project have been used by the Ecosystems Management and Conservation Division (EMCD) of NEPA and there have been exchanges and field visits in the demonstration communities.

NEPA's EMCD articulated the importance of the project and have found its outputs very useful and as a result have been mainstreaming the activities in their own plans. For example, the project's communications tools have been adopted and water quality testing being conducted by the NEPA laboratory for the project. The Ecosystems Management Branch notes that the project supports their work and implementation of their operational plans. They are especially keen on the results of this project, as they envision them being utilized in other WMUs. During MTE discussions, members of the Division mentioned that watershed officers would be deployed to the project.

The new Watershed Policy, WAMM revision and enhancement and GIS monitoring protocols are very important elements of the work for watershed management, and will be utilized in the long term. Additionally, the capacity built in bio-monitoring and ecological assessment and in hydro-meteorological assessment will also be applied in the long term and utilized in other

WMUs. The capacity built within the various agencies will improve their capabilities to carry out their mandates.

For the FD, capacity building in CSM will help the organization achieve its Vision and implement its 10-year Management Plan and will be useful for new initiatives such as REDD+. RADA's application of the FFS with good land husbandry practices has been up scaled and is being used in additional areas in the WMUs. The lessons from implementation can strengthen the approach and replicate more broadly. WRA and MSJ are also building capacity in hydrological modelling. The acquisition of equipment and tools will strengthen agencies' data collection and sound decision making capabilities. The continued development of inter-institutional arrangements and partnerships is imperative and will help to create a unified approach to watershed management in Jamaica.

The agroforestry initiative with large land owners will be tested and successful implementation will allow for documentation of good practices and lessons learned to improve the mechanism for scaleup and replication in other WMUs.

3.2.9 Monitoring and Evaluation

The Monitoring and Evaluation (M & E) system of the Yallahs River and Hope River WMU project comprises of a mix of documents that together systematically defines and plans for the collection of evidence to support project performance. The objective of the monitoring system as described in the project's M&E plan, is 'to monitor the progress in achieving outputs and outcomes stated in the 'Results Framework' (or RM).

Through a mix of documents, the implementation team and stakeholders are guided on what is to be monitored, the evidence required and its source, and the frequency of collection. The M&E related documents include the results matrix, the M&E plan, monitoring reports and evaluation. The full list of documents and their purpose are outlined in

Table 19.

Table 19. Elements of the Project's M&E System

M&E System Elements or Tool	Purpose	Prepared By	Used By
Results Matrix	Lays out (in tabular form) the performance measures that will reflect fulfilment of the project goals at varying levels - output, outcome and impact - and their corresponding indicators (with baselines and annual targets) and the means of verification	IDB	PEU PSC IDB GEF Focal Point Audit and Independent Evaluators GEF Secretariat and Evaluation Office
M&E Plan	1. Provides an overview of the M&E system for the project 2. Defines the range of measures – expected results, milestones, indicators, assumptions and risks 3. Defines the M&E Roles and Responsibilities 4. Status of baseline information 5. Introduces the reporting Instruments 6. Defines evaluation parameters and questions	IDB - Sergio Ardila and Elizabeth Chavez	PEU PSC IDB GEF Focal Point Audit and Independent Evaluators GEF Secretariat and Evaluation Office
Baseline Assessment - **KAPB** - **Water quality testing** - **Pesticide testing** - **Sediment loading**	To define the intervention starting point and refine the planned activities based on emerging data	PEU and consultants	Partner Agencies Communication Consultant
Reports - **Monthly Reports** - **Semi-annual report** - **PMR** - **PIR** - **GEF Tool**	To provide target audience with quantitative and qualitative information on implementation status, actions taken, challenges and constraints and recommendation on corrective action (if any) for the next performance period	PEU IDB	PEU PSC Executing Agency IDB GEF Focal Point Audit and Independent Evaluators

M&E System Elements or Tool	Purpose	Prepared By	Used By
			GEF Secretariat and Evaluation Office
M&E Plan for the FFS Best Land Husbandry Training	Used by the PEU to monitor and evaluate the FSS which are conducted by technical officers from RADA.	PEU	PEU RADA technical officers PSC IDB Audit and Independent Evaluators
Evaluation - **Mid-term** - **Final Evaluation** - **Impact Evaluation**	Determine if the Project indeed reached its objectives (outcomes and impact) - Adoption of SLM best practices and effects on yield and profits - Improvement in water quality	Independent team of experienced expert(s).	PEU Executing Agency MEGJC MOFPS PSC Implementing Partners PIOJ IDB GEF Focal Point GEF Secretariat and Evaluation Office

The RM, included in the POD, outlined the performance measures that reflects fulfilment of the project goals at varying levels - output, outcome and impact. The content of the RM which includes indicators with metrics, baselines, milestones, and targets; are placed into the IDB PMR[27] template which covers January to December and is the primary tool used by the project's donor representative to monitor implementation progress vis-à-vis the initial plan. Once actual indicator results are available, they are to be contrasted with the planned ones, and a Performance Index, computed based on the difference between planned and actual delivery of outputs and their costs, is reported. At project mobilization a consultant assisted the

[27] The PMR reflect an IDB effort to have continuous monitoring the change towards the outputs and outcomes Indicator metrics) while integrating budget and disbursement patterns.

PEU to prepare a Project Monitoring for Results (PM4R[28]) worksheet, that has been used subsequently.

Table 20. M&E Implementation Actions Taken

M & E System Element	Actions Taken
Baseline	KAPB ongoing, water and soil testing ongoing
Results Matrix	Revision of the RM (included in the PMR)
Reporting	32 Monthly PEU reports to the PPERD| 3 PIRs |8 PSC meetings| 5 Semi-annual donor reports| 4 PMRs prepared by the IDB country office and submitted to IDB HQ
Evaluation	Mid-term Evaluation (ongoing)

The project has an adequate M&E system that includes the results matrix, and an M&E plan that outlines requirements for periodic reporting and evaluation. Technical capacity for M&E implementation across the range of partners may be a constraint to effective M&E implementation. It was also noted that there was no specific budget allocation for M&E, outside of evaluations, and baseline data collection. This may limit partner's ability to effectively support M&E. The absence of budget allocation for M&E capacity building across partners may also be a limiting factor. At the impact level, the PMR measure and observation attributed reduced turbidity in waterways to the installation of nine gauges across the two WMUs.

There was poor documentation of RM changes (indicator, results and targets). A number of changes were made to the project's RM, as reflected in the 2017 PMR that was more than those documented. Justifications for the revisions to both the indicators, milestones and targets was limited. There was also duplication of output numbers (e.g. output 3.1) that reflected a change to the original RM.

Reporting at the PEU and partner levels did not align with the project's performance indicators. As such there was difficulty in attributing results being reported in the PMR for some Component 3 interventions to the activities reported as being completed.

[28] PM4R is an IDB initiative implemented by INDEs aimed at strengthening the project management capabilities in Latin America and the Caribbean, thus enabling individuals, firms, and organizations reach their objectives on time and on budget.

Several baseline studies, referenced in the M&E plan are yet to be completed; however, were determined at design to be essential to defining those activities and for adaptive programme management.

The reporting responsibilities (technical, financial, and operational) are detailed in section 7 of the POM. Partnership agreements detail the reporting responsibility for the preparation of status reports (monthly), technical reports (quarterly) and annual reports (annually) and a final project report (once) also referenced in the partnership agreements. The gaps would be monitoring partners' compliance with the reporting requirements.

Semi-annual reports were submitted to IDB over the project implementation timeframe. The IDB field office used the semi-annual reports to prepare PMRs for all project periods (2014 – 2017). The review of other executing agency's project reports saw a greater focus on task or activity level monitoring based on the project's AOPs, with limited evidence of linking project monitoring to the results matrix.

Reporting by the PEU, since project inception, is largely activity-focused. There was weak utilization of the performance indicators (output and outcome levels) agreed on in the results framework. The PEU's utilization of a PM4R (monitoring approach) limits its ability to assess quantitatively project performance against defined targets. There was no defined process for M&E data flow across the project partners, outside of the technical reports.

The PMR (as a management tool) had limited use by the executing agency as the PM4R was the primary tool used, more to guide the setting of annual targets as opposed to the tracking of overall progress towards the project targets. Only one change in project indicator was documented over the project's life.

In the partnership agreements, monitoring of activity implementation resides with NEPA. The project partners were required to prepare component-specific technical and co-financing reports (as defined by their partnership agreements). Reporting compliance varied across agencies with significant improvements most recently. There are gaps that need to be addressed in roles and responsibilities of component and activity level monitoring to improve M&E outputs. Activity level monitoring of the farmer field school implementation is defined in a monitoring and evaluation plan that is in its early stage of execution. Forestry Department prepared and submitted all reports as required by their MOU, while RADA's compliance was affected by internal coordination around report preparation.

The project M&E implementation suffered from the absence of an M&E implementation plan that considered the mix of stakeholders and variations in the data requirements as defined the RM. This implementation plan, would be an expansion of the M&E plan prepared at project start-up, and would be prepared in collaboration with partner agencies to ensure roles and responsibilities are clearly defined, and partner-specific M&E capacity and budget needs.

Capacity of implementing partners for monitoring, evaluation and reporting was not fully assessed to ensure all the skillsets or human resource was available to undertake all elements of MOU reporting requirements. The absence of this capacity gap analysis affected reporting and overall monitoring support for project components.

3.3 Effectiveness – Achievement of outputs against planned results

Through the efforts of the executing agency and implementing partners, several achievements were realised across the project's three components. These achievements were associated with the following outputs:

Output # 1.1: MOU to manage the watershed
Output # 1.5: Communication plan and public awareness campaign implemented
Output # 3.1: Extension Program designed
Output # 3.2: Capacity development for communities

The analysis of planned versus actual results, however, shows the project significantly behind in actual vis-à-vis planned outputs and expenditure. More than 50 percent of planned activities were not completed.

Revision of the watershed policy that incorporates biodiversity has been completed, and will now require approval by Cabinet. A communications plan has been developed and includes tools used to deliver public awareness messages in conjunction with the FFS sessions in Component 3. However, with delayed KAPB assessment, the project has not adequately measured the increase in awareness or change in knowledge. Outputs from Component 3 activities implemented by RADA are on, or ahead of, planned targets; for training and farmer engagement. GAP awareness activities are ongoing. An FFS monitoring and evaluation plan has been developed and will be implemented directly. However, there is need for analysis of other constraints to adoption to inform adjustments in program delivery. Delays in the reforestation affected the overall performance of Component 3 and the planned ecosystem improvement impacts.

Under Component 1, MOUs were signed to support the project's implementation of specific activities; however, there was no formal documentation of medium to long-term cross agency cooperation beyond the life of the project. The MOUs however, represent a project strength as the multi-agency execution approach capitalized on the technical capabilities (strengths) and lessons learned of the lead agency and its partners; that had a positive impact on the activities completed and the outputs produced to date. Also under Component 1, the project produced two communication plans that provided a useful frame for the execution of communication efforts – nationally. There is room for expansion of the communication activities to target upcoming efforts associated with the PES development and to capitalise on the growing watershed-level momentum associated with the SLM activities under Component 3.

A key baseline assessment was not done for Component 3 activities, intended to inform technical design. However, the implementation partner's use of the FFS approach documented only positive feedback from the farmers and community representatives.

The execution of forest fire prevention and management training by Forestry Department was also completed successfully with cross-agency collaboration (with the JFB). This training and the associated capacity built is essential to the protection of the environmental improvements (such as tree planting) being promoted through the project.

Table 21. Achievement of outputs against planned results as of December 2017 (Source: PMR January – December 2017)

Output	Planned	Actual	Advances In Execution
#1.1 Watershed Management MOU approved	5.00	5.00	The single remaining partnership agreement with the Social Development Commission is expected to be finalized and signed during the first semester of 2018. An updated Watershed Policy provided in semester 1 of 2018.
#1.2 Socio-physical data gathered	1.00	0.00	Hydro and geomorphological assessments ongoing. Met station procurement, meteorological characteristics and socio-economic assessment pending
#1.3 Monitoring protocols implemented	1.00	0.00	The bio-monitoring and carbon stock monitoring development and implementation pending
#1.4 GIS-based decisions support system (DSS) for both watersheds implemented configured and implemented	1.00	0.00	Procurement ongoing.
#1.5 Stakeholders of two WMUs trained in IWRM and biodiversity information management	60.00	0.00	This will be done under the contracting of 1.4 above
#1.6 Communication plan and public awareness campaign implemented	4.00	2.00	Deliverables met. 30,298 persons were engaged through presentations, community sessions, expositions and the creative arts. Numerous advocacy, social mobilization and behaviour change campaigns launched during the period
#2.1 Ecological services valued	2.00	0.00	Consultant hired and activities initiated in first quarter of 2018.
#2.2 Payment for Environmental	1.00	0.00	Consultant hired and activities initiated in first quarter of 2018.

Output	Planned	Actual	Advances In Execution
Services (PES) scheme, implemented			
#3.1 Early community involvement[29]	1.00	0.00	Activity pending.
#3.1 Extension Program monitored	1.00	0.00	KAPB ongoing
#3.2 Communities' capacity improved	350.00	150.00	
#3.3 Agriculture practices improved	4.00	0.00	Best land husbandry and agroforestry activities implemented in the communities of Ness Castle and Mavis Bank during the period. 160 farmers from 5 communities were trained in best land husbandry practices. Communities receiving training were: Windsor Forest; Ness Castle; Richmond Gap; Mavis Bank; Bloxburgh.
#3.4 Area replanted through reforestation and agroforestry	466.30	74.30	Forestry reported planting 26 ha. 13.6 ha of agroforestry established on lands belonging to farmers in the Yallahs-River Watershed Management Unit. A mixture of timber, fruit and coffee seedlings were utilized. 670 metres of live barrier (vetiver & pineapples) were established in the Yallahs-River WMU. The Forestry Department conducted maintenance activities on 15.45ha of lands planted in Windsor Castle, St. Thomas, with 1.20km of fire lines created during the period.

[29] This output has been retired based on the 2017 IDB PMR

3.4 Impact

The project anticipates reducing deforestation and carbon loss in the targeted WMU while improving water quality. With limited technical activities executed (except for awareness and watershed policy efforts, FFS and minimal reforestation) and the limited remaining period, the MTE is unable to determine conclusively whether the intended outcomes and impacts will be met, once implementation progresses.

However, of the activities completed the following are areas of positive contribution to the project's intended impact:

1. Key agencies responsible for watershed management are working together in the same space, and leveraging technical capacity to achieve the common improved watershed management objective.
2. The completion of the revisions to the watershed policy and its approval by Cabinet is a significant step in the creating a governance framework for watershed management within which the partner agencies can collaborate.
3. Perception-focused interviews with farmers for this MTE established that the FFS training had a positive effect on farmers' knowledge of the innovations that can improve GAP adoption in the short, medium and long-term. The FFS approach (along with the demo plots) also allowed the limited extension staff to meet and exceed the target for number of farmers trained. The integration of demonstration plots where the innovations are applied in a practical setting, was also useful in providing a learning lab for the community; even after the completion of the training. Both areas received positive feedback from the farmers – who highlighted the benefits of their learning experience. Farmers also reported seeing the difference the innovations made in recent heavy rains that further reinforced the need for the innovations.

3.5 Sustainability

Project delays have slowed the achievement of project outcomes and impacts, some of which were expected throughout the life and end of the project. Notwithstanding, the project has made strides and continues to take steps to ensure long-term use and sustainability of project outcomes and impact. Key conditions and factors that contribute to, or undermine the persistence of benefits after the project ends are presented in **Error! Not a valid bookmark self-reference.** below.

Table 22: Conditions that Affect Continuation of Benefits Post-project Implementation

Catalysts	Barriers

• Inter-agency coordination
  ○ Establishment and strengthening of a multi-stakeholder watershed management institutional structure for the project, but which has utility for expanded watershed management
  ○ Utilization of technical working groups to provide oversight for and guide specific watershed activities (PES, ALAF, Monitoring)
• Policy framework updated
  ○ Watershed Policy updated and in process for approval by Cabinet
• Commitment to continued delivery of benefits
  ○ Data and information sharing activated through project activities
  ○ Mainstreaming of activities to allow for up scaling and replication of actions
• Project activities will
• Establishment of protocols and mechanisms through implementation of project activities:
  ○ GIS DSS
  ○ CSM
  ○ PES structure
  ○ Water quality monitoring protocols and regimes
• Capacity development of stakeholders through various project activities
  ○ Government agencies trained in
	• Constraints to adoption of good agricultural practices on individual farms due to:
	  ○ Age of farmers
	  ○ Gender
	  ○ Cost of innovations
	  ○ Availability of water
	  ○ Farmer apathy
	  ○ Absence of continued support from RADA and other entities
	  ○ Insufficient incentive for adoption
	  ○ Indiscriminate use of chemicals (e.g. pesticides and fertilizers)
	• GIS DSS
	  ○ Lack of commitment to continue sharing data and information
	  ○ DSS personnel having competing priorities
	  ○ Lack of awareness of existence of system and types of products and outputs that can be derived
	• Monitoring system (water quality, CSM)
	  ○ Insufficient resources for continuous monitoring (human and financial)
	  ○ Impact of natural events (heavy rains, hurricane etc.) causing damage to equipment
	  ○ Lack of coordination to share data for analysis and use in decision making
	• PES design
	  ○ Lack of ownership and absence of a champion to drive the process to implementation
	  ○ Low levels of adoption of GAP in the upper WMUs and little to no change in water quality and supply reducing the

Catalysts	Barriers
FFS land husbandry, IWRM, hydrological modelling, PES, CSM ○ Farmers graduate from FFS training ○ Provision of inputs to farmers ○ Approved and functional agroforestry incentive scheme	water users willingness to pay for better water ○ Stalemate on selection of agency to collect funds collection ○ Insufficient awareness of PES also reducing willingness to pay • Reforestation and agroforestry ○ Pressures and threat to forest (encroachment, deforestation, natural hazards, pests and diseases) ○ Change in land use (clearing for construction and agriculture)

The following will support efforts to sustain and enhance outcomes beyond the life of the project:

1. Existing and current mainstreaming of project activities in partner corporate and operational plans (reforestation, fire management training, FFS land husbandry, monitoring by NEPA, WRA and MSJ).
2. Development of CSM protocols and capacity of FD personnel will not only provide benefits to this project and its outcomes, in terms of assessment of carbon sequestered as a result of project, but will also be an important element of Jamaica's REDD+ initiative as well as reporting requirements for the UNFCCC.

Financial sustainability will be achieved in at least the following ways:

- Government budgetary allocation to government agencies with activities mainstreamed in their corporate and operational plans.
- PES as a sustainable finance mechanism.
- Alternative livelihoods assessment – plan developed and implemented with communities that can create and enhance sources of income, while protecting biodiversity. Consideration given to value chains of vetiver, pineapple etc.
- Project concepts and proposals prepared by community groups to donors- local and international.
- CSM will be part of a larger REDD+ programme that will allow Jamaica to earn from a carbon incentive programme.

The ability to sustain the value of outcomes beyond the life of the project is dependent on stakeholder ownership, which to this point is evident but affected by the factors listed above. Stakeholder awareness is good and growing but more effort will have to be placed on areas like the PES. The desired level of stakeholder coordination has not been reached but a more cohesive group of stakeholders will support sustained action. Oversight and guidance by a multi-stakeholder body is also a requirement for an integrated approach to watershed management and the structure must continue to be strengthened.

Environmental risks that can undermine the flow of environmental benefits post-project implementation include poor weather and natural disasters, effects of climate change on environmental resources (e.g. pests and diseases, natural changes that contribute to landslides and land slippages). Low levels of adoption of GAPs will perpetuate soil instabilities.

4 Good practices and lessons learnt, key findings and recommendations

The following represents MTE documented good practices and lessons learnt for project management and watershed management emanating from the project.

4.1 Good practices

Project Management

1. Direct alignment of project activities with agencies' mandate builds ownership and commitment and increases the likelihood for smoother implementation. Mainstreaming of project activities in implementing partners' work plans results in greater levels of buy-in and support for project activities, including deployment of personnel and resources.
2. Merging related activities for implementation increases efficiency by reducing time taken and procurements required.
3. Project flexibility to undertake budget transfers that allow for savings in one area to be applied to enhance or support other areas that are underfunded.

Watershed Management

4. A multi-stakeholder approach to watershed management allows for access to partners' capacity for more effective activity implementation. It also provides opportunities for joint planning, implementation data and information sharing and expanding limited resources.
5. Access to IPs' internal resources (tools, personnel) enhances project delivery and can result in time and cost savings.
6. Data and information sharing supports robust decision making, helps to advance activity implementation, and ultimately builds trust.
7. Utilization of effective communication and public awareness tools in conjunction with on-site training and demonstrations helps to change behaviours and improves adoption of best practices.
8. The use of farmer-to-farmer assistance ("Day-for-Day" or "Field Days") facilitates adoption of innovations by individual farmers and ensures accuracy in their replication of innovations.
9. An additional outcome of the FFS sessions, beyond improved communication, was increased frequency of meetings and group strengthening associated with cross-community coordination.

4.2 Lessons Learned

The MTE also documents lessons learned as a result of project implementation that include:

Relevance and Design

1. Consistent stakeholder involvement in project design is imperative to ensure that budgets and timelines are reflective of actual work orders to be carried out and the project reflects the local context. This will ensure buy-in and ownership for project strategies and activities. Failure to engage stakeholders can result in serious challenges during implementation and for achievement of project outputs and outcomes. Constant changes in scope during implementation further delays progress.
2. Partnership agreements should not be considered only as a project output, but more importantly, as an enabling condition for effective implementation.
3. Significant time lag between project design and implementation can be problematic with stakeholder priorities and personnel changes and activities being advanced through alternative financing, resulting in a need for project scope adjustments.

Project Implementation

4. Inter-agency cooperation is challenging but necessary and requires ongoing coordination by a central unit that has the potential to bring stakeholders together, work through disagreements and create an atmosphere for sharing. It requires dynamism, strong leadership and project management skills. Building trust and reciprocity among stakeholders is also important.
5. Delays affect linked actions where actions are dependent on a precursor milestone or output, and will have a domino effect. The link between components must be considered as a factor contributing to delays in achievement of the final product. Where components of a project are to be delivered sequentially, it is important to build necessary lags into the procurement plan.
6. The PEU must have the requisite capacity to adhere to donor conditions and procedures. Regular donor/executing agency/PEU communication and interaction can help to keep implementation targets on track and provides a forum for addressing concerns and issues in a timely manner.
7. Where project concepts are novel, design cannot be overly ambitious as project implementation will likely experience hiccups and not be implemented as planned. Continuous monitoring and management of risks will help to reduce potential for delays.
8. Engagement of local NGOs and CBOs, including their participation in project planning and oversight as well as implementation on the ground, is important for watershed management. Provision must be made in the project budget and requirements to enable their effective participation.

Effectiveness

9. Any delays in establishing baselines for project interventions (e.g. farmer's knowledge) can limit the project's ability to establish attribution to outcomes. Given the absence of key baselines prior to interventions, other methods to assess the effectiveness of the SLM interventions for example outcome mapping and case studies should be done. For the remaining field schools pre- and post-training assessments and the tracking of participant's adoption of best practices is essential. There is also need for evaluation of constraints to adoption early in the project to guide the refinement of the SLM strategies.

Impact and Sustainability

10. Considerations for long term impact and sustainability must be developed in a participatory way, involving implementation partners. It must be developed in the context of the project's governance and management structure and those of partner agencies.

Communication and Visibility

11. Ongoing dialogue and communication is necessary to build awareness and commitment to watershed management initiatives. This is also important for building trust and willingness to share. The EA must interface with stakeholders regularly to provide assurance and address issues as they arise.

4.3 MTE Major Findings

After four years of implementation, the project is characterized by low levels of efficiency and effectiveness, with 15.8% of total GEF budget expended and 28% of deliverables completed as of March 2018. Key findings of the MTE include:

Relevance and Design

1. The Yallahs-Hope WMU project is relevant and well aligned to GEF and IDB strategies, policies and plans. Nationally, it is relevant to Jamaica's National Development Plan; watershed management agencies' corporate and operational plans and helps to meet Jamaica's targets against the Sustainable Development Goals and other international obligations.
2. The project's design was ambitious but was found to be sound and coherent with a clear path to meet its objectives.
3. The design reflected an analysis of lessons learned from previous donor – funded projects that highlighted early community engagement, incentives for SLM best practice adoption,

coordination, and the use of KAPB assessments as being key elements in watershed management initiatives.

4. The project design incorporated a range of methods and approaches that gave consideration to the types of stakeholders and activities.
5. In measuring progress towards intended outcomes and overall impacts the project had nine impact and outcome level indicators at design (as presented in the RM included in the POD. The MTE analysis established that the RM was amended, however the MTE was unable to ascertain the processes (who and when) that led to the amendment. To ensure relevance of the recommended changes the MTE used the 2017 version of the RM as laid out in the PMR. The nine indicators were reduced to seven, as reflected in the 2017 IDB PMR. Of the seven, two were impact and five outcome level indicators. MTE findings revealed that: -
    a. **Impact # 1 and #2:** Both impacts were adequate as stated.

        • Indicator # 1 is sound but where the PMR's "observation of the indicator[30]" uses "# of gauges" as the measure to assess sedimentation in waterways the impact cannot be assessed.

        • Indicator # 2 where the PMR used "Payment for Environmental Services (PES) system functioning at NEPA" as a measure of Tons of carbon sequestered there is concern regarding alignment.

    b. **Outcome # 1**: there are no arrangements with JCDT to support the portion of the outcome related to the Blue and John Crow Mountains given the status of the project's PA with JCDT and the remaining implementation timeframe.

        • Indicator # 3 is sound but to date there is no project activity reported or planned to achieve this outcome.

        • Indicator # 4 is relevant but does not reflect use of the DSS protocol as a measure of improved management of biodiversity.

    c. **Outcome # 2**: The delays in PES consultancy procurement, and other associated activities, will not allow the project to implement the PES in its remaining timeframe.

        • Indicator #s 5 & 6: Though relevant at design "*area under contract*" and "*contracts signed*" are not reflective of the current status of the project.

    d. **Outcome # 3:** The outcome was found to be well aligned with the current project status.

[30] See the 2017 IDB PMR

• Indicator #7: “Area of land in soil cover and SLM program” was found to be relevant at design and continues to be a strong measure of the adoption to SLM best practices by farmers and land owners.

6. The MTE observed three components and 12 outputs associated with the project’s RM. The following are the MTE findings:
    a. Component # 1 – was found to be well aligned.

        The following are the output level findings: -

        - Output # 1.1 - well aligned and relevant.
        - Output # 1.2 - well aligned and relevant.
        - Output # 1.3 - well aligned at design, however requires revision based on current project status.
        - Output # 1.4 - well aligned at design, however requires revision based on current project status.
        - Output # 1.5 - well aligned and relevant.
        - Output # 1.6 - well aligned and relevant.

    b. Component # 2 - was found to be well aligned at designed, however the delays in several components’ activities (e.g. PES and hydromet assessment) will impact the results of this Component, and the “implementation” of the PES.

        The following are the output level findings: -

        - Output # 2.1 - well aligned and relevant.
        - Output # 2.2 - well aligned at design, however requires revision based on current project status.

    c. Component # 3 – was found to be well aligned.

