



**United Nations Development Programme**  
**Country: GUYANA**  
**Project Document**

**Project Title:** Building Resilience and Sustainable Livelihood: Mainstreaming Disaster Risk Management/Disaster Risk Reduction(DRM/DRR) into the Agriculture Sector in Guyana

**UNDAF Outcome(s):** National policies, strategies, and plans for disaster risk reduction (DRR), management of natural resources, and access to clean energy and services developed, implemented, monitored, and evaluated.

**Expected CP Outcome(s):** Outcome 3: Improved functional capacity of key natural resources and disaster risk management institutions.

**Expected Output(s):** Output 4: Guyana Civil Defence Commission has capacity in Disaster Preparedness and Response including national vulnerability and risk assessments

**Implementing Partner:** United Nations Development Program (UNDP)

**Responsible Parties:** Food and Agriculture Organization of the United Nations (FAO)

**Beneficiaries:** Ministry of Agriculture (MoA) (including National Agricultural Research and Extension Institute (NAREI), Guyana Rice Development Board (GRDB), Guyana Livestock Development Authority (GLDA), Fisheries Department, Guyana School of Agriculture (GSA), Pesticide and Toxic Chemicals Control Board (PTCCB), New Guyana Marketing Corporation (New GMC) and Hydromet Department), Civil Defence Commission (CDC), Ministry of Communities.

**Brief Description**

The vulnerability of the agriculture sector in Guyana to natural hazards represents a real threat to sustainable socio-economic growth, and long term peace and prosperity at the national level. This is particularly relevant given the paramount importance of the agriculture sector to national development, food and nutrition security, poverty reduction and livelihood opportunities, especially for vulnerable small farmers and livestock holders.

The project will build on the momentum of past and ongoing UNDP and FAO projects and initiatives in the field of DRM. The development goal is to strengthen national capacity in mainstreaming DRM in the agriculture sector and build resilience of sustainable livelihoods against disaster, especially focusing on agricultural communities to contribute to securing livelihoods of the communities and national food security.

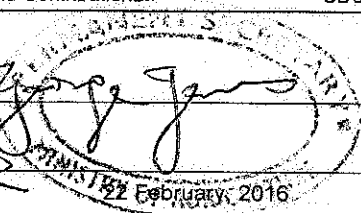
The major benefits of this project are expected to be: (a) Strengthened institutional and coordination mechanisms and technical capacities for DRM/DRR mainstreaming in the agriculture sector. The enhanced institutional and coordination mechanisms will facilitate the cooperation of all stakeholders in agricultural DRM (ADRM) thereby providing the means by which the sector can not only shorten its recovery response period, but also manage disaster risk reduction and mitigation efforts; (b) strengthened technical capacity of national institutions to employ DRR tools, practices and approaches in support of farming communities. The cadre of persons trained will be immediately available to support national efforts at DRM/DRR, and to train other individuals, thereby maximizing the impact and sustainability of the intervention; (c) strengthened capacity of farming communities to be resilient towards disasters. Community based DRM approaches will be piloted in selected communities; and (d) Public awareness activities and dissemination of information on DRR practices and approaches among farming communities supported. The importance of awareness building and dissemination of information on DRR practices and approaches among farming communities cannot be overly emphasized.

Programme Period:	2012 - 2016	2016 AWP budget:	USD 206,369.64
Key Result Area (Strategic Plan):	Improved functional capacity of key natural resources and disaster risk management institutions.	Total resources required	USD 299,855
Atlas Award ID:		Total allocated resources:	
Start date:	February, 2016	• Regular	
End Date:	February, 2018	• Other:	
LPAC Meeting Date:	15 January, 2016	o G of Japan	USD 299,855
Management Arrangements:	DIM	o Donor	
		o Donor	
		o Government	
		Unfunded budget:	
		In-kind Contributions:	CDC, MoA

Agreed by the Government of Guyana Representative:

Agreed by UNDP:

Khadija Musa, Resident Representative





## I. SITUATION ANALYSIS

### Disaster Risks and Socioeconomic Vulnerabilities

1. Guyana is extremely susceptible to a number of hydro-meteorological, biological and technological hazards. Notwithstanding the country's abundance of fresh water, drought represents a hazard of concern to the country. The United Nations Office for Disaster Risk Reduction ranks Guyana 13 out of 162 countries for flood risk and reported that 0.69% and 0.42 % of its population and GDP respectively are exposed to the effects of flooding. The coastal region lies below sea level at high tide and the high concentration of human and economic assets within the low lying Coastal Plain, high intensity seasonal rainfall and the complex network of drainage and irrigation canals of varying structural integrity are principal socio-political and biophysical factors responsible for these vulnerabilities.
2. Agricultural production takes place predominantly in the coastal and hilly sand and clay regions of the country where the majority of the national population reside. The coastal region lies below sea level at high tide thus making agricultural very susceptible to floods and salt water intrusion. The sector is also impacted by droughts. These pose fundamental cross-cutting challenges with significant impacts on agricultural livelihoods (crops, livestock, forestry and fisheries), poverty reduction and food and nutrition security.
3. The vulnerability of the agriculture sector to natural hazards represents a real threat to sustainable socio-economic growth, and long term peace and prosperity at the national level. This is particularly relevant cognizant of the paramount importance of the agriculture sector to national development, food and nutrition security, poverty reduction and livelihood opportunities, especially for vulnerable small farmers and livestock holders.

### *Milestone of DRM policy development in the country*

4. Considering the multi-hazard vulnerability of the country, the Government of Guyana has taken various steps in order to reduce the risks of disasters to livelihoods and to save lives and properties of the most vulnerable populations of the country. In the aftermath of the 2005 flood in Guyana, it was recognized by the Government, as well as concerned agencies, that there was the need for the development and implementation of a comprehensive DRM program in Guyana.
5. The country has shown progress in identifying hazards, developing mechanisms for disaster response and mitigation, developing plans for the management of national disasters, and to some extent building capacity in disaster response mechanisms.
6. Over the past years significant progress has also been made at the institutional level to upscale disaster preparedness and response, and to embrace a comprehensive disaster risk management approach. Several UN agencies in Guyana have been playing a critical role in supporting the Disaster Risk Management/ Disaster Risk Reduction agenda in Guyana. In 2013, through a UNDP project entitled "*Strengthening National and Local Capacity for Disaster Response and Risk Reduction*", support was provided to enhance the capacities of national emergency management agencies, and line ministries to coordinate disaster response effectively. Support was also provided to strengthen communities' capacities in disaster risk assessment and response planning.
7. Importantly, UNDP worked closely with the Government of Guyana (GoG) in providing technical assistance to develop the following policy and planning documents:
  - Disaster Risk Management Policy 2013
  - Capacity Assessment Report: Disaster Risk Management in Guyana, 2009

- Early Warning Systems (EMS) Study in 2009 and Drought EWS (2015), with Guyana Lands and Surveys Commission
  - Multi-Hazard Disaster Preparedness and Response Plan, developed under the existing mandate in 2013 with CDC
  - National Disaster Risk reduction and Management Planning Workshop in 2005 with CDC
8. The Disaster Risk Management Policy which was developed in 2013 and approved by Cabinet in 2014 aims to establish the guiding principles for DRM in the country to achieve a coordinated, coherent and consistent approach to DRM. Mainstreaming DRM across the sectors is identified as the key strategic objective in the Policy.
9. A draft DRM Bill was developed but is still to be approved by Cabinet.

### ***Milestone of DRM policy mainstreaming in the Agriculture Sector***

10. Within the context of the agriculture sector, the Food and Agriculture Organization of the United Nations (FAO) provided technical assistance to develop a Disaster Risk Management (DRM) Plan for the Agricultural Sector in Guyana in 2013. The DRM Plan for the Agriculture Sector is synchronized with the national DRM agenda coordinated by the Civil Defence Commission (CDC). It provides a supportive framework for existing national activities of the Ministry of Agriculture and the CDC and the means by which the sector can not only shorten its recovery response period, but also manage disaster risk reduction and mitigation efforts. In addition, the capacity of extension officers of the Ministry was strengthened in the conduct of livelihoods assessment using the FAO Livelihood Assessment Toolkit, thereby maximizing the impact and sustainability of the intervention.

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## **II. STRATEGY**

### **2.1. Project Rationale**

12. Historically, the agriculture sector plays an important role in Guyana's economy and accounts for approximately 25 percent of national Gross Domestic Product (GDP) and provides more than 33 percent of direct employment. Agriculture is a source of livelihood for many small scale farmers, livestock holders, fishers, etc, who are affected by natural hazards and disasters such as floods and droughts. In 2012, the United Nations Office for Disaster Risk Reduction (UNISDR) ranked Guyana 13 out of 162 countries for flood risk, and reported that 0.69 percent and 0.42 percent of the population and GDP, respectively, are exposed to the effect of flooding. It also reported that the country is ranked 167 of 184 countries for its droughts risk and almost one in every five persons within the population is exposed to the effects of this hazard.
13. Climate change is expected to worsen Guyana's vulnerability, reversing improvements to food security, poverty reduction and agriculture development. Susceptibility analysis of the low lying coastal plain concluded that a significant portion of land would be inundated with large negative impacts to the rice sector. Sugar cane and mixed farming, cash crops, coconuts and livestock will also be affected. Expected climatic changes will impose additional stress on water resources and the drainage and irrigation network within the coastal zone. Adapting to climate change within the agriculture sector is therefore an imperative. Risk sensitive agriculture is a prerequisite for food security and sustainable development.
14. There is a vital need to strengthen the enabling environment of responsible institutions to support the DRM/DRR mainstreaming into the agriculture sector in Guyana, with the aim of fostering better

coordination and implementation of DRM Plan for the agriculture sector. Moreover, there is also the need to build resilience for sustainable livelihoods in the agriculture sector.

15. With the Sendai Framework for Disaster Risk Reduction 2015-2030 launched in 2015, countries commit fully to embed risk reduction within their development agendas and to enhance delivery of local actions, including through agriculture. The project will contribute towards the achievement of the outcome and goal of the Post 2015 Framework.
16. The proposed project will build on the achievements of past and ongoing UNDP and FAO initiatives in DRM.
17. The development goal of the project is to strengthen national capacity to mainstream DRM/DRR in the agriculture sector and to build resilience for sustainable livelihoods in the sector against disasters.
18. The project will lead to the following major benefits: (a) Strengthened institutional and coordination mechanisms and technical capacities for DRM/DRR mainstreaming in the agriculture sector. The enhanced institutional and coordination mechanisms will facilitate the cooperation of all stakeholders in ADRM thereby providing the means by which the sector can not only shorten its recovery response period, but also manage disaster risk reduction and mitigation efforts; (b) strengthened technical capacity of national institutions to employ DRR tools, practices and approaches in support of farming communities. The cadre of persons trained will be immediately available to support national efforts at DRM/DRR, and to train other individuals, thereby maximizing the impact and sustainability of the intervention; (c) strengthened capacity of farming communities to be resilient towards disasters. Community based DRM approaches will be piloted in selected communities; and (d) Public awareness activities and dissemination of information on DRR practices and approaches among farming communities supported. The importance of awareness building and dissemination of information on DRR practices and approaches among farming communities cannot be overly emphasized.

## **2.2. Policy Conformity and Programmatic Synergies**

### ***Alignment with Sustainable Development Goals (SDGs)***

19. The overall project will contribute to the country's achievement towards the following two SDG Goals:
  - *Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture*  
Climate-smart agriculture is rooted in sustainable agriculture and rural development objectives which would contribute to achieving the SDG Goal 2 through ensuring access to nutritious and sufficient food all year round, and implementation of resilient agricultural practices that strengthen adaptation capacity to drought, flood and other disasters.
  - *Goal 13: Take urgent action to combat climate change and its impacts*  
The project aims to strengthen resilience and adaptive capacity to natural disasters of the government institutions as well as communities in the Agriculture Sector.

