



# Jamaica REDD+ stakeholder assessment



**IIED-Led Team  
Simone Mangal-Joly**

**Prepared for the Government of Jamaica****Citation:**

Simone Mangal-Joly (2021) Jamaica REDD+ Stakeholder Assessment. International Institute of Environment and Development, London, United Kingdom.

**Cover Photo**

Yhomo Hutchinson, Jamaica Information Service (<https://buzz-caribbean.com/news/three-million-trees-in-three-years-jamaica-sets-ambitious-reforestation-target/>)

## Contents

Acknowledgements .....	vi
Tables .....	vii
Figures .....	vii
Acronyms .....	viii
EXECUTIVE SUMMARY .....	xii
1. Introduction .....	14
1.1 Components of a National REDD+ Strategy .....	15
1.2 Research methodology .....	18
1.2.1 Overall study approach .....	18
1.2.2 Field participatory rapid assessment .....	18
1.2.3 Fieldwork Limitations .....	19
1.3 Conceptual approach to stakeholder identification and mapping .....	19
1.4 Organisation of this Document .....	20
2. Governmental stakeholders .....	22
2.1 National governance arrangements .....	22
2.2 Office of the Prime Minister and Cabinet .....	23
2.3 Parliament and Office of the Opposition Leader .....	26
2.4 Ministry of Foreign Affairs and Foreign Trade .....	26
2.5 Ministry of Finance and Public Service .....	26
2.6 The Ministry of Housing, Urban Renewal, Environment and Climate Change (MHURECC) .....	27
2.7 The Ministry of Economic Growth and Job Creation (MEGJC) .....	29
2.8 Ministry of Industry, Investment and Commerce (MIIC) .....	31
2.9 The Ministry of Agriculture and Fisheries (MOAF) .....	32
2.10 The Ministry of Transport and Mining (MTM) .....	34
2.11 Ministry of Tourism .....	35
2.12 Ministry of Culture, Gender, Entertainment and Sport (MCGES) .....	36
2.13 Ministry of Local Government (MLG) .....	37
2.14 Other Ministries: Key agencies and programmes .....	37
2.15 Regional and local government stakeholders .....	38
2.16 Civil Service .....	39
3. Forest landowners .....	40
3.1 Introduction .....	40
3.2 Types and relative influence of forest landowners .....	41
3.3 Interest in REDD+ among landowners .....	42
4. Protected areas management authorities and stakeholders in conservation .....	47

4.1 Protected areas in Jamaica .....	47
4.2 Governmental management authorities for protected areas .....	50
4.3 NGO- and CBO- designated management authorities for parks and protected areas .....	50
4.4 Local Forest Management Committees (LFMCs).....	53
4.5 Special fisheries management area CBOs and NGO- management authorities.....	56
4.6 Focal points for International Environmental Agreements (EIAs) .....	57
4.7 Forest dependent communities and other local communities participating in conservation.....	59
4.8 National and regional NGOs, CBOs, and citizens' networks in conservation and environmental management .....	60
4.9 Transnational environmental organisations, inter-governmental and donor organisations supporting conservation and environmental management.....	61
4.10 Academic institutions: Conservation, resource management and research .....	63
5. Stakeholders: Proximate causes and drivers of deforestation .....	64
5.1 Bauxite mining.....	64
5.2 Quarrying.....	66
5.3 Built areas: hotels and resorts .....	66
5.4 Built areas: Luxury, high-End, and middle-income settlements.....	67
5.5 Planned and informal low-income settlements.....	68
5.6 Infrastructure development.....	68
6. Stakeholders: proximate causes and drivers of forest degradation.....	70
6.1 Producers of timber and non-timber forest products .....	70
6.2 Communities in proximity of forests – forest use for agriculture, and livestock rearing.....	72
6.3 Agriculture sector stakeholders.....	73
6.4 Stakeholders involved in disaster risk reduction and response .....	77
7. Other national stakeholders .....	78
7.1 Citizens and Residents.....	78
7.2 Private sector organisations.....	79
7.3 Organisations representing vulnerable sub-populations.....	80
7.4 Religious groupings and organisations .....	81
7.5 Trade unions .....	81
7.6 The media .....	82
Annex 1. Governmental stakeholders and their potential role in REDD+ .....	84
Annex 2. Tables of REDD+ elements, responsibilities for them and critical stakeholders to engage.....	19