        The following are the output level findings: -

        - Output # 3.1 – SLM activity outputs are largely focused at the farm level (large and small). Opportunity exists for minor revision to improve alignment.
        - Output # 3.2 – While the output is well aligned and relevant, the associated milestone related to *community group formation and strenghtening* is not aligned to partners’ decision to not form new groups.

- Output # 3.3 – while aligned and relevant this output does not adequately capture the progess being made in promoting adoption and replication of SLM practices by beneficiares.
- Output # 3.4 - well aligned and relevant.

Efficiency

7. Project implementation is supported by AOP, Finance and Procurement Plans developed in a timely manner. However, they have not benefitted from significant stakeholder participation in their development and monitoring.
8. The project has sound financial controls and financial management practices, as confirmed by the external audits and IDB's ex-post reviews.
9. An MTE inflationary analysis indicates that the original project budget would need to be increased by approximately 9% or US$360,269.28 to reflect the true cost of the project. This accounts for the delay in implementation and annual inflation.
10. Project implementation has experienced significant delays in:
    iii. Pre-implementation (a flawed hydromet assessment (due to data quality, availability and adequacy issues resulting in inaccurate modelling outputs); setbacks with signing of PAs with IP; approval of sites, species and silviculture plans for reforestation; inadequate stakeholder consultations and negotiations prior to project start).
    iv. Implementation (PAs completion times varied; full complement of PEU staff not on board at start-up ; gaps in capacity of PEU; weak project institutional structure and absence of strategic level decision making; poor coordination and inadequate engagement of stakeholders; procurement challenges; budgetary constraints for activities due to time lag between design and implementation; double taxation requirements for international consultants; lengthy review timelines; poorly developed monitoring and evaluation system; untimely delivery of activity inputs; inadequate monitoring of IP PAs).
11. The project utilizes stakeholder expertise for project technical oversight, which is a benefit of the multi-stakeholder approach to watershed management. This approach is also useful for building stakeholder relations, sharing data and information and coordinating efforts for implementation. This has been operationalized through the PSC and the ALAF Working Group for Component 3, but the level of coordination of efforts is less than optimal.
12. The PEU relates to NEPA for project management and technical implementation, but there is variation in the relationship with the different divisions and units.

13. The project has high visibility, with a strong communications plan that targets a range of publics.
14. The linkages between the KAPBs as a project technical activity and a tool for M&E was not well understood and failure to implement in a timely manner has undermined its use for M&E.
15. Absence of procedures, including those for communication, change control, and risk management, resulted in issues with stakeholder relationships and inability to address bottlenecks in a timely manner. It did not support a joined-up approach to implementation.
16. The project did not properly identify and fill gaps in partner capacity to ensure smooth implementation.
17. Utilization of IP capacity has helped to fast-track activity implementation (e.g., FD and RADA – personnel as well as training manual for FFS land husbandry training).
18. The IDB has provided management supervision with constant communication with the PEU and EA, supervision and technical missions, assistance with identification of short term technical assistance (e.g. for PES, CSM), and identification and acquisition of additional funds for project delivery.

Effectiveness

19. The analysis of planned versus actual results shows the project significantly behind in actual vis-à-vis planned outputs and expenditure. More than 50 percent of planned activities were not completed.
20. The most significant implementation progress was seen on Component 3 where over 160 farmers benefited from SLM training and fire management. Over 70 hectares replanted through reforestation and agroforestry. The re-drafting of the watershed policy was also completed during the period and over 30,000 persons engaged through a range of awareness and behaviour change programmes.
21. Key agencies responsible for watershed management are working together in the same space, and leveraging technical capacity to achieve the common improved watershed management objective.
22. Perception-focused interviews with farmers for this MTE established that the FFS training had a positive effect on farmers' knowledge of the innovations that can improve GAP adoption in the short, medium and long-term.

Impact and Sustainability

23. Although efforts have been made to mainstream activities in partner corporate and operational plans, a sustainability strategy has not been developed with IPs to ensure continuation of benefits beyond the life of the project.

24. Due to the delays in project implementation, the project has not achieved outcome and impact targets as defined in the projects RM.
25. Unintended impacts identified are:
    - Establishment of partnerships (e.g. FD and JFB, the ALAF Working Group)
    - Farmer field days to facilitate adoption of land husbandry practices

4.4 Findings summarized in the GEF indicator tracking tool

Table 23 summarises the MTE findings based on the GEF tracking tool for which details are provided in Annex A-8. The project received an overall rating of Unsatisfactory (U), which is largely linked to the slow pace of implementation, particularly as it relates to expenditure rate and achievement of outputs. The project remains significantly below targets after four years of implementation.

An approach to project implementation was the establishment of partnerships among relevant government agencies. These were expected to facilitate ongoing improvement in coordination and collaboration at the national and local levels for watershed management. However, the utilization of partnerships has not been optimized and results in continued weak coordination among the partners.

Additional project issues include the fact that the PEU was not established the way in which it was designed (POM 2016) and took a long time to become fully operational. There are gaps in PEU capacity (coordination, procurement, M&E, communication) to effectively manage the project.

While the design of the project was strong and the country commitment remains high, given the pending project completion date and the number of outstanding activities, there is a high risk for achievement of outputs and outcomes, and ultimately impacts, if not corrected.

Table 23. Project Rating using the GEF tracking tools eleven indicators

Parameter	Grade
1. Attainment of objectives and planned results (progress to date)	U
2. Assessment of Sustainability of Project Outcomes	MU
3. Achievement of Outputs and Activities	MU
4. Catalytic Role and Replication	MS
5. Assessment of Monitoring and Evaluation (M&E) Systems	MS

Parameter	Grade
6. Preparation and Readiness	U
7. Country ownership/driveness	HS
8. Stakeholder Participation/public awareness	MS
9. Financial Planning	MS
10. Implementation Approach	MS
11. IDB Supervision and Backstopping	S
Overall Project Rating	**U**
HS= High Satisfactory; S=Satisfactory; MS=Moderately Satisfactory; MU= Moderately Unsatisfactory; U= Unsatisfactory; HU= Highly Unsatisfactory	

4.5 MTE Recommendations

This Game Plan outlines strategic steps to address the current low disbursement and unmet targets affecting the project. The plan addresses the prioritized implementation constraints that were found to revolve around the following:

- Delayed reforestation programme.
- Capacity limitations within the PEU.
- Procurement and project implementation limitations that led to undue delays.
- Limitations of the current GOJ institutional coordination structure (EA, IPs, PIOJ, MEGJC, MOFPS).
- RM alignment with current project status and expected outputs, outcomes and impacts.

The MTE game plan recommendations address weaknesses in project governance, procurement planning and execution, partner agency and stakeholder engagement, technical programme structure and delivery and monitoring and evaluation; which are the main contributing factors to the project's current problem status.

Game Plan Summary Recommendations

A. Project Governance – Given the national significance of the project outcomes and the multi-agency implementation context, the Government of Jamaica must take the following immediate actions to address gaps in project oversight:

- **Negotiate a New PA**. Prepare one PA[31], that integrates new partners and lessons learnt, evolving roles and responsibilities (including communication, monitoring and evaluation, TWGs, and revised targets and post-project sustainability actions. This PA will set the tone for stronger cross-agency coordination.
- **PSC review to secure separation between project oversight and technical supervision**. Project governance should be strengthened with a separation between overall project oversight and technical supervision. The recommendation is that the Chair of the PSC reside at the Ministerial level with the Permanent Secretary of a core line ministry or a delegate (e.g., Chief Technical Director-MEGJC, GEF Focal Point, MOFPS and PIOJ). Heads of IPs and the EA should continue to sit on the PSC. This will give the PSC the necessary authority to implement at a multi-agency level using its TOR and associated responsibilities detailed in the POM (2016). The PSC will also operate as the project's Change Control Committee and will need to hold extra-ordinary meetings and use round robin to make decisions outside of regular meeting times. The PSC will continue to meet quarterly as originally planned and defined in the POM.
- **Expand TWGs to cover additional project areas**. Where current PSC members are not agency heads, their contributions should take place as part of the existing or new TWGs of the PSC. The membership of the expanded working groups would include all key external partners/stakeholders, supported by the PEU , which will meet on a monthly basis. These would serve as a monitoring and evaluation intermediary reviewing work plans, reports and recommending preventative and corrective actions where necessary to the PSC, in collaboration with the newly mobilized Monitoring and Evaluation (M&E) team. It will also serve to further strengthen the bridge across multiple agencies.
- **Strengthen PEU/ Planning, Projects, Evaluation and Research Division (PPERD) Capacity in Key Technical and Project Management Areas**. To meet the accelerated implementation schedule needed to turn the project around, the project unit (within the PPERD) needs access to additional expertise to strengthen strategic oversight, planning, monitoring & evaluation, co-financing management and procurement.
    - *Improved M&E Management* - As an immediate next step, the EA , having overall coordination and integration responsibilities, should assemble an M&E team, comprising the PEU and Agency staff (Conservation and Protection Subdivision, Ecosystems Management Branch, National Spatial Strategy Branch/GIS Unit and Public Education and Corporate Communications Branch), that will ensure

[31] If this recommendation is not accepted, existing PAs would need to be revised to reflect project adjustments to date and modifications made and the one in process with SDC finalized. However, creation of one PA for all partners serves to promote a unifying goal, define the linkages among stakeholders as well as enhance collaboration and coorperation.

overall M&E functions are conducted. An IDB/GEF M&E technical mission should be mobilized to transfer capacity on donor M&E requirements for compliance to the team. The M&E team should report directly to the Chief Executive Officer (CEO) of the EA, through the PPERD and the TWGs of the PSC. Where PAs exist, the Memoranda of Understanding (MOUs) should be updated to reflect partner monitoring roles.

- *Fill outstanding staff positions* – Following a Staff Gap Analysis conducted by the EA, fill all human resource gaps, e.g. the two additional Technical Coordinators (TCs), in line with the original design in the project document and emerging areas of need. Special consideration should be given to addressing capacity gaps in support of project management and coordination of co-financing tracking and reporting within PAs.

- **Establish Working Arrangements between NEPA (with responsibility as EA) and relevant NEPA Divisions to separate coordination and management from implementation functions** – To secure planned outputs requiring technical leadership from NEPA Divisions, Branches and Units, execute working arrangements between the project and relevant NEPA divisions to ensure:
  - alignment and complete absorption of project activities within the Operational and Divisional plans.
  - Standardization of project planning, execution and reporting across all project implementers (e.g., utilization of project planning and reporting templates).
- **Establish Communication Working Group**. To improve the promotion of project outputs and achievements, establish a team that includes personnel from Communications or Public Education Departments within each IP and co-opt the Government Media Agency, the JIS. This team would also work closely with the PEU and major consultants to promote the different elements of the project.

Game Plan Action	Lead	Timeframe (Month)											
		1	2	3	4	5	6	7	8	9	10	11	12
1. Negotiate New PA	CEO/ PPERD	X	X										
2. Separate PSC roles for project oversight and technical guidance	CEO/ Cabinet	X	X										
3. Expand TWGs to cover additional project areas	CEO/ PPERD	X	X										
4. Expand PEU/ PPERD Capacity in Key Technical and Project Management Areas	CEO/ PPERD	X	X	X									
5. Establish Working Agreements	CEO/ PPERD	X											

Game Plan Action	Lead	Timeframe (Month)											
		1	2	3	4	5	6	7	8	9	10	11	12
with key NEPA Divisions													
6. Establish Communication Working Group	PPERD		X										

B. Improved Procurement Planning and Execution – To accelerate project expenditure, it is imperative that procurements are executed in a timely manner by integration of the following actions:

- **Expand PEU procurement capacity in the short-term**. For improved procurement efficiency, expand procurement capacity within the PEU with the hiring of short-term procurement support or secondment of an additional NEPA procurement officer to accelerate project originated procurements.
- **Solicit pre-procurement support from implementing partners to reduce PEU workload.** Where the technical expertise needed to develop TORs, design works projects or provide goods specification, lies outside of the EA, these pre-procurement actions should be led by partner agencies with input from the TWGs to reduce PEU workload and accelerate implementation.
- **Consolidate procurement approvals in collaboration with the project's donor**. Consolidate the process of procurement approval (internal and external to the EA) with specific emphasis on areas of bottleneck identified in the MTE. For example, the number of NO actions at multiple procurement execution phases. This is in keeping with the IDB's recommendation for packaging of NO requests that has been demonstrated since April 2018.
- **Improve procurement planning** by:
  - *Evaluating procurement actions (ongoing and planned) weekly* to inform procurement strategy revision (e.g. consolidate, accelerate, terminate) and to elevate any bottlenecks needing CEO or PSC intervention.
  - *Starting procurements at least three to four months prior to* planned mobilization date, depending on procurement type, for example goods or services; considering the full procurement cycle, and anticipate bottlenecks.

Game Plan Action	Lead	Timeframe (Month)											
		1	2	3	4	5	6	7	8	9	10	11	12
1. Expand PEU procurement capacity in the short-term	CEO/ PPERD/PO	X	X	X	X	X	X						
2. Solicit pre-procurement support from IPs to reduce	CEO/ PPERD/IP	X	X	X	X	X	X	X	X	X	X	X	X

Game Plan Action	Lead	Timeframe (Month)											
		1	2	3	4	5	6	7	8	9	10	11	12
PEU workload													
3. Consolidate procurement approvals in collaboration with the project's donor.	CEO/ PPERD/IDB	X	X	X	X	X	X	X	X	X	X	X	X
4. Improve procurement planning	PPERD| PEU	X	X	X	X	X	X	X	X	X	X	X	X

C. Revise Project Technical Components – To align with the remaining project implementation timeframe, and the current delayed status of major project components, the following activity revisions should be taken:

- **Forego remaining KAPB studies as part of the original M&E design** – Considering the delayed execution of the first KAPB, remaining planned KAPBs should be eliminated with the FFS M&E plan being revised to integrate pre- and post-assessments that capture changes in farmers' knowledge of SLM. In addition, a M&E strategy should be integrated within the communication plan to poll its audiences on changes in attitudes and perceptions as part of intervention design.
- **Plan for PES design activity execution** – The timeframe for the PES Consultancy has been contracted from 30 to 18 months, with the number of deliverables remaining the same, but executed concurrently, rather than sequentially. A dedicated TC is needed to ensure efficient and effective implementation. Since raw data will be required from IPs, a focal point within each entity should be appointed and working through the respective heads of agencies to respond to data requests in a timely manner. Failure to implement these recommendations will jeopardise the project results and achievement of its overall objective.
- **Plan for PES Implementation beyond the project's life cycle** – Recognizing that the final PES design consultancy deliverable will be received one month before project closeout, a transition plan for PES implementation (including the execution of the market-based incentive scheme) should be defined in consultation with the key stakeholders to secure sustainability.

Game Plan Action	Lead	Timeframe (Month)											
		1	2	3	4	5	6	7	8	9	10	11	12
1. Forego additional KAPB studies		X											
2. Plan for PES Implementation beyond the project's life cycle							X						X

D. Strengthen technical programme delivery – To ensure delivery of project outputs and outcomes, the PEU and PSC must monitor consultancies to ensure deliverables are on time and of quality. Any delays should be communicated so proactive action can be taken by agency heads to address any emerging constraints in a timely manner. The following activities will require close coordination and monitoring:

- **Assign PEU TCs to Components to coordinate and monitor activity implementation**. TCs will work with consultants in delivery of outputs by assisting with collection of documents and data, arranging meetings and workshops, arranging site visits and coordinating review and approval of reports. The TCs will work closely with the established TWGs to ensure timely delivery**.** Effort must be made to ensure that consultancy work plans are implemented in a timely manner.
- **Procure monitoring equipment based on specifications provided by the WRA and MSJ**. The PEU should plan for and implement steps to procure equipment.
- **Accelerate awareness and sensitization actions for the PES.** Communications actions for the PES should be fast-tracked and coordinated with the PES consultancy that is now underway.
- **Continue to hold frequent PEU team meetings to review progress on activity implementation**. Use periodic (weekly) progress check-ins with all PEU team members and Projects Branch to identify bottlenecks that require team intervention or escalation to CEO or PSC levels. This will also help to build relationships between the EA and PEU.
- **Engage other relevant stakeholders in activity implementation as needed.** involve other IPs and stakeholders (e.g. National Land Agency, Jamaica Conservation and Development Trust (JCDT) in key tasks, where needed.
- **Commence implementation of Component 3 Alternative Livelihoods Assessment and Community Group Strengthening**: Develop and activate a plan of action for the Alternative Livelihood Assessment. Identify community groups and develop and implement a plan for community group strengthening. Revive ALAF Working Group and work with an assigned TC to coordinate and monitor implementation.
- **Accelerate development and implementation of the agro-forestry incentive scheme with private large land owners**: The PEU in collaboration with the ALAF Working Group and the EA will develop a multi-agency action plan for this sub-activity. The work plan should allow for actions to be implemented concurrently, where possible. Integrate awareness actions on this activity into the project communications strategy.
- **As soon as the areas for project intervention are determined by the hydromet assessment:**

- *Commence preparatory reforestation work to ensure the targets and planting season requirements are me*t: The FD will lead on this activity, in conjunction with the ALAF Working Group that will monitor and review plans and reports.
- *Make necessary preparations and carry out actions to install monitoring equipment*: The WRA and MSJ will install gauges and weather stations in the project intervention areas for baseline and ongoing monitoring. The PEU should plan for and carry out work schedules in a timely manner. The PEU should ensure that all IP needs for these activities are met (e.g. transportation requirements). Conduct sensitization activities in the intervention communities

Game Plan Action	Lead	Timeframe (Month)											
		1	2	3	4	5	6	7	8	9	10	11	12
1. Assign PEU Technical Coordinators to Components to coordinate and monitor activity implementation	PPERD/PEU	X	X										
2. Procure monitoring equipment based on specifications provided by the WRA and MSJ	PEU/NEPA/IDB	X	X	X									
3. Hold weekly PEU team meeting to review progress on activity implementation	PEU/Projects Branch	X	X	X	X	X	X	X	X	X	X	X	X
4. Engage other relevant stakeholders in activity implementation as needed	PEU/TWGs	X	X	X	X	X	X	X	X	X	X	X	X
5. Commence work on Component 3 Alternative Livelihoods Assessment	PEU/TWG	X	X										
6. Accelerate development and implementation of the agroforestry incentive scheme with large private land owners	PEU/TWG	X	X	X	X	X	X	X	X	X	X	X	X
7. Commence preparatory reforestation work to ensure the targets and the planting season requirements are met	FD/PEU		X	X	X	X							
8. Make necessary preparations and conduct actions to install monitoring equipment	PEU/WRA/MSJ	X	X	X	X	X	X						

E. Project Management and Crosscutting Areas:

There are a set of cross-cutting project management actions that are also necessary to ensure timely implementation, coordination among project stakeholders and achievement of targets. The Project Manager should update these actions and processes in the POM and share with project Implementation Partners.

- **Strengthen project planning using a participatory approach:** The PEU should utilize every opportunity to engage key stakeholders in project planning. Annual planning retreats with the PSC and TWGs are two key actions to be implemented. Use PSC and TWG meetings to engage stakeholders in ongoing planning and reflection as part of an adaptive management approach.
- **Update POM:** The PEU should revise and update the POM and include actions to:
    - Conduct regular meetings with stakeholder groups that will serve to update stakeholders and identify and address issues and challenges. This will also help build cohesion among key stakeholders and facilitate improved communication. Meetings should be convened with the PEU, PSC, TWGs, IDB and Consultants in the specified timeframes.
    - Develop and utilize a change control process and where needed, escalate change requests to the PSC (operating as the change control committee).
    - Develop and utilize a Lessons Learned Register and incorporate in IPs PA reporting requirements. Conduct sensitization sessions with IP Focal Points and other relevant personnel.

Meetings should be convened as follows:
Weekly Meetings:
- PEU Team and Project Branch
- IDB-PEU Meetings
- PM/ PPERD Director
- PPERD Director/PEU
- PM/NEPA CEO

Monthly Meetings:
- Technical Working Groups of PSC
- Communications Working Group

Quarterly Meetings:
- PSC
- PEU with PA Implementing Partners

As required by Consultants' Work Plans
- Progress update meetings with respective TWGs
- PEU/Consultant for follow up and determination of needs

- **Following on MTE Recommendations, work with PSC and TWGs to finalize the revised Results Matrix (see Annex A-2):** Following approval of the MTE report, the PEU/PPERD should convene a meeting of the PSC/TWGs to discuss and agree on the MTE recommended revisions to the RM to be negotiated with the IDB/GEF. The PEU should then arrange for a follow up negotiation meeting with the IDB to discuss the revised RM and all other matters requiring approval. The summarized MTE recommendations that reflect the EA and PEU inputs and serve as the basis for discussion and finalization are listed below and detailed in Annex A-2:

a) Impacts and Outcomes:

- Indicator # 1- *Sedimentation in waterways*: Revise RM to reflect a measure of outputs from the installed gauges in collaboration with the WRA and NWC (e.g. change (decrease) in turbidity levels)
- Indicator # 2 - *Payment for Environmental Services (PES) system functioning at NEPA*: In consultation with the FD and the Carbon Stock Monitoring (CSM) consultant, the project should agree on a new indicator using the outputs of CSM protocol development. In the interim, the project should work with the FD to develop and agree on a proxy indicator to reflect ongoing efforts to plant trees, reverse land degradation and increase soil cover (e.g. survival rates for new plantings and areas under improved management (reforestation, forest maintenance and SLM). Illustrative proxy indicators to be considered include i) survival rates of new plantings, and ii) area under improved management as a result of reforestation, forest maintenance and SLM activities in the WMUs.
- Outcome #1- *Improved management of biodiversity in the watersheds of the Hope & Yallahs Rivers & the Blue and John Crow Mountains*: Revise the title to remove "Blue and John Crow Mountains", given the status of the project's PA with JCDT and remaining implementation timeframe.
- Indicator # 3: Remove this indicator given there are no associated project activites.
- Indicator #4 - *Agencies updating data in DSS (Decisions Support System) according to agreed protocol*: For greater alignment with the intended outcome of improved management of biodiversity in the target WMUs, expand the associated indicator to capture how the data entered or updated in the DSS are being used in watershed level planning, intervention design and decision-making. Illustrative indicator revision - # of management actions (plans, strategies etc.) taken using data from the DSS.
- Outcome #2- *Functioning pilot Payment for Environmental Services (PES) system*: Given the remaining timeframe for the completion of outputs under the PES consultancy, revise Outcome 2, for example, to *PES designed and agreed on with key stakeholders.*
- Indicator # 5- *Contracts Signed* and # 6- *Area under contract*: In line with the revision to the outcome, revise the indicators to reflect agreed Component 3 revisions to expand the private landowner programme that can serve as an early pilot of the PES. Illustrative indicators - *# Of Contracts Signed with large private landowners* and *funding sources Identified through the PES consultancy.*

b) Components and Outputs:

- Output # 1.3- *Monitoring protocols implemented*: Remove *implemented* and replace with *designed and agreed on* based on the current status of the

associated consultancy. MTE recommended revision - 11 hydro-met stations installed and Data protocols developed and agreed.

- Output # 1.4- *GIS-based decisions support system (DSS) for both watersheds implemented configured and implemented*: Given that until participating agencies are actively using the DSS for planning, execution and decision-making it cannot be considered as implemented. The MTE recommends removing *implemented* and replace with *designed and agreed on* based on the current status of the associated consultancy. MTE recommended revisions - GIS-based decisions support system (DSS) for both watersheds designed, configured and tested and Administrators and end users trained to use the DSS
- Component # 2 - *Design and implementation of a market-based incentive scheme* – to be revised to remove *implementation* and amend to read *Design and agreement* on a market-based incentive scheme.
- Output #2.2- *Payment for Environmental Services (PES) scheme, implemented*: the milestone should be revised to align with the outputs of the PES consulancy for example - PES operation manual finalized, PES Consultancy Outputs completed – micro-catchment level intervention plan, Sustainable financing plan, willingness to pay study, and PES Transition Plan Prepared (including agreed governance structure)
- Output #3.1- *Extension Program monitored*: Modified to read *Farm Extension Program implemented and monitored*
- Output #3.2 - *Communities' capacity improved*: Amend to read as *Farmers, and others with increased knowledge in SLM*
- Output #3.3- *Agriculture practices improved*: Amend to read as *SLM best practices adopted by project beneficiaries*

- **Conduct budget review and submit realignment request for donor approva**l. Conduct budget review to ensure upcoming activities are adequately accounted for and address issues related to inflation, changing market price, increased project management cost due to capacity gaps, thereby limiting future budget realignments. The revised budget should be submitted for donor approval.

Game Plan Action	Lead	Timeframe (Month)											
		1	2	3	4	5	6	7	8	9	10	11	12
1. Strengthen project planning using a participatory approach	PEU	X	X	X	X	X	X	X	X	X	X	X	X
2. Conduct regular meetings with different stakeholder groups	PEU	X	X	X	X	X	X	X	X	X	X	X	X
3. Develop and utilize a change control process and where	PEU/PSC	X	X	X	X	X	X	X	X	X	X	X	X

Game Plan Action	Lead	Timeframe (Month)											
		1	2	3	4	5	6	7	8	9	10	11	12
needed, escalate change requests to the PSC													
4. Develop and utilize a Lessons Learned Register	PEU/IPs	X	X	X	X	X	X	X	X	X	X	X	X
5. Work with PSC and TWGs to revise the RM	PEU/PPERD	X	X										
6. Conduct budget review and submit realignment request for donor approval	PEU/IPs	X	X										

F. Project Monitoring & Evaluation

In order to track project performance and achievement of targets, the project should commence implementation of its M&E Plan. To do this, the following key actions should be undertaken:

- The new M&E team, following IDB technical assistance mission support, should prepare an M&E implementation plan that clearly outlines roles and responsibilities for project monitoring, reporting and activity level evaluation (including a data collection strategy and flow chart) across the range of project stakeholders.
- Incorporate updated monitoring, evaluation and reporting responsibilities for partners in the revised MOU.
- Evaluate and build capacity within the PEU and the partner agencies for monitoring, evaluation and reporting; to include training, standardization of tools and increased awareness around the RM use.
- Evaluate the RM to make recommendations on key adjustments that align with the current delayed status of the project.

Game Plan Action	Lead	Timeframe (Month)											
		1	2	3	4	5	6	7	8	9	10	11	12
1. Prepare M& E Plan	PEU/PPERD	X	X	X									
2. Incorporate updated monitoring, evaluation and reporting responsibilities for partners in the revised MOU.	PEU/Consultant	X	X										
3. Evaluate and build capacity within the PEU and the partner agencies for monitoring, evaluation and	PEU/PSC/IPs	X	X	X									

Game Plan Action	Lead	Timeframe (Month)											
		1	2	3	4	5	6	7	8	9	10	11	12
reporting;													
4. Evaluate the RM to make recommendations on key adjustments that align with the current delayed status of the project.	PEU/IPs	X											

4.6 Immediate Next Steps

Following the completion of the MTE, critical next steps to sign off on and implement recommendations include:

1. Submit final MTE report to IDB.
2. CEO-hosted internal (NEPA and PEU staff) assessment of project implementation *vis a vis* MTE report finding.
3. Presentation of MTE findings, recommendations and game plan to key stakeholders (heads of agencies, PIOJ, MOFPS, GEF Focal Point and MEGJC) towards agreement on final action plan.
4. NEPA PEU meeting with all implementing partners to agree on workplan and targets. Targets should be written in PAs and associated M&E roles and responsbilities defined.
5. Negotiations between IDB and NEPA for sign off on the agreed action plan and RM revisions.
6. Internal review by the IDB to determine adjustments to be made to processes and procedures that include:
    a. Potential modification to ex-post review thresholds.
    b. Frequency of IDB/PEU meetings.
    c. Capacity development assistance to the PEU, e.g. for M&E.
    d. Modifications to the Project Monitoring Report (PMR).
7. Once there is agreement on key items, revise the RM/PMR based on MTE findings and recommendations and additional input by using a participatory working meeting with both the IDB and NEPA.