### ***Alignment with Sendai Framework for Disaster Risk Reduction 2015-2030***

20. With the Sendai Framework for Disaster Risk Reduction 2015-2030 launched in 2015, countries commit fully to embed risk reduction within their development agendas and to enhance delivery of local actions, including through agriculture. Moreover, with 97.1% of combined economic losses caused by flood and

drought between 1990 and 2014 (91.3% and 5.8% respectively), this project will support Guyana in contributing to the achievement of the outcome and goal of the Post 2015 Framework. Further, the four priorities for action under the Framework will be addressed in this project.

### ***Alignment with the Japan's Official Development Assistance (ODA) Charter***

21. Development Cooperation Charter recognises "Quality growth and poverty eradication through such growth as a priority policy". The policy commits to provide assistance necessary to secure the foundations and driving force for economic groups. Under the scope of the policy, it encompasses the promotion of agriculture, forestry and fisheries, and food and nutrition.
22. In addition, Guyana is part of SIDS where the Policy addresses the Caribbean reasons climate change induced vulnerabilities principally by natural disaster events. Considering its policy priority in the region, the project focuses on the particularity of Guyana; severe impacts of natural disasters in the Agriculture Sector, and support based on the development needs of the country in the specific focused theme.
23. This project will contribute the exercise of Japan's ODA policy as it covers the scope of its priority policy as well as it intends to tackle the particularity of Guyana within the regional policy priority written in the ODA policy.

### ***Alignment with National Policies***

#### ***24. Disaster Risk Management Plan for the Agriculture Sector 2013-2018***

The DRM Plan for the Agriculture Sector Plan presents a multi-hazard holistic framework for effectively mainstreaming DRR into the agriculture sub-sectors, with the long term goal of protecting livelihoods, social capital, and food and nutrition security.

#### ***25. Draft Disaster Risk Management Bill, 2014***

This Draft Bill provides the legal framework to mainstream DRM and Climate Change Adaptation (CCA) into development planning, enacts the National DRM Platform, and establishes coordination mechanisms with more concrete roles and responsibilities for a disaster emergency management system and a multi-hazard alert system. It also enables a National DRM Fund to be established to assist DRM activities. The DRM Bill also establishes a Natural Resources and Environment Cabinet Sub-Committee with the role of advising Cabinet on DRM issues.

#### ***26. National Integrated Disaster Risk Management Plan and Implantation Strategy, 2013***

The policy was developed to principally address strategic actions over the next decades to tackles floods and droughts encompassing the DRM elements below:

- Risk identification;
- Prevention and Mitigation;
- Financial Risk Management;
- Preparedness and Response and Recovery.

The strategy includes a ten-year implementation plan, an overview of technical and financial resources and a Monitoring and Evaluation framework.

#### ***27. Early Warning Systems (EWS) Framework, 2009***

The Framework sets the overarching principles of the system, clarifying the structures and mechanisms, decision making, communication and dissemination procedures. It provides guidance for implementation of the EWS.

## 28. *Draft Multi-Hazard Disaster Preparedness and Response Plan, 2013*

It is to provide guidelines and procedures for emergency and disaster management. This Plan focuses on establishing the roles and responsibilities of actors for the mechanisms for early warning and disaster preparedness and response.

## 29. *Shelter Management and Policy and Standards, 2014*

The policy provides a framework for the establishment of a national shelter management body and delegates responsibilities for the activation and closure of shelters by Government at the policy, budgetary and coordination levels. It also recognises the need for maintenance, adherence to minimum standards, training on the establishment of shelters and provision of priority to vulnerable groups. An inventory of tentative buildings (mostly schools) to be used as shelters in Region 4 has been drafted as well as a Manual on Shelter Management. A draft Evacuation Plan for Region 3 was also developed to feed into the Regional Disaster Risk Management Plan.

Shelter management standards includes considerations and logistics needed prior to and during an emergency. These considerations include the selection, inspection, layout design and structural characteristics, security to services, accommodation, water, sanitation and hygiene and non-good items.

## ***Synergy with Japan's Bilateral ODA Support***

30. It is envisaged that the Project and the below stated projects by JICA would synergize the overall strengthening of DRM and DRR in Guyana. It is particularly important to Ministry of Agriculture in terms of technical capacity building of its officers – technicians and engineers from the National Drainage and Irrigation Authority, and senior managers, coordinators, supervisors to extension officers at NAREI, GRDB, GLDA, PTTCB, Fisheries Department and Hydromet Department all under the same Ministry. Since the below on-going projects are being implemented in Region 3, and targets residents within and surrounding the capital city Georgetown, the proposed Project will focus on the coastal and Hinterland regions outside of the target areas of these JICA implementing projects.

- *Project for the rehabilitation of the East Demerara Water Conservancy*
- *Disaster Risk Management Project: Project for the Urgent Improvement of Drainage Capacity in Georgetown, Republic of Guyana*

31. *JICA Volunteer Programmes has recently dispatched Senior Volunteers in the area of environment, such as water resources management and environmental education. Based on the conversations with the Volunteer Project Formulation Advisor in Guyana (who was present until October 2015), it is unlikely that Senior Volunteers with expertise in the Agriculture Sector and/or DRR will be dispatched. This is mainly due to the shortage of available experts in the area, and the nature of agriculture-related projects requiring longer time requirements (e.g. agricultural production cycles).*

32. *Furthermore, according to the JICA office in Dominican Republic, Japan Overseas Cooperation Volunteers will not be dispatched to Guyana at present stage. Like a series of agriculture related JICA projects and the Japan-UNDP Partnership Funded projects especially in African region, it would be highly valuable to have JOCVs with specialised knowledge and experience in agriculture, crop technology, and livestock and fisheries management. This would strengthen the further synergy with Japan's ODA support and the presence of Japan in transferring the Japanese knowledge and technical skills to Guyana through this Project.*

### 33. *Japan Caribbean Climate Change Partnership Initiative*

Outcome 2 of this regional project managed by UNDP Sub-Regional Office in Barbados focuses on four main areas; water resource management, sustainable agriculture, community-based climate-smart resilient infrastructure and renewable energy and energy efficiency. The scoping exercise has not yet taken place to determine which of the four areas will be identified as priorities for Guyana. However, if sustainable agriculture is identified as the country's priority, the synergy with the project would be considerably high. Activities such as seed distribution services, improvement of irrigation, increased agricultural extension advice would certainly boost the effectiveness of the project in particular to the Outcomes 2 and 3 of the project for the enhancement of public agricultural extension services in DRR.

The activities will be interlinked to develop and use water harvesting, storage and irrigation facilities to improve agricultural productivity by providing water resources to humans as well as livestock and crops. This intervention coupled with the synergy from the project will help to build local capacity to ensure that the adaption measures are sustainable beyond the project lifespan, aiming to enhance adaptive capacity by improving livelihoods and reducing food insecurity. This will be especially important to understand the changing climatic conditions to improve the income streams of, in particular, vulnerable<sup>1</sup> farmers.

### **Synergy with other International Organisations in Guyana**

34. **FAO** has been working over the past 40 years in Guyana and has provided assistance in the areas of policy advice and programme development, Food and Nutrition Security, Pest Management, Fisheries Development, Forestry Development and Conservation, Agricultural Rehabilitation and Emergency Assistance, etc. Given its main mandate to defeat hunger, achieve food security and reduce poverty, FAO has a clear interest in promoting resilience building and mainstreaming DRM in the agriculture sector. Most recently FAO assisted Guyana in the formulation of a DRM Plan for the agriculture sector. In 2013, the Organization commissioned a study to review the status of development and implementation of disaster risk management (DRM) plans for the agriculture sector throughout the Caribbean. The lessons learnt from previous DRM projects have been well documented and will be useful to the implementation of this project. To provide further strategic direction to the implementation of disaster risk reduction measures in member countries across the agricultural-related sectors in line with the Post 2015 Framework, FAO, in collaboration with CDEMA and the CARICOM Secretariat will soon be developing an FAO livelihoods resilience programme for Caribbean. The lessons learnt and best practices and approaches from this project could be used for the Caribbean region as a whole in scaling-up DRR actions as part of the livelihood resilience programme.

35. **The International Fund for Agricultural Development (IFAD)** has been closely working with the MoA in projects targeting rural communities and enterprises in agriculture. Through Poor Rural Communities Support Services Project and currently run Rural Enterprises and Agricultural Development (READ) Project, NAREI extension officers were trained to provide technical support services to rural communities, including agricultural extension and technical extension services and social organisation training to rural micro-entrepreneurs. Although the focus of the Project is to mainstream DRR into the Agriculture Sector, best practices and lessons learnt from the implementation of the READ project would be explored for consideration in this project.

36. **The Inter America Institute for Cooperation in Agriculture (IICA)** has been working in the past 40 years with MoA and other relevant government institutions, educational bodies, NGOs and communities in sustainable agriculture and rural development in Guyana. IICA also has profound experience working with small farmers groups in agro-processing. Climate Smart Agricultural technology such as the use of shade houses and aquaponics in vegetable production has been financed by IICA. IICA is also a board member

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<sup>1</sup> While a formal definition of vulnerability has not been adopted by the GoG, in this document, the same definition from the Food and Nutrition Security Strategy for Guyana by MoA (2011) will be utilized. It refers to "situations where there exists the inability of some communities or households to cope with contingencies and stresses to which they are exposed".

and technical advisory to the GEF Small Grants Programme. The Hydromet Service has collaborated with IICA, on various initiatives. Staff members have participated in Webinars, seminars and workshops. One such workshop was held recently in Suriname and its focus was on Disaster Risk Management and the development and introduction to Agriculture Risk Maps.

37. Climate smart agriculture has been introduced to NAREI principally by IICA and FAO. NAREI has recently produced a manual on climate Smart Agriculture to be used by its extension officers to promote its technologies to wider farming communities. The Project could utilise the momentum of the current NAREI practices inclusive of protected agricultural systems for year round production of traditional and the new variety of vegetables with focus on the introduction and implementation of Climate Smart Agricultural Practices within the scope of DRR (e.g. use of salinity/flood/drought tolerant rice seeds, shade houses, potable on-spot weather station, flood/drought induced disease and pests controls for both plant species and livestock).
38. The Consultative Group on International Agricultural Research (CGIAR) has been working with the GRDB in research on the development of new rice varieties. Moreover, GRDB over the years has been testing salinity tolerant seeds on trial bases. Both CGIAR and Centro Internacional de Agricultura Tropical (CIAT) are advancing research in variety development, including rice and legumes in countries across the globe and in Latin America. The Project will explore the possibility of collaborating with these research institutes in the development/adoption of disaster tolerant varieties for Guyana.

### **2.3. Design Principles and Strategic Considerations**

The project is based on the principle that technical assistance can facilitate the introduction, uptake and dissemination of DRM/DRR knowledge, practices and approaches and using these to (a) strength technical capacity of national institutions to support farming communities and (b) build resilience of farming communities through demonstration of community based DRR approaches.

The starting point is the strengthening of the enabling environment of responsible institutions to support the DRM/DRR mainstreaming into the agriculture sector.

#### **Target Area**

39. In this project, four communities will be selected as pilot community sites to promote DRR integrated approaches including field demonstration of good practices for DRR (including gender sensitive approaches and practices), reinforcing the importance of disaster preparedness and response measures. The pilot sites will be chosen together with MoA and CDC.

#### **40. Criteria for the pilot site selection:**

- Along disaster prone coastal areas or hinterland areas where the agricultural production systems are the major contributing income of households and communities;
- Communities where agriculture production (crops, livestock and/or aquaculture) is the main form of income generation and livelihood for the community as well as nearby communities and towns (e.g. Georgetown);
- Communities where extension services currently exist;
- Communities where their agricultural productions are constantly undermined by natural hazards;
- Communities where the Neighborhood Democratic Councils are willing to participate in the project.

#### **South-South and North-South Cooperation**



### ***Experience and Knowledge sharing from the Caribbean region***

41. This project also aims to gather information on best practices from other Caribbean and Latin American countries. The information gathered will be utilized in capacity development workshops to encourage adoption and utilisation of the identified best practices in the Guyana context. Some example of the best practices being utilized by Jamaica, Brazil and Belize will be considered for adoption.