Annex A-1: Copyright Page

Integrated Management of the Yallahs and Hope River Watershed Management Areas Project, GRT/FM-14607-JA

Mid-Term Evaluation Report

Prepared by Alicia A. Hayman Ph.D. for the National Environment and Planning Agency (NEPA)

10&11 Caledonia Avenue
Kingston 5
Jamaica W.I.

Telephone: (876) 754-7540
Fax: (876) 754-7596
E-mail: pubed@nepa.gov.jm
Website: www.nepa.gov.jm

Annex A-2: MTE Recommended Revision of the Results Matrix

At the start of the project the RM (included in the POD) was amended, however the MTE was unable to ascertain the processes (who and when) that led to the amendment. To ensure relevance of the recommended changes the MTE used the 2017 version of the RM as laid out in the PMR. The PM4R that has been utilized by the PEU (based on MTE consultations) was employed as a planning tool as opposed to results level monitoring. The annex includes two sections. **Section A**- focuses on recommended changes to the Impact and Outcome levels of the PMR. **Section B**- reviews and makes recommendations at the component and outputs levels. To maximize utility, the recommended changes and illustrative revisions should be reviewed in tandem with the 2017 version of the project's IDB PMR and the RM elements included therein.

The revisions are based on the a) MTE findings and recommendation and b) input of NEPA's team following the MTE presentation on May 1, 2018. The MTE, however, is constrained to make final revisions to the RM in the absence of collective agreements by the PEU, EA, IPs and IDB.

Section A – MTE Recommended Change to YHWMU project Impacts and Outcomes

RM Element	Indicator	MTE Recommended Change	MTE Illustrative Revision
Impact #1. Reduced soil erosion and siltation in both watersheds	#1. Sedimentation in waterways	Indicator is sound, however, revise observation to reflect a measure of outputs from the installed gauges in collaboration with the WRA and NWC	Change (decrease) in turbidity levels annually
Impact #2. Tons of carbon sequestered	#2. Payment for Environmental Services (PES) system functioning at NEPA	In consultation with the FD and the CSM consultant the project should agree on a new indicator using the outputs of CSM protocol development. In the interim the project should work with the FD to develop and agree on a proxy indicator to reflect ongoing efforts to plant trees, reverse land degradation and increase soil cover	Survival Rates of New Planting
			Area under improved management as a result of reforestation, forest maintenance and SLM activities in the WMUs
Outcome #1. Improved	N/A	Revise the title of RM Outcome # 1 to remove "Blue and John Crow Mtns"	Improved management of biodiversity in the watersheds of the Hope & Yallahs

RM Element	Indicator	MTE Recommended Change	MTE Illustrative Revision
management of biodiversity in the watersheds of the Hope & Yallahs Rivers & the Blue and John Crow Mountains		given the status of the project's PA with JCDT and the remaining implementation timeframe	Rivers
	#3. Watersheds covered by development orders that include land cover and soil management (SLM)	Remove indicator # 3, given that there are no activities in this project to which the output can be attributed.	-
	#4. Agencies updating data in DSS (Decisions Support System) according to agreed protocol	For greater alignment with the intended outcome of improved management of biodiversity in the target WMUs, expand the associated indicator to capture how the data entered or updated in the DSS are being used in watershed level planning, intervention design and decision-making	# of management actions (plans, strategies etc.) taken using data from the DSS
Outcome #2. Functioning pilot Payment for Environmental Services (PES) system	N/A	Revised Outcome # 2. To align with the fact that the PES consultancy timeframe will cover the remainder of the project therefore actions beyond the consultant's design and the agencies acceptance of the PES would be limited.	Pilot Payment for Ecosystems/Environmental Services (PES) system designed and agreed on with key stakeholders
	#5. Contracts Signed #6. Area under contract	There is opportunity to explore current Component 3 actions to expand the SLM programme through engagement with the large private land owners programme and include this as an early pilot of the PES. If no pilot, then alternate measures should be used to measure the PES consultancy outcome, given that a functioning PES will not be a measurable	# Of Contracts Signed with large private landowners. Funding Sources Identified through the PES consultancy

RM Element	Indicator	MTE Recommended Change	MTE Illustrative Revision
		outcome at project completion, but rather its design.	
Outcome #3. Improved soil cover and land management (SLM) in project area	#7. Area of land in soil cover and land management (SLM) program	N/A	N/A

Section B – **MTE Recommended Change to YHWMU Project Component and Associated Outputs**

Project Component	Outputs	MTE Recommendation Change	MTE Illustrative Revision
Component #1. Institutional Strengthening & Capacity Building for Biodiversity	#1.1. Watershed Management MOU approved	N/A	N/A
	#1.2. Socio-physical data gathered	N/A	N/A
	#1.3. Monitoring protocols implemented	Remove implemented and replace with designed and agreed based on the current status of the associated consultancy.	11 hydro-met stations installed Data protocols developed and agreed.
	#1.4. GIS-based decisions support system (DSS) for both watersheds implemented configured and implemented	Given that until participating agencies are actively using the DSS for planning and decision-making it cannot be considered as implemented. Remove implemented and replace with designed and agreed on based on the current status of the associated consultancy.	GIS-based decisions support system (DSS) for both watersheds designed, configured and tested Administrators and end users trained to use the DSS
	#1.5. Stakeholders of two WMUs trained in IWRM and biodiversity information management	N/A	N/A
	#1.6. Communication plan and public awareness campaign	N/A	N/A

	implemented		
Component #2. Design and implementation of a market-based incentive scheme	N/A		*Design and agreement* on a market-based incentive scheme
	#2.1. Ecological services valued	N/A	N/A
	#2.2. Payment for Environmental Services (PES) scheme, implemented	Revise to include milestones that reflect the current project implementation status and planned PES consultancy outputs Given the PES scheme cannot be implemented in the project timeframe, a plan of action towards PES implementation should be developed and agreed on with key stakeholders to ensure continuity and sustained action.	PES operation manual finalized PES Consultancy Outputs Completed: - micro-catchment level intervention plan - Sustainable financing plan, willingness to pay study PES Transition Plan Prepared (including agreed governance structure)
Component #3. Sustainable Livelihoods, Agriculture and Forestry in watershed communities	#3.1 Extension Program monitored	Revise this measure to be better aligned with Component #3 SLM activities in the two WMUs and more reflective of implementation status.	*Farm* Extension Program *implemented and* monitored
	#3.2. Communities' capacity improved	Strengthen this measure to capture some of the anticipated changes with the groups and farmers	Farmers, and others, with increased knowledge in SLM
	#3.3. Agriculture practices improved	Strengthen the output to reflect uptake of SLM best practices being introduced to project beneficiaries.	SLM best practices adopted by project beneficiaries
	#3.4. Area replanted through reforestation and agroforestry	N/A	N/A

Annex A-3: Project Timelines

Month	Year	Action Taken	Major Milestone
02-Oct	**2012**	**Study on Biodiversity, Forests, Land Use and Climate of Hope and Yallahs Watersheds completed during the project preparation phase (PPP)**	**Initial Project Preparation documents completed**
Jul-18	**2012**	**Carbon Stock Monitoring System for Yallahs Hope River Watersheds completed during the PPP**	
Jun-30	**2012**	**Hydrological Modelling Assessment completed during the PPP**	
30-Nov	**2011**	**Application of the Institutional Capacity Assessment System for NEPA during the PPP**	
12-Feb	**2012**	**Payment for Ecosystems Services (PES) Scheme development completed during the PPP**	
26-Apr	**2012**	**Rural Development Report preparation completed during the PPP**	
25-Sep	**2013**	**Request for GEF CEO endorsement from IDB for the full sized project completed**	
04-Dec	**2013**	**GEF Letter of Commitment of Funds for project received by IDB**	
02-Sep	**2014**	**Project Proposal (with supporting documentations) for non-reimbursable investment financing for the Yallah-Hope Project submitted to IDB Board of Directors**	**Project Proposal (with supporting documentations) for non-reimbursable investment financing for the Yallahs-Hope WMU Project submitted to IDB Board of Directors**
01-Oct	2014	Signing of the Non-reimbursable financing agreement between IDB and the Government of Jamaica (GoJ)	Signing of the Non-reimbursable financing agreement
08-Dec	2014	Certificate of Authorised Representatives; Allocation of sufficient resources	Fulfilment of conditions precedent to first disbursement
16-Dec	2014	Legal Opinion	
17-Dec	2014	Approved operation manual	
17-Dec	2014	Adequate financial information system & Internal Control Structure	
18-Dec	2014	Designated Special Bank Account	
26-Jan	2015	Establishment of programme execution unit	
26-Jan	2015	Initial Report	
09-Feb	2015	IDB declaration of eligibility for disbursement	IDB declaration of eligibility for

Month	Year	Action Taken	Major Milestone
			disbursement
15-Feb		Project Coordinator Hired	Project Coordinator Hired
13-Apr	2015	Project Launch and Inception Workshop	Project Launch and Inception Workshop
13-Apr	2015	Project Accountant & Finance and Accounting Officers Hired	
17-Apr	2015	Decision to hire international firm for PES Scheme development	
24-Apr	2015	IDB Orientation Training on requirements for Project and Other Process execution	IDB Orientation Training on requirements for Project and Other Process execution
01-May	2015	Decision that no honorarium facility for Implementing Partner (IP) for Memorandum of Understanding (MOU)s | Partnership Agreements	
30-May	2015	Submission of project status to NRCA Board	
30-May	2015	Final Annual Operating Plan (AOP) submitted to IDB	
16-Jun	2015	One-day Payment for Ecosystem Services (PES) Scheme Workshop	One-day PES Workshop
09-Jul	2015	Sensitization Session - St. Thomas Parish Council	
18-Jun	2015	Alternative Livelihood Agriculture and Forestry (ALAF) Working - Component 3 Mobilized	ALAF Working (Component 3) Mobilized
20-Jul	2015	Interagency Network Meeting - Social Development Commission (SDC)	
30-Jul	2015	Contract for Institutional Specialist (Legal) signed	
31-Jul	2015	Drive through Assessment (with NEPA Eco-system Management Branch) of 2015 fires on Project Area	
19-Aug	2015	NEPA| IDB| WRA | MSJ Meeting Decision regarding the adequacy of the Hydrological study completed in the project preparation phase; Project to undertake a HYDROMET and Geomorphological study as one consultancy; IP roles defined	**NEPA| IDB| WRA | MSJ** Meeting Decision regarding the adequacy of the Hydrological study completed in the project preparation phase; IP roles defined
17-Aug	2015	Joint Site Visit - IDB Consultant (PES Specialist), NEPA, NWC, WRA, RADA and Forestry Department	
19-Aug	2015	Carbon Stock Monitoring (CSM) Consultation Workshop	Carbon Stock Monitoring Consultation Workshop
19-Aug	2015	PES Consultation Workshop	
20-Aug	2015	1st Project Steering Committee (PSC) meeting	1st Project Steering Committee

Month	Year	Action Taken	Major Milestone
			(PSC) meeting
21-Aug	2015	IDB - Strategic Planning and Development Effectiveness Training	
31-Aug	2015	2015 AOP and 1st Semi-annual Report (SAR) submitted	AOP and 1st Semi-annual Report (SAR) submitted
30-Sep	2015	IDB Technical Mission (1-month visit concluded); partner sensitization, site assessments and planting areas identified; fire management, water quality and private land programme discussed and defined	IDB Technical Mission (extended visit concluded)
15-Nov	2015	Community Sensitization meeting - Hope WMU communities	Community Sensitization meeting - Hope WMU communities
24-Nov		PSC Meeting Held	PSC Meeting held
30-Nov	2015	2016 AOP and sporting procurement plan submitted to IDB	
16-Dec	2015	PEU participation in IDB annual audit workshop	
15-Jan	2016	IDB Supervision Visit	IDB Supervision Visit
30-Jan	2016	Project Vehicle Purchased	Project Vehicle Purchased
14-Jan		RADA - led Land Husbandry Best Practice Training of Trainer Concludes (Govt. & NGOs)	RADA - led Land Husbandry Best Practice Training Concludes (Govt. & NGOs)
30-Apr	2016	Ministry of Finance procurement unit clearance to initiate PES procurement	
30-Jun	2016	CSM Specialist Presentation to NEPA and FD	
06-Jul	2016	Communication Consultant Hired	Communication Consultant Hired
25-Jul	2016	Farmer field School (FFS) Mobilization - Hope WMU (Westphalia)	Farmer field School (FFS) Mobilization - Hope WMU
29-Jul	2016	2015|2016 Audit Report Submitted to IDB	First Audit Report Submitted to IDB
23-Aug	2016	Farmer Field School (FFS) Mobilization - Yallahs WMU (Penlyne Castle, Minto and Hagley Gap)	Farmer Field School (FFS) Mobilization - Yallahs WMU (Penlyne Castle, Minto and Hagley Gap)
30-Aug	2016	Farmer Field School (FFS) Mobilization - Yallahs WMU (Windsor Castle)	Farmer Field School (FFS) Mobilization - Yallahs WMU (Windsor Castle)
05-Sep	2016	Farmer Field School (FFS) Mobilization - Hope WMU (Content Hap | St. Peters)	Farmer Field School (FFS) Mobilization - Hope WMU (Content Hap | St. Peters)

Month	Year	Action Taken	Major Milestone
12-Sep	2016	IBD receives letter of request for Technical Cooperation Agreement (TCA) from Ministry of Finance and the Public Sector to access biodiversity funds to support PES consultancy	IBD receives letter of request for Technical Cooperation Agreement (TCA) from Ministry of Finance and the Public Sector to access biodiversity funds to support PES consultancy
20-Sep	2016	Land Ownership Assessment - Hope WMU	
30-Sep	2016	Project Driver Hired	
07-Oct	2016	IDB indicated their commendation of the 2015|16 audited financial statement	
27-Oct	2016	Fire Management Trainings held in Penlyne Castle and Gutterhead St. Thomas	Fire Management Trainings held in Penlyne Castle and Gutterhead St. Thomas
19-Oct	2016	PEU participation in IDB fiduciary workshop	
02-Nov	2016	MOU | Partnership Agreement signed with RADA	MOU | Partnership Agreement signed with RADA & Forestry Department
02-Nov	2016	MOU | Partnership Agreement signed with Forestry Department	
08-Feb	2017	Annual Operating Plan for the Yallahs Hope Project - 2017/2018 resubmitted	The Annual Operating Plan for the Yallahs Hope Project - 2017/2018 resubmitted
31-Mar	2017	MOU | Partnership Agreement signed with WRA	MOU | Partnership Agreement signed with WRA
30-Mar	2017	MOU | Partnership Agreement signed with NWC	MOU | Partnership Agreement signed with NWC
25-Apr	2017	Reminder to IDB that the project was in alert due to a low disbursement rate	Reminder to IDB that the project was in alert due to a low disbursement rate
25-May	2017	PSC Meeting Held	
12-Jun	2017	Fire Management Tools Procurement Completed	Fire Management Tools Procurement Completed
06-Jul	2017	IDB no objection for AOP 2017/18	
02-Aug	2017	2016|2017 Audit Report Submitted to IDB	
16-Aug	2017	MOU | Partnership Agreement signed with Met Service	MOU | Partnership Agreement signed with Met Service
31-Aug	2017	Semi-annual reported submitted	
31-Aug	2017	Grand Gala sole source award to JCDC	
04-Sep	2017	Project Technical Coordinator hired	
21-Sep	2017	PSC Meeting Held	
03-Jan	2017	Replacement Project Driver Hired	

Month	Year	Action Taken	Major Milestone
26-Oct	2017	IDB approval for PEU staff contract amendments and change in title from Project Coordinator to Project Manager and from Finance/Accounting Officer to Finance and Administrative Officer	IDB approval for PEU staff contract amendments and change in title from Project Coordinator to Project Manager and from Finance/Accounting Officer to Finance and Administrative Officer
31-Oct	2017	IDB indicated their commendation of the 2016|17 audited financial statement	
30-Oct	2017	IDB acknowledgement of semi-annual report and the updated procurement plan	
06-Nov	2017	Watershed Policy Consultancy Awarded	
06-Nov	2017	KAPB Consultancy Awarded to Hope Consultancy Limited	
23-Nov	2017	PSC Meeting Held	
04-Dec	2017	Project Officer Hired	
28-Dec	2017	Notification to IBD	
23-Jan	2018	IDB no objection re notification on PEU's decision to forego PA with JCDT due to re JCDT inability to undertake responsibilities related to the agroforestry component	IDB no objection re notification on PEU's decision to forego PA with JCDT due to re JCDT inability to undertake responsibilities related to the agroforestry component
20-Feb	2018	Hydrological Modelling Consultancy Awarded to S. Setgen	Hydrological Modelling Specialist Award finalised
22-Feb	2018	PES Consultancy Awarded to CATIE	PES Consultancy Awarded to CATIE
01-Mar	2018	PSC Meeting Held	PSC Meeting Held
16-Mar	2018	Mid-term Evaluation Awarded to A. Hayman	Mid-term Assessment Awarded to A. Hayman and Associates

Annex A-4: IDB No-Objections- Request and Response Dates[32]

Name	Request Date (NEPA)	Response Date (IDB)
Conditions Precedent to First Disbursement	December 16, 2014; December 17, 2014; December 18, 2014; January 26, 2015	February 9, 2015
Project Coordinator Selection Report and Draft Contract	January 22, 2015	February 6, 2015
Candidate Selection process for Yallahs Hope Project Procurement Officer and Accountant	February 19, 2015	February 25, 2015
Purchasing of the Project Vehicle	March 2, 2015	March 6, 2015
Purchasing Items for the Reforestation and Restoration of Degraded Lands	March 18, 2015	March 19, 2015
Request financial year ended March 31, 2015	May 22, 2015	June 9, 2015
Purchasing of Materials for reforestation and restoration of degraded lands	June 5, 2015	July 2, 2015
Direct Contracting of Institutional Specialist to Prepare Memorandum of Understanding	June 12, 2015	June 16, 2015
Selection of Supplier for the Purchase of one 4x4 double cab pickup/motor vehicle	June 30, 2015	July 7, 2015
Draft Contract for Institutional Specialist for the Preparation of MOUs	July 17, 2015	July 21, 2015
Procurement of GPS Units for Reforestation and Restoration of Degraded Lands	July 30, 2015	August 7, 2015
Signed Contract for Legal Specialist	August 4, 2015	September 3, 2015
Procurement of field vests for reforestation and restoration of degraded lands	August 12, 2015	September 7, 2015
Draft MOU between NEPA and Forestry Department	August 27, 2015	September 7, 2015
Semi-Annual Report for Period February – June 30, 2015	September 1, 2015	November 4, 2015
No-cost extension of legal consultant's contract	October 5, 2015	October 13, 2015
SPN for the engagement of communications specialist	October 13, 2015	October 26, 2015
Revised specifications for procurement of GPS units and field vests for reforestation and restoration of degraded lands	October 14, 2015	November 13, 2015
Catering Service for Winsor Castle Community Sensitization Session	October 23, 2015	November 10, 2015
Reimbursement of funds to the Forestry Department for preparation works in support of	October 28, 2015	November 26, 2015

[32] Based on documents received from the PEU as at March 2018

Name	Request Date (NEPA)	Response Date (IDB)
reforestation and restoration of degraded lands		
Reimbursement of funds to the Forestry Department for preparation works in support of reforestation and restoration of degraded lands (for April –June 2015)	October 28, 2015	
Reimbursement of funds to the Forestry Department for preparation works in support of reforestation and restoration of degraded lands (July –Sep 2015)	October 29, 2015	
Catering Service for Community Sensitization for the communities of Newton, Content Gap & St. Peters in St. Andrew	October 30, 2015	
Purchasing equipment for project executing unit	November 5, 2015	
Purchasing equipment for project executing unit	November 11, 2015	November 19, 2015
Purchasing equipment for project executing unit	November 11, 2015	
Signing of Memorandum of Understanding between National Environment and Planning Agency and the Water Resources Authority	November 17, 2015	
Annual Operating Plan (2016-2017)	December 1, 2015; January 19, 2016	January 20, 2016
Project Steering Committee concerns regarding project scope	December 1, 2015	
Engagement of External Auditor	December 1, 2015	
Procurement of equipment to facilitate land husbandry and community based training and sensitization	December 10, 2015	
Procurement of Stolen Vehicle Recovery System for 2015 Ford Ranger XLT	December 11, 2015	January 2, 2016
Terms of Reference for Auditor	December 11, 2015	January 14, 2016
Procurement of services and goods for land husbandry training to be held in the Project Site	December 21, 2015	
Procurement of Goods and Services for Land Husbandry Workshop- Nuts and Bolts	December 21, 2015	January 11, 2016
Procurement of Goods and Services for Land Husbandry Workshop- Tools and Stationery	December 21, 2015	January 11, 2016
Procurement of one metal storage cabinet and two desk pedestals for use by the Project Executing Unit	December 21, 2015	January 11, 2016
Catering Service for Land Husbandry Workshop for GoJ and non-GoJ Officers to be held in St. Thomas	December 21, 2015	January 11, 2016
Procurement of Goods and Services for Land Husbandry Workshop – Hotel Accommodation	December 21, 2015	January 11, 2016
Procurement of Goods and Services for Land Husbandry Workshop- meals	January 9, 2016	January 22, 2016

Name	Request Date (NEPA)	Response Date (IDB)
Hydrological Modeling Specialist	January 16 2017	February 3, 2017
Sole sourcing of Audit Services	January 19, 2017	January 24, 2017
Engagement of Programme Review Specialist	January 30, 2017	February 15, 2017
Shortlist for KAPB Consultancy	January 31, 2017	February 15, 2017
Procurement of Stones to facilitate land husbandry training of GOJ and Non-GOJ Officers and farmers within the Project's site	March 1, 2016	
Selection of Auditor General's Department for Project Audit	April 11, 2016	April 14, 2016
Proceed with reforestation of Windsor Castle Using Silviculture Plan provided by the Forestry Department	April 12, 2016	April 14, 2016
Terms of Reference, Publication of the Request for Expression of Interest and Request for Proposal for the Payment for Ecosystem Service Consultancy	April 26, 2016	April 26, 2016
Single Source Selection of the Water Resources Authority and Meteorological Service of Jamaica to Undertake the Hydro-meteorology consultancy	May 4, 2016	May 6, 2016
Procurement of GPS Units to Support reforestation and restoration of degraded lands	May 5, 2016	May 25, 2016
Shortlist of Entities/Firms to submit a full proposal for the Payment for Ecosystem Service Consultancy	June 1, 2016	June 2, 2016
Engagement of the Project's Communications Specialist	June 23, 2016	June 30, 2016
Extension of time to submit full proposals for the PES Consultancy	June 30, 2016	July 4, 2016
Terms of Reference for the Hydrological Modeling Specialist	July 19, 2016	July 19, 2016
Changes in budgetary allocations for reforestation	July 19, 2016	August 15, 2016
Terms of Reference for the Knowledge, Attitudes, Practices and Behaviour Study	August 29, 2016	
Signing of Partnership Agreements between NEPA and project partners (FD and RADA)	August 29, 2016	September 13, 2016
Evaluation of Technical Proposals for Payment for Ecosystem Service Consultancy	September 14, 2016	September 21, 2016
Specifications for a High Volume Multi-Function printer for Project Executing Unit	September 22, 2016	
Publication of the Specific Procurement Notice for the Knowledge, Attitude, Practices and Behaviours Study	September 22, 2016	
Signing of Partnership Agreements between the NEPA and Project Partners	October 18, 2016	
Audited Financial Statements Ineligible Expenditure		October 11, 2016
Revised Partnership Agreement with NWC	November 3, 2016	December 8, 2016

Name	Request Date (NEPA)	Response Date (IDB)
Single Source Procurement of Equipment for Forest Fire Management Training	November 7, 2016	January 24, 2017
Amendment of the Contracts for the Project Coordinator and Accountant	November 16, 2016	
Exemption to Evaluate a Single Proposal for the Hydrological Modeling Specialist	December 8, 2016	
Engagement of Watershed Policy Consultant		April 19, 2017
Direct contracting engagement of UWI Pesticide Research Laboratory		January 27, 2018
Engagement of Programme Review Specialist		February 15, 2017
Sole-sourcing of WRA, MSJ for hydro-met study		(seen in PIR 2016)
Signing of Partnership Agreement between the NEPA and Project Partners (WRA)	January 11, 2017	
Engagement of the Auditor General's Department for External Auditor	January 11, 2017	
Engagement of the Auditor General's Department for External Auditor	January 17, 2017	
Single source procurement of equipment for forest fire management training	January 23, 2017	
Amendment of the Contracts for the Project Management Consultants	January 24, 2017	February 28, 2017
Shortlist of Expression of Interest for the Knowledge, Attitude, Practices and Behaviour Study	January 30, 2017	
Engagement of Watersheds Policy Consultant	January 30, 2017	April 19, 2017
Terms of Reference for the Programme Review Specialist	January 30, 2017	
Resubmission of 2017/18 Annual Operating Plan	February 8, 2017	July 6, 2017
Extension of Bid Validity for the design of a PES Scheme	April 20, 2017	April 25, 2017
Additional Contract sum for single source procurement of equipment from Bell Safety Ltd.	April 26, 2017	May 5, 2017
Signing of Partnership Agreement between NEPA and Project Partners (MSJ)	May 24, 2017	
Revised Partnership Agreement with Met Service Ja	May 25, 2017	August 11, 2017
Contract Negotiation Process for the Consultancy Service to design of a PES scheme in Jamaica	May 31, 2017	June 12, 2017
Extension of Bid Validity for KAPB Study	June 5, 2017	June 12, 2017
Terms of Reference and to begin procurement of a firm to conduct an ecological assessment	June 16, 2017	June 27, 2017
Request for Budget Transfer	June 23, 2017	July 7, 2017
Engagement of KAPB consultant	June 23, 2017	August 15, 2017
Engagement of Policy Consultant using Direct Contracting Procurement Methods	June 23, 2017	July 5, 2017
Engagement of Hydrological Modeling Specialist	June 23, 2017	July 6, 2017
Single Source Selection of Jamaica Cultural Development Commission for Creative Environmental Production	August 2, 2017	

Name	Request Date (NEPA)	Response Date (IDB)
To start procurement process for GIS DSS Consultancy	August 29, 2017	September 15, 2017
Jan-Jun 2017 Semestral Report and Updated Procurement Plan	August 31, 2017	October 30, 2017
Publishing of Advertorials via Direct Contracting Procurement Methodology	October 3, 2017	October 10, 2017
Special Procurement Notice and TOR for a WAMM Programme Review Specialist	October 5, 2017	October 11, 2017
KAPB Form Contract	October 12, 2017	
Policy Consultant Contract for the Project Management Consultants	October 12, 2017	
Amendment to Contracts of PEU Project Management Consultants	October 12, 2017	October 26, 2017
Contract for Consultant Firm to conduct KAPB Study	October 13, 2017	October 26, 2017
Draft contract for Policy Consultant	October 13, 2017	October 26, 2017
Audited Financial Statements for Project for Year Ended March 31, 2017		October 31, 2017
Terms of Reference for the Mid-Term Evaluation	November 2, 2017	
To start procurement process for Carbon Stock Monitoring	November 10, 2017	November 19, 2017
Direct contracting of the Canadian Forest Service for the Carbon Stock Monitoring Consultancy	November 10, 2017	
Negotiation of contract for hydrological modeling specialist consultancy	November 15, 2017	November 20, 2017
Procure coconut tree seedlings	December 6, 2017	December 15, 2017
Procure fruit tree seedlings	December 8, 2017	December 14, 2017
Forego the partnership agreement with the Jamaica Conservation and Development Trust	December 28, 2017	January 23, 2018
Direct contracting engagement of UWI Pesticides Research Laboratory	December 28, 2017	January 27, 2018
Extension of Deadline for Submission of Mid-Term Evaluation Report for the Yallahs-Hope WMU Project (deadline April 30)		January 27, 2018
Engagement of media houses to air public service announcements for the project	January 24, 2018	February 1, 2018
Selection of the consultant to undertake the Mid-term evaluation for the project	February 1, 2018	February 12, 2018
Adjustments to Special Procurement Notices and Advertisements for Ex-Post Procurements based on IDB's Dec 2017 ex-post review		February 13, 2018
Engagement of consulting firm to undertake the ecological assessment consultancy	January 24, 2018	February 22, 2018
Draft contract for design of a PES Scheme	February 22, 2018	February 28, 2018
Engage second place consultant for Mid term evaluation	February 21, 2018	February 22, 2018
Short-listing of GIS DSS consulting firm under the Yallahs-Hope WMU Project	February 1, 2018	March 2, 2018

Name	Request Date (NEPA)	Response Date (IDB)
Draft contract for Mid-term evaluator	March 12, 2018	March 13, 2018
Engagement of a graphic artist for artwork modification via SSS procurement methodology	February 27, 2018	March 20, 2018
Publishing of advertorials on World Water Day (direct engagement of The Gleaner and Observer)	March 13, 2018	March 20, 2018
Procurement of 10985 fruit tree seedlings from MICAF	March 13, 2018	April 5, 2018
Procurement of fruit tree seedlings: 1. R&B nursery for 1815 fruit tree seedlings over time to completion 2. Direct contracting of Coconut Industry Board to provide 430 fruit seedlings at the increased cost of J$95000	March 9, 2018/March 23, 2018	April 5, 2018

Annex A-5: Summary Findings of Project External Audits

Table A2.24: Audit Findings Summary

Audit Findings		Project Response	
		Formal Response of the Executing Agency to the Audit Report	**Post-Audit Implementation Response**
2015-16 Audit			
Financial	The financial statements reflect a true and fair view of the cash flow statement of the cumulative investment for the project as of the March 2016. Proper accounting standards adhered.		
	Reconciliation by investment categories between the program records and the IDB's record. Difference between IDB and PEU	This difference is due to the allowance of 20% retention in the PEU accounts. So the IDB accounts will reflect only the 80% spent based upon the justification provided in the request for disbursement, but the NEPA accounts will include that 20% allowable retention.	For the next request for disbursement, that 20% allowance is justified. This 20% allowance on average will be justified at the next following/next request for disbursement. This difference in accounting showing up on the reconciliation is expected to occur up until the final request for disbursement is made.

Audit Findings	Project Response	
	Formal Response of the Executing Agency to the Audit Report	**Post-Audit Implementation Response**
▯ Ineligible expenditure and NEPA advance	PEU consultants were hired by NEPA under the GOJ guidelines which allowed for staff to get vacation leave, while under the IDB guidelines they were considered independent consultants	The issue was addressed by a changing of the contractual arrangements. The PEU personnel employment arrangement was converted to contract equivalent to that of an IDB consultant
▯ Unapproved sick and vacation leave	The matter was discussed internally NEPA across three departments - Planning, Projects Evaluation and Research, Human Resource Management and Legal & Enforcement Divisions. No objection was given to NEPA to amend contracts to realign to GOJ labour Laws	
Delays in implementation of project activities. Project was only able to achieve one of four targets, although 15 months have lapsed since signing of the contract	First year of the implementation was focused on defining the administrative framework for the multiagency project. The primary focus was the working on implementing MOU due to the need to realign priorities and goals due to the 5 year lapse between project conceptualisation/preparation and the signing of the agreement and the start of implementation.	All MOUs drafted and set for completion in latter years. MOUs were signed with RADA and FD in November 2016. NWC, WRA were signed on March 30 & 31 2017, respectively and Met Service was signed on August 16, 2017

Audit Findings		Project Response	
		Formal Response of the Executing Agency to the Audit Report	**Post-Audit Implementation Response**
		Due to disagreement between Forestry and the IDB on methodological issues: NEPA requested and receive special permission from IDB to plant Windsor Castle as a special conservation site though it was below the NWC intake. Forestry Dept. revised the silviculture plan for Windsor Castle removing the IAS from the proposed list of species to be planted utilising only native Species Silviculture Plan from FD was reviewed by NEPA prior to submission to ensure adherence to biodiversity conservation conditions and recommended to IDB for no-objection, which was granted in April 2016.	Forestry Silviculture plans do not include invasive species
	Unpaid recorder project expenses	Signatories were assigned in March 2016, however the reimbursement were completed in the following fiscal year 2016-17 on June 20, 2016 and verified by finance and Accounts Branch.	Contracts were changed to consultants. A no objection was given by IDB for the unrecorded funds to be covered. The long term response to place the PEU personnel in question on consultancy contracts consistent with the guidelines of the Government and IDB.

Audit Findings		Project Response	
		Formal Response of the Executing Agency to the Audit Report	**Post-Audit Implementation Response**
Technical	Only one of 4 planned targets in the first year was achieved. Delay linked to failure to sign 6 MOU and the reforestation of 100 hectares		
Project Management	The PEU has submitted the mthly reports to the project's Branch and quarterly reports to the Planning Evaluation and research branch. Such information was assimilated into the Agency's larger report.		Two were signed in the 2nd year (November 2016) after facilitating mediation between forestry and IDB on methodological issues.
	Two semestral reports were submitted to the IDB during the period		
2016-17 Audit			
Technical			
Project Management	Slow implementation of project to deliver 8 planned targets… Only 3 targets were achieved. The project expended only 10% of the planned expenditures or US$166,533.95 of the budgeted US$1,836,321.	The findings were accepted by NEPA and additional factors that caused delays were highlighted. These included: inability to get sufficient number of quotations or curriculum vitaes under the IDB tender process delayed responses to no objections request and commitment of resources by the multi-agencies	IDB was lobbied to be included on the list of IDB funded projects that are allowed to adhere to the GOJ limited tender process… The Yallahs Hope project is now given a no objection by the IDB to adhere to the GOJ limited tender procurement methods.

Annex A-6: Procurement Summary Tables

Table A4.25: Summary of Procurement Plan Approved at Beginning of Project

Category of Procurement	Initial Estimated Cost (USD) for Entire Project	Year 1	Year 2	Year 3	Year 4	Year 5
Goods	134,000	74,000	60,000			
Non-Consulting Services	2,487,541	384,996	729,858	620,454	370,037	382,195
Consulting Services	1,287,900	211,300	376,167	341,133	164,167	195,133
Totals	**3,909,441**	**670,296**	**1,166,025**	**961,588**	**534,204**	**577,328**
Yearly Totals as % of Overall Total		**17%**	**30%**	**25%**	**14%**	**15%**

Table A4.26: Expected Duration of Procurement Processes for Goods and General Services

Procurement Method/Type	Expected Duration
Price Comparison/Shopping for Good and General Services	3 – 4 Months
Quality Based Selection - Consulting Firm	10 – 14 Months
3CVs Procurement Method - Individual Consultant	5 – 7 Months
Selection Based on Consultants' Qualification (CQS) - Consulting Firm	6 – 8 Months

Source: PEU's Procurement Process Flow

Table A4.27:Actual Duration of Procurement Processes for Goods and General Services

Type of Procurement	Shortest Time	Longest Time
Goods	3 weeks	2 Months
Goods (Procurement Committee submission)	1 Month	2.5 Months
General Services	3 weeks	1.5 Months
General Services (Procurement Committee submission)	1 Month	2.5 Months

Source: Procurement Officer's Report for March 2018

Table A4.28: Procurement Processes for Consultants

Consulting Services	Details	Comments (Important dates and actions) – MTE Consultant
Institutional Specialist (Individual Consultant) – **1 procurement attempt**	**Procurement Method:** Direct Contracting **Date of no-objection:** 16.06.2015 **Start Time (REOI/CV)** **Contract Date:** 30.07.2015 **Timeline: 1.5 months**	• Request to sole source Specialist sent on June 12, 2015. IDB NO received June 16, 2015. • Request to approve draft contract sent July 17, 2015. IDB NO received July 21, 2015.
KAPB (Consulting Firm) – **1 procurement attempt**	**Procurement Method:** Selection Based on the Consultant's Qualification (CQS) **Date of no-objection:** 28.09.2016 **Start Time (REOI/CV):** 15.10.2016	• Request to approve TOR and SPN sent on August 29, 2016, and September 22, 2016, respectively. • Deadline for receipt of EOIs: November 7, 2016. One EOI received and was evaluated December 13, 2016. • Request to approve shortlist and RFP sent on January 30, 2017. IDB NO granted on February 15, 2017. The RFP was

Consulting Services	Details	Comments (Important dates and actions) – MTE Consultant
	Contract Date: 06.11.2017 **Timeline:** 14 months	issued on February 17, 2017; deadline for proposals (technical and financial) was March 14, 2017. • Request for IDB NO to engage Consultant sent on June 23, 2017. IDB NO provided on August 15, 2017. • Request sent on October 12, 2017 to approve draft contract. IDB NO granted on October 26, 2017
Policy Consultant (Individual Consultant) – **1 procurement attempt**	**Procurement Method:** Direct Contracting **Date of no-objection:** 19.04.2017 **Start Time (REOI/CV):** 04.05.2017 **Contract Date:** 06.11.2017 **Timeline:** 7 months	• Request sent to IDB on January 30, 2017 to engage Watersheds Policy Consultant. IDB NO received on April 19, 2017. • Request dated June 23, 2017 seeking NO to begin contract preparation. IDB NO to prepare contract granted on July 5, 2017. • Request sent to approve draft contract dated October 12, 2017. IDB NO to sign contract granted on October 26, 2017.
PES – **1 procurement attempt**	**Procurement Method:** Quality Based Selection **Date of no-objection:** 26.04.2016 **Start Time (REOI/CV):** May 2016 **Contract Date:** 28 .02.2018	• Letter dated April 26, 2016 requesting NO to TOR, REOI and RFP for PES. IDB NO to REOI granted on April 26, 2016. • Letter dated June 1, 2016 seeking IDB NO to shortlist. IDB granted NO to shortlist on June 2, 2016 and RFP was issued on June 3, 2016. Full technical and financial proposals were due July 15, 2016 (after an extension was granted). Evaluations were conducted July 26-27, 2016.

Consulting Services	Details	Comments (Important dates and actions) – MTE Consultant
	Timeline: 22 months	• Letter from MOF to IDB, dated September 6, 2016 requesting US$0.3 million in grant funds to support PES consultancy. Approval granted subsequently. • Letter dated September 14, 2016 sent seeking NO to evaluation report of Technical Proposals. • Request dated May 31, 2017 requesting IDB's NO to begin contract negotiations. IDB NO granted June 12, 2017. • Tax issue arose and was resolved in 2017. • Request dated February 22, 2018 seeking NO to signing of contract.
Hydrological Modelling Specialist (Individual Consultant) – **2 procurement attempts**	**Procurement Method:** Selection Based on the Comparison of 3 Curriculum Vitae (3CVs) **Date of no-objection:** 03.02.2017 First No-objection 19.07.2016 **Start Time (REOI/CV):** 13.02.2017 **Contract Date:** 28 February 2018 **Timeline:** 12 months	• Letter dated July 19, 2016 seeking NO to TOR for HMS. IDB NO granted July 19, 2016 to TOR. • The RFP was issued September 16, 2016. • Deadline adjusted several times, last deadline November 11, 2016. Two proposals were received, but only 1 was compliant. • Letter dated December 8, 2016 sent seeking NO for exemption to evaluate the 1 valid proposal. • Letter dated January 16, 2017 seeking NO to TOR (2nd process). IDB NO granted on February 3, 2017. • Letter dated June 23, 2017 to IDB, seeking approval to commence contract negotiations. IDB NO granted on July 6, 2017. • Letter dated November 15, 2017 seeking NO to procurement report and negotiation process with HMS Consultant. IDB NO granted Nov 20, 2017. • Letter dated Jan 22, 2018 sent seeking NO to sign contract

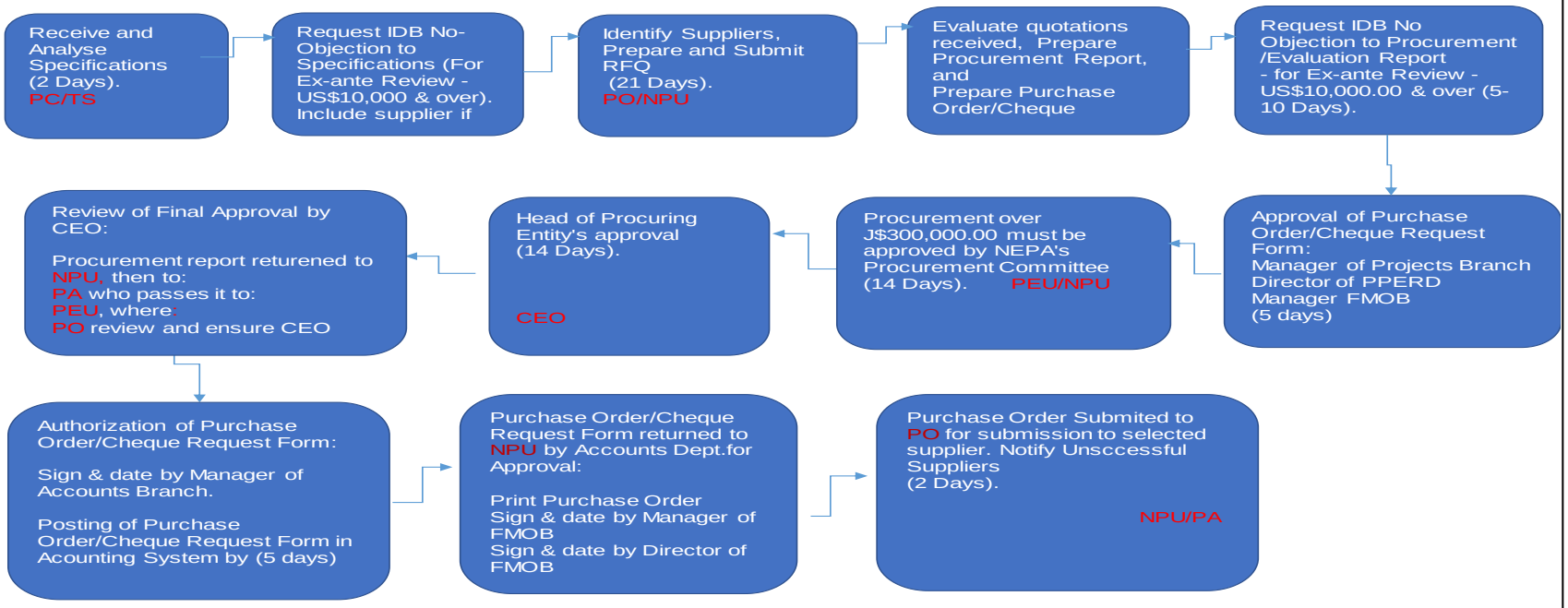
Consulting Services	Details	Comments (Important dates and actions) – MTE Consultant
		with HMS.
Mid Term Evaluator – **2 procurement attempts**	**Procurement Method:** Selection Based on the Comparison of 3 Curriculum Vitae (3CVs) **Date of no-objection:** 07.11.2017 **Start Time (REOI/CV):** 14.11.2017 **Contract Date:** 16 March 2018 **Timeline:** 4 months	• Letter sent November 2, 2017 seeking IDB's NO for TOR. • Request for CVs advertised November 22, 2017. Only 2 CVS were received by deadline (November 30, 2017), so process was reinitiated. • Consultancy re-advertised January 10, 2018 with deadline of January 22, 2018. Three of four CVS received were valid. • Letter dated February 12, 2018 granting NO to selection of Consultant and a reminder that advertisements must be done through Bank-approved media. • Letter dated February 22, 2018 granting NO to engage second-place consultant. • Letter sent March 9, 2018 seeing NO to engagement of MTE Consultant. • IDB letter dated Jan 27, 2018 extending the deadline for MTE to April 30, 2018.
Program Review Specialist (Individual Consultant) – **5 procurement attempts**	**Procurement Method:** Selection Based on the Comparison of 3 Curriculum Vitae (3CVs) **Date of no-objection:** 15.02.2017 **Start Time (REOI/CV):** 27.11.2017 **Contract Date:** In-progress **Timeline:** 13 months to date (In-progress)	• Issues experienced receiving 3 valid CVs. • IDB NO to TOR granted on Feb 15, 2017. • NO to publish SPN and TOR granted for WAMM granted on October 11, 2017. IDB advises PEU to advertise on GOJ electronic procurement portal, as well as other platforms/media.

Consulting Services	Details	Comments (Important dates and actions) – MTE Consultant
Design and implementation of an integrated watershed management-geographical information system - decision support system (GIS DSS) – **1 Procurement attempt**	**Procurement Method:** Selection Based on the Consultant's Qualification (CQS) **Date of no-objection:** 15.09.2017 **Start Time (REOI/CV):** 02.12.2017 **Contract Date:** In-progress **Timeline:** 6 months to date (In-progress)	• IDB NO granted on March 7, 2018. RFP issued on March 14, 2018; deadline for submission April 13, 2018.
Ecological assessment and training in biological monitoring – **Request for expressions of interest (EOI) advertised twice**	**Procurement Method:** Selection Based on the Consultant's Qualification (CQS) changed to Single Source Selection **Date of no-objection:** 27.06.2017 **Start Time (REOI/CV):** 26.08.2017 **Contract Date:** In-progress **Timeline:** 9 months to date (In-progress)	• Letter dated June 16, 2017 requesting Bank's NO to TOR, SPN. NO granted June 27, 2017. • IDB NO to engage firm granted on Feb 22, 2018 • RFP Issued on March 13, 2018; submission deadline April 12, 2018.

Source: Procurement Officer's Report for March 2018, Letters between PEU/NEPA and IDB

Annex A-7: Procurement Process Flow

Price Comparison/Shopping for Good and General Services



PO = Procurement Officer, NPU= NEPA Procurement Unit, PC = Project Coordinator, IDB = Inter-American Development Bank, PEU = Project Executing Unit, TS = Technical Specialist, Pro Comm = Procurement Committee,

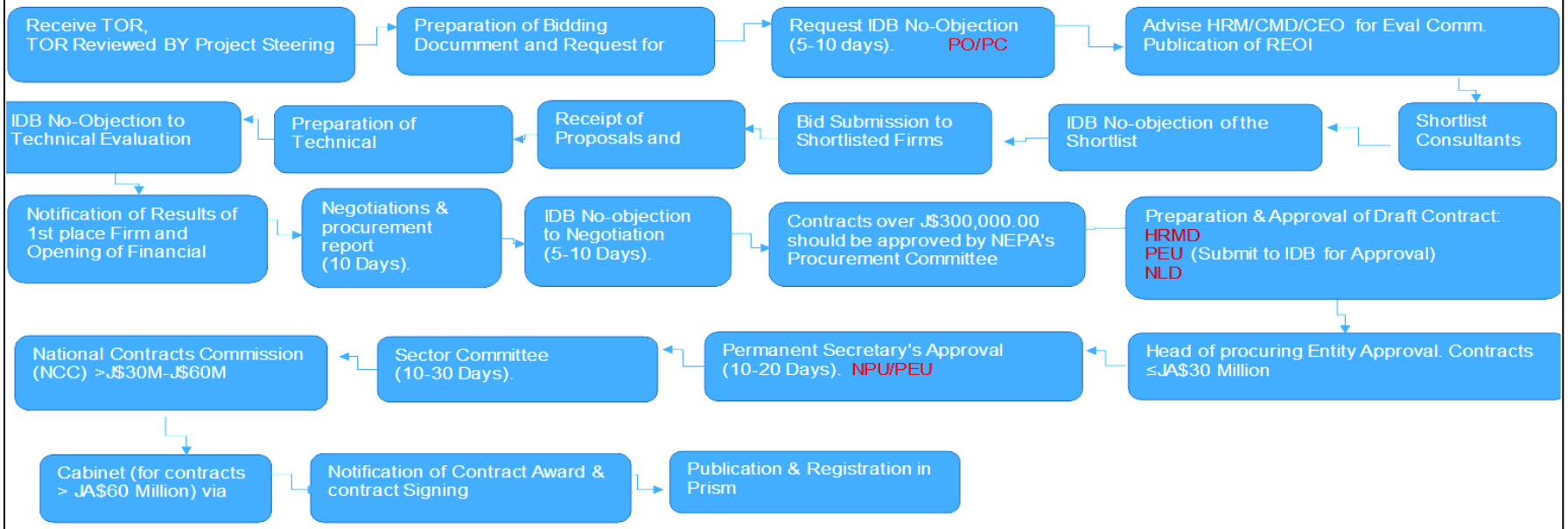
Con = Consultant, Eval Comm = Evaluation Committee, NLD = NEPA Legal Department, FMOB = Facilities, Management & Operations Branch, Pa = Project Accountant, CEO = Chief Executive Officer, HRMD = Human Resource Management Division

Estimated Process duration: 90-105 Calendar Days or 3 to 4 months

Request for IDB No-objection includes preparation, and submission of correspondence to the IDB.

The days provided for approval by external entities might vary from what is represented as NEPA has no control over the processes within these external bodies.

Quality Based Selection - Consulting Firm

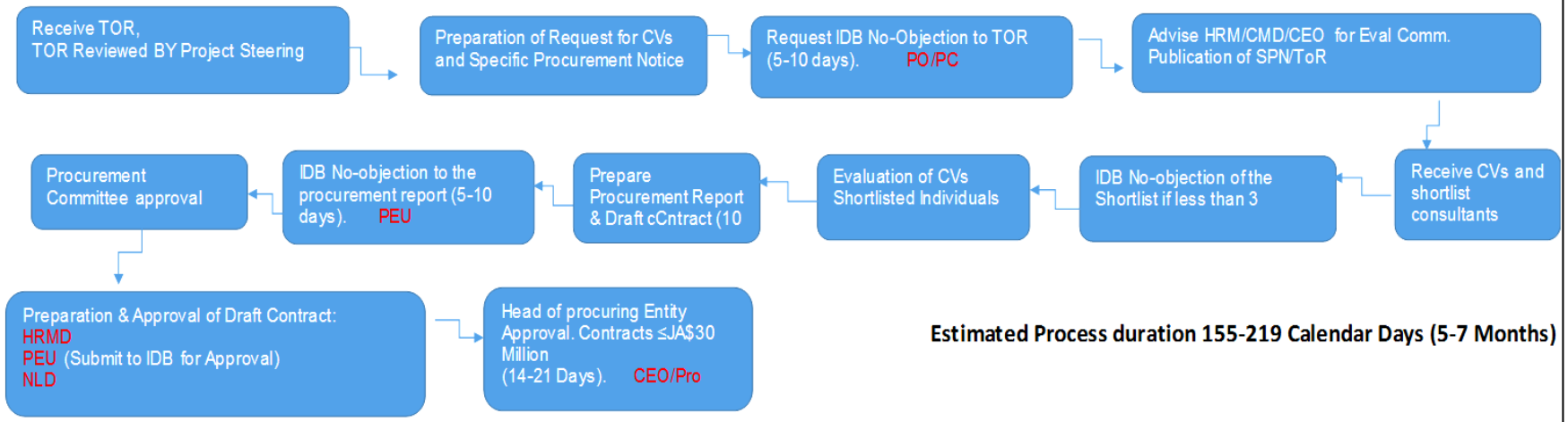


Estimated Process duration 302-416 Calendar Days (10-14 months)

PO = Procurement Officer, NPU= NEPA Procurement Unit, PC = Project Coordinator, IDB = Inter-American Development Bank, PEU = Project Executing Unit, TS = Technical Specialist, Pro Comm = Procurement Committee, Con = Consultant, Eval Comm = Evaluation Committee, NLD = NEPA Legal Department, FMOB = Facilities, Management & Operations Branch, Pa = Project Accountant, CEO = Chief Executive Officer, HRMD = Human Resource Management Division

Note: Request for IDB No-objection includes preparation, and submission of correspondence to the IDB.
The days provided for approval by external entities might vary from what is represented as NEPA has no control over the processes within these external bodies.

3CVs Procurement Method - Individual Consultant



Estimated Process duration 155-219 Calendar Days (5-7 Months)

PO = Procurement Officer, NPU= NEPA Procurement Unit, PC = Project Coordinator, IDB = Inter-American Development Bank, PEU = Project Executing Unit, TS = Technical Specialist, Pro Comm = Procurement Committee,

Con = Consultant, Eval Comm = Evaluation Committee, NLD = NEPA Legal Department, FMOB = Facilities, Management & Operations Branch, Pa = Project Accountant, CEO = Chief Executive Officer, HRMD = Human Resource Management Division

Note: Request for IDB No-objection includes preparation, and submission of correspondence to the IDB.

The days provided for approval by external entities might vary from what is represented as NEPA has no control over the processes within these external bodies.

Annex A-8: GEF Tracking Tool Assessment

TABLE OF CONTENTS

List of Tables

ACRONYMS AND ABBREVIATIONS

ALAF	Alternative Livelihoods, Agriculture and Forestry
AOP	Annual Operational Plan
BOJ	Bank of Jamaica
DSS	Decision Support System
EFJ/FCF	Environmental Foundation of Jamaica/ Forest Conservation Fund
FD	Forestry Department
FFS	Farmer Field School
GEF	Global Environment Facility
GIS	Geographical Information Systems
GOJ	Government of Jamaica
IDB	Inter-American Development Bank
IWRM	Integrated Water Resources Management
JCDT	Jamaica Conservation Development Trust
KAPB	Knowledge, Attitudes, Practices and Behaviour
MOAF	Ministry of Agriculture & Fisheries
MOU	Memorandum of Understanding
MSJ	Meteorological Service of Jamaica
MTE	Mid-term Evaluation
NEPA	National Environment & Planning Agency
NGO	Non-governmental organization
NWC	National Water Commission
OUR	Office of Utilities Regulation
PES	Payment for Environmental Services
PEU	Project Executing Unit
PIMSEC	Public Investment Management Secretariat
PIOJ	Planning Institute of Jamaica
POM	Project Operations Manual
PSC	Project Steering Committee
PEU	Project Executing Unit
RADA	Rural Agricultural Development Authority
SAR	Semi-Annual Report
SLM	Sustainable Land Management
SLFM	Sustainable Land and Forest Management
SOW	Scope of Work
TOR	Terms of References
WMU	Watershed Management Unit
WRA	Water Resources Authority

1.0 Introduction and Background

The "Integrated Management of the Yallahs and Hope River Watershed Management Areas" project is a five-year project funded by the Global Environment Facility (GEF) and the Government of Jamaica (GOJ). The total budget for the project is US$12,781,798, of which US$3,909,441 is support from the GEF and US$8,872,357 is co-financing from the GOJ (Table 1). The objective of this project is to improve the conservation and management of biodiversity and the provision of ecosystem services in the Yallahs River and Hope River watershed management units (WMUs).