### ***Experience and Knowledge sharing by Japanese organisations***

42. Innovative DRR tools developed by Japanese NGOs or adopted in past JICA projects by development consultants which have resulted in positive impacts will be introduced in the project. These include tools, in particular for the early warning tools which have been developed and/or adjusted to suit for the application of DRR approach in the agriculture sector in several countries in the Global South. These Japanese experience and innovative hands-on DRR practices will adopted to the local context, where applicable, and introduced under Activity 2.1.3 and Activity 2.1.4 of Output 2.1, Activity 3.1.2 and Activity 3.1.3 of Output 3.1 with the aim of exploring the feasibility of applying the tools in the context of Guyana.

### ***Gender Considerations***

43. In agriculture, generally gender roles and responsibilities are distinctive in a way that there is longer hours of agricultural tasks and reproductive works (e.g. house work and caring children) for female farmers, who take heavy duty and relatively riskier tasks (e.g. spraying fertilisers, pesticides).
44. Since agriculture could be seen as the principle income generation activity of the majority of agricultural households in the target areas, who has access to and control over income can directly impact the quality of lives of farmers and their capacity to manage family budgets and hence the quality of lives and livelihoods.
45. The following dimensions will be assessed during the baseline needs assessment under Activity 3.1.1, prior to the commencement of activities with communities.
- Roles and Responsibilities of male and female farmers
  - Control and Access of male and female farmers
  - Capacity of family budgeting/budget planning
46. Besides, the project will take into consideration the needs, priorities and constraints of both men and women participating in the project activities as well as the contents of the materials produced and timing of training workshops. Training will take into consider gender perspective integration in CCA and DDR/M to familiarize extension staff with gender concepts and perspectives and on how to mainstream gender concerns in DRR/DRM in the agriculture sector.
47. The balance of gender would be taken into account when selecting persons to participate in the training activities of the project as well as to ensure both men and women benefit from the project actions.
48. Gender balance in participation for extension officers will be also ensured.
49. Gender sensitive approach in DRR will therefore be assured when introducing the DRR approach by extension officers from respective agencies within the MoA through the development of government capacity to address gender issues and understanding of gender concerns and needs in DRR. The approach will be based on the above careful gender analysis targeting farmers and fisher-folks, and extension officers who delivers the knowledge and technical skills into the communities.

50. This approach will be apply to each activity in the project:

- Gender analysis enhanced through cooperation and collaboration between stakeholders responsible for DRR.
- Establish data and statistics specific to gender on impact of disasters, conduct gender-sensitive vulnerability, risk and capacity assessments in order to develop gender-sensitive indicators for the purpose of monitoring and measuring progress;
- Ensuring women and men's equal access to natural hazard early warning systems;
- Develop disaster preparedness, response planning at community level from a gender perspective.

## **2.4. Project Objective, Outcomes and Outputs**

### **51. Principal Objective**

Strengthen the enabling environment within the responsible institutions to support the DRM mainstreaming into the agriculture sector and build livelihood resilience of farmers, livestock holders and fisherfolks against disasters.

### **52. Specific Objectives**

- Objective 1: To strengthen the enabling environment within the responsible government institutions to support the mainstreaming of DRM into the agricultural sector;
- Objective 2: To strengthen technical capacity of government institutions to employ DRR tools, practices and approaches, in support of farming communities, for disaster preparedness and response in the agriculture sector;
- Objective 3: To strengthen capacity of agricultural communities to be resilient towards disaster events; and,
- Objective 4: To support public awareness and education on DRR approaches and practices to stakeholders in agriculture.

### **53. Outcomes**

- Outcome 1: Increased institutional and technical capacities of national institutions to mainstream DRM into the agriculture sector
- Outcome 2: Enhanced technical capacities of government institutions in employing DRR tools, practices and approaches, in support of farming communities in the agriculture sector.
- Outcome 3: Enhanced resilience, capacity and coping mechanism of disaster prone agricultural communities.
- Outcome 4: Support public awareness and education and the dissemination of information on climate smart agriculture and DRR tools to foster adoption of best practices for disaster preparedness and response among farming communities in the agriculture sector.

### **54. Key Outputs and Activities**

The key outputs defined to facilitate the achievement of the above four (4) Outcomes are outlined as follows:

#### Outcome 1

- *Output 1.1: Institutional and coordination mechanisms within the agricultural sector to mainstream DRM strengthened.*

#### Outcome 2

- *Output 2.1: Institutional capacity of the target government agencies to effectively utilise and disseminate climate information and Early Warning forecasts for enhanced disaster preparedness in the agriculture sector increased.*
- *Output 2.2: Capacities of extension services and extension staff to employ DRR tools, practices and approaches in their daily work and to promote field implementation of DRR measures enhanced.*
- *Output 2.3: Technical capacity in Damage Assessment and Needs Analysis (DANA) and Livelihood Assessment (including Livestock Emergency Guidelines and Standards – LEGS) strengthened in the agriculture sector.*

#### Outcome 3

- *Output 3.1: Use and access of climate information and early warning messages tailored to the needs of farmers, livestock holders and fisherfolks enhanced.*
- *Output 3.2: Climate smart agriculture skills and DRR best practices and approaches enhanced among agricultural communities.*

#### Outcome 4

- *Output 4.1: Public awareness and education promoted as tools to foster adoption of climate smart agricultural approaches and DRR best practices in agricultural communities.*

55. The project activities below are designed to achieve the 7 outputs.

#### *Output 1.1: Strengthening institutional mechanism within the agricultural sector to mainstream DRM*

This Output will be achieved through the following activities:

- Activity 1.1.1: Conduct an assessment of the status of the implementation of the ADRM Plan and sharing findings with national institutions and stakeholders involved in DRM in the sector.
- Activity 1.1.2: Conduct a review existing policy documents and institutional and coordination mechanisms for DRM in the agriculture sector and propose improvements for effective mainstreaming of DRM in the sector.
- Activity 1.1.3: Assess training and overall capacity building needs of the staff of the Ministry of Agriculture as well as other national institutions involved in the implementation of the DRM Plan for the agriculture sector.
- Activity 1.1.4: Support the strengthening and re-establishment of the ADRM Committee and conduct capacity building and awareness workshops for staff of national institutions involved in ADRM.

#### *Output 2.1: Institutional capacity of the target government agencies to effectively utilise and disseminate climate information and Early Warning forecasts for enhanced disaster preparedness in the agriculture sector increased.*

This Output will be achieved through the following activities:

- Activity 2.1.1: Review existing climate information and early warning services (including drought warning, flood warning, El Niño/La Niña advisory, monthly weather forecasts/outlooks) produced and disseminated to farming communities and proposed improvement for EWS flow and communications to end users.
- Activity 2.1.2: Conduct training workshop for targeted government agencies to interpret and use climate information and early warning messages and forecasts for disaster preparedness in agriculture and to enhance EWS flow and communications.
- Activity 2.1.3: Conduct training workshop for Hydromet Department staff to improve climate information and early warning services tailored to end users.
- Activity 2.1.4: Field test early warning services disseminated to end users to validate their effectiveness for disaster preparedness in agriculture.

*Output 2.2: Capacities of extension services and extension staff to employ DRR tools, practices and approaches in their daily work and to promote field implementation of DRR measures enhanced.*

This Output will be achieved through the following activities:

- Activity 2.2.1: Conduct baseline assessment on extension systems and activities, and the current degree of DRR practice in agriculture to promote DRR integrated extension services through DRR/DRM concepts, operational aspects of natural hazards, risk prevention, impact mitigation and preparedness measures in the agriculture sector to support farming communities with DRR knowledge and DRR practices and approaches in the agriculture sector as well as gender mainstreaming in DRR.
- Activity 2.2.2: Conduct training of extension staff in DRR/DRM concepts and operational aspects of natural hazards, risk prevention, impact mitigation and preparedness measures in the agriculture sector as well as gender perspective integration in DRR to familiarize staff with gender concepts and perspectives and on how to mainstream gender concerns in DRR/DRM.
- Activity 2.2.3: Produce guidelines and training manuals for extension officers on DRR tools, climate smart agricultural practices and approaches to promote field implementation of DRR measures.
- Activity 2.2.4: Conduct field training demonstrations on the promotion of DRR tools, practices and approaches among farming communities.
- Activity 2.2.5: Conduct mock drill/ field simulation exercise in preparedness and response in the agriculture sector to test and improve capacity of extension staff of MOA and other national institutions.

*Output 2.3: Technical capacity in Damage Assessment and Needs Analysis (DANA) and Livelihood Assessment (including Livestock Emergency Guidelines and Standards – LEGS) strengthened in the agriculture sector*

This Output will be achieved through the following activities:

- Activity 2.3.1: Review the existing damage and needs assessment methodology used in Guyana from an agriculture sector perspective, proposing improvements to the methodology in the form of detailed guidance notes including baseline, manual to improve the implementation of the agriculture-specific, DANA methodology.
- Activity 2.3.2: Conduct training workshop on the implementation of Livestock Emergency Guidelines and Standards (LEGS).

- Activity 2.3.3: Convene training workshop to enhance institutional capacities to undertake timely and accurate DANA and Livelihood Assessment in the agriculture sectors.

*Output 3.1: Use and access of climate information and early warning messages tailored to the needs of farmers, livestock holders and fisherfolks enhanced.*

This Output will be achieved through the following activities:

- Activity 3.1.1: Conduct baseline needs assessment on use and access of climate information and early warning messages by farming communities, identifying gaps and constraints in communications.
- Activity 3.1.2: Develop community based Early Warning Systems.
- Activity 3.1.3: Conduct capacity building workshops on the access, interpretation, and use of the climate information and early warning messages/forecasts.

*Output 3.2: Climate smart agriculture skills and DRR best practices and approaches enhanced among agricultural communities.*

This Output will be achieved through the following activities:

- Activity 3.2.1: Convene training workshops by trained extension officers (in Activity 2.2.2) on DRR concepts, climate smart agriculture practices and operational aspects of natural hazards, risk prevention, impact mitigation and preparedness measures in the agriculture sector for farmers, livestock holders and fisherfolks.
- Activity 3.2.2: Identify and establish demonstration sites by trained extension officers (in Activity 2.2.4) for pilot testing climate smart agriculture approaches and DRR best practices.
- Activity 3.2.3: Conduct training of farmers, livestock holders and fisherfolks by trained extension officers (Activity 2.2.3) on climate smart agriculture approaches and DRR best practices.
- Activity 3.2.4: Conduct field days in each pilot community for beneficiaries to present and share their experiences, recommendations and lessons learnt to enhance disaster prevention, mitigation, preparedness and response among farming communities in the agriculture sector.

*Output 4.1: Public awareness and education promoted as tools to foster adoption of climate smart agricultural approaches and DRR best practices in agricultural communities.*

This Output will be achieved through the following activities:

- Activity 4.1.1: Produce and disseminate user-friendly manuals on climate smart agricultural approaches and DRR best practices for use by agricultural communities.
- Activity 4.1.2: Develop and disseminate communication products on climate smart agricultural approaches and DRR best practices.
- Activity 4.1.3: Produce short promotional video on local DRR best practices and approaches in the agriculture sector.
- Activity 4.1.4: assess the effectiveness of public awareness tools employed for the development of Communication Strategy.

- o Activity 4.1.5: Develop Communication Strategy and an implementation plan to foster adoption of climate smart agricultural approaches and best practices for disaster prevention, mitigation, preparedness and response among farming communities in the agriculture sector.

### ***Sustainability***

56. Sustainability is an important aspect of the project and therefore, the project will promote sustainable approaches in the project execution. Emphasis will be put in ensuring the participation of the key stakeholders in the sector including both national institutions and agricultural communities which will in turn enhance the chances of the uptake of the knowledge and skills.
57. It is noted that there is a strong political interests to support agricultural development in Guyana which will add to the sustainability of the project. A strong emphasis will be place on the participation of the national stakeholders right from the beginning of the project through activities that are targeting capacity building. Key issues such as coordination, collaboration and a smooth flow of information among implementing partners will be given high priority.
58. In ensuring sustainability of the Project in agricultural communities, gender mainstreaming in all community related activities (Outcome 3 and 4) will be a strong emphasis during the formulation, implementation and evaluation of the Project. Besides, the social and cultural aspects as well as traditional knowledge would be emphasized for any intervention that will be recommended as these are also key issues for the project sustainability.
59. In an effort to strengthen the system, DRM will be integrated in related agricultural policies, strategic plans and practices. With DRM integrated polities and strategies in place, the respective responsible institutions are expected to continue DRM mainstreaming practices with clear visions of actions with continuous monitoring and evaluation.