Table 1. Source of Financing for the Integrated Management of the Yallahs-Hope Watershed Management Area Project (JA-G1001)

	GEF (IDB)	Co – financing	Total
Component 1. Institutional Strengthening and Capacity Building	567,400	881,097	1,453,497
Component 2. Economic and Financial Incentives to Support Sustainable Biodiversity and Watershed Management	415,500	1,735,903	2,151,403
Component 3. Sustainable Livelihoods, Agriculture and Forestry in Watershed Communities	2,521,541	5,644,730	8,166,271
Management	315,000	601,627	916,627
Monitoring and Evaluation	50,000	0	50,000
Audit	40,000	0	40,000
Total	**3,909,441**	**8,872,357**	**12,781,798**

The Non-Reimbursable Financing Agreement GRT/FM-14607-JA was signed on October 1, 2014 (herein referred to as "the Agreement") between Jamaica and the Inter-American Development Bank (IDB), in their capacity as the Administrator of the Global Environment Facility Fund (GEF) grants for this project. The executing agency for this project is the National Environment and Planning Agency (NEPA).

Conditions Precedent

The Agreement consists of two Conditions Precedent namely:

1. Conditions prior to first disbursement:

a. Establishment of a Program Execution Unit (PEU) and employment of a Project Coordinator; Finance and Accounting Officer and Procurement Officer
b. Adoption of the Project Operations Manual (POM) with approval from the Program Steering Committee and the IDB

2. Condition prior to disbursement for Component 2:
    a. MOUs signed with the WRA and NWC

The project is being implemented in two priority areas, namely the Yallahs and Hope River Watershed Management Units (WMUs).

1.1 Objectives and Components of the Project

The overall objective of the Project is to improve the conservation and management of biodiversity and the provision of ecosystem services in the Yallahs River and Hope River WMUs. This is intended to contribute to the reduction of the pressures and threats to the natural resources in the Yallahs River and Hope River WMUs, by increasing the practice of Sustainable Land Management (SLM), and, thereby, resulting in the improved management of biological diversity and enhanced flow of ecosystem services that sustain local livelihoods.

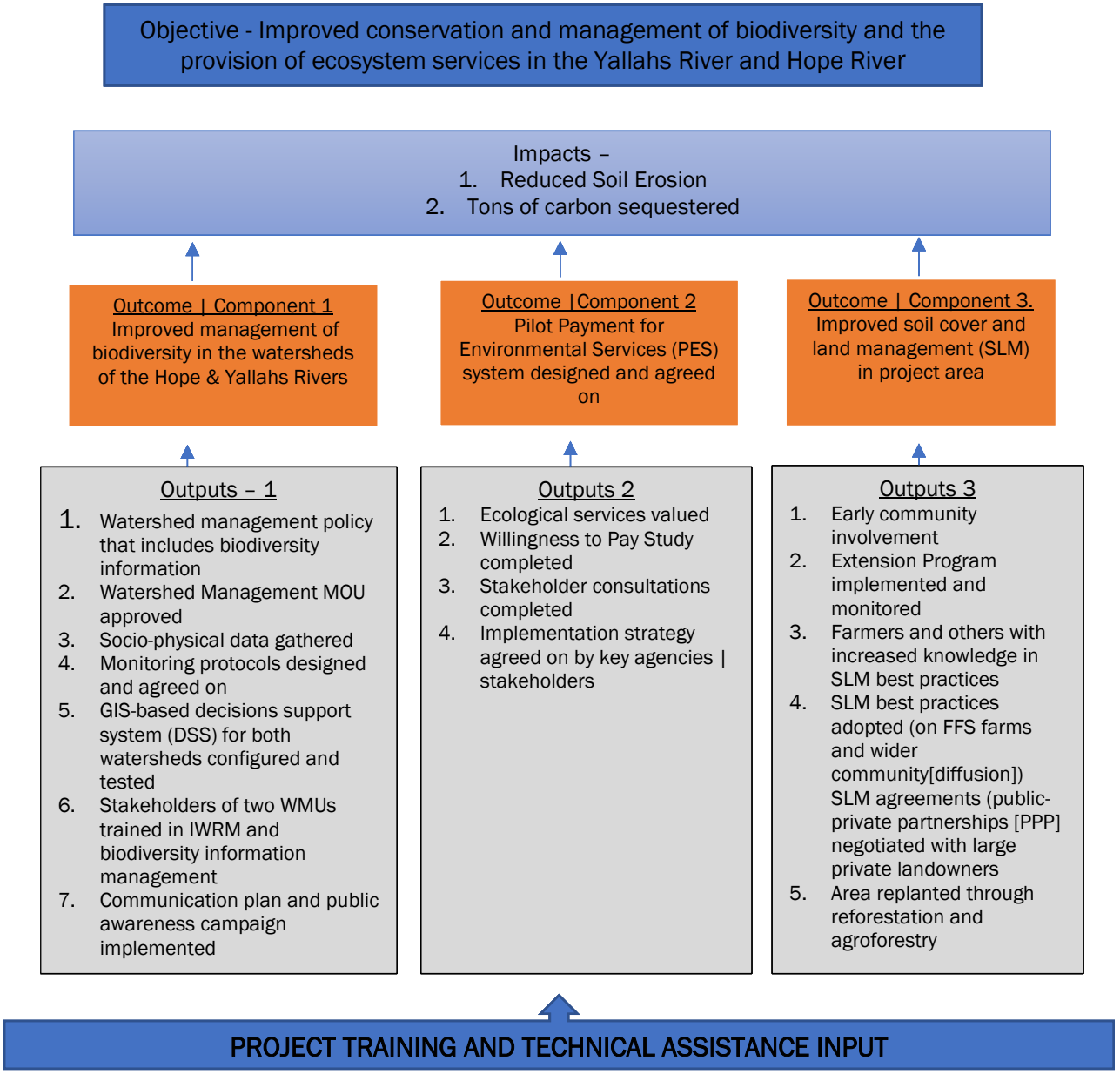
In particular, the IDB-GEF-GOJ project seeks to build on national efforts by:

- Strengthening the institutional and local capacity for robust watershed planning and management practices;
- Increasing the amount of land under sustainable management beyond the national response, and supporting alternative livelihoods that incorporate biodiversity and soil conservation practices; and
- Implementing mechanisms to improve investment in SLM and in general sustainable sources of financing for adequate management of the two WMUs and their ecosystems.

Components of the Project

The project will achieve its objective through incremental activities under three technical components, with the Project Results Framework offering a slate of related outputs and outcomes (Figure 1).

Figure 9. Representation of the Yallahs-Hope WMU project results framework



Component 1: *Institutional strengthening and capacity building for Integrated Biodiversity and Watershed Management*. The component seeks to address capacities (weaknesses including policy formulation, data gathering and processing, capabilities and low capacity for implementing and enforcing policies that support Integrated Water Resources Management (IWRM) of the resource management stakeholders to ensure forest and biodiversity conservation in the two watersheds, and, in particular, through the development and implementation of an institutional framework that enables the key watershed management agencies to: work jointly in a more effective and collaborative manner; collect quantitative and qualitative data and information on biological diversity, ecosystem quality, soil erosion and water to enable sound resource monitoring and management; update forest cover data and the status of high biodiversity areas especially for areas with endemic species; update information on, and monitor threats to land use change, biodiversity and ecosystem integrity; provide spatially explicit data of watershed values and resources through a nationally accessible GIS database that informs decision-makers; and ensure that Development Orders and Land-Use Plans for the area incorporate information that supports biodiversity conservation, Sustainable Land and Forest Management and watershed management. Additionally, the component will support the strengthening of the capacity of local and national government personnel in the use of information on natural resources including biodiversity to support land-use decisions.

Table 2. Key Outputs for Component 1 (as per Project Agreement 2014)

Output	Activities	Justification
Creation of a Memorandum of Understanding	Development of a new Watershed Management Policy	
	MOU between NEPA and Forestry Department, Water Resources Authority, Rural Agricultural Development Authority and Jamaica Conservation and Development Trust	To create a framework for cooperation that will operate until the watershed policy is accepted and the relevant legislation is passed
Monitoring protocols and data collection	Development of a protocol for collection, storing, processing and accessing	Data to be collected include soil/land cover, geomorphological characteristics, meteorology and hydrology, socioeconomic characteristics,

Output	Activities	Justification
	data for biodiversity monitoring and data collection for a biological and ecological inventory	and the results of an ecological survey. Ecological survey: watershed classification system to define terrestrial and aquatic habitats with the boundaries of the WMUs, that will be used to characterize, delineate and map the major terrestrial and aquatic habitat types and define priority areas for ecological monitoring and conservation planning. This component will also finance the establishment and training in a Carbon Monitoring System in order to accurately calculate carbon benefits as a result of the programmatic activities financed under Component 3.
GIS-based Decision Support System (DSS) for both WMUs.	This output will build on the previous two to strengthen management of the WMUs.	Comprise computer hardware and software, databases, user interface and information distribution protocols, configured to archive and present preformatted datasets to multiple, diverse end-users. It will facilitate analysis, process simulation and modeling and will be web-enabled.
Training of government and non-governmental organizations staff involved in management of the WMUs	Training in Integrated Water Resources Management and biodiversity information management.	Target is that 75% of staff involved in IWRM and Biodiversity management from the relevant government agencies and NGO stakeholder ecosystems services will be trained
Communication plan and public awareness campaign	To increase public awareness and support the implementation of the PES system	

Component 2: Creating economic and financial incentives to support biodiversity and IWRM

The objective of this component is to address the lack of financial resources and incentives to promote the adoption of conservation and sustainable management activities in the watersheds. Under this component a Payment for Environmental Services System will be designed and implemented, which would provide financial resources to continue financing conservation activities at the end of the Programme. Given this is a new area of focus in Jamaica, an international firm with experience in the implementation of PES systems will be contracted by NEPA, with support and supervision jointly by the WRA, NWC and NEPA.

Table 3. Key outputs for Component 2 (as per Grant Agreement, 2014)

Output	Activities	Justification
Valuation of ecological services	Two studies to be conducted: 1. Hydrological impacts on water flows and sediment content of different types of agro-ecological practices and reforestation on medium and upper level sub-basins of these WMUs. This is complemented by a detailed estimation of the costs savings for NWC and other water utilization stakeholders. 2. Willingness to Pay study for the environmental benefits derived from the watersheds in terms of biodiversity conservation and recreation opportunities.	Will provide a basis for a potential surcharge to the water tariff charged by the NWC to its KMA customers, which would be part of the PES system to be implemented
Design and implementation of the financial and legal arrangements required for the PES scheme	Detailed design of legal and financial arrangements produced and implementation of the PES started.	PES system will include contractual agreements, specific mechanisms to verify activities implemented by farmers; monitoring the estimated impacts obtained as a result of these activities and collect financial resources from the beneficiaries and

		certify the payments made to farmers. NEPA will work with EFJ, FD, RADA and others to increase farmer and community awareness of PES and its objectives. Training of farmers will be coordinated with work done in the capacity development part of Component 3.

Component 3: Implementing sustainable livelihoods, agriculture and forestry in watershed communities

This component will finance activities of FD, RADA and NEPA to increase public awareness of the importance and benefits of sustainably managing biodiversity and to increase the areas in which good practices for land, agro-forestry and forest management are used through the use of pilot projects similar to the ones expected to be implemented in the future with financing from the PES.

Table 4. Key Outputs of Component 3 (as per Grant Agreement 2014)

Output	Activities	Justification
Extension Programme Designed	NEPA to carry out three Knowledge, Attitudes and Practices surveys. KAP 1 to fine tune the programme and collect baselines data needed for impact evaluation KAP2 to be conducted halfway to determine effectiveness and possible adjustments required KAP3 to contribute to the evaluation process	
Capacity development for communities	• Training of 36 staff of NGOs and public agencies as trainers of trainers and 200 community members in land husbandry best practices • Field trips to allow government staff, farmers and local NGOs to see the demonstration sites, share experiences	

Output	Activities	Justification
	and learning • Establish and provide training to 6 groups that will develop on their farms small sustainable agriculture or agro-forestry demonstration projects • FD will train 6 community groups in fire management and create a map of high risk areas for fire and developing fire management plans for those communities • Four market studies to assess viability of non-agricultural activities and livelihoods and 25 community members trained in ecotourism and small businesses. All except the fire training will be conducted by RADA	
Implementation of demonstration projects	Activities include: • 120 has of demonstration plots to be worked with the 6 groups determined • Reforestation of 400 has directly by the FD (to complement 116has funded by the FCF and 200 has to be financed by the Climate Change Adaptation and Disaster Risk Reduction Project	Soil conservation and agro-forestry practices such as continuous mounds, pineapple rows, alley cropping using sweet potato plants and other vegetables, nitrogen fixation and green manure, live barriers, diversion ditches, waterways (with vetiver grass) and small structures to better manage water on the farms. Selection criteria for farmers participating in the demo projects and areas to be reforested are included in the POM

Overall, the implementation of each of the components of the Project will generate a set of best practices that can be up scaled in the two WMUs as expected during PES implementation and replicated and implemented in other WMUs island wide. It will also create a number of global environmental benefits related to the conservation of endemic and endangered species of flora and fauna, respectively. It will also increase the generation of services from forests through the increase of forest areas under SLM and taking into consideration the elaboration of land-use plans at the national and local levels and importantly, facilitate the collaboration across sectors and between government agencies on SLFM and contribute to development and strengthening of the legal, policy and regulatory frameworks related to watershed management in Jamaica.

2.0 Summary of MTE Findings

This summary report is the result of data collection and analysis to date for the project's Mid-term Evaluation. It reflects the conclusions that emanated from the interviews, meetings, focus groups and field visits undertaken by the MTE consultant during March 26-April 6. These have been collated and analyzed and presented according to the eleven GEF tracking indicators using the GEF Biodiversity, Land Degradation and Sustainable Forest management tracking tools and are presented below in Table 4. The TORs for the MTE provide details on the key questions addressed by each of the eleven indicators. Each of the eleven factors are given a score based on the findings. Scores are defined using the following scale:

HS= High Satisfactory; S=Satisfactory; MS=Moderately Satisfactory; MU= Moderately Unsatisfactory; U= Unsatisfactory; HU= Highly Unsatisfactory

The project received an overall rating of Unsatisfactory (U), which is largely linked to the slow pace of implementation, particularly as it relates to expenditure rate and achievement of outputs (further details are provided in Tables 5 and 6).

Table 5. Project Rating using the GEF tracking tools eleven indicators

Parameter	Grade
1. Attainment of objectives and planned results (progress to date)	U
2. Assessment of Sustainability of Project Outcomes	S
3. Achievement of Outputs and Activities	MU
4. Catalytic Role and Replication	S
5. Assessment of Monitoring and Evaluation (M&E) Systems	MS
6. Preparation and Readiness	MU
7. Country ownership/driveness	HS
8. Stakeholder Participation/public awareness	MS

9. Financial Planning	MS
10. Implementation Approach	MS
11. IDB Supervision and Backstopping	S
Overall Project Rating	**U**

Table 6. Summary analysis of data and information for the Yallahs Hope Rivers WMUs project using the GEF tracking tools eleven indicators

PARAMETER	GRADE	KEY REMARKS/JUSTIFICATION
Attainment of objectives and planned results (progress to date)	U	The analysis of planned versus actual results shows the project significantly behind in actual vis-à-vis planned outputs and expenditure. More than 50 percent of planned activities were not completed. Approximately 18% (including recent awards) of GEF project budget was expended after 42 months (not recognizing delayed implementation associated with PEU start-up and meeting conditions precedent). There are unintended consequences arising from the delayed expenditures, that is, there are benefits (e.g., farmers in Windsor Castle alluded to obtaining up to 100% increase in productivity on account of employing good agricultural practices (GAP)) which could have been derived that are being delayed. Using a conservative approach, the opportunity cost of the funds allocated to the project, but not spent, could be estimated at 5%. Literature review documented delays of up to 22 months for most of components 1 and 2 activities; delayed activities impacted project performance and has implications for other component activities such as the reforestation efforts. With limited technical activities executed for these components (except for awareness and watershed policy efforts) the consultant is unable to comment on whether the intended outcomes and impacts for components 1 and 2 will be met, once implementation progresses. It is noted, however, that there continues to be intended national-level application of lessons learned from these components, especially those related to the PES. Literature review and consultation findings documented the measures being taken to resolve the delayed activities (largely linked to procurement) that should accelerate the generation of outputs for these components. Outputs from component three activities implemented by RADA are on, or ahead of, planned targets; for training and farmer engagement. GAP awareness activities are ongoing. With the delayed KAPB

		assessment, there are limitations on the ability to effectively assess the change in farmers' knowledge because of the trainings conducted to date. Perception-focused interviews with farmers (by the consultant) established that the training had a positive effect on farmers' knowledge of the innovations that can improve GAP adoption in the short, medium and long-term. An FFS monitoring and evaluation plan has been developed and will be implemented directly. However, there is need for analysis of other constraints to adoption to inform adjustments in program delivery. Delays in the reforestation affected the overall performance of component three and the planned ecosystem improvement impacts.
Assessment of Sustainability of Project Outcomes	S	The project has three named outcomes, with associated indicators and targets. The project's design recognized the importance of a governance framework for integrated watershed management, and sought to utilize partnership agreements as a tool to enhance collaboration and cooperation among implementing partners. The use of an MOU was to create a structure that would bring all IPs under one umbrella agreement, with well-defined roles and responsibilities. This would mirror an institutional framework previously utilized for IWRM and would support IPs working more cohesively. The PA was implemented slightly differently, with multiple MOUs being signed between the Executing Agency and IPs. While these were useful in defining and delineating roles and responsibilities for IPs, they were compartmentalized and each MOU focused on specific activities for which the entity had lead responsibility for implementation. Consequently, the desired extent of collaboration and cooperation among IPs have not been fully realized as it was expected that this would be used until the Watershed Policy was in place. The project has focused largely on activity implementation, and cohesiveness between IPsis still a work in progress. Implementation delays lead to lost opportunities for scale-up and replication of project outcomes by implementing partners and other donors, which was one of the broader intended outcomes and

		justification for the project. The absence of successful outcomes has implications for accessing future GEF/IDB and other donor funding for integrated watershed management. For most agencies, the activities being implemented in the project are within their manageable interest and part of their mandate. These have been included in their operational plans. However, once the funds for specific activities are depleted, there is uncertainty regarding the level of engagement that can continue. For example, pilot communities and sites, there is no clear plan for follow up with the farmers and groups. The RADA extension officers are limited by the available resources and their ability to continue to follow the participating farmers in questionable. To assist the farmers, RADA officers participate in Field days that are used to help build awareness to wider farming groups and community. *Outcome 1: Improved Management of Biodiversity in the Watersheds of the Hope and Yallahs Rivers* This outcome is defined by completed work on the watershed policy, use of the GIS DSS and a reviewed development order for Sr. Andrew. While it has not yet been realized, there is a high probability for sustained outcomes especially as these activities are mainstreamed in the work of key NEPA Divisions. This outcome is not yet realized, but the Policy is in an advanced stage, to go to the Environment and Risk Management Division of the Ministry of Economic Growth and Job Creation (MEGJC) for preparation and submission to Cabinet. The ERMD eagerly awaits the submission. The WAMM review activity has been significantly delayed due to issues of procurement, likewise work on the DSS has not yet commenced. The targets are expected to improve decision making capabilities for watershed management and once completed can be sustained. Efforts are needed to accelerate the activities related to this outcome. The outcome

		Outcome 2: Increased financial resources for PES This outcome can only be achieved through scale-up and replication of SLFM practices (Component 3) within the upper watershed areas of Hope and Yallahs, which can result in an impact of reduced sedimentation levels and other quality parameters at acceptable levels. This justification will involve work on Component 1 in monitoring and assessments to provide the data in support of the PES. The project has experienced significant delays for the PES, which would not enable achievement of the outcome as defined by the two indicators in the results framework. Realistically, the project can only achieve design of the PES Scheme and will not start implementation during the life of the Project. Implementation of the PES would have to be in a Phase II, but it would be expected that the institutional structure and heightened awareness would already be in place. *Outcome 3: Improved SLM in Project Areas* The piloting of capacity building for farmers and other community members in selected communities through use of demonstration plots and administration of the farmer field school method for good land husbandry practices has been one of the strong points of this project. The RADA has been instrumental in implementing related activities and having achieved the targets set, and in so doing has used this momentum to conduct an additional two FFSs. RADA's capacity and commitment allow for sustained action that can be replicated. Strengthening of community-based interactions could have future governance strengthening implication s and it is in this regard that work will be undertaken by the SDC. The result of the pilots and demonstrations bodes well for scale-up and replication, within the WMUs and outside the target areas. The project has instituted measures (e.g. exchanges and field days, videos for example) to communicate the work done to stakeholders outside of the WMUs.

		The improvements derived from the application of the GAPs have exhibited community ownership and self-monitoring specifically in terms of no/reduced burning, use of individual basins, vegetative barriers, and composting. The project activities align with work undertaken by Extension Officers and has been mainstreamed. Many of these officers have established good rapport with community members (through the project) and can continue to influence change. Barriers however exist that could hinder long-term sustainability of the SLM improvement in the WMUs. The water issue is a longstanding and crucial issue, especially in the Hope WMU that is not being addressed by the project and continues to be a core threat to farming success. While farmers are aware of good land husbandry practices, the lack of water and indiscriminate use of chemicals are issues that would have to be addressed for long-term sustainability. Design had discussed inclusion of irrigation in the mix of approaches for SLM, but this was not pursued further. Efforts could include rainwater harvesting. Additional barriers include age (which may limit technology adoption due to an unwillingness of some older persons to try innovations and in other communities where youth do not show much interest in farming), gender, and the fact that some of the innovations are labour and time intensive, and so the farmers need additional assistance to implement. A good practice to address this latter issue is where some communities have "field days" where farmers pool efforts to implement innovations one farm at a time. Many persons in the areas do not possess land titles, just a history of farming a particular plot of land for many years and this will be an impediment to long term sustainability and scaling up. One other barrier is the understanding of the value chain of plants (e.g. those used as vegetative barriers). Information/training on value chain could help to increase buy-in. This could also lead to

		more persons from the communities becoming involved (once knowledge of value chain is promulgated). Monitoring of FFS participants and trees is a fairly new activity for the PEU and is just beginning to roll out. There is a potential role for the IPs in monitoring and so the MOU roles and responsibilities may need to be revisited. Components 1-3 are intricately linked and so deficiencies in any of the outcomes will affect the overall sustainability of the project.
Achievement of Outputs and Activities	MU	Through the efforts of the lead agency and implementing partners, RADA and FD, several results were realised across the project's three components. These included: Output # 1.1: MOU to manage the watershed Output # 1.5: Communication plan and public awareness campaign implemented Output # 3.1: Extension Program Designed. Output # 3.2: Capacity Development for Communities The project's procurement challenges affected the timeliness of the remaining programmed results (which primarily fall in components 1 and 2). Under component 1, MOUs were signed to support the project's implementation of specific activities; however, there was no formal documentation of medium to long-term cross agency cooperation beyond the life of the project. The MOUs however, represent a project strength as the multi-agency execution approach capitalized on the technical capabilities (strengths) and lessons learned of the lead agency and its partners; that had a positive impact on the activities completed and the outputs produced to date. Also under component one, the project produced two communication plans that provided a useful frame for the execution of communication efforts – nationally. The plans reflected detailed stakeholder analysis and produced a number of communication products that were used over project implementation. Ideally the plans

		should have been informed by the baseline KAPB assessment findings, however, this information was not available. There is also room for an expansion of the communication efforts to target the upcoming efforts associated with the PES development and to capitalise on the growing watershed-level momentum associated with the SLM activities under component three. Outputs 3.1 and 3.2 are associated with component three. A key baseline assessment was not done for the component, intended to inform technical design. However, the implementation partner's use of the Farmer field school (FFS) approach documented only positive feedback from the farmers and community representatives. The practical and participatory approach allowed persons interviewed by the consultant to quickly represent the information they had learned, and the innovations relevant to their farms. The FFS approach (along with the demo plots) also allowed the limited extension staff to reach and excess the target for number of farmers trained. The integration of demonstration plots where the innovations are applied in a practical setting, was also useful in providing a learning lab for the community; even after the completion of the training. Both areas received positive feedback from the farmers – who highlighted the benefits of their learning experience. Farmers also reported seeing the difference the innovations made in recent heavy rains that further reinforced the need for the innovations. The execution of wildland fire training by Forestry Department was also completed successfully and additional cross-agency collaboration (with the Jamaica Fire Brigade) allowed the project to work around resource constraints linked to procurement delays. This training and the associated capacity built is essential to the protection of the environmental improvements (such as tree planting) being promoted through the project. While it was noted earlier that the key baseline assessment e.g. KAPB, were not completed to inform

		dependent activities; the communication programme implemented to date included a detailed stakeholder / audience analysis that informed the design of the behaviour change interventions. The progress seen took advantage of NEPA's internal resources available through their communication unit.
Catalytic Role and Replication	S	The project has incorporated lessons and good practices from its predecessor projects such as R2RW and IWCAM and has benefitted from IPs capacity in reforestation, fire prevention and management and land husbandry training. The FD and RADA already had manuals that could be used for training. Furthermore, partnerships built for implementation of activities have been beneficial (e.g. FD with Jamaica Fire Brigade). The project develops on existing watershed management approaches in Jamaica by introducing a financing component for IWM, which has never been undertaken before. The project is well developed in covering a range of key elements of an integrated watershed management approach. It is designed to address policy, programmatic, data collection and analysis for decision-making, financing and capacity building. With a strong governance framework, it can be a springboard for scaling up and replication in other WMUs. The best practices and lessons from this project will be important for this. The project is not only innovative with efforts to apply a PES scheme but also utilizes and builds on the work of its IPs. This includes rolling out of Forestry Department's incentives programmes and other incentive schemes. The project is now focusing attention on engaging large landowners in the WMUs, though incentives schemes to fill in gaps for target for number of hectares. This is being done with a shift from reforestation to agro-forestry. Capacity is being built at the local level in good agriculture practices and fire management and farmer testimonials attest to farming groups being more cohesive. Information sharing and awareness raising has been a useful tool for spreading the results achieved to

		date. The communication tools utilized have documented good practices from upper watershed areas and efforts must continue to share these more widely. Roadshows/tools developed by the project have been used by the Ecosystems Conservation and Management Division of NEPA and there have been exchanges and field visits in the demonstration communities. NEPA's Ecosystems Management Division has found the work of the project and its outputs very useful and is using them in their work. For example, the communications tools that have been developed are being adopted. Water quality work undertaken under the project helps them to carry out their operational activities and to meet their targets. They are especially keen on the results of this project, as they envision them being utilized in other WMUs. The new Watershed Policy, WAMM revision and enhancement and GIS monitoring protocols are very important elements of the work for watershed management, and will be used in the long term. Additionally, the capacity built in bio monitoring and ecological assessment and in hydro-meteorological assessment will also be applied in the long term and expanded use in other WMUs. For the FD, the capacity building in Carbon Stock Monitoring will help the organization carry out this work in the future island wide, and will be useful for new initiatives such as REDD+. RADA's application of the FFS with good land husbandry practices has been up scaled and is being used in additional areas in the WMUs. The lessons from implementation can be used to strengthen the approach and replicate more broadly. WRA and MSJ are also building capacity in hydro-met assessment, and this will be beneficial in the long term and could be applied to other watersheds. The continued development of inter-institutional

		arrangements and partnerships is imperative. Strategies to support replication: Document lessons learned and best practices, especially those that lead to improved watershed management. Involve the Ecosystems Management and Conservation Division more actively in the project. The PEU would benefit from the technical expertise existing in the Division.
Assessment of Monitoring and Evaluation (M&E) Systems	MS	The following documents defined the project's Monitoring, Evaluation and Reporting (ME&R) system: - M&E plan - Results framework with associated performance indicators and targets - Grant Agreement - POM - POD These documents were in place as part of project design. Several baseline studies, referenced in the M&E plan are yet to be completed; however, were determined at design to be essential to activity design and adaptive programme management. The reporting responsibilities (technical, financial, and operational) are detailed in section 7 of the POM. Partnership agreements detail the reporting responsibility for the preparation of status reports (monthly), technical reports (quarterly) and annual reports (annually) and a final project report (once) prepare requirements also referenced in the partnership agreements. The gaps would be monitoring partners' compliance with the reporting requirements. Reporting by the PEU, since project inception, is largely activity-focused. There was weak utilization of the performance indicators (output and outcome levels) agreed on in the results frame work. The PEU's utilization of a PM4R (monitoring approach) limits its ability to assess quantitatively project performance against defined targets. There was no defined process for M&E data flow across the

		project partners, outside of the technical reports. There are gaps that need to be addressed in roles and responsibilities of component and activity level monitoring to improve M&E outputs. Activity level monitoring of the farmer field school implementation is defined in a monitoring and evaluation plan that is in its early stage of execution. In the partnership agreements, monitoring of activity implementation resides with NEPA. Technical capacity for M&E implementation across the range of partners may be a constraint to effective M&E implementation. It was also noted that there was no specific budget allocation for M&E, outside of evaluations, and baseline data collection. This may limit partner's ability to effectively support M&E. The absence of budget allocation for M&E capacity building across partners may also be a limiting factor.
Preparation and Readiness	MU	The five-year lag between project design and implementation resulted in numerous issues that have affected smooth project implementation. This would have shifted some priorities, as much would have advanced since 2010. For example, the Forestry Department was able to get funding to reforest some of the areas deemed vulnerable and in need of reforestation, that were no longer available for project implementation. The project's objectives and components are clear, and at the design and preparation phase, were expected to be feasible within the timeframe, especially given that several supporting assessments and technical studies were conducted prior to implementation. Concerns were raised relating to the project introducing new concepts (e.g., the PES) to Jamaica, however the technical studies during the preparation phase were supposed to help to facilitate smoother implementation. Also included within the preparation phase was an institutional assessment of NEPA, the executing agency. One of the key findings of the assessment, which was conducted in 2011, was that NEPA had the necessary capacity

		to undertake the responsibilities for the implementation of the project. The literature reviewed/consultations to date have given no indication that a formal capacity assessment of the partners was conducted. In addition to the assessments, the design and preparation of the project benefitted from the incorporation of lessons learned from relevant projects such the Ridge to Reef Project. Additionally, project design would have been influenced by other projects with similar focus that were being implemented by NEPA, implementing partners and the donor. *Partnership Arrangements* The partnership arrangement identified in the grant agreement was by way of an MOU between NEPA and implementing partners. The MOU was initially intended to be finalized early in project implementation and was expected to help build cohesion among the partners. However, it was not implemented in the way it was specified (the project agreement speaks to one MOU between NEPA and partners, while several MOUs were actually executed during implementation). The agreements were signed later than expected: the MOUs with RADA, and the Forestry Department were signed in 2016 and the MOUS with NWC and WRA were signed in 2017. An additional MOU was signed with MSJ in 2017 and another is to be signed with SDC. The roles and responsibilities of the partners were defined at a high level prior to the start of the project and were further detailed during implementation. Implementation efforts to date have been disjointed and there has not been significant evidence of all partners working collaboratively to achieve project objectives. *Counterpart Resources put in Place Prior to Implementation* Other issues associated with project preparation and readiness have to do with the counterpart resources (staff, funding and facilities) and the project management arrangements that have been put

		in place. Approximately 8.9 million USD in counterpart resources were identified, however the tracking and verification of counterpart resources since implementation need to be improved. The POM indicated that PEU staff such as the Procurement Officer, Project Officer, Technical Coordinators, and Driver were to be supported by counterpart resources. However, the timing of when staff was hired has not facilitated the PEU doing everything that it needs to do. The Procurement Officer was hired in 2015, the Technical Coordinator (TC) and Project Officer were contracted in September and December 2017, respectively. Furthermore, there are capacity gaps, the POM indicated that there should be 3 TCs, but only one has been assigned to date. Another issue for concern is that the PEU only received its own office space in March/April 2018. On a more positive note, there have been counterpart resources in terms of enabling legislation that was in place to support the project. Examples of this include the NRCA Act, WRA Act and supporting policies such as the Watershed policy (which is being revised), Forest Policy, both of which are linked to the Water Policy as part of the IWRM thrust.
Country ownership/driveness	HS	The project is of high relevance to Jamaica, supporting Goals 3 and 4 and Outcomes 12, 13, 14 and 15 of the National Development Plan, Vision 2030. Areas of relevance include food security, rural development, sustainable management and use of environmental and natural resources and disaster risk reduction and climate change. While the project identified a strategy to Develop and Implement Mechanisms for Biodiversity Conservation and Ecosystems Management, its concept is also focused on Developing efficient and effective governance structures for environmental management. The project, having a focus on sustainable agriculture in the WMUs, also supports agricultural, forestry and water strategies. The inclusion of the PES in the project also elevates this project to one that can help to spur economic growth, around a focus on clean, reliable supply of water for the population of the KMA. The project focuses attention on two WMUs, ranked by NEPA as very important and highly

		vulnerable. By successfully implementing the project, it will satisfy SDGs #6, 11, 13. It is also of relevance to the key implementing partners, in carrying out their commitments through their management, strategic and operational plans. The GoJ has been responsive financially, for example, in addressing the double taxation issue for the PES consultant. In this instance the GOJ made funds available to pay the local taxes.
Stakeholder Participation/public awareness	MS	No evidence of a stakeholder analysis in design. Understood that activity was conducted at Inception workshop. No follow up done, to go along with activity modifications Various levels of stakeholders ranging across the spectrum of participation: 1. PSC – key entities participate, with change in representative. Not always able to make decisions. PSC addresses technical issues, gap in strategic high level decision making 2. Implementing partners- Spectrum of participation over LOP. MOUs signed as partnership agreements between NEPA and the IPs. However, they are largely not monitored (at PSC, PEU, IP levels). IPs carrying out their roles and responsibilities but to varying degrees. Partners are not always actively utilizing the MOUs. For example, in RADA the focal point was not sure if it had been signed, and the personnel on the ground are not aware of its contents. Other than FD, there seems to be no urgency for reporting. It is difficult to understand co-financing to date from IPs, as these data have not been provided. 3. Local community based organizations- JAS groups, NGOs, PMOs – involved to the extent that the FFS participants are a subset of the group. Plans to engage them further through SDC participation 4. Farmers- participates through FFS, largely committed to attending all modules of the FFS. With new knowledge, adopting good land husbandry practices on their farms 5. Other government entities – PIOJ, MoFPS, GEF Focal Point, MEGJC, OUR POM suggests PSC to be chaired by PS, but not done. MEGJC Environment and Risk Management Division represented; PIOJ represented at technical level on PSC; support from other arms of PIOJ for

		line item transfer, reporting etc. PIMSEC and Cabinet Officer for approval of funds for Component 3. MoFPS PSC member and allocates fiscal space and monitors. OUR participated in some early workshops and meetings, but not well engaged as PES design not yet in high gear. 6. General public – via road shows, farmer exchanges, advertorials, other print and electronic media (newsletters, text messaging)- informational FD only IP reporting (technically and financially). RADA participating with good implementation rate, but not reporting or monitoring (officers or focal point). The FFS training have met its target but information on the development and execution of the FFS is not available. Additionally, in the absence of the KAPB study, there was no evidence of a pre and post training survey to determine change. The PEU has plans to conduct change of knowledge assessments. Similarly, it would also be useful to monitor uptake by other farmers in the communities. To date this has not been undertaken. Use of ALAF Working group for Component 3 planning and implementation – good example of partnership at work but no longer operational. The existence of the group allowed for joint planning and sharing, and helped to build relationships. Other stakeholders that could be involved National Spatial Data Management Division (for data sharing and analysis) and National Land Agency (for information sharing regarding large landowners in the WMUs – who are also expected to participate (also benefit of being in the same Ministry as most other IPs). Local government entities. Utilization of NGOs on the ground to assist in ongoing interaction with farmers would also be useful. RADA is challenged in their ability to have ongoing interaction with the farmers, given their many responsibilities and limited resources. The need for ongoing interaction beyond the FFS is imperative and would serve to help to solidify the learning and promote wider adoption.

		Public awareness initiatives are being undertaken by the project in various ways and fall within a Communications Plan. At the community level, there have been community sensitization sessions for example those held in…. Various tools have been developed and used such as in road shows, advertorials, infomercials, videos, jingles, photos, participation in the Denbigh Agriculture Show, logos, and public service announcements. Texts are used to remind farmers of good agriculture practices on daily basis. Alignment of communication activities with PES design. A decent communications strategy was developed, that reflected stakeholder analysis, especially in the absence of the initial KAPB survey. However, some products were national level focused vis-à-vis watersheds. There is limited availability of post-implementation analysis. Measured impact of change in knowledge or practices is not clear, but during interviews with farmers they were able to explain the various practices that were employed and improvements they had seen.
Financial Planning	MS	There are existing and appropriate financial controls, including planning and reporting for the management of the project. These controls are both internal and external and include IDB and GoJ procurement guidelines, procurement plans, monthly financial reporting requirements within NEPA, PSC reporting, semi-annual reports to the IDB and annual audits. The financial controls/procurement guideliens allow the PEU to make informed decisions regarding the budget, but more practice planning, management and more timely review processes (both internal and external to the project) would hae helped to minimize some fo the delays experienced.

		During the financial year ending March 2016, only one of four planned targets were met, and actual expenditure was $173, 023 of $407 613.81 advanced payment received from the IDB and GoJ. One of the effects of this is the increased risk of the project not being able to achieve the mandate of imorving the provision of ecosystem services from the respective watersheds. For the financial year ending Marhc 2017, the actual send rate was 10% of planned expenditure per procurement plan, and the project was only able to achieve three of eight planned targets. With the lag between project design and implementation of approximately 5 years, many of the budget line items, especially that of PES related studies under component 2, are not consistent with current market rates. The PEU employed adaptive management strategies and used the budgetary transfer option to facilitate the transfer of funds from Component 3 to Components 1,2 and 4. The financial controls, reporting and planning was consistent with allowing the PEU to satisfactorily plan procurements, but the execution of actual expenditure was unsatisfactory.
Implementation Approach	MS	The project being evaluated is the outcome of a multi-tranche financing facility provided by the GEF through the IDB with the objective of promoting increased ecosystem services within the Hope and Yallahs WMUs through the simultaneous implementation of a number of projects in a sequential manner to achieve increased quality and supply of ecosystem services from the watershed. These sequenced activities are summarized in Section 1 above. The project's design involved NEPA, the government entity with primary responsibility for watersheds management, working in close collaboration with other entities with similar responsibility, including FD, WRA, NWC, and RADA. The governance framework for the project includes a Project Steering Committee, which is expected to review and approve plans; provide guidance for risk management, policy issues, adaptive management strategies, and align the project with the work of their respective

		entities. According to the POM (2016) a Technical Working Group (TWG) of the PSC is to be established to focus attention on technical matters, including project deliverables. This TWG has not been established but would be useful for monitoring of activities and outputs and conduct of quality assessments. One other structure developed was the ALAF WG for Component 3, which was effective for information sharing and planning while it was active. The group should continue and would support replication and scale-up. Main modalities for implementation: 1. Consultancies 2. Stakeholder participation (Partnership and Collaboration) 3. Use of data and information for decision making- e.g. hydro-met for site selection for the PES and for agro-forestry and reforestation (Components 2-3) Design focused on sequencing of activities in three components. However, the project has been plagued with several issues resulting in delays in implementation of precursor activities such as the hydro-met assessment. The hydro-met assessment conducted during pre-feasibility for the project was found to be flawed, and could not be used at the start of the project to inform site selection for (i) PES design, (ii) demonstrations in Component 3 and for monitoring. Consequently, the hydro-met study had to be re-done, and has since been plagued with various procurement related issues. Notwithstanding, sites were selected for Component 3 for the land husbandry training to be implemented. It is now in Year 4 that the hydro-met study is being undertaken, and the PES design will rely on some of its outputs. Adaptive management approaches were taken to address efficiency in implementation and ultimately in filling gaps in targets. One such adaptive management action was merging the bio monitoring and ecological assessment as well as the development of the GIS DSS and the IWRM training. These two

		mergers have the benefit of improving efficiency of implementation while reducing the numbers of procurements. Other examples of adaptive management include: working with private landowners to meet project targets previously established but for which the FD is constrained to meet and movement of funds (up to 15%) from Component 3 to other components due to savings accrued. Both the GoJ and IDB have accepted the budget transfers. The project has been responsive to the needs and realities of the country and has incorporated work on finalizing a Watersheds Policy and review and strengthening of the watershed management tool, the WAMM. Having recognized an important threat to watersheds and biodiversity, the project incorporated wild fire prevention and management training, to address a serious longstanding issue in the WMUs. The FD already had capacity to undertake this training, and in collaboration with the Jamaica Fire Brigade, was able to deliver effective fire management training. Farmer testimonials attest to the effectiveness of the training, as the number of fires in the watersheds has been significantly reduced. A missing element of this was the fire groups that were to be established for sustainability. Overall the project is not being executed according to plan and this has affected achievement of targets both over the LOP and annually. There have been many issues related to procurement and in respect of Component 3, FD has not been able to confirm its initial commitment on targets. This has necessitated adaptive management approaches to be taken. The extent of work on this project requires supervision on various levels: Director/PEU; PEU/Implementing Partner; Implementing Partner/Staff on the ground; PSC; IDB. Supervision has varied and has been found wanting on a number of levels. For example, while RADA is implementing

		the FFSs, there is a gap in monitoring and reporting. The Results Framework is not used directly in project management and M&E efforts are still in its infancy so are not being used for adaptive management. However, the PEU uses the PM4R approach template for planning and making adjustments to plans. There is no evidence of actual monitoring of the targets in the PM4R against those planned. Indirectly, there is strong assessment/tracking of activities and milestones, also seen in the PM4R. In the past week, there is a slight Improvement in rate of expenditure, with a significant increase in committed funds (on account of signed contracts for hydro met and PES). The rate and pace of technical reviews and stakeholder engagement will be critical to project implementation for the remainder of the project. The successes of the project would best be measured using the M&E plan. However, this has been slow in implementation, and the Technical Coordinator with responsibility for its implementation came on board in September 2017. Quality management and monitoring has not been generally very well developed. However, in specific instances such as for the revision of the Watershed Policy, efforts have been made to solicit wider input in its review.
IDB Supervision and Backstopping	S	IDB attended initial PSC meetings, conducts annual technical review Missions and have conducted multiple virtual monthly meetings with the PEU. Where necessary, the IDB also holds special meetings with stakeholders (e.g. NEPA, FD and RADA to discuss site selection and replanting issues). There have been delays in the IDB's responsiveness especially when the Project's Team Lead was transferred and the project was in a transition to the new Team Leader and Operations Analyst. At other times, the IDB has had to delay No Objections, due to other requirements from the PEU, among

		others for example, the need to have the AOP and revised Procurement Plan. No Objections are mostly timely, provided in days. In some instances, the No Objections have been delayed due to queries or when the IDB awaits further documentation from the PEU. The IDB has sought to assist in backstopping such as in design of the reforestation component. Technical support included selection of sites; species for reforestation and feedback on the silviculture plan. The IDB also facilitated the PES consultancy and was supportive in securing the additional US$300000 for the PES when there was an identified shortfall. Support has also been given in preparation of TORS, provision of technical assistance (Carbon Stock Monitoring). While the IDB's procurement rules are different from that of the GoJ, the team has been flexible and is usually focused on compliance with IDB procedures. The IDB Team Leader and Operations Analyst are accessible and communication is usually timely. The IDB has offered training to the PEU in areas such as Annual Audit and procurement. There seemed to have been a lack of recognition on the part of the IDB that the project would have needed time to begin implementing, i.e., implementation timeframe should make allowances for initial activities such as establishing PEU and meeting conditions precedent. Rather, the implementation timeline commenced at signing of the Grant Agreement. Furthermore, there was need for initial re-sensitization of IPs and other stakeholders, due to the time lag between design and implementation.
Overall Project Rating	U	While the design of the project was strong and the country commitment was high, the project encountered challenges that led to delays. This has and continues to impact achievement of outputs and outcomes, and ultimately impacts, if not corrected.

		The development of partnerships for project implementation has been a useful tool for project implementation and facilitates the opportunity for continued improvement of coordination and collaboration for integrated watershed management at the national and local levels. The PEU was not established the way in which it was designed (POM 2016) and took a long time to be "fully" staffed. Furthermore, PEU personnel were in different locations in NEPA until recently and this affected their ability to work together. There are still capacity issues in the PEU, and it is unclear whether the staff complement and skills can carry out all the activities assigned (technical and project management). The project remains significantly below targets (expenditure and outputs).
HS= High Satisfactory; S=Satisfactory; MS=Moderately Satisfactory; MU= Moderately Unsatisfactory; U= Unsatisfactory; HU= Highly Unsatisfactory		

Annex B-1. References

Auditor General's Department Jamaica. 2016. *Integrated Watershed Management for the Yallahs and Hope River Watersheds Project Period April 1, 2015 to March 31st, 2016*, GRF/FM-14606-JA.

———. 2017. *Integrated Watershed Management for the Yallahs and Hope River Watersheds Project Period April 1, 2016- March 31, 2017*, GRF/FM-14607-JA.

Forestry Department. 2017. *Integrated Management of the Yallahs and Hope River Watershed Management Areas Project. Quarterly Progress Report. Period under Review October 2016 - December 2016*.

———. 2017. *Integrated Management of the Yallahs and Hope River Watershed Management Areas Project. Quarterly Progress Report. Period under Review January 2017 - March 2017*.

———. 2015-2017. *Quarterly Progress Reports. Integrated Management of the Yallahs and Hope River Watershed Management Areas Project.*

Forestry Department. Forest Science and Technology Division. 2012. Proposed Yallahs Valley Watershed Rehabilitation.

Forestry Department, Forest Science and Technology Division. 2012. Proposed Hope River Watershed Rehabilitation.

Forestry Department. 2015. Map of Abbey Green Areas.

Forestry Department. 2015. Map of Brook Lodge, St. Thomas.

Forestry Department. 2015. Map of Green Valley, St. Thomas.

Forestry Department. 2015. Map of Mount Tiviot, St. Andrew/St. Thomas.

Forestry Department. 2015. Map of Moy Hall - Sheerwood Forest, St. Thomas.

Forestry Department. 2015. Map of Radnor, St. Thomas.

Forestry Department. 2015. Map of Whitfield Hall, St. Thomas.

GEF. 2016. *Annual Operating Plan*, JA-G1001.

———. 2015. *Annual Operating Plan 2015 v.4*, JA-G1001.

———. 2017. *Annual Operating Plan 2017 Final*, JA-G1001.

———. 2014. *The GEF-6 Biodiversity Strategy*.

———. 2015. *GEF2020. Strategy for the GEF*.

———. 2015-2019. *PM4R Excel Sheets*.

———. 2016. *Procurement Plan,* JA-G1001.

GEF-IDB. 2016. *Project Implementation Report (1st PIR) FY2016*, 4454, JA-G1001.

———. 2017. *Project Implementation Report (2nd PIR) FY2017*, 4454, JA-G1001.

———. 2016. *Project Implementation Report FY2015/6*, 4454, JA-G1001.

GOJ/GEF/IDB. 2017. *Integrated Communication Strategy*.

IDB. 2018. *Adjustments to Special Procurement Notices and Advertisements for Ex-Post Procurements*, CCB/CJA/95/2018.

———. 2012. *Agroforestry and Biodiversity Component (Preparation of the Project)*, JA-T1060.

———. 2017. *Audited Financial Statements for the Project for the Year Ended March 31, 2017*, CCB/CJA/828/2017.

———. 2012. *Biodiversity, Forests, Land use and Climate of the Hope and Yallahs Watersheds*.

———. Undated. *Economic Analysis Annex*, JA-G1001.

———. 2016. *Extension of Timeline to Submit Full Proposals for the PES Consultancy*, CCB/CJA/843/2016.

———. 2018. *Extension to Deadline for Submission of Mid-Term Evaluation report for Yallahs-Hope Project*, CCB/CJA/93/2018.

———. 2012. *Final Report. Hydrologic Modeling.*

———. 2012. *Final Report. Hydrologic Modeling Integrated Management of the Yallahs River and Hope Watersheds*.

———. 2014. *Grant Proposal*, AT-1518, JA-G1001.

———. 2016. *IDBG Country Strategy with Jamaica 2016 - 2021*.

———. Undated. *Integrated Communications Strategy Final Draft (VII)*, JES/2012.

———. 2017. *Jamaica. Back to Office Report*.

———. 2015. *Letter to Novlette Douglas re: Conditions Precedent to First Disbursement*, CCB/CJA/12/2015.

———. Undated. *Monitoring and Evaluation Plan*, JA-G1001.

———. 2015-2018. *No Objection Responses*.

———. 2014. *Non- reimbursable Financing Agreement between Jamaica and the Inter-American Development Bank,* GRT/FM-14607-JA.

———. 2012. *Payment for Ecosystems Services Scheme*.

———. 2015. *PMR Operational Report*, JA-G1001.

———. 2016. *PMR Operational Report*, JA-G1001.

———. 2017. *PMR Operational Report*, JA-G1001.

———. 2018. *PMR Operational Report*, JA-G1001.

———. 2012. *Preparation of the Project: "Integrated Management of the Yallahs and Hope River Watersheds"*, JA-T1060.

———. 2017. *Procurement Plan,* IDB Website.

———. 2018. *Procurement Plan*, IDB Website.

———. 2013-2018. *Project Risk Management. Risk Mitigation Plan,* JA-T1001.

———. 2016. *Re: Receipt of Annual Operating Plan*, CCB/CJA/92/2016.

———. 2017. *Request for Budget Transfer*, CCB/CJA/454/2017.

———. 2012. *Rural Development Specialist Final Report v.2*.

———. 2015. *Semi- Annual Progress Report February 1 - June 30, 2015*, GRT/FM-14607-JA**.**

———. 2016. *Semi-Annual Progress Report January 1 June 30, 2016* , GRT/FM-14607-JA.

———. 2017. *Semi-Annual Progress Report January 1 - June 30, 2017*, GRT/FM-14607-JA.

———. 2016. *Semi- Annual Progress Report July 1- December 31, 2015*, GRT/FM-14607-JA**.**

———. 2018. *Semi-Annual Progress Report July 1 December 31, 2017* , GRT/FM-14607-JA.

IDB/ Agricultural Competitive Programme. 1930. *Jamaica Aide-Memoire*.

IDB/GEF. Undated. *Consolidated Budget by Sources and Uses of Funds*.

———. Undated. *Jamaica: Integrated Management of the Yallahs River and Hope River Watersheds Annual Operational Plan - 24 months*.

———. Undated. *Procurement Plan of the Program*.

———. Undated. *Request for SEO Endorsement*, 4454, JA-G1001.

IDB/NEPA. 2011. *Preparation of the Project: Sustainable Management of the Yallahs River and Hope River Watersheds. NEPA Application of the Institutional Capacity Assessment System (ICAS)*, JA-T1060 – ATN/FM-12802-JA.

JCDC. 2017. *NEPA's Partnership re: Grand Gala Environmental Segment*, Invoice no. 3667.

Ministry of Economic Growth and Job Creation. Undated. *Terms of Reference for a Legislative Review and Gap Analysis - In support of an Integrated Water Resources Management (IWRM) Approach as Recommended by the National Water Sector Policy 2016*.

Ministry of Economic Growth and Job Creation. 2017. *Chapter 3. Integrated Water Resources Management (IWRM) NEPA Comments*.

Ministry of Economic Growth and Job Creation. Undated. *Monitoring Report. Public Expenditure Division - Projects Branch for period October 2016 to March 2017*

Ministry of Economic Growth and Job Creation. 2014. *Water Sector Policy Draft*.

Ministry of Finance and Planning. Undated. *Monitoring Report. Public Expenditure Division - Projects Branch for Period April 2015 to September 2015,* 9408.

Ministry of Finance and the Public Service. Undated. *Monitoring Report. Public Expenditure Division - Projects Branch*, 9408.

Ministry of Finance and the Public Service. Undated. *Monitoring Report. Public Expenditure Division - Projects Branch for Period April 2016 to September 2016*, 9408.

Ministry of Water Land Environment and Climate Change. 2017-2018. *5a. Yallahs Hope Budget Call Forms revised*.

———. 2017-2018. *5b. Yallahs Hope Capital Projects Budget Tool*.

Ministry of Water Land Environment and Climate Change. Undated. *Yallahs Hope Revised 2016-2017 Cash Flow (after receipt of fiscal space allocation)*.

NEPA. 2015. *Amended Contract for Institutional Specialist*.

———. 2016. *Brief Notes on Meeting with Forestry Department, IDB and NEPA. CPJ Restaurant.*

———. Undated. Climate Smart Land Husbandry for Watershed Management. *The Gleaner*.

———. 2015. *Comments to Jamaica's FD Silvicultural Plans*.

———. 2017. *Consultant's Report.*

———. 2018. *Consultant's Report*.

———. 2018. *Consultant's Report*.

———. 2015. *Contract for Services of Institutional Specialist (Legal Consultant)*.

———. 2017. *Contract for Services of Policy Consultant*.

———. 2018. *Contract for the Services of Hydrological Modeling Specialist*.

———. 2017. *Contract for the Services of Project Driver*.

———. 2017. *Contract for the Services of Project Officer*.

———. 2015. *Contract for the Services of Project Procurement Officer*.

———. 2017. *Contract for the Services of Technical Coordinator*.

———. 2012. *Data Mapping Component Final Report*.

———. Undated. *Detailed Work Plan*.

———. 2017. *Financial Status Report*.

———. 2018. *Government of Jamaica, Watershed Policy for Jamaica 2018- 2030*.

———. 2018. *Healthy Watersheds Better Lives Communication Plan*.