### ***Communication and Visibility***

60. In the implementation of its communication and visibility activities, the project will take a multi-network approach involving all the strategic partners. Sharing of project reports and results of the interventions to inform the progress being made to the stakeholder groups would form an essential part of the project and would be given priority. Different means of information sharing such as the use of UNDP, FAO, MoA and CDC websites would be used to share information and knowledge products being generated by the project with the stakeholders and the public in general. In addition, hard copies of the training materials would be made available through the offices of UNDP, FAO and co-financing partners.
61. The project will ensures the visibility of implementing agency and responsible agency through references and invitations to meetings and workshops, press releases, as well as citations in publications and other forms of communication.
62. **Visibility of the Government of Japan will be assured** in the followings:
- The placement of the logo to materials and equipment in the activities under Outcome 2 and 3;
  - The use of the logo to produced project advertising and public awareness materials (posters, flyers, broadcasting videos);
  - The use of banners with the logos including of the Japanese Government at activities such as project launch, training workshops and meetings;

- The use of project shirt with logos in major activities and field works;
- Inviting the Japanese Embassy in Trinidad and Tobago to field visits, if possible.

### III. PROJECT RISKS

**Table 1. Project Risks Assessment and Mitigation Measures**

IDENTIFIED RISKS	RISK ASSESSMENT	MITIGATION MEASURES	DATE OF RECORDING OF RISK IN ATLAS
<b>ADMINISTRATIVE COORDINATION</b>	Poor/inefficient coordination between key government Agencies and line Ministries, as well as other stakeholders.	The project will establish a consultation group/ process in order to account for the institutions and assure proper coordination. Clear communication and integration of relevant partners in process.	26 November 2015
<b>TECHNICAL</b>	Limited local expertise to facilitate capacity building activities of the project.	FAO as Responsible Partner has a vast pool of professionals in the field of DRM/DRR in the agriculture sector to support the facilitation of the capacity building activities of the project.	26 November 2015
<b>FINANCIAL</b>	Slow purchasing processes of materials and equipment in Outcome 2 and Outcome 3.	UNDP CO supports on procuring required materials and equipment with an accelerated procurement processes.	26 November 2015

#### IV. PROJECT RESULTS FRAMEWORK

Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions
<p><b>Objective of the Project:</b> Strengthen the enabling environment within the responsible institutions to support the DRM mainstreaming into the agriculture sector and build livelihood resilience of farmers, livestock holders and fisherfolks against disasters.</p>					
<p><b>Outcome 1:</b> Increased institutional and technical capacities of national institutions to mainstream DRM into the agriculture sector</p>					
<p><b>Key Outputs:</b>  <i>Output 1.1: Institutional and coordination mechanisms within the agricultural sector to mainstream DRM strengthened.</i></p>					
<p><b>Output 1.1:</b> <i>Institutional and coordination mechanisms within the agricultural sector to mainstream DRM strengthened.</i></p>	<p>1) Number of Report on Assessment of status of implementation of the ADRM Plan.                      2) Number of Report on Assessment of existing policy documents.                      3) Number of Report on Assessment of training and capacity building needs.                      4) Level of capacities of national institutions involved in ADRM strengthened through capacity building and awareness workshops conducted to support DRM mainstreaming in the agriculture sector:                      Low, Medium, High<sup>2</sup>                      5) Number of ADRM Committee meetings convened to support DRM coordination in the agriculture sector.</p>	<p>1) 1<sup>3</sup>.                      2) 0.                      3) 0.                      4) Low.                      5) 0.</p>	<p>1) 1 completed by the end of 2016.                      2) 1 completed by the end of 2016.                      3) 1 completed by the end of 2016.                      4) High by the end of 2017.                      5) 4 by the end of 2017.</p>	<ul style="list-style-type: none"> <li>• Assessment Report</li> <li>• Documents</li> <li>• Capacity building and awareness workshops reports</li> <li>• Revise TOR of ADRM Committee</li> <li>• Minutes of ADRM Committee meetings</li> </ul>	<p><b>Assumption:</b> It is assumed that all involved institutions are willing to share information about current status of implementation of ADRM Plan, institutional training and capacity building needs, gaps and challenges in mainstreaming DRM.</p> <p><b>Risk:</b> Low</p>

<sup>2</sup> The definition of the level of capacities refers to the percentage of understanding of the national institutions (training participants) in the concept of the DRM mainstreaming in the agriculture sector. Low = 0-29% of the participants understand the concept; Medium = 30-59%; and, High = 60% or higher.

1) <sup>3</sup> One Report was prepared in 2013.



Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions
<p><b>Outcome 2:</b> Enhanced technical capacities of government institutions in employing DRR tools, practices and approaches, in support of farming communities in the agriculture sector.</p>	<p><b>Key Outputs:</b></p> <ul style="list-style-type: none"> <li>Output 2.1: Institutional capacity of the target government agencies to effectively utilise and disseminate climate information and Early Warning forecasts for enhanced disaster preparedness in the agriculture sector increased.</li> <li>Output 2.2: Capacities of extension services and extension staff to employ DRR tools, practices and approaches in their daily work and to promote field implementation of DRR measures enhanced.</li> <li>Output 2.3: Technical capacity in Damage Assessment and Needs Analysis (DANA) and Livelihood Assessment (including Livestock Emergency Guidelines and Standards – LEGS) strengthened in the agriculture sector.</li> </ul>				
<p>Output 2.1: Institutional capacity of the target government agencies to effectively utilise and disseminate climate information and Early Warning forecasts for enhanced disaster preparedness in the agriculture sector increased.</p>	<p>1) Number of report reviewing existing climate information and early warning services.</p> <p>2) Extent to which the Capacity of staff of targeted government agencies enhanced in the interpretation and use of climate information and early warning messages/forecasts: Low, Medium, High<sup>4</sup></p> <p>3) Number of training workshop conducted to the development of early warning messages/forecasts tailored to the needs of the agriculture communities.</p> <p>4) Number of field test conducted to test the effectiveness of early warning messages/forecasts in disaster preparedness and response by end users.</p>	<p>1) 0.</p> <p>2) Low.</p> <p>3) 0.</p> <p>4) 0.</p>	<p>1) 1 by the end of the project.</p> <p>2) High.</p> <p>3) 2 by the end of 2017.</p> <p>4) 4 by the end of 2017.</p>	<p>Tailored warning messages/forecast for agriculture communities.</p> <p>Document outlining EWS flows and communication mechanism.</p> <p>Reports of training workshops.</p> <p>Report on field testing of early warning services, including recommendations for improvement.</p>	<p><b>Assumption:</b></p> <p>Willingness of extension staff of the Ministry of Agriculture and other national institutions to participate in training activities and utilize knowledge and skills in their daily work and to promote field implementation of DRR measures.</p> <p><b>Risk: Low</b></p>

<sup>4</sup> The definition of the level of capacities refers to the percentage of understanding of the targeted national agencies (training participants) in the interpretation and use of early warning messages/forecasts. Low = 0-29% of the participants understand the concept; Medium = 30-59%; and, High = 60% or higher.

Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions
Output 2.2: Capacities of extension services and extension staff to employ DRR tools, practices and approaches in their daily work and to promote field implementation of DRR measures enhanced.	<p>1) Number of baseline assessment conducted on extension systems and activities, and the current degree of DRR practice in agriculture to promote DRR integrated extension services through DRR/DRM concepts, operational aspects of natural hazards, risk prevention, impact mitigation and preparedness measures.</p> <p>2) The Level of capacity of extension staff of the Ministry of Agriculture and other national institutions enhanced in DRR/DRM concepts and operational aspects of natural hazards, risk prevention, mitigation and preparedness measures in the agriculture sector as well as gender perspective integration in CCA and DRR/DRM: Low, Medium, High<sup>5</sup>.</p> <p>3) Number of guidelines and training manuals produced and disseminated for extension officers on DRR tools, climate smart agricultural practices and approaches to promote field implementation of DRR measures.</p> <p>4) Number of field demonstration exercise conducted on the promotion of DRR tools, practices and approaches among farming communities.</p> <p>5) Number of mock drill/ field simulation exercise conducted in preparedness and response in the agriculture sector.</p>	<p>1) 0.</p> <p>2) Low.</p> <p>3) 0<sup>6</sup>.</p> <p>4) 0.</p> <p>5) 0.</p>	<p>1) 1 by the end of 2017</p> <p>2) High by the end of 2017.</p> <p>3) 1 Guideline and training manual each for respective extension agencies (NAREI, GLDA, GRDB, Fisheries Department) by the end of 2017.</p> <p>4) 4 by the end of 2017.</p> <p>5) 4 by the end of 2017.</p>	<ul style="list-style-type: none"> <li>Baseline assessment.</li> <li>Training reports.</li> <li>Guidelines and training manuals.</li> <li>Reports on field training demonstration.</li> <li>Reports on mock drill/field simulation exercise.</li> </ul>	<p><b>Assumption:</b> Willingness of extension staff of the Ministry of Agriculture and other national institutions to participate in training activities and utilize knowledge and skills in their daily work and to promote field implementation of DRR measures.</p> <p><b>Risk: Low</b></p>

<sup>5</sup> The definition of the level of capacities refers to the percentage of understanding of the targeted national agencies (training participants) in DRR/DRM concepts and operational aspects of natural hazards, risk prevention, mitigation and preparedness measures in the agriculture sector. Low = 0-29% of the participants understand the concept; Medium = 30-59%; and, High = 60% or higher.

<sup>6</sup> One manual exists for climate smart agriculture practices, but it does not capture practices and approaches to promote field implementation of DRR measures.

Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions
Output 2.3: Technical capacity in Damage Assessment and Needs Analysis (DANA) and Livelihood Assessment (including Livestock Emergency Guidelines and Standards – LEGS) strengthened in the agriculture sector.	<ol style="list-style-type: none"> <li>1) Number of report on reviewing existing damage and needs assessment methodology from an agriculture sector perspective.</li> <li>2) Number of livestock extension officers trained as trainer of trainers on the implementation of the Livestock Emergency Guidelines and Standards (LEGS).</li> <li>3) Number of training sessions conducted to enhance institutional capacities to conduct DANA and Livelihood Assessment in the agriculture sector.</li> </ol>	<ol style="list-style-type: none"> <li>1) 0.</li> <li>2) 0.</li> <li>3) 17.</li> </ol>	<ol style="list-style-type: none"> <li>1) 1 by 2017.</li> <li>2) 20 by the end of 2017.</li> <li>3) 2 by the end of the project.</li> </ol>	<ol style="list-style-type: none"> <li>1) Report on the review of existing DANA methodology in use in Guyana, standard form, guidance notes and manual for DANA.</li> <li>2) An improved DANA methodology, guidance notes and manuals.</li> <li>3) Training workshop report on the implementation of LEGS.</li> <li>4) Report on training workshops to enhance institutional capacities to conduct DANA, including evaluations.</li> </ol>	<p><b>Assumption:</b> Willingness of extension staff to apply the skills obtained in Damage Assessment and Needs Analysis and (DANA) Livelihood Assessment (including Livestock Emergency Guidelines and Standards – LEGS) in the agriculture sector.</p> <p><b>Risk: Low</b></p>

1) 7 One training workshop on Livelihood Assessment conducted in 2013. No training was conducted on DANA.

Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions
<p><b>Outcome 3:</b> Enhanced resilience, capacity and coping mechanism of disaster prone agricultural communities.</p>	<p><b>Key Outputs:</b>  Output 3.1: Use and access of climate information and early warning messages tailored to the needs of farmers, livestock holders and fisherfolks enhanced.  Output 3.2: Climate smart agriculture skills and DRR best practices and approaches enhanced among agricultural communities</p>				
<p>Output 3.1: Use and access of climate information and early warning messages tailored to the needs of farmers, livestock holders and fisherfolks enhanced.</p>	<p>1) Number of Baseline assessment supported to evaluate the use and access of climate information and early warning messages by farming communities.  2) Number of Community-based EWSs installed and produced in four pilot communities.  3) Number of farmers, livestock holders and fisherfolks participated in the capacity building workshops on the access, interpretation and use of climate information and early warning messages/forecasts.</p>	<p>1) 0.  2) 0.  3) 0.</p>	<p>1) 1 by the end of 2017.  2) 2 by the end of the project.  3) 50 by the end of 2017.</p>	<ul style="list-style-type: none"> <li>• Baseline Assessment report.</li> <li>• Community based EWS.</li> <li>• Report from capacity building workshops, including evaluation of the training.</li> </ul>	<p><b>Assumption</b>  Willingness of farmers, livestock holders and fisherfolks to provide feedback on effectiveness of the climate information and early warning messages/forecasts in disaster preparedness and response.  <b>Risk: Low</b></p>

Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions
Output 3.2: Climate smart agriculture skills and DRR best practices and approaches enhanced among agricultural communities.	<ol style="list-style-type: none"> <li>1) Number of training workshops on DRR concepts, and climate smart agricultural practices conducted to enhance capacity of 4 pilot agricultural communities on DRR concepts, prevention and mitigation measures, climate smart agriculture approaches and DRR measures.</li> <li>2) Number of Demonstration sites for pilot testing climate smart agricultural practices and DRR practices.</li> <li>3) Number of training of farmers, livestock holders and fisherfolks conducted by trained extension officers (Activity 2.2.3) on climate smart agriculture approaches and DRR best practices.</li> <li>4) Number of field days conducted to share recommendations and lesson learnt by each pilot community.</li> </ol>	<ol style="list-style-type: none"> <li>1) 0.</li> <li>2) 0.</li> <li>3) 0.</li> <li>4) 0.</li> </ol>	<ol style="list-style-type: none"> <li>1) 4 by end of the project.</li> <li>2) 4 by the end of the project.</li> <li>3) 4 by end of the project.</li> <li>4) 4 by end of the project.</li> </ol>	<ul style="list-style-type: none"> <li>• Report on the training workshops on DRR knowledge and Climate Smart agricultural practices, including pre- and post-evaluation results and video footage.</li> <li>• Report on the identification and establishment of the demonstration sites.</li> <li>• Documentation on experiences, recommendations and lessons learnt to enhance DRR/DRM among farming communities.</li> <li>• Report on field days in each pilot communities including video footage and evaluations.</li> </ul>	<p><b>Assumption:</b> Willingness of agricultural communities to embrace and adopt Climate agriculture skills and DRR best practices and approaches.</p> <p><b>Risk: Low</b></p>

Objective/ Outcome	Indicator	Baseline	End of Project target	Source of Information	Risks and assumptions
<p><b>Outcome 4:</b> Support public awareness and education and the dissemination of information on climate smart agriculture and DRR tools to foster adoption of best practices for disaster preparedness and response among farming communities in the agriculture sector.</p>	<p><b>Key Outputs:</b>  <i>Output 4.1: Public awareness and education promoted as tools to foster adoption of climate smart agricultural approaches and DRR best practices in agricultural communities.</i></p>				
<p><i>Output 4.1: Public awareness and education promoted as tools to foster adoption of climate smart agricultural approaches and DRR best practices in agricultural communities.</i></p>	<p>1) Number of manuals developed on climate smart agriculture approaches and DRR practices developed and disseminated among agriculture communities.</p>	<p>1) 0. 2) 0. 3) 0. 4) 0.</p>	<p>1) 3 by the end of 2017. 2) 4 by the end of the project. 3) 1 by the end of the project. 4) 1 each by the end of the project.</p>	<ul style="list-style-type: none"> <li>• Manuals on climate smart agriculture approaches and DRR practices.</li> <li>• Communication products.</li> <li>• Promotional video.</li> <li>• Communication Strategy.</li> <li>• Implementation Plan.</li> </ul>	<p><b>Assumption:</b> Willingness of national institutes to collaborate with the production of communication products and materials.</p> <p><b>Risk:</b> Low</p>
<p>2) Number of communication products developed to foster adoption of climate smart agricultural approaches and DRR best practices in agricultural communities.</p>					
<p>3) Number of short promotional video produced and broadcasted to the Media in order to foster adoption of climate smart agricultural approaches and DRR best practices in agricultural communities.</p>					
<p>4) Number of Communication Strategy and implementation plan prepared.</p>					

## V. TOTAL BUDGET AND WORK PLAN

Outcome	Output	Activities	Responsible agency	Atlas Budget Description	Total Amount (USD)	Amount 2016 (USD)	Amount 2017 (USD)	Amount 2018 (USD)	Budget note
Outcome 1: Increased institutional and technical capacities of national institutions to mainstream DRM into the agriculture sector	Output 1.1: Institutional and coordination mechanisms within the agricultural sector to mainstream DRM strengthened	Activity 1.1.1	FAO	Local consultant	6,000	6,000	0	0	A
		Activity 1.1.2	FAO	Training, Workshop and Conference	1,400	1,400	0	0	
		Activity 1.1.3	FAO	Printing materials	1,000	1,000	0	0	
		Activity 1.1.4	FAO	Miscellaneous	1,000	1,000	0	0	
Outcome 2: Enhanced technical capacities of government institutions in employing DRR tools, practices and approaches, in support of farming communities in the agriculture sector	Output 2.1: Institutional capacity of the target government agencies to effectively utilise and disseminate climate information and Early Warning forecasts for enhanced disaster preparedness in the agriculture sector increased.	Activity 2.1.1	UNDP	International consultant	16,000	16,000	0	0	B
		Activity 2.1.2	UNDP	Travel	1,000	1,000	0	0	
		Activity 2.1.3	UNDP	Miscellaneous	1,000	1,000	0	0	
		Activity 2.1.4	UNDP	Printing materials	1,000	1,000	0	0	
Outcome 3: Output 3.1: Use and	Output 2.2: Capacities of extension services and extension staff to employ DRR tools, practices and approaches in their daily work and to promote field implementation of DRR measures enhanced	Activity 2.2.1	FAO/UNDP	Travel	8,000	8,000	0	0	
		Activity 2.2.2	FAO/UNDP	Material and equipment	18,000	18,000	0	0	
		Activity 2.2.3	FAO/UNDP	Miscellaneous	1,000	1,000	0	0	
		Activity 2.2.4	FAO/UNDP	Printing materials	1,000	1,000	0	0	
Outcome 3: Output 3.1: Use and	Output 2.3: Technical capacity in Damage Assessment and Needs Analysis (DANA) and Livelihood Assessment (including Livestock Emergency Guidelines and Standards - LEGS) strengthened in the agriculture sector	Activity 2.3.1	FAO	Training of trainers	4,000	4,000	0	0	
		Activity 2.3.2	FAO	Workshop and conference	1,000	1,000	0	0	
		Activity 2.3.3	FAO	Travel	4,000	4,000	0	0	
		Activity 2.3.3	FAO	Printing materials	1,000	1,000	0	0	
Outcome 3: Output 3.1: Use and	Output 3.1: Use and	Activity 3.1.1	UNDP	Workshop and conference	2,000	2,000	0	0	
		Activity 3.1.1	UNDP	Local consultant	6,000	6,000	0	0	C

Enhanced resilience, capacity and coping mechanism of disaster prone agricultural communities	access of climate information and early warning messages tailored to the needs of farmers, livestock holders and fisherfolks enhanced	Activity 3.1.2	UNDP	Travel	8,000	8,000	0	0
		Activity 3.1.3	UNDP	Printing materials	1,000	1,000	0	0
				Materials and equipment	10,000	10,000	0	0
				Workshops, training in communities	2,000	2,000	0	0
				Miscellaneous	1,000	1,000	0	0
		Activity 3.2.1	FAO/UNDP	Contractual Services - Firm	20,000	20,000	0	0
		Activity 3.2.2	FAO/UNDP	Travel	11,000	7,000	4,000	0
		Activity 3.2.3	FAO/UNDP	Printing materials	1,000	800	200	0
		Activity 3.2.4	FAO/UNDP	Field days	8,000	4,000	4,000	0
				Materials and equipment	20,000	20,000	0	0
				Workshops, training in communities	8,000	4,000	4,000	0
				Miscellaneous	1,000	0	1,000	0
				Local consultant	12,000	0	12,000	0
		Outcome 4: Support awareness and education among public and the dissemination of information on climate smart agriculture and DRR tools to foster adoption of best practices for disaster preparedness and response among farming communities in the agriculture sector.	Output 4.1: Public awareness and education promoted as tools to foster adoption of climate smart agricultural approaches and DRR best practices in agricultural communities	Activity 4.1.1	FAO/UNDP	Travel	6,000	6,000
		Activity 4.1.2	FAO/UNDP	Short film production and broadcasting	8,000	0	8,000	0
		Activity 4.1.3	FAO/UNDP	Printing materials	8,000	0	8,000	0
		Activity 4.1.4	FAO/UNDP	Awareness campaign -- Radio	5,000	0	5,000	0
				Miscellaneous	1,000	0	1,000	0
Outcome 5: Project Management	Output 5.1: Project is coordinated throughout the implementation period by the project coordination team	Activity 5.1.1	UNDP	Service Contractor - Project Associate	38,243	17,383	19,122	1,738
		Activity 5.1.2	UNDP	Supplies	4,000	3,000	1,000	0
				Equipment and Materials	4,000	4,000	0	0
				Communication and Visibility	5,000	2,500	2,500	0
				Training, Workshop, Conference	1,000	500	500	0



			Monitoring & Evaluation	8,000	4,000	4,000	4,000	0	
			Miscellaneous	2,000	500	1,500	1,500	0	
			DPC	8,000	5,000	3,000	3,000	0	
Sub-total				277,643	191,083	84,822	1,738		
GMS (8%)				22,212	15,287	6,786	139		
Grand Total				299,855	206,370	91,608	1,877		

Budget Notes	
A	Local consultant/FAO technical expert (2 months) Institutional and Regulatory Analysis Expert
B	International consultant/ FAO technical expert (1 month including travel) - Early Warning System Expert
C	Local consultant (2 months)/ FAO technical expert - Community Facilitation Expert
D	Firm/NPO/NGO from Japan (1 month) – Early Warning Technology Technicians
E	Local consultant/ FAO technical expert (3 months - 60days) - Public Awareness Expert
F	Service contract - Project associate (SB-3) (22 months)
G	Inception Workshop and Project Board meeting

## VI. ANNUAL WORK PLAN

Year: 2016

EXPECTED OUTPUTS <i>And baseline, associated indicators and annual targets</i>	PLANNED ACTIVITIES <i>List activity results and associated actions</i>	TIMEFRAME				RESPONSIBLE PARTY	PLANNED BUDGET		
		Q 1	Q 2	Q 3	Q 4		Funding Source	Budget Description	Amount
<b>Output 1:</b> Institutional and coordination mechanisms within the agricultural sector to mainstream DRM strengthened  <i>Baseline:</i> 5) 0. 6) 0. 7) 0. 8) Low. 6) 0.  <i>Indicators:</i> 1) Number of Report on Assessment of status of implementation of the ADRM Plan. 2) Number of Report on Assessment of existing policy documents. 3) Number of Report on Assessment of training and capacity building needs. 4) Level of capacities of national institutions involved in ADRM strengthened through capacity building and awareness workshops conducted: Low, Medium, High <sup>8</sup> 5) Number of ADRM Committee meetings convened to support DRM coordination in the agriculture sector.  <i>Targets:</i> 1) 1 completed by the end of 2016. 2) 1 completed by the end of 2016. 3) 1 completed by the end of 2016 4) High by the end of 2017 5) 4 by the end of 2017.	Activity Result 1.1: <b>Re-establishment of the ADRM Committee with strengthened coordination and institutional mechanisms for ADRM</b>  - Action 1.1.1: Conduct an assessment of the status of the implementation of the ADRM Plan.  - Action 1.1.2: Conduct a review on existing policy documents and institutional and coordination mechanisms.  - Action 1.1.3: Assess training and overall capacity building needs of the staff of the MoA and other national institutions involved in the implementation of the DRM Plan for the agriculture sector.  - Action 1.1.4: Support the strengthening and re-establishment of the ADRM Committee and conduct capacity building and awareness workshops for staff of national institutions involved in ADRM.					FAO	GoJ	6,000	
								Local consultant (2 months) Institutional and Regulatory analysis expert	
								Training, Workshop and conference	1,400
								Printing materials	1,000
								Miscellaneous	1,000
		X	X						