———. October 2017. Jamaica's Million Tree Challenge, 15,862 trees and counting... *The Gleaner*.

———. 2017. *Letter to Mr. Francisco Alpizar, Tropical Agriculture Research and Higher Education Centre, Costa Rica*, 2015-AP-01.

———. 2015. *Letter to Mr. Joseph Milewski*, Ref#2015-Ap-01.

———. Undated. *List of Workshop Participants for Land Husbandry Training.*

———. Undated. Milestones towards Water Security, a Healthy Environment & Better Lives. *The Jamaica Observer*.

———. 2017. *Monitoring and Evaluation Plan for the Best Land Husbandry Training through Farmer Field Schools in the Yallahs River and Hope River Watershed Management Units*.

———. 2016-2018. *Monthly Reports*.

———. 2015-2017. *No Objection Requests*.

———. 2018. *Notes by Project Manager.*

———. 2012. *Payment for Ecosystem Services Scheme*.

———. Undated. *Performance Indicator Tracking Table*.

———. 2011-2017. *Performance Management System E-Form Section 1 Work Plan Forms.*

———. 2013. *Preparation of the Project Integrated Management of the Yallahs River and Hope River Watersheds. Application of the Institutional Capacity Assessment System (ICAS)*, JA-T1060-ATN/FN-12802-JA.

———. 2017. *Printing Challenges with Concepts Promotions for Branded T-Shirts* .

———. 2017. *Procurement Report for 2016-2017 Process and Financial Audit* , GEF/IDB/GOJ GRT/FM-1406-JA.

———. 2017. *Procurement Report for Artwork for the Branding Of the Project Vehicle*, GEF/IDB/GOJ GRT/FM-1406-JA.

———. 2015-2019. *Procurement Reports*, GEF/IDB/GOJ GRT/FM-1406-JA.

———. 2015. *Project Initial Report*, GRT/FM-14607-JA.

———. 2016. *Project Operating Manual*.

———. 2013. *Project Operating Manual (Draft)*.

———. 2018. *Register Hydro-Metrological Consultancy Introductory /Inception Workshop*.

———. 2015. *Request for Quotation Report. Procurement of Catering Service for Training in Land Husbandry for GOJ Officer in Clarendon with Rural Development Agricultural Authority*, GEF/IDB/GOJ GRT/FM-1406-JA.

———. 2015. *Request for Quotation Report. Procurement of Fruit Trees, Pineapple Suckers & Lining Pegs for Training in Land Husbandry for GOJ Officer & Non- GOJ Officers in Clarendon with Rural Development Agricultural Authority*, GEF/IDB/GOJ GRT/FM-1406-JA.

———. 2015. *Request for Quotation Report. Procurement of Hotel Accommodation for training in Land Husbandry for GOJ and Non- GOJ Officers in Clarendon with the Rural Development Agricultural Authority*, GEF/IDB/GOJ GRT/FM-1406-JA.

———. 2015. *Request for Quotation Report. Procurement of Hotel Accommodation for Training in Land Husbandry for GOJ & Non- GOJ Officers in Clarendon with the Rural Development Agricultural Authority*, GEF/IDB/GOJ GRT/FM-1406-JA.

———. 2015. *Request for Quotation Report. Procurement of Stationery for Training in Land Husbandry for GOJ Officer in Clarendon with Rural Development Agricultural Authority*, GEF/IDB/GOJ GRT/FM-1406-JA.

———. 2015. *Request for Quotation Report. Procurement of Transportation for Training in Land Husbandry for GOJ Officer in Clarendon with Rural Development Agricultural Authority*, GEF/IDB/GOJ/FM-1406-JA.

———. 2018. *Request for Spatial Data*.

———. Undated. *Results Framework*.

———. 2017. *Review and Updating of Jamaica's Watersheds Policy Inception Report*.

———. 2018. *Revised Deliverables Schedule for Design of a Payment for Ecosystem Services Scheme for the Yallahs River and Hope River Watershed Management Areas Project*.

———. 2018. *Revised Deliverables Schedule for Hydrological Modeling Specialist*.

———. 2016-2017. *Revised Yallahs Hope 2016-17 Budget Estimates*.

———. 2012. *Rural Development Specialist Final Report (v2)*.

———. 2016-2018. *Supplementary Monthly Reports. Risk Assessment Matrix*.

———. 2017. *Terms of Reference: Communication Specialist*.

———. 2017. *Terms of Reference: Finance and Administrative Officer*.

———. 2017. *Terms of Reference: Midterm Evaluator*.

———. 2017. *Terms of Reference: Project Coordinator*.

———. 2017. *Terms of Reference: Project Driver*.

———. 2017. *Terms of Reference: Project Officer*.

———. 2014. *Terms of Reference: Project Procurement Officer*.

———. 2017. *Terms of Reference: Technical Coordinator*.

———. Undated. *Yallahs Hope Budget Call Forms Appendix 2017-18*.

NEPA/ Austin Brady. 2017. *Contact for the Services of Project Driver*.

NEPA/FD. 2016. *Partnership Agreement for the Integrated Management of the Yallahs and Hope River Watershed Management Area Project*.

NEPA, Forestry Department. 2015. *Meeting Notes*.

NEPA, Hope Caribbean Ltd. 2017. *Contract for Consultant's Services*, GRT/FM -14607-JA IDB-YH-02.

NEPA/Meteorological Service of Jamaica. 2017. *Partnership Agreement for the Integrated Management of the Yallahs- Hope River Management Area Project*.

NEPA/NWC. 2017. *Partnership Agreement for the Integrated Management of the Yallahs-Hope River Watershed Management Area Project*.

NEPA/RADA. 2016. *Partnership Agreement for the Integrated Management of the Yallahs- Hope River Watershed Management Area Project*.

NEPA/Tropical Agriculture Research and Higher Education Centre (CATIE). 2018. *Contract for Consultant's Services Lump Sum*, GRT/FM/-14607-JA-IAD-YH-04.

NEPA/WRA. 2017. *Partnership Agreement for the Integrated Management of the Yallahs- Hope River Watershed Management Area Project*.

RADA. 2016. *Implementation Schedule for Land Husbandry Training Year 2. Workplan RADA*.

———. 2017. *Land Husbandry Manual Farmer Field School Approach with the support of Jamaica Rural Economy and Ecosystems Adapting to Climate Change (JaREEACH) Project*, Rural Agricultural Development Authority Hope Gardens, Kingston 6.

RADA/NEPA. 2016. *Farmer Field School Facilitators Evaluation. Content Gap- St. Andrew. Michael Baker/ Joel Pryce*.

———. 2016. *Farmer Field School Facilitators Evaluation. Gutter Head St. Thomas. Facilitator Norman Baugh.*

———. 2016. *Farmer Field School Facilitators Evaluation. Gutter Head, St. Thomas. Lennox Bartlett*.

———. 2018. *Farmer Field School Facilitators Evaluation. Ness Castle, Lennox Bartlett*.

RADA/ NEPA. 2017. *Quarterly Progress Report. Integrated Management of the Yallahs and Hope River Watershed Management Areas Project*.

RADA/NEPA. 2016. *Summary of Land Husbandry FFS Sessions to be Facilitated in St. Andrew under IDB/GEF Integrated Management of the Yallahs and Hope River Watershed Management Areas Project. Westphalia and Content gap St. Andrew*.

———. 2017. *Summary of Land Husbandry FFS Sessions to be facilitated under IDB/GEF Project. Bloxburgh, St. Andrew*.

———. 2017. *Summary of Land Husbandry FFS Sessions to be facilitated under IDB/GEF Project. Mavis Bank, St. Andrew*.

———. 2017. *Summary of Land Husbandry FFS Sessions to be facilitated under IDB/GEF Project. Ness Castle Update*.

———. 2016. *Summary of Land Husbandry FFS Sessions to be facilitated under IDB/GEF Project. Penlyne Castle and Gutter Head St. Thomas*.

———. 2017. *Summary of Land Husbandry FFS Sessions to be facilitated under IDB/GEF Project. Richmond Gap/Vale Update*.

Shimelis G. Setegn, Ph. D. 2018. *Integrated Management of the Yallahs/Hope Watershed Management Project*.

Annex B-2. MTE Terms of Reference

TERMS OF REFERENCE
FOR
MIDTERM EVALUATOR

1.0 BACKGROUND

1.1 The Government of Jamaica (GOJ) with the support of the Inter-American Development Bank (IDB) is executing the "Integrated Management of the Yallahs and Hope River Watershed Management Areas" project. The project will be financed with resources from the Global Environment Facility (GEF) and the Government of Jamaica. The executing entity is the National Environment and Planning Agency (NEPA).

1.2 The project agreement was signed on October 1, 2014, (the Non-reimbursable Financing Agreement GRT/FM-14607-JA) herein referred to as "the Agreement". This Agreement was signed between Jamaica and the Inter-American Development Bank (IDB), in the capacity as the Administrator of the Global Environment Facility Fund (GEF) grants for this project.

Project Sites and Importance

1.3 The project is being implemented within the Yallahs and Hope Rover Watershed Management Units (WMUs). The Yallahs River and Hope River WMUs are adjoining hydrologic basins on the southern slopes of the Blue Mountain range and east of the capital city of Kingston (population 667,000). Together, these WMUs extend for 44,486ha and supply 37% of Kingston's water. The Yallahs River also recharges the aquifers and provides irrigation water for farmers in the rural Yallahs Valley. This water is vital for the livelihoods of the farmers because the competitiveness of agriculture in the Yallahs watershed is affected by water supply, which is mainly rain-fed and limited. The area contains 7% of the island's farmland and has more poor households (29%) than the national average (19%). The Forestry Department estimates that flood-prone areas make up 8% of the area of the WMUs, 49% is prone to landslides while 65% of the two WMUs are subject to soil erosion due to the steep slopes and poor land use and agricultural practices. Approximately 10% of

the forest in the Blue and John Crow Mountains National Park is located on the upper slopes of these two watersheds.

1.4 The Blue and John Crow Mountains ranges are found in eastern Jamaica, covering an area of nearly 52,000ha of primary broadleaf forest in remote areas and higher altitudes, with increasing disturbed forested coverage as one descends the mountains. Numerous rivers flow from these ranges, and they also contain very high levels of endemism in most taxa of flora and fauna. The area is also known for its value as a transit destination for seasonal migrant birds from North America. This unique combination of flora and fauna is why the ranges are declared as Forest Reserves and a National Park (Blue and John Crow Mountains National Park), are one of the World Wildlife Fund (WWF) Global 200 Ecoregions, and has been designated as a World Heritage Site.

1.5 The mountains provide water for domestic, agricultural and industrial uses to 40% of Jamaica's population. Rainfall ranges from over 7,000mm per annum on the northern slopes, to less than 1,200mm on the lower southern slopes. High intensity rainfall in the upper watersheds contributes to soil erosion, and landslides and debris flows are common.

1.6 Threats to biodiversity and watershed integrity in the Blue Mountain include subsistence and commercial agriculture, extraction of timber and fuelwood, mining and quarrying, and the clearing of land for housing. The major effects of human activity in the upper reaches of the watershed management units are deforestation and degradation of high-biodiversity habitats and increased vulnerability of rare and endemic species to invasive alien species. It has also contributed to reduced water available from surface and underground sources, increased soil erosion, and debris flows. Increased sediment load and the excessive use of agricultural chemicals in the watersheds reduces the quality and quantity of water available for domestic use and results in higher levels of sediment and pollutants entering the Caribbean Sea and the Palisades-Port Royal Protected Area, damaging marine and coastal biodiversity.

1.7 Although reducing deforestation and restoring forests are priorities for the GoJ, the primary weaknesses and threats to natural resources within watersheds have not been tackled.

Project Objectives and Components

1.8 The objective of the Project is to improve the conservation and management of biodiversity and the provision of ecosystem services in the Yallahs River and Hope River watershed management units.

1.9 The project will achieve its objective through incremental activities under three components: i) strengthening institutions and building capacity for integrating biodiversity into watershed management, ii) creating economic and financial mechanisms to support sustainable biodiversity and watershed management and iii) implementing sustainable livelihoods, agriculture and forestry in watershed communities. Since implementation capacity is limited, it is prudent that the project focus on only a few sites to concentrate efforts and resources and maximize the chances of success.

Partnership for Project Implementation

1.10 The NEPA will be responsible for the overall coordination and management of the Project. The project is being implemented collaboratively with the Water Resources Authority (WRA), National Water Commission (NWC), Meteorological Service of Jamaica (Met Service), Jamaica Conservation and Development Trust (JCDT), Forestry Department, the Rural Agricultural Development Authority (RADA), other local authorities and community stakeholders.

2.0 OBJECTIVE AND SCOPE OF THE REVIEW

1.1 The Mid-term Evaluation (MTE) of the Project **"Integrated Management of the Yallahs and Hope River Watershed Management Areas**" is undertaken half way through project implementation to analyze whether the project is on-track, what problems or challenges the project is encountering, and what corrective actions are required. The MTE is to assess operational aspects, such as project management and implementation of activities and the level of progress towards the objectives. The evaluation will assess project performance to date (in terms of relevance, effectiveness and efficiency), and determine the likelihood of the project achieving its intended outcomes and impacts, and the implementation of planned project activities and planned outputs against actual results. It will focus on identifying corrective actions needed for the project to achieve maximum

impact. Evaluation findings will feed back into project management processes through specific recommendations and 'lessons learned' to date.

1.2 The MTE has two primary purposes: (i) to provide evidence of results to date and of the likelihood of outcomes and impact in the future, to meet accountability requirements, and (ii) to identify the challenges and risks to achievement of the project objectives and to derive corrective actions needed for the project to achieve maximum impact and sustainability. In addition, the MTE is expected to promote learning, feedback, and knowledge sharing through results and lessons learned among NEPA and its partners. It will focus on the following sets of **key questions**, based on the project's results framework and current implementation issues, which may be expanded by the consultants as deemed appropriate:

1.3 **In how far has the project built capacity and how much progress was made on institutional strengthening and capacity building for integrating biodiversity into watershed management?** More specifically: To what extent has national capacity (at individual, organisational and enabling environment level) been built for sustainable management of biodiversity at the watershed level.

1.4 **What is the status of the creation of economic and financial incentives to support biodiversity and integrated water resource management?** What can realistically be achieved in the pilot in the time remaining to the project?

1.5 **What progress was made on the implementation of sustainable livelihoods, agriculture and forestry in watershed communities?** Are the interventions adequate for the target communities? Have the interventions resulted in measurable changes within the targeted communities? Has there been adoption and replication of interventions by the watershed communities?

1.6 **What are the key challenges to project implementation and what remedies can be proposed?** Is technical backstopping provided by the IDB to the PEU effective? Is the Project Executing Unit (PEU) working efficiently and effectively? Are AOPs being successfully implemented? How well are the project partnerships functioning?

1.7 **Can the project realistically achieve its intended outputs and objectives within the time remaining?** If not, what would be a more realistic time frame or what activities should be prioritized so that the main outputs and objectives can still be achieved in a timely manner?

Key Evaluation Principles

In attempting to evaluate any outcomes and impacts that the project may have achieved, evaluators should remember that the project's performance should be assessed by considering the difference between the answers to two simple questions **"what happened?**" and **"what would have happened anyway?"**. These questions imply that there should be consideration of the baseline conditions and trends in relation to the intended project outcomes and impacts. In addition, it implies that there should be plausible evidence to attribute such outcomes and impacts to the actions of the project.

Sometimes, adequate information on baseline conditions and trends is lacking. In such cases, this should be clearly highlighted by the evaluator, along with any simplifying assumptions that were taken to enable the evaluator to make informed judgements about project performance. At Mid-Term, impacts are unlikely; however, every effort should be made to assess the project's progress towards the intended outcomes.

3.0 Main Activities

1. Assessment of project assumptions, objectives and design

The evaluation will examine the following:

Project Theory

Assessment of the assumptions and of the theory of change (causal pathways) underpinning the project idea and design, including its coherence, internal and external validity.

Project Objectives and Logical Framework

Analysis of the project Results Framework and variations over time if any, including:

- the links and causal relationships between inputs, activities, outputs, outcomes and impact (specific and development objectives);
- Relevance and appropriateness of indicators;
- Validity of assumptions and risks
- Existence of formal approvals to any modifications of the results framework

Project Design

Analysis of the project strategy and structure including:

- Approach and methodology;
- Time frame and resources;
- Institutional set-up;

Management arrangements;
Stakeholders and beneficiaries identification.

2. Project Performance with respect to GEF Evaluation Parameters

A. Attainment of objectives and planned results (progress to date):

The assessment of project results seeks to determine the extent to which the project objectives have been, or are expected to be achieved, and assess whether the project has led to any other positive or negative consequences. While assessing a project's progress towards the intended outcomes / objectives as stated in the project document (PD), the evaluation will also indicate if there were any changes to the outputs and performance indicators in the PD and whether those changes were approved. If the project did not establish a baseline (initial conditions), the evaluator should seek to estimate the baseline condition so that achievements and results can be properly established (or simplifying assumptions used). Outcomes are the likely or achieved short-term and medium-term effects of an intervention's outputs. Examples of outcomes could include but are not restricted to stronger institutional capacities, higher public awareness (when leading to changes of behaviour), and transformed policy frameworks.

- *Effectiveness:* Evaluate how, and to what extent, the stated project objectives will be met, taking into account the "achievement indicators" specified in the project document and logical framework.
- *Relevance:* Are the project's actual or intended outcomes consistent with the focal areas/operational program strategies and country priorities? Ascertain the nature and significance of the contribution of the project outcomes to the wider GEF International Biodiversity portfolio.
- *Efficiency*: Includes an assessment of *outcomes* achieved to date in relation to inputs, costs, and implementation times based on the following questions: Is the project cost–effective? How does the cost-time vs. outcomes compare to other similar projects? Has the project implementation been delayed? Is it on track?

B. Assessment of Sustainability of project outcomes:

Sustainability is understood as the probability of continued long-term project-derived outcomes and impacts after the GEF/IDB project funding ends. The evaluation will identify and assess the key conditions or factors that are likely to contribute or undermine the persistence of benefits after the project ends. ***At mid-term, identification of any likely***

barriers to sustaining the intended outcomes of the project is especially important. Some of these factors might be outcomes of the project, e.g. stronger institutional capacities or better-informed decision-making, legal frameworks, socio-economics incentives or public awareness.

Other factors will include contextual circumstances or developments that are not outcomes of the project but that are relevant to the sustainability of outcomes. The evaluation should ascertain to what extent follow-up work has been initiated and how project outcomes will be sustained and enhanced over time. In this case, sustainability will be linked to the likelihood of continued use and influence of best practices promoted by the project to plan and manage aquatic resources and ecosystems on a sustainable basis.

Four aspects of sustainability should be addressed: financial, socio-political, institutional frameworks and governance, and environmental. The following questions provide guidance on the assessment of these aspects:

- *Financial resources.* To what extent are the outcomes of the project dependent on continued financial support? What is the likelihood that any required financial resources will be available to sustain the project outcomes/benefits once the GEF/IDB assistance ends (resources can be from multiple sources, such as the public and private sectors, income generating activities, and market trends that support the project's objectives)?
- *Socio-political:* To what extent are the outcomes of the project dependent on socio-political factors? What is the likelihood that the level of stakeholder ownership will allow for the project outcomes/benefits to be sustained? Is there sufficient public / stakeholder awareness in support of the long-term objectives of the project?
- *Institutional framework and governance.* To what extent are the outcomes of the project dependent on issues relating to institutional frameworks and governance? What is the likelihood that institutional and technical achievements, legal frameworks, policies and governance structures and processes will allow for, the project outcomes/benefits to be sustained? While responding to these questions consider if the required systems for accountability and transparency and the required technical know-how are in place.
- *Environmental.* Are there any environmental risks that can undermine the future flow of project environmental benefits?

C. Achievement of outputs and activities:

- Delivered outputs: Assessment of the project's success in producing each of the programmed outputs to date, both in quantity and quality as well as usefulness and timeliness.
- Assess the soundness and effectiveness of the methodologies used for developing the technical documents and related management options in the participating countries.
- Assess to what extent the designed demonstrations have the weight of scientific authority/credibility, necessary to influence policy and decision-makers, particularly at the national level and suggest any possible improvements.

D. Catalytic Role and Replication

The mid-term evaluation will also describe any catalytic or replication effect of the project. Replication approach, in the context of GEF projects, is defined as lessons and experiences coming out of the project that are replicated or scaled up in the design and implementation of other projects. Replication can have two aspects, replication proper (lessons and experiences are replicated in different geographic area) or scaling up (lessons and experiences are replicated within the same geographic area but funded by other sources).

If no effects are identified, the evaluation will describe the catalytic or replication actions that the project carried out or possible strategies for this purpose.

E. Assessment of Monitoring and Evaluation (M&E) Systems:

- **M&E design.** Does the project have a sound M&E plan to monitor results and track progress towards achieving project objectives? The Mid-term Evaluation will assess whether the project met the minimum requirements for project design of M&E and the application of the Project M&E plan (Minimum requirements are specified in **Annex 2**). The evaluation shall include an assessment of the quality; application and effectiveness of project monitoring and evaluation plans and tools, including an assessment of risk management based on the assumptions and risks identified in the project document. The time frame for various M&E activities and standards for outputs should have been specified based on results based management principles.
- **M&E plan implementation.** Is an M&E system in place and does it facilitate tracking of results and progress towards projects objectives throughout the project

implementation period? Are annual project reports complete, accurate and with well justified ratings? Is the information provided by the M&E system used to improve project performance and to adapt to changing needs? Does the project have an M&E system in place with proper training for parties responsible for M&E activities to ensure data will continue to be collected and used after project closure?

- **Budgeting and funding for M&E activities.** Were adequate budget provisions for M&E made and are such resources made available in a timely fashion during implementation?
- **Long-term Monitoring.** Is long-term monitoring envisaged as an outcome of the project? If so, comment specifically on the relevance of such monitoring systems to sustaining project outcomes and how the monitoring effort will be sustained.

F. Preparation and Readiness

Are the project's objectives and components clear, practicable and feasible within its timeframe? Were the capacities of executing institution and counterparts properly considered when the project was designed? Were lessons from other relevant projects properly incorporated in the project design? Were the partnership arrangements properly identified and the roles and responsibilities negotiated prior to project implementation? Were counterpart resources (funding, staff, and facilities), enabling legislation, and adequate project management arrangements in place?

G. Country ownership / driveness:

This is the relevance of the project to national development and environmental agendas, recipient country commitment, and regional and international agreements. Examples of possible evaluative questions include: Was the project design in-line with the national sectoral and development priorities and plans? Are project outcomes contributing to national development priorities and plans? Were the relevant country representatives, from government and civil society, involved in the project? Did the recipient government maintain its financial commitment to the project?

H. Stakeholder participation / public awareness:

Does the project involve the relevant stakeholders through information sharing, consultation and by seeking their participation in project's design, implementation, and monitoring and evaluation? For example, does the project implement appropriate outreach and public awareness campaigns? Does the project consult and make use of the skills, experience and knowledge of the appropriate government entities, community groups, private sector, local governments and academic institutions in the design, implementation and evaluation of project activities? Are perspectives of those that would be affected by

decisions, those that could affect the outcomes and those that could contribute information or other resources to the process taken into account while taking decisions? Specifically the evaluation will:

- Assess the mechanisms put in place by the project for identification and engagement of stakeholders in each participating country and establish, in consultation with the stakeholders, whether this mechanism was successful, and identify its strengths and weaknesses.
- Assess the degree and effectiveness of collaboration/interactions between the various project partners and institutions during the course of implementation of the project.
- Assess the degree and effectiveness of any various public awareness activities that have been undertaken during the course of implementation of the project thus far.

I. Financial Planning

Does the project have the appropriate financial controls, including reporting and planning, that allowed management to make informed decisions regarding the budget and allow for timely flow of funds. Specifically, the evaluation should:

- Assess the strength and utility of financial controls, including reporting, and planning to allow the project management to make informed decisions regarding the budget and allow for a proper and timely flow of funds for the payment of satisfactory project deliverables throughout the project's lifetime.
- Present the major findings from the financial audit if one has been conducted.
- Did promised co-financing materialize thus far? Identify and verify the sources of co-financing as well as leveraged and associated financing.
- Assess whether the project has applied appropriate standards of due diligence in the management of funds and financial audits.

The evaluation should also include a breakdown of actual expenditures of GEF and co-financing for the project to date.

J. Implementation approach:

This includes an analysis of the project's management framework, adaptation to changing conditions (adaptive management), partnerships in implementation arrangements, changes in project design, and overall project management. The evaluation will:

- Ascertain to what extent the project implementation mechanisms outlined in the project document have been closely followed. In particular, assess the role of the various committees established and whether the project document was clear and realistic to enable effective and efficient implementation, whether the project was

executed according to the plan and how well the management was able to adapt to changes during the life of the project to enable the implementation of the project.

- Evaluate the effectiveness and efficiency and adaptability of project management and the supervision of project activities / project execution arrangements at all levels.
- Assess whether the logical framework was used during implementation as a management tool and whether feedback from M&E activities more broadly was used for adaptive management.

K. IDB Supervision and Backstopping

- Assess the effectiveness of supervision, administrative and financial support provided by IDB. Did they identify problems in a timely fashion and accurately estimate the seriousness? Did they provide quality support and advice to the project, approve modifications in time and restructure the project when needed? Did they provide the right staffing levels, continuity, skill mix and frequency?
- Identify administrative, operational and or technical problems and constraints that influenced the effective implementation of the project.

The ***ratings will be presented in the form of a table***. Each of the eleven categories should be rated separately with **brief justifications** based on the findings of the main analysis. An overall rating for the project should also be given. The following rating system is to be applied:

HS = Highly Satisfactory
S = Satisfactory
MS = Moderately Satisfactory
MU = Moderately Unsatisfactory
U = Unsatisfactory
HU = Highly Unsatisfactory

Wherever possible, the consultant will provide recommendations for improvement of project performance in each of the eleven categories above, so that the project could incorporate them into the implementation of the remaining duration of the project

In addition, the evaluator should prepare a draft 'performance table' for the project. This table should specify, for each of the main objectives and outcomes in the project logical framework, levels of performance (and their means of assessment) using the six performance categories above (HS to HU). This performance table will be discussed and finalized during the next Project

Steering Committee Meeting and will be used as a rubric for assessing project performance in the Terminal Evaluation of the project.

4.0 RESPONSIBILITIES OF NEPA

The NEPA through the PEU will be responsible for the following:

- Call inception meeting to clarify the Terms of Reference.
- Provide documentation available within the Agency to assist consultancy.
- Provide the consultant with a letter of introduction for entities to be engaged.
- Plan the schedule for the evaluation.
- Elevate issues as necessary for resolution.
- Manage the implementation of the consultancy.

NEPA's Logistical Support:

NEPA will also provide as available, technical papers and reports, maps and GIS data to support the work to be carried out by the Mid-term Evaluator. The Agency will provide transportation as needed to conduct site visits to demonstration and reforestation sites. Transportation to meeting site will be provided as needed based on availability of Project Vehicle. The incumbent is expected to be in-country for the duration of the consultancy.

Consultants Responsibilities

The Consultant will manage time and responsibilities to ensure efficient and effective delivery of outputs required under this Terms of Reference.