<sup>8</sup> The definition of the level of capacities refers to the percentage of understanding of the national institutions (training participants) in the concept of the DRM mainstreaming in the agriculture sector. Low = 0-29% of the participants understand the concept; Medium =

EXPECTED OUTPUTS <i>And baseline, associated indicators and annual targets</i>	PLANNED ACTIVITIES <i>List activity results and associated actions</i>	TIMEFRAME				RESPONSIBLE PARTY	PLANNED BUDGET		
		Q 1	Q 2	Q 3	Q 4		Funding Source	Budget Description	Amount
<p><b>Output 2.1: Institutional capacity of the target government agencies to effectively utilise and disseminate climate information and Early Warning forecasts for enhanced disaster preparedness in the agriculture sector increased.</b></p> <p><i>Baseline:</i></p> <p>5) 0. 6) Low. 7) 0. 8) 0.</p> <p><i>Indicators:</i></p> <p>1) Number of report reviewing existing climate information and early warning services. 2) Extent to which the Capacity of staff of targeted government agencies enhanced in the interpretation and use of climate information and early warning messages/forecasts: Low, Medium, High<sup>9</sup> 3) Number of training workshop conducted to the development of early warning messages/forecasts tailored to the needs of the agriculture communities. 4) Number of field test conducted to test the effectiveness of early warning messages/forecasts in disaster preparedness and response by end users.</p> <p><i>Targets:</i></p> <p>1) 1 by the end of the project. 2) High by the end of the project. 3) 2 by the end of 2017. 4) 4 by the end of 2017.</p>	<p><b>Activity Result 2.1: Review of existing climate information and early warning services conducted, capacity strengthened in climate information and early warning messages and forecasts.</b></p> <p>- Action 2.1.1: Review existing climate information and early warning services produced and disseminated to farming communities and proposed improvement for EWS flow and communications to end users.</p> <p>- Action 2.1.2: Conduct training workshop for targeted government agencies to interpret and use climate information and early warning messages and forecasts in agriculture.</p> <p>- Action 2.1.3: Conduct training workshop for Hydromet Department staff on climate information and early warning services tailored to end users.</p> <p>- Action 2.1.4: Field test early warning services disseminated to end users to validate their effectiveness for disaster preparedness in agriculture.</p>						International consultant (1month including travel) - Early Warning Expert	16,000	
							Travel	1,000	
							Miscellaneous	1,000	
							Printing materials	1,000	
							Workshop and conference	2,000	
		X	X	X	X	UNDP	GoJ		

<sup>9</sup> The definition of the level of capacities refers to the percentage of understanding of the targeted national agencies (training participants) in the interpretation and use of early warning messages/forecasts. Low = 0-29% of the participants understand the concept; Medium = 30-59%; and, High = 60% or higher.

EXPECTED OUTPUTS <i>And baseline, associated indicators and annual targets</i>	PLANNED ACTIVITIES <i>List activity results and associated actions</i>	TIMEFRAME				RESPO NSIBLE PARTY	PLANNED BUDGET		
		Q 1	Q 2	Q 3	Q 4		Funding Source	Budget Description	Amount
<p><b>Output 2.2: Capacities of extension services and extension staff to employ DRR tools, practices and approaches in their daily work and to promote field implementation of DRR measures enhanced.</b></p> <p><i>Baseline:</i></p> <p>1) Limited baseline available on extension systems and activities, and the current degree of DRR practice in agriculture.</p> <p>2) Limited capacity of extension staff of the Ministry of Agriculture and other national institutions to employ DRR tools, practices and approaches and to promote field implementation of DRR measures.</p> <p>3) Limited or no guidelines and manuals available for use by extension officers.</p> <p>4) Limited field demonstration exercise on the promotion of DRR tools, practices and approaches.</p> <p>5) Lack of mock drill/ field simulation exercise in preparedness and response in the agriculture sector.</p> <p><i>Indicators:</i></p> <p>1) Number of baseline assessment conducted on extension systems and activities, and the current degree of DRR practice in agriculture.</p> <p>2) The Level of capacity of extension staff of the MoA and other national institutions enhanced in DRR/DRM concepts and operational aspects: Low, Medium, High<sup>10</sup></p> <p>3) Number of guidelines and training manuals produced and disseminated for extension officers.</p> <p>4) Number of field demonstration exercise conducted.</p> <p>5) Number of mock drill/ field simulation exercise conducted in preparedness and response in the agriculture sector.</p> <p><i>Targets:</i></p> <p>1) 80% by the end of 2017.</p> <p>2) 1 by the end of 2017.</p>	<p>Activity Result 2.2: <b>Baseline assessment conducted, training convened, guidelines and manuals produced, and field demonstration exercises conducted.</b></p> <p>- Action 2.2.1: Conduct baseline assessment on extension systems and activities, and the current degree of DRR practice in agriculture.</p> <p>- Action 2.2.2: Conduct training of extension staff in DRR/DRM concepts and operational aspects in the agriculture sector.</p> <p>- Action 2.2.3: Produce guidelines and training manuals for extension officers on DRR tools, climate smart agricultural practices and approaches.</p> <p>- Action 2.2.4: Conduct field training demonstrations on the promotion of DRR.</p> <p>- Action 2.2.5 Conduct mock drill/ field simulation exercise in preparedness and response in the agriculture sector.</p>						Travel	8,000	
								Material and equipment	18,000
							Miscellaneous	1,000	
							Printing materials	1,000	
							Training of trainers	4,000	
							Workshop and conference	1,000	
		X	X	X	X	FAO/ UNDP	GoJ		

<sup>10</sup> The definition of the level of capacities refers to the percentage of understanding of the targeted national agencies (training participants) in DRR/DRM concepts and operational aspects of natural hazards, risk prevention, mitigation and preparedness measures in the agriculture sector. Low = 0-29% of the participants understand the concept; Medium = 30-59%; and, High = 60% or higher.

EXPECTED OUTPUTS <i>And baseline, associated indicators and annual targets</i>	PLANNED ACTIVITIES <i>List activity results and associated actions</i>	TIMEFRAME				RESPONSIBLE PARTY	PLANNED BUDGET		
		Q 1	Q 2	Q 3	Q 4		Funding Source	Budget Description	Amount
3) 1 Guideline and training manual each for respective extension agencies (NAREI, GLDA, GRDB, Fisheries Department) prepared by the end of 2017.									
4) 4 by the end of 2017.									
5) 4 by the end of 2017.									

EXPECTED OUTPUTS <i>And baseline, associated indicators and annual targets</i>	PLANNED ACTIVITIES <i>List activity results and associated actions</i>	TIMEFRAME				RESPO NSIBLE PARTY	PLANNED BUDGET		
		Q 1	Q 2	Q 3	Q 4		Funding Source	Budget Description	Amount
<p><b>Output 2.3: Technical capacity in Damage Assessment and Needs Analysis (DANA) and Livelihood Assessment (including Livestock Emergency Guidelines and Standards – LEGS) strengthened in the agriculture sector.</b></p> <p><i>Baseline:</i> 4) 0. 5) 0. 6) 0.</p> <p><i>Indicators:</i> 1) Number of reports on reviewing existing damage and needs assessment methodology from an agriculture sector perspective. 2) Number of livestock extension officers trained as trainer of trainers on the implementation of the Livestock Emergency Guidelines and Standards (LEGS). 3) Number of training sessions conducted to enhance institutional capacities to conduct DANA and Livelihood Assessment.</p> <p><i>Targets:</i> 1) 1 by 2017. 2) 20 by the end of 2017. 2 by the end of the project.</p>	<p>Activity Result 2.3: <b>DANA methodology reviewed, training convened, institutional and technical capacities strengthened to implement timely and accurate DANA and Livelihood Assessment in the agriculture sectors.</b></p> <p>- Action 2.3.1: Review the existing damage and needs assessment methodology used in Guyana from an agriculture sector perspective</p> <p>- Action 2.3.2: Conduct training workshop on the implementation of Livestock Emergency Guidelines and Standards (LEGS).</p> <p>- Action 2.3.3: Convene training workshop to enhance institutional capacities to undertake timely and accurate DANA and Livelihood Assessment in the agriculture sectors.</p>						Travel	4,000	
							Printing materials	1,000	
							Workshop and conference	2,000	
		X	X	X	FAO	GoJ			

EXPECTED OUTPUTS <i>And baseline, associated indicators and annual targets</i>	PLANNED ACTIVITIES <i>List activity results and associated actions</i>	TIMEFRAME				RESPONSIBLE PARTY	PLANNED BUDGET		
		Q 1	Q 2	Q 3	Q 4		Funding Source	Budget Description	Amount
<p><b>Output 3.1: Use and access of climate information and early warning messages tailored to the needs of farmers, livestock holders and fisherfolks enhanced.</b></p> <p><i>Baseline:</i></p> <p>4) 0. 5) 0. 6) 0.</p> <p><i>Indicators:</i></p> <p>1) Number of Baseline assessment supported to evaluate the use and access of climate information and early warning messages by farming communities. 2) Number of Community-based EWSs installed and produced in four communities. 3) Number of farmers, livestock holders and fisherfolks participated in the capacity building workshops.</p> <p><i>Targets:</i></p> <p>1) 1 by the end of 2017. 2) 2 by the end of the project. 3) 50 by the end of 2017.</p>	<p>Activity Result 3.1: <b>Baseline needs assessment conducted, community based early warning systems developed and workshops conducted on farmers to promote capacity on the use and access of the available information.</b></p> <p>- Action 3.1.1: Conduct baseline needs assessment on use and access of climate information and early warning messages by farming communities.</p> <p>- Action 3.1.2: Develop community based Early Warning Systems.</p> <p>- Action 3.1.3: Conduct capacity building workshops on the access, interpretation, and use of the climate information and early warning messages/forecasts.</p>						Local consultant (2 months)-Community expert	6,000	
							Travel	8,000	
							Printing materials	1,000	
							Materials and equipment	10,000	
							Workshops, training in communities	2,000	
							Miscellaneous	1,000	
		X	X	X	X	UNDP	GoJ		

EXPECTED OUTPUTS <i>And baseline, associated indicators and annual targets</i>	PLANNED ACTIVITIES <i>List activity results and associated actions</i>	TIMEFRAME				RESPO NSIBLE PARTY	PLANNED BUDGET		
		Q 1	Q 2	Q 3	Q 4		Funding Source	Budget Description	Amount
<p><b>Output 3.2: Climate smart agriculture skills and DRR best practices and approaches enhanced among agricultural communities.</b></p> <p><i>Baseline:</i> 5) 0. 6) 0. 7) 0. 8) 0.</p> <p><i>Indicators:</i> 1) Number of training workshops on DRR concepts, climate smart agricultural practices conducted. 2) Number of Demonstration sites for pilot testing climate smart agricultural practices and DRR practices. 3) Number of training of farmers, livestock holders and fisherfolks conducted by trained extension officers (Activity 2.2.3). 4) Number of field days conducted by each pilot community.</p> <p><i>Targets:</i> 1) 4 by end of the project. 2) 4 by the end of the project. 3) 4 by end of the project. 4) 4 by end of the project.</p>	<p>Activity Result 3.2: <b>Training conducted, demonstration sites identified and training conducted for farmers by extension officer on climate smart agriculture approaches and DRR best practices</b></p> <p>- Action 3.2.1: Convene training workshops by trained extension officers (in Activity 2.2.2) on DRR concepts, climate smart agriculture practices for farmers, livestock holders and fisherfolks.</p> <p>- Action 3.2.2: Identify and establish demonstration sites by trained extension officers (in Activity 2.2.4).</p> <p>- Action 3.2.3: Conduct training of farmers, livestock holders and fisherfolks by trained extension officers (Activity 2.2.3).</p> <p>- Action 3.2.4: Conduct field days in each pilot community share their experiences, recommendations and lessons learnt among farming communities.</p>						Contractual Services - Firm	20,000	
							Travel	7,000	
							Printing materials	800	
							Field days	4,000	
							Materials and equipment	20,000	
							Workshops, training in communities	4,000	
		X	X	X	X	FAO/ UNDP	GoJ		