The Mid-term Evaluator will work according to the schedule provided for execution of the consultancy. The Consultant will work under the coordination and in cooperation with NEPA, through the PEU and in collaboration with external Project partners- RADA, FD, WRA, NWC, Met Service and JCDT.

The Mid-term Evaluator shall liaise with the Project Manager and other project partners in order to execute the scope of work. Working within the framework of the terms of engagement, the Consultant shall:

i. Work closely to network with the PEU as necessary and seek clarification and resolution of issues;

ii. Elevate any issues and request in writing meetings with Director-PPER Division/Manager of Projects Branch and the Project Coordinator to resolve any issues as soon as they arise;

iii. Coordinate all inputs/outputs of field visits, data collection and analysis, community based meetings and stakeholder workshops;

iv. Ensure proper identification during the implementation of consultancy; and

v. Submit all deliverables on time and within budget.

Annex B-3. Data gathering instruments for primary data collection

Integrated Management of the Yallahs and Hope River Watershed Management Areas project

Data collection Instruments

NEPA

1. Management

- How does the project contribute to national goals and objectives?
- How does the project/activities respond to the needs of the target groups?
    a. Government entities
    b. Community groups
    c. Farmers
    d. Private land owners
    e. NGOs
- Is the project's design adequate to address the problem(s) at hand?
- What are the needs/issues that prompted the development of the project?
- Are the project goals still addressing the needs that motivated the creation of the project?
- Were the project objectives and design relevant given the political, economic and financial context?
- How have partners demonstrated effective commitment (ownership)? What are the challenges, if any?
- How has the use of MOUs advanced implementation of the project? Is it a modality that could be applied more broadly in management of these two WMUs and by extension others?
- Did the design involve key stakeholders, especially the implementing partners?
- What was the benefit of designing the project with the chosen implementation modalities?
- What have been the major impediments?
- What structures are in place for stakeholder engagement in planning and implementation?
- How does the project foster inter-connectedness and linkages among:
    a. Implementing partners and

b. Components?

- From reports it is evident that sequencing of activities is important. To what extent is this being done? Where there have been impediments to the sequencing, what steps are taken to get things back on track?
- What roles do the Director, PPER and Manager play in overall management of the project? How do they assist with troubleshooting and addressing issues and challenges?
- What are the primary tools used to assess project performance?

2. Project Management

Design

- How has gender considerations been integrated within the project, especially for components focused on farmers and communities?

Data-

NSDMD- owner of data….??? We should not be duplicating

How they make money- issue with giving data some will give others sell

Efficiency

- Was a stakeholder analysis undertaken during project design or early in implementation? One was done during the Inception workshop (see pics included in dropbox and PEU will look for report)
- Has the project reached all the intended stakeholders?
    a. Which ones were reached?
       Major IPs on board
    b. Which ones were not reached? NSDMD for data
- NSDMP- help to review but because of gIS should have played important role not just when the project needs them
- Ag- JAS but working closely with RADA
- OUR- have engaged them, not part of PSC but for workshops for PES, hydromet
- Not sure about their level of interest, they think at this early stage is a waste of their time- not relevant to them
- NLA- PES run into land use and ownership challenges, land use survey need to be done and it would be good that they would be engaged from early.

- SDC- should have ben invited to be part of PSC. They were part of the C3 ALAF WG but not PSC. They have been involved in planning process. Working on a PA with them for trainings and assessments – community based interventions

    c. Why?
    d. Were there any issues with the stakeholders participation

- How did you overcome the issues (if any)?
- The design of the project required sequencing of activities and inefficiencies with precursor activities have had effects on subsequent ones? How much has the sequencing been considered in planning (e.g. AOP development). What have been the challenges to achieving this?
- How can this be improved?

- What internal and external factors have influenced the ability of implementing partners, beneficiary groups and NEPA to meet projected targets?

- How has the project implementation team adjusted the implementation strategy (based on the emerging constraints to ensure technical integrity and adherence to the design frame?

- What factors delayed the signing of MOUs?
- What was IPs reaction and feedback on not being able to use stipends with MOUs?
- Did partners understand and agree to their roles and responsibilities? Where did problems arise and how were they rectified?
- How well did the partners respond to requests and in providing technical support on the project and in a timely manner?

- How well did these partners perform in providing resources in a timely manner?
- What have been the constraints to achieving elements of the partners' agreements?
- How did you overcome them?
- What kind of issues /challenges were associated with execution of the project, in areas of:
    i. Operations
    ii. Administration
    iii. Coordination

(EA, interagency interactions, staff changes etc.)

What have been the main barriers/challenges faced in carrying out this project? How were they overcome? What would you have done differently? (*Please discuss at overall project level and at component level).*

- How effective has the
    a. PSC
    b. ALAF Working Group been in carrying out their roles and responsibilities
- How does the project capture capacity built from training and other capacity building exercises
- Progress reports
    a. Are they done on time?
    b. What type of adaptive management is undertaken to deal with issues challenges. How was this reflected?
    c. How are adjustments and changes reflected in the project document and associated documents.
    d. What steps are taken to get approval for changes to the project? E.g. the results framework and performance measures?
- How effective do you believe the following project modalities have been in achieving project outputs and outcomes to date?
    a. Partners
    b. Consultants
- What efforts have been made to engage the OUR in the project?
- Are there complementarity issues with other ongoing/planned projects? How have these benefitted the project or resulted in issues?

- What types of adaptive management practices are being used?
- The Results Framework (RF) has been the main planning tool. How well is this understood by implementing partners, NEPA, etc.? Describe the regularity of use of the RF?
- Do you consider the RF realistic within the timeframe of the project?

Results in terms of outputs achieved (effectiveness)

- (a) What is the current status of project execution? That is, what activities remain to be completed and what is the timeframe for their completion?

- (a) To what extent have the project goals/performance targets been achieved?
    - (b) Have the goals/performance targets been achieved:
        - within budget?
        - within the timeframe agreed upon?
    - (c)Do you anticipate challenges with completing any of the remaining activities? If yes, please expound
    - *(In answering (a) – (c), please address performance at the overall project level and the component level, mentioning any delays, approved changes/extensions, and whether those new changes/extensions were met)*

- (a) Has the project reached the expected number of beneficiaries (i.e., individuals, firms , etc.)?

  (b) Were the beneficiaries reached within the expected time frame?

- (a) How many of the scheduled training activities have taken place to date?
  (b) How many remain to be completed?
  (c)Were the attendance/participation targets achieved? (Provide explanation where relevant)
  (d) What kind of feedback has been received to date on training/capacity building sessions?

- The level of performance to date against the RF has been less than favorable? In what ways can this be realistically improved given the issues outlined in the progress reports (procurement, turn around time for feedback, conformance with IDB policies and guidelines)

Assessment of outcome/impact (effectiveness)

- How has farmer knowledge of sustainable land management best practices changed as a result of the project's intervention? How was this assessed in the absence of the KABP assessment?

- To what extent has there been changes in the practices/operations of beneficiaries on account of the project?

- Please provide a summary of the feedback (positive and negative) received to date on the project.

- What are some of the actions that can be undertaken to improve project impact?

- In the land management programme is there evidence of replication beyond the demonstration plots? If so what motivated the adoption of best practices?

- How has farmers and community members used the information learned through the training sessions delivered?

Achievement of projected performance indicators and targets (efficiency)

- What is the current state of actual project expenditure vs. what was budgeted? Please provide supporting data.

- What have been some of the main challenges/issues that have affected project efficiency?
- How was partner resources used to extend the project's reach and impact (including resolving constraints

Outcomes

- What are the observed outcomes to date? Can they be attributed solely to the project?

- Does the current performance indicate probability in achieving the project purpose (specific objective)?

- Have there been any unplanned effects or outcomes (positive and negative)? If yes, please specify?

Sustainability

- What measures have the EA put in place to support sustainability of the project's effects beyond the end of the project? Has (Will) a sustainability strategy/plan been(be) developed?

- Do you have any recommendations for fostering sustainability beyond the life of the project? If yes, please specify.

- What follow-on initiatives exist/could be developed on account of this project?

- Are there any challenges encountered that limit farmers' adoption of the land management practices?

Lessons learned

- Has the project established best practices? What are some of the good practices that have emerged as a result of the project to date
- Are there any lessons learned?
- What are the strengths and weaknesses of the project?

- (a)What, if any, have been the main barriers/challenges faced in carrying out this project?
    - (b) How were they overcome?
    - (c) What would you have done differently?
    - (*Please discuss at overall project level and at component level).*
- How could the design and implementation of the project have been improved?
- Do you have any recommendations that could be used to guide the implementation of the remainder of the project?

Finance and Procurement

- Within what timeframes were procurement plans done?
- Have the *ex ante* reviews by the IDB timely?
- Were there any issues associated with this?
- Has the funding for the project proven to be sufficient? (In responding, please address the component and overall project levels)
- There have been budget issues, especially with C2. Please describe the steps taken to acquire the additional funds offered by the IDB.

- What are some of the good practices that have emerged as a result of the project?

Communications

- Has feedback been sought from beneficiaries/partners on the project and the outputs? If yes, what has been some of the feedback received?
- What kind of measures was incorporated in the NEPA PEU communications plan to help promote the project and its outputs?
- Please describe the promotional activities undertaken/will be undertaken in support of project deliverables.
- Have reports been placed on NEPA's website?

Other

- Provide details of any approved changes to the project (budget, timelines, Results Matrix etc) and the reasons for the changes being sought.
- What are some of the strengths and weaknesses of the project?

Donor: Inter-American Development Bank

Relevance/Design

- How does this project align with the IDB's country strategy?
- In retrospect, do you see any gaps in design, especially given the plethora of issues faced by the project?
- Do you believe the implementation modalities have been sufficient for effective implementation?
- Do you believe this project is adequately responding to the needs of the country and of the stakeholders and beneficiaries? In what ways?

Project Management

- What kind of issues and challenges has arisen in the execution of the project?
- What is the relationship with the NEPA and its PEU? Is there constant communication?
- How best do you believe the procurement issues can be resolved for more effective and efficient implementation?
- With each SAR, there were adjustments to the project but not necessarily the Results Matrix. Did the Bank approve these each time? What was the approval from original?
- What are some of the good practices that have emerged as a result of the project?
- What are key lessons learned?

Project Steering Committee Members

- What has been your organization's contribution to the technical oversight of the project?
- Are the media used for communication effective? Which ones have been most effective?
- How many meetings did you attend whether in person or remotely? Did you have the opportunity to attend remotely?
- What are your views on the methods used for agreement and consensus?
- Given the project's delays and associated issues, how do you believe PSC can help to alleviate these and to improve project performance?

Implementing Partners

NEPA Component 1

- How is the project advancing implementation of NEPA's strategic plan?
- How does it contribute to achievement of Vision 2030 strategies and MTF targets) esp. for participating entities [NEPA]
- How are the activities advancing work:
    - Biodiversity conservation
    - Watershed management
    - And how is it helping to build them as an integrated programmed
- In what ways do other work your Division is undertaking complement the activities under this project? What are the synergies?
- In what other ways does the project support the work of your Division?
- What have been the impediments to implementation of the activities to date?
    - How have you been working to alleviate these?
- How has the approach to revising the Watershed Policy been especially useful towards strengthening the document?
    - How has it involved stakeholders, especially those with a mandate for watershed management?
    - In what ways is it helping to streamline work on watersheds amongst IPs and what are the mechanisms for coordination
- How will issues of data sharing be addressed among agencies with data to be built into the GIS DSS, especially where these entities earn from the data
- What other gaps do you foresee in development of a GIS DSS and use of long term monitoring?
    - How can these be addressed?

Partner: Forestry Department

Design

- How were you involved in the design of the project?
- In what other ways do you think you could have been involved?
- Are there any gaps in the design? Were these identified early in the project?
- How were the gaps addressed?
- What would you consider to be the adequacy of the results matrix?
- Are there any other/different indicators that you believe could have been better reflective of the kinds of benefits of the project?

Relevance

- How does the project advance the mandate of the FD?
- To what extent do you feel it will advance efforts to address forest management and conservation issues in the WMUs and in other WMUs?

Efficiency

- How effective is the use of an MOU between NEPA and FD for implementation?
- What issues did you have with development of the MOU?
- Who monitors its implementation?
- How effective was coordination during project execution?
- Did the FD receive resources in a timely manner? If not, how was that handled?
- How effective has communication been with:
    - Other project partners
    - Beneficiaries
- What are the risks associated with the establishment of the reforestation plots?
    a. Environmental and Climate risks?
    b. Economic and financial risks?
- What measures are taken to ensure synergies with other efforts, both internal to FD and external?

Effectiveness

- What is the quality of the main project outputs already derived?
    - What medium is available for feedback to consultants and planning with project partners?
        a. What weaknesses were identified in the products, if any?
- How has FD shown its leadership in implementation of the reforestation activities, fire management activities?

- Were there any issues with establishing protocols for use of the fire prevention manual for example?
    i. Were there any unresolved issues?
- How has the project built capacity of the FD in the areas it leads for the project and also in its work in watershed?

Impact

- How do you believe this project has and will contribute to building national and local capacity for watershed management and biodiversity conservation capacity
- To what extent are efforts advanced to achieve the overall project objective?
    i. Where are there deficiencies
    ii. How can the program impact be improved?
    iii. What next steps can you identify for future enhancement?

Sustainability

- What measures are in place to ensure long term maintenance and expansion of outputs (specifically areas reforested and continuation of fire training)
- Can you describe any partnerships with community groups to do this?
- What are some of the good practices that have emerged as a result of the project (overall and for activities in which you are directly involved)? Has it enhanced work in a particular are or areas?

<u>Partner: RADA</u>

Design

- How were you involved in the design of the project?
- In what other ways do you think you could have been involved?
- Are there any gaps in the design? Were these identified early in the project?
- How have the gaps addressed?
- What would you consider to be the adequacy of the results matrix?
- Are there any other/different indicators that you believe could be better reflective of the kinds of benefits to be derived from project, especially in areas your entity is involved in?
- How were the Sustainable Land Management (SLM) practices for the target sites selected?
- Describe the technical assessment(s) conducted at the site level to inform training program and curriculum design?

Relevance

- How does the project advance the mandate of MICAF and RADA?
- To what extent do you feel it will advance efforts in land husbandry and agro-forestry in the WMUs and in other WMUs (especially where RADA is working)?

Efficiency

- How effective is the use of an MOU between NEPA and RADA for implementation?
- What issues did you have with development of the MOU?
- Who monitors its implementation?
- How effective was coordination during project execution?
- Did the RADA receive resources in a timely manner? If not, how was that handled?
- How effective has communication been with:
    - Other project partners
    - Beneficiaries
- What are the risks associated with the establishment of the agro-forestry plots?
    c. Environmental and Climate risks?
    d. Economic and financial risks?
- What measures are taken to ensure synergies with other efforts, both internal to RADA and external?
- In what ways did you have to tailor the training for the target groups so far?
- How do you intend to modify further training?

Effectiveness

- What is the quality of the main project outputs already derived?
    - What medium is available for communication with the PEU and other IPs?
    - What weaknesses were identified in the products, if any?
- In what ways have RADA shown its leadership in implementation of Component 3 activities and in oversight?
    - Capacity development of communities
    - Farming and Land Management Practices
        - Farm plans
        - Selection of 6 appropriate sites for demonstration (that can provide benefits beyond the sites and # of stakeholders involved?
- Were there any issues with establishing protocols for use of the land husbandry training manual for example?

ii. Were there any unresolved issues?

- How has the project built capacity of RADA in the areas it leads for the project and also in its work in watershed?

Impact

- How do you believe this project has and will contribute to building national and local capacity for watershed management and biodiversity conservation capacity
- To what extent are efforts advanced to achieve the overall project objective?
    iv. Where are there deficiencies
    v. How can the program impact be improved?
    vi. What next steps can you identify for future enhancement?

Sustainability

- What measures are in place to ensure long term maintenance and expansion of outputs (specifically working with farmers, communities, implementing agro-forestry, land husbandry and irrigation and building capacity locally)
- Can you describe any partnerships with farmer or other groups to do this?
- What are some of the good practices that have emerged as a result of the project (overall and for activities in which you are directly involved)? Has it enhanced work in a particular are or areas?

<u>Partner: WRA/Meteorological Service of Jamaica</u>

Design

- How were you involved in the design of the project?
- In what other ways do you think you could have been involved?
- Are there any gaps in the design? Were these identified early in the project?
- How were the gaps addressed?
- What would you consider to be the adequacy of the results matrix?
- Are there any other/different indicators that you believe could have been better reflective of the kinds of benefits of the project?

Relevance

- How do the project and its activities advance your agency's mandate?
- To what extent do you feel it will advance efforts to address watershed management issues in the two WMUs and in other WMUs? Especially where it concerns issues of water quality and quality

Efficiency

- How effective is the use of an MOU between NEPA and WRA/MSJ for implementation?
    -
- What issues did you have with development of the MOU?
- Who monitors its implementation?
- How effective was coordination during project execution?
- How have you been involved in the Watershed Policy Review? In what ways do you expect the revision to enhance efforts undertaken by your agency as it relates to elements of the Policy?
- In what ways were you involved with the initial hydro-met assessment done during the PPG stage of the project? What contributions did your agency make to its completion? What lessons would have been learned from this exercise?
- What is the status of work on the hydro-met assessment (Component 1)?
- How will WRA/MSJ collaborate on this activity and what are the plans for monitoring under this project?
- Given the delays with the hydro-met assessment, how will a monitoring schedule provide useful data and information to enhance watershed management in the two WMUs?
- In what ways do you expect it to build capacity of your agency?
- How effective has communication been with:
    - PEU
    - Other project partners

Effectiveness

- What is the quality of the main project outputs already derived?
    - What medium is available for feedback and planning with project partners?
- How has WRA/MSJ shown its leadership in the overall project?
- Were there any issues with establishing protocols for use of the fire prevention manual for example?
    iii. Were there any unresolved issues?
- In what ways do you expect the project to build capacity of your agency in the areas it leads for the project and also in its work in watershed?

Impact

- How do you believe this project has and will contribute to building national and local capacity for watershed management and biodiversity conservation capacity

- To what extent are efforts advanced to achieve the overall project objective?
    vii. Where are there deficiencies
    viii. How can the program impact be improved?
    ix. What next steps can you identify for future enhancement?

Partner: NWC

Design

- How were you involved in the design of the project? Did you have a good understanding of the PES being considered? How did you contribute to its design?
- In what other ways do you think you could have been involved to make the design more robust?
- Do you believe this tool is feasible?
- Are there any gaps in the design? Were these identified early in the project?
- How were the gaps addressed? If there are others how do you think they can be incorporated and addressed?
- What would you consider to be the adequacy of the results matrix?
- Are there any other/different indicators that you believe could have been better reflective of the kinds of benefits of the project?

Relevance

- How does the project and its activities advance NWC's mandate?
- To what extent do you feel it will advance efforts to address watershed management issues in the two WMUs and in other WMUs? Especially where it concerns issues of water quality and quality

Efficiency

- How effective is the use of an MOU between NEPA and NWC for implementation?
- What issues did you have with development of the MOU (that was signed March 30, 2017)?
- How effective is coordination during project execution – especially as it relates to implementation of the hydro-met assessment (NWC involvement) towards Component 2 the PES?
- In what ways were you involved with the initial hydro-met assessment done during the PPG stage of the project? What contributions did your agency make to its completion? What lessons would have been learned from this exercise?
- Have you been informed of the status of work on the hydro-met assessment (Component 1)?

- How will NWC collaborate with WRA/MSJ and the consultant on this activity and what are the plans for monitoring under this project?
- Given the delays with the hydro-met assessment, how do you see the work under Component 2 being advanced? Do you think it is realistic for this project and within the allotted timeline?
- In what ways do you expect it to build capacity of your agency?
    - Technically
    - Financially
- How effective has communication been with:
    - PEU
    - Other project partners

Effectiveness

- What is the quality of the main project outputs already derived?
    - What medium is available for feedback and planning with project partners?
- Have you every been involved in development of a PES tool?
- What issues could arise or challenges encountered in its development?
    - Legally
    - Financially
    - Buy-in at the government, consumer levels
- In what ways do you expect the project to build capacity of your agency in the areas it leads for the project and also in its work in watershed?

Impact

- How do you believe this project has and will contribute to building national and local capacity for watershed management and biodiversity conservation capacity
- To what extent are efforts advanced to achieve the overall project objective?
    - Where are there deficiencies
    - How can the program impact be improved?
    - What next steps can you identify for future enhancement?

Sustainability

- How will the implementation of the PES help to improve on good watershed management practices thus improving water quality and quality

Other Government Entities

PIOJ

- What has been PIOJ's involvement in the project?
- What kind of oversight does PIOJ provide and what assistance given to advance activities (e.g. cooperating by liaising with PIMSEC for approval of additional funds being given by IDB?
- How does PIOJ guide fiscal management?

Ministry of Finance and Public Service/PIMSEC

- What role does MoFPS play in project implementation?
- How does MoFPS guide project planning and support adjustments to improve on project spending?
- What is MoFPS contribution to the PSC?

Beneficiaries

Government entities/other

How did group members benefit from the land husbandry training?
Were there additional training needs that were not addessed?
Were expectations on their roles post training clear?
What was the adequacy of the training resources used?

FOCUS GROUP QUESTIONS: Beneficiaries Component 3

1. Fire Management Training

2. Land Husbandry Training

3. Demonstration- 6 sites agro-forestry, irrigation and land husbandry

How did you learn about the training programs (land husbandry and fire management)?

Why did you decide to participate in the program?

Prior to the training, how much would you say you knew about:

- Good land husbandry practices and agro-forestry
- Fire prevention and management

How did you learn about good farming techniques?

What would you say is the main lesson(s) you learned from the training?

As a result of the training and participation in the demo sites, would you say that your understanding of good land husbandry practices, fire prevention has improved? If so, in what ways?

Can you give some examples of things you have learned from the training?

On a scale of 1 – 5 (1= lowest, 5 = highest), to what extent did the training meet your expectations?

Is there anything you think could have been done differently to make the training better?

7a) If yes, please explain

Are you doing anything differently in your day-to-day activities as a result of knowledge gained from the training and or participation in on the demo plots?

If yes, please explain

What are the challenges to implementing techniques learned from the training?

How has it helped with making your farm more successful?

- In production,
- In income
- In dealing with environmental risks

What are your three (3) greatest challenges on your farm at this time?

How has the training helped you to better understand the watershed issues facing your community?

How has the training helped you to better understand possible management solutions? [probe for an example]

How have you been able to share your knowledge of these areas with other members of your community who didn't participate in the training?

With how many others?

Would you participate in another, if offered? Why or why not?

Consultants

Consultant: Watershed Policy Review
What was the process used for the review?
Which stakeholders were involved in the review?
How did they contribute?
What have been the major limitations and impediments to the review?

- Conducting the review
- Substance of the document (in draft)

What are the other steps to finalization?

ALAF Working Group

How did procurement delays and donor approvals limit the activities of this component?
What were the primary causes for the component delays from your perspective?
What are the solutions you would recommend for the remaining period of the project?

Site Visit to 4 of 6 demo sites

The Evaluator will conduct site assessment to a sample of the farmers fields, demonstration plots and forest restoration locations.

For SLM sites the assessor will have a matrix with the innovations taught in the FFS e.g contour planting, trash and live barriers etc. Observations will also be recorded on the presence or absence of the relevant innovations on neighbouring farms.

FFS related questions –

1. How would you describe your FFS experience?
2. What have you learned during the course of the FFS that will make you a better farmer?
3. What aspects of the FFS could have been done differently, if any?

The farmer will also be asked to respond to the following questions to verify uptake:

What is the SLM issue being addressed?
How did the interventions address the SLM issues / constraints?
Can the farmer explain the reason for the innovation and how it is applied
Is there evidence of replication of the innovations on neighbouring farms?
Can communities explain the importance of the trees planted?

What is the survival rate of the trees planted? How many trees survived since planting?

Have you been involved in any other training over the last two years?

Farmer's Name Farm Location

Innovation Adoption Type	Observation 1	Observation 2	Observation 3
Contour Farming (using the A-frame)			
Hillside Ditch (other drain)			
Individual Basin			
Line Planting			
Composting			
Fire Breaks			
Mulching			
Establishment of Barriers (Live or Trash)			
Check Dam, Ballasted Water Ways & Gully Plug			
Water Harvesting			

Annex B-4. List of stakeholders engaged for the MTE

ORGANIZATION	NAME	TITLE
RADA	Joel Pryce	Agriculture Extension Officer
	Robert Tulloch	Agricultural Land Management Officer
	Vaughn Barnaby	Senior Director Production, Marketing and Special Projects
	Lennox Bartlett	Agricultural Land Management Officer
	Bevene Martin-Dickenson	St. Thomas Parish Manager
	Winston Shaw	
	Alecia Chambers	
	Marina Young	Principal Director, Technical Services
IDB	Yuri Chakalall	Team Leader
	Sheries Ruddock-Simpson	Operations Analyst
PEU	Nelsa English-Johnson	Project Manager
	Joan Wilson-Kelly	Finance and Accounting Officer
	Christine Orgill	Procurement Officer
	Shanice Bedward	Technical Coordinator
	Judene Bailey	Project Officer
WRA	Nia Ramsoogoon	Hydrologist
	Natalie Hutchings	Assistant Hydrogeologist
	Peter Clarke	Managing Director
NWC	Marsha Richards Bridgette Lawrence	Environmental Officer Environmental Analyst
	Mark Barnett	President
Meteorological Service of Jamaica	Evan Thompson	Director
	Adrian Shaw	Meteorologist
NEPA EMCD	Anthony McKenzie Yvette Strong Lisa Kirkland Loureene Jones	
NEPA PPERD	Vivienne Williams-Thompson Andrea Donaldson	
NEPA Procurement Office	Ronnette Menzies	Procurement Officer
NEPA Finance and Accounting	Gladston Johnson	
NEPA Public Education and Corporate	Ava Tomlinson	

ORGANIZATION	NAME	TITLE
Communications		
MEGJC Environment and Risk Management Division	Gillian Guthrie, Joni Jackson,	Senior Director Director Natural Resources
St. Thomas Environmental Protection Agency	Terrence Cover	Director
Jamaica Conservation and Development Trust	Dr. Susan Otuokon	Director
Forestry Department	Marilyn Headley Jerome Smith Damart Williams Lawrence Nelson Francene Black-Richards	Conservator of Forests and team
PIOJ	Le-Anne Roper Shashion Thomas Barbara Scott	
Site Visits		
March 28	Content Gap and Bloxburgh in Hope River WMU	Demonstration site Focus groups with farmers
April 4	Richmond Gap and Windsor Forest in Yallahs River WMU	Demonstration site Focus groups with farmers
Farmer Telephone Interviews		
	Sample of farmers who participated in FFS training	
Online survey of Government and NGO participants in FFS Trainer of Trainers		

Annex B-5. MTE Implementation timeline (contract March 2018)

ACTIVITY	March 14-April 21, 2018					
	W1	W2	W3	W4	W5	W6
	March 21	March 28	April 6	April 13	April 20	April 27
Preparation and pre-data collection (literature review, scheduling, data collection instruments)	Del 1; Inception Report (March 23)					
Data collection, collation						
Data analysis				Del 2: Summary of Findings (April 9)		
Preparation and delivery of draft report					Del. 3: Draft MTE Report (May 7)	
Delivery of final report						Del 4- Final MTE Report (May 21)