EXPECTED OUTPUTS <i>And baseline, associated indicators and annual targets</i>	PLANNED ACTIVITIES <i>List activity results and associated actions</i>	TIMEFRAME				RESPONSIBLE PARTY	PLANNED BUDGET		
		Q 1	Q 2	Q 3	Q 4		Funding Source	Budget Description	Amount
Outcome 5: Project Management	Project Management: Project is coordinated throughout the implementation period by a project management team  Activity 5.1.1: Training conducted for a project management team to understand the project  Activity 5.1.2: Project is coordinated by a project management team, delivering Activity results 1.1.1 to 4.1.4					UNDP	GoJ	Local consultant (23 months) – Project Associate	17,383
								Supplies	3,000
								Equipment and Materials	4,000
		X	X	X	X			Training, Workshop, Conference	500
								Monitoring	4,000
								Communication and Visibility	2,500
								Miscellaneous	500
								DPC	5,000
GMS (8%)								15,286.64	
<b>TOTAL</b>								<b>206,369.64</b>	

## VII. MANAGEMENT ARRANGEMENTS

63. The overall responsibility of management of this project lies with the Environment, Extractive Industry and Energy Unit within UNDP Guyana Country Office.
64. *The project will be implemented through DIM (Direct Implementation Modality) with the UNDP as the executing agency.*
65. The project will be implemented over a period of 24 months and under the general supervision of UNDP. FAO will act as the Responsible Party.
66. PSC will be established comprising of UNDP, Ministry of Finance, FAO, representatives of the MoA, CDC, Ministry of Communities as well as a representative from NDCs. UNDP and Ministry of Finance act as executive Entity. FAO, MoA and CDC play roles as Senior Suppliers and other agencies under MoA, Ministry of Communities, NDCs, and farmers' groups as Senior Beneficiaries. The PSC will monitor the implementation of the project.
67. A national Project Board (PB) will be convened by the Project Manager, and will serve as the Project's coordination and decision making body. The members of the PSC are listed in Table 1.

Table 1. PSC Members

No.	Institution	Project Board Role
1	United Nations Development Programme (UNDP)	Executive Entity
2	Ministry of Finance (MoF)	Executive Entity
3	Food and Agriculture Organisation of the United Nations (FAO)	Senior Supplier
4	Ministry of Agriculture (MoA)	Senior Supplier
5	Civil Defence Commission(CDC)	Senior Supplier
6	Ministry of Communities: Neighbourhood Democratic Councils (NDCs)	Senior Supplier
7	National Agriculture Research and Extension Institute (NAREI)	Senior Beneficiary
8	Guyana Rice Development Board (GRDB)	Senior Beneficiary
9	Guyana Livestock Development Authority (GLDA)	Senior Beneficiary
10	Fisheries Department	Senior Beneficiary
11	Hydromet Department	Senior Beneficiary
12	Pesticides and Toxic Chemicals Control Board (PTCCB)	Senior Beneficiary
13	Guyana School of Agriculture (GSA)	Senior Beneficiary
14	Guyana Marketing Corporation (GMC)	Senior Beneficiary

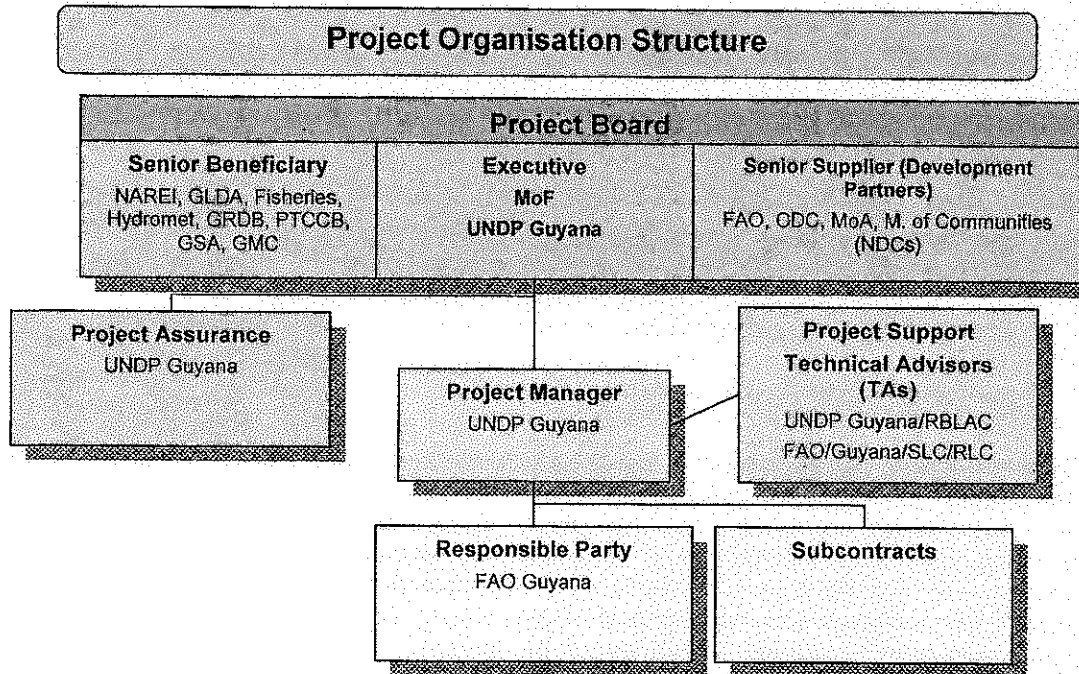
68. The PSC meetings will be co-chaired by the Executive Entities. The Deputy Resident Representative of UNDP CO will be as its Project Executive. The Project Executive Board (PEB) meetings are co-chaired by UNDP CO and Ministry of Finance. It will meet according to necessity, but not less than once in six months, to review project progress, approve project work plans and approve major project deliverables. The PSC is responsible for ensuring that the project remains on course to deliver products of the required quality to meet the outcomes defined in the project document.

69. Until the PSC has met for the first time, and has agreed on its roles and responsibilities, the following are the proposed TOR for the PSC:

#### Terms of Reference

- 1 Provide policy and strategic oversight and support to the implementation of the Project, ensuring that reports are of sufficiently high standard and quality, and they are reviewed and endorsed by project stakeholders.
- 2 Review and approve the Project's Annual Work Plans, as well as other Project planning and implementation instruments.
- 3 Provide inputs to the Project's APR/PIR.
- 4 Support Project evaluations, if applicable.
- 5 Deliberate on the TOR and membership for other committees and working groups that are expected to contribute to the implementation of Project activities and the achievement of its outcomes.
- 6 Any other relevant task as applicable.

70. Besides the roles and responsibilities of different stakeholders outlined in this Project Document, the following diagram represents the expected key relationships governing the Project.



## Roles and Responsibilities

71. **Project Steering Committee:** The Project Board is the group responsible for making by consensus, management decisions for a project when guidance is required by the Project Manager, including recommendation for UNDP/Implementing Partner approval of project plans and revisions. In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. In case a consensus cannot be reached within the Board, final decision shall rest with the UNDP Programme Manager. In addition, the Project Board plays a critical role in UNDP commissioned project evaluations by quality assuring the evaluation process and products, and using evaluations for performance improvement, accountability and learning. Project reviews by this group are made at designated decision points during the running of the project, or as necessary when raised by the Project Manager.

This group is consulted by the Project Manager for decisions when Project Manager's tolerances (normally in terms of time and budget) have been exceeded (flexibility). Based on the approved annual work plan (AWP), the Project Board may review and approve project quarterly plans when required and authorizes any major deviation from these agreed quarterly plans. It is the authority that signs off the completion of each quarterly plan as well as authorizes the start of the next quarterly plan. It ensures that required resources are committed and arbitrates on any conflicts within the project or negotiates a solution to any problems between the projects and external bodies. In addition, it approves the appointment and responsibilities of the Project Manager and any delegation of its Project Assurance responsibilities. Potential members of the Project Board are reviewed and recommended for approval during the PAC meeting. Representative of other stakeholders can be included in the Board as appropriate. The objective is to create a mechanism for effective project management.

72. **Project Assurance:** the Project Assurance role is the responsibility of the Project Board. UNDP will augment this role to ensure that its fiduciary, environmental and social safeguards and standards are maintained. Further, the Project Assurance role supports the Project Board

by carrying out objective and independent project oversight and monitoring functions. This role ensures appreciate project management milestones are managed and completed.

73. The **Executive** is ultimately responsible for the project, supported by the Senior Beneficiary and Senior Supplier. The Executive's role is to ensure that the project is focused throughout its life cycle on achieving its objectives and delivering outputs that will contribute to higher level outcomes. The Executive has to ensure that the project gives value for money, ensuring a cost-conscious approach to the project, balancing the demands of beneficiary and supplier.

*Specific Responsibilities* (as part of the above responsibilities for the Project Board)

- Ensure that there is a coherent project organisation structure and logical set of plans
- Set tolerances in the AWP and other plans as required for the Project Manager
- Monitor and control the progress of the project at a strategic level
- Ensure that risks are being tracked and mitigated as effectively as possible
- Brief Outcome Board and relevant stakeholders about project progress
- Organise and chair Project Board meetings

74. **Senior Beneficiary:** an individual or group of individuals representing the interests of those who will ultimately benefit from the project. The Senior Beneficiary's primary function within the Board is to ensure the realisation of project results from the perspective of project beneficiaries. The Senior Beneficiary is responsible for validating the needs and for monitoring that the solution will meet those needs within the constraints of the project. The Senior Beneficiary role monitors progress against targets and quality criteria. This role may require more than one person to cover all the beneficiary interests. For the sake of effectiveness the role should not be split between too many people.

*Specific Responsibilities* (as part of the above responsibilities for the Project Board)

- Ensure the expected output(s) and related activities of the project are well defined
- Make sure that progress towards the outputs required by the beneficiaries remains consistent from the beneficiary perspective
- Promote and maintain focus on the expected project output(s)
- Prioritise and contribute beneficiaries' opinions on Project Board decisions on whether to implement recommendations on proposed changes
- Resolve priority conflicts

The assurance responsibilities of the Senior Beneficiary are to check that:

- Specification of the Beneficiary's needs is accurate, complete and unambiguous
- Implementation of activities at all stages is monitored to ensure that they will meet the beneficiary's needs and are progressing towards that target
- Impact of potential changes is evaluated from the beneficiary point of view
- Risks to the beneficiaries are frequently monitored

75. **Senior Supplier:** The Senior Supplier's primary function within the Board is to provide guidance regarding the technical feasibility of the project. This includes technical guidance on designing, developing, facilitating, procuring and implementing the project. The Senior Supplier role must have the authority to commit or acquire supplier resources required.

**Specific Responsibilities** (as part of the above responsibilities for the Project Board)

- Make sure that progress towards the outputs remains consistent from the supplier perspective
- Promote and maintain focus on the expected project output(s) from the point of view of supplier management
- Ensure that the supplier resources required for the project are made available
- Contribute supplier opinions on Project Board decisions on whether to implement recommendations on proposed changes
- Arbitrate on, and ensure resolution of, any supplier priority or resource conflicts

The supplier assurance role responsibilities are to:

- Advise on the selection of strategy, design and methods to carry out project activities
- Ensure that any standards defined for the project are met and used to good effect
- Monitor potential changes and their impact on the quality of deliverables from a supplier perspective
- Monitor any risks in the implementation aspects of the project

76. **UNDP Project Manager (PM)** has the authority to run the project on a day-to-day basis on behalf of the Project Board within the constraints laid down by the Board. The Project Manager is responsible for day-to-day management and decision-making for the project. The Project Manager's prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost.

The Implementing Partner appoints the Project Manager, who should be different from the Implementing Partner's representative in the Outcome Board.

77. A **Responsible Party** is defined as an entity that has been selected to act on behalf of the Implementing Partner on the basis of a written agreement to purchase goods or provide services using the project budget. In addition, the Responsible Party may manage the use of these goods and services to carry out project activities and produce outputs. All Responsible Parties are directly accountable to the Implementing Partner in accordance with the terms of their agreement or contract with the Implementing Partner. Implementing Partners use Responsible Parties in order to take advantage of their specialized skills, to mitigate risk and to relieve administrative burdens.

78. **Project Associate (PA)**: the Project Associate role provides project administration, management and technical support to the Project Manager as required by the needs of the Project or Project Manager.

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## VIII. MONITORING FRAMEWORK AND EVALUATION

79. The project will be monitored through the following M&E activities. The M&E budget is provided in the table under Section V, Total Budget and Work Plan.

### **Project initiation phase:**

80. A Project Inception Workshop will be held within the first 2 months of project start with those with assigned roles in the project organisation structure, UNDP Guyana, FAO as well as other stakeholders. The Inception Workshop is crucial to building ownership for the project results and to plan and agree on the first year's annual work plan.

81. The Inception Workshop should address a number of key issues including:

- a) Assist all partners to fully understand and take ownership of the project. Detail the roles, support services and complementary responsibilities of UNDP Guyana.
- b) Discuss the roles, functions and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms.
- c) Finalise the first annual work plan, based on the project results framework. Review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.
- d) Provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements. The Monitoring and Evaluation work plan and budget should be agreed and scheduled.
- e) Discuss financial reporting procedures and obligations, and arrangements for annual audit.
- f) Plan and schedule project Board meetings. Roles and responsibilities of all project organisation structures should be clarified and meetings planned. The second Project Board meeting should be held within the first six months following the inception workshop.

82. **Inception Report** is a key reference document and must be prepared and shared with participants to formalise various agreements and plans decided during the meeting. The report will be prepared immediately following the Inception Workshop. It will include a detailed First Year/Annual Work Plan divided in quarterly time-frames detailing the activities and progress indicators that will guide implementation during the first year of the project.

### **83. Quarterly:**

- a) Submission of quarterly reports are made by the Project Manager.
- b) Progress made shall be monitored in the UNDP Enhanced Results Based Management Platform.
- c) Based on the initial risk analysis submitted, the risk log shall be regularly updated in ATLAS. Based on the information recorded in Atlas, a Project Progress Reports (PPR) can be generated in the Executive Snapshot.
- d) Other ATLAS logs can be used to monitor issues, lessons learned etc. The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

### **84. Annually:**

- a) **Periodic Monitoring through site visits:** UNDP CO and the FAO CO will conduct visits to project sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress. Other members of the Project Board may also join these visits. A Field Visit Report/BTOR will be prepared by

the CO and FAO CO and will be circulated no less than one month after the visit to the project team and Project Board members.

- b) **Learning and knowledge sharing:** Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation through lessons learned. The project will identify, analyse, and share lessons learnt that might be beneficial in the design and implementation of similar future projects.
- c) **Annual Review Report.** An Annual Review Report shall be prepared by the Project Manager and shared with the Project Board. As minimum requirement, the Annual Review Report shall consist of the Atlas standard format for the QPR covering the whole year with updated information for each above element of the QPR as well as a summary of results achieved against pre-defined annual targets at the output level.
- d) **Annual Project Review.** Based on the report above, an annual project review shall be conducted during the fourth quarter of the year or soon after, to assess the performance of the project and appraise the Annual Work Plan (AWP) for the following year. In the last year, this review will be a final assessment. This review is driven by the Project Board and may involve other stakeholders as required. It shall focus on the extent to which progress is being made towards outputs, and that these remain aligned to appropriate outcomes.
- e) **Audit.** The project will undergo audit by a certified auditor according to UNDP Financial rules and regulations and applicable audit policies under DIM modality. UNDP CO in Guyana will be responsible for ensuring transparency appreciate conduct and financial responsibility. This office will oversee annual financial audits, as well as the execution of independent Project Mid-term and Terminal Evaluations. All financial transactions and agreements, including contracts with staff and consultants, will follow UNDP financial rules and regulations.

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## IX. LEGAL CONTEXT

- 85. This document together with the CPAP signed by the Government and UNDP which is incorporated herein by reference, constitute together a Project Document as referred to in the Standard Basic Assistance Agreement (SBAA); as such all provisions of the CPAP apply to this document. All references in the SBAA to "Executing Agency" shall be deemed to refer to "Implementing Partner", as such term is defined and used in the CPAP and this document.
- 86. UNDP as the Implementing Partner shall comply with the policies, procedures and practices of the United Nations safety and security management system.
- 87. UNDP will undertake all reasonable efforts to ensure that none of the Japan UNDP Partnership Fund received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via [http://www.un.org/sc/committees/1267/qa\\_sanctions\\_list.shtml](http://www.un.org/sc/committees/1267/qa_sanctions_list.shtml). This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

## X. ANNEX I

### Terms of Reference

#### Terms of References for key project staff

##### Project Manager

**Overall responsibilities:** The Project Manager has the authority to run the project on a day-to-day basis on behalf of the Project Board within the constraints laid down by the Board. The Project Manager is responsible for day-to-day management and decision-making for the project. The Project Manager's prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost.

The Implementing Partner appoints the Project Manager, who should be different from the Implementing Partner's representative in the Outcome Board.

**Specific responsibilities** would include:

*Overall project management:*

- Manage the realization of project outputs through activities;
- Provide direction and guidance to project team(s)/ responsible party (ies);
- Liaise with the Project Board or its appointed Project Assurance roles to assure the overall direction and integrity of the project;
- Identify and obtain any support and advice required for the management, planning and control of the project;
- Responsible for project administration;
- Liaise with any suppliers.

*Running a project*

- Plan the activities of the project and monitor progress against the initial quality criteria.
- Mobilize goods and services to initiative activities, including drafting TORs and work specifications;
- Monitor events as determined in the Monitoring & Communication Plan, and update the plan as required;
- Monitor financial resources and accounting to ensure accuracy and reliability of financial reports;
- Manage and monitor the project risks as initially identified in the Project Brief appraised by the LPAC, submit new risks to the Project Board for consideration and decision on possible actions if required; update the status of these risks by maintaining the Project Risks Log;
- Be responsible for managing issues and requests for change by maintaining an Issues Log.
- Prepare the Project Quarterly Progress Report (progress against planned activities, update on Risks and Issues, expenditures) and submit the report to the Project Board and Project Assurance;
- Prepare the Annual review Report, and submit the report to the Project Board and the Outcome Board;
- Based on the review, prepare the AWP for the following year, as well as Quarterly Plans if required.



### *Closing a Project*

- Prepare Final Project Review Reports to be submitted to the Project Board and the Outcome Board;
- Identify follow-on actions and submit them for consideration to the Project Board;
- Manage the transfer of project deliverables, documents, files, equipment and materials to national beneficiaries;
- Prepare final CDR/FACE for signature by UNDP and the Implementing Partner.

## **RECRUITMENT QUALIFICATIONS**

### Education:

- Advanced university degree in Environmental Management, Natural Resource Management, Agricultural Technology or Sustainable Development.

### Experience:

- Minimum 3 years' working experience in project or programme management.
- At least 2 years of progressively responsible professional experience in Agricultural Development Project.
- Previous experience in project management in agricultural development or disaster risk management related project would be a good asset.
- Demonstrated experience working with national governments, communities, and diverse stakeholder groups for a minimum of 4 years.
- Experience in the Caribbean region desired, especially experience in Guyana preferred.
- Previous experience in working with the Government of Japan preferred.
- Sound understanding of disaster risk management in the agricultural sector, agricultural extension systems, food security, community resilience and sustainable development.
- Demonstrated evidence of research and reporting skills (e.g. published papers).

### Language Requirements:

- Fluency in written and oral English.

## Project Associate

**Overall responsibilities:** The Project Support role provides project administration, management and technical support to the Project Manager as required by the needs of the project or Project Manager.

**Specific responsibilities:** Some specific tasks of the Project Support would include:

1. *Provision of administrative services, focusing on achievement of the following results:*
  - Support in ensuring timely submission of all reports as may be required by UNDP;
  - Establish and maintain contacts with government officials in the concerned ministries and others whose interests and responsibilities are related to project objective and activities, and for developing the mutual collaboration that is essential for project success.
  - Support coordination and organization of meetings, training and workshops;
  - Assist in logistical organization of meetings, training and workshops;
  - Support in preparing agendas and arrange field visits, appointments and meetings ( internal and external) related to the project activities and prepare minutes of the meetings;
  - Support collecting and maintaining all information on project activities ;
  - Set up and maintain project files;
  - Collect project related information data;
  - Update plans;
  - Administer the quality review process;
  - Provide support to Project Board meetings;
  - Facilitate administrative backstopping support to subcontractors and training activities of the Project;
  - Assist in the procurement of goods and services for the project and the recruitment processes for project consultants.
  
2. *Project documentation management, focusing on achievement of the following results:*
  - Prepare report of the Inception Workshop and minutes of two Board meetings;
  - Assist in preparation of quarterly progress reports and final project report;
  - Report on the progress of project on a monthly basis to FAO, government focal points and the Board members;
  - Administer project revision control;
  - Establish document control procedures;
  - Compile, copy and distribute all project reports;
  - Collect, register and maintain all information on project activities;
  - Prepare agendas and arrange field visits, appointments and meetings ( internal and external) related to the project activities and prepare minutes from the meetings;
  - Maintain project filing system.
  
3. *Financial Management, Monitoring and reporting, focusing on achievement of the following results:*
  - Support the financial management tasks;
  - Maintain the internal expenditures control system which ensures that vouchers processed are matched and completed; transactions are correctly recorded and posted in Atlas;
  - Take timely corrective actions on unposted vouchers, including the vouchers with budget check errors, match exceptions, unapproved vouchers;
  - Create requisitions in Atlas (ERP), register of goods receipt in Atlas;
  - Make budget check for requisitions, Purchase Orders and vouchers;

- Assist with the financial management tasks under the responsibility of the Project Manager;
- Provide support in the use of Atlas for monitoring and reporting;
- Assist in the preparation of payments requests for operational expenses, salaries, insurance, etc. against project budgets and work plans;
- Follow-up on timely disbursements of funds by UNDP CO;
- Maintain records of project equipment inventory.

**4. Provision of technical support services, focusing on achievement of the following results:**

- Provide technical advices to support project implementation;
- Review technical reports prepared under the project;
- Monitor technical activities carried out by responsible parties.

## RECRUITMENT QUALIFICATIONS

**Education:**

- Completed secondary education.
- Advanced degree in Agricultural Science, Agricultural Technology, Agricultural Engineering, Forestry or Natural Resources Management or other related subjects is a strong asset.
- Certification in project management is an asset.

**Experience:**

- Minimum 3 years' of professional working experience in assisting project or programme management/coordination.
- Previous experience in conducting agriculture-based or natural resource based project coordination work is desired.
- Previous work experience with government agencies under Ministry of Agriculture and NDCs is desired, with strong knowledge of how Guyanese Government institutions operate.
- Professional work experience with UN Agency is desired, preferably with knowledge of ATLAS.
- Minimum 3 years' of professional working experience in the agricultural field, preferably in extension services would be an asset.
- Professional working experience in financial and administrative management of project or programme management/coordination would be an asset.
- GIS skill would be a strong asset.
- Demonstrable computer skills including Word processing, spread sheets, PowerPoint, and Web-based programmes.
- Data processing skill would be an asset.

**Language Requirements:**

- English. Excellent report writing skills and strong interpersonal communication skills and fluency in spoken English.