## Acknowledgements

The author wishes to acknowledge the contribution and effort of other IIED team members, Duncan Macqueen, Sam Bowers, and Nicole West-Hayles, who participated in various group meetings, focus groups, and individual interviews as part of this study. Ms. West Hayles co-facilitated several forums with the author.

The IIED-Led team is grateful to the many individuals representing governmental and non-governmental bodies across Jamaica that gave of their time, knowledge, and experience in the sixty-five participatory rapid appraisal interviews, focus groups, and round tables that were held as part of the research process for this analysis.

The team is particularly grateful to Ms. Lorna Williams of the Cockpit Country North Local Forest Management Committee who organised gender and age-based focus groups, Ms. Indy McLymont-Lafayette co-author of the Gender in the Biodiversity Landscape in Jamaica study who presented at a Gender Roundtable, and the Bureau of Gender Affairs for assisting with outreach to Gender Focal Points in land management and environmental agencies.

Finally, we are especially grateful to Mr. Marlon Walcott, Project Manager for the Global Climate Fund supported Jamaica REDD+ Readiness Project, and his associates at the Forestry Department, were instrumental in arranging stakeholder engagements for this study under difficult COVID-19 pandemic circumstances.

## Tables

Table 1: FD divisions and functions .....	29
Table 2: List of private forests declared as Forest Reserves and Forest Management Areas .....	43
Table 3: Table of types of protected areas in Jamaica that are relevant to REDD+ .....	48
Table 4: List of National Parks, Protected Areas and Marine Parks, and their Governmental and Non-Governmental Management Authorities .....	53
Table 5: Local Forest Management Committees .....	56
Table 6: Protected Areas System Masterplan: Jamaica 2013-2017.....	57
Table 7: Focal Point organisations for international convention and treaties dealing with forest-related and environmental matters.....	59
Table 8: Bauxite mining companies, operations, locations and BCDP Community Councils (Source: Compiled for Jamaica Bauxite Institute website) .....	65
Table 9: Data sources: Forestry department, STATIN <a href="https://www.citypopulation.de/en/jamaica/cities">https://www.citypopulation.de/en/jamaica/cities</a> .....	79
Table 10: Landowner type, interest, influence, current engagement, and degree of engagement with the Forestry Department and needed under REDD+ (L= Low, M= Medium, H= HIGH, H+ = Very HIGH) .....	<b>Error! Bookmark not defined.</b>

## Figures

Figure 1: REDD+ safeguards.....	16
Figure 2: Main components of a National REDD+ Strategy .....	17
Figure 3: Organisational Chart of Jamaica’s National Government System (Source: Government of Jamaica <a href="http://jis.gov.jm">jis.gov.jm</a> ) .....	22
Figure 4: Schematic of various governmental management bodies in Jamaica. Red = REDD+ Role .....	25
Figure 5: Areas managed by the FD as forests .....	27
Figure 6: Farming areas in Jamaica with access to irrigation (Source: FAO 2015) .....	34
Figure 7: Land Use Change Forest Cover: The Jamaica Scenario; Trees and Sustainable Cities Forest Forum (Source: Forestry Department 2018).....	40
Figure 8: Percent ownership of land under forest cover in percentage (Source: Computed from data provided by the Forestry Department).....	42
Figure 9: Illustrations of some privately owned forested lands currently for sale (Source: Jamaica Real Estates Sites, specific vendors protected for privacy).....	44
Figure 10: Visual depiction of existing and proposed protected areas (Source: NEPA) .....	49
Figure 11: Government agencies’ relative weight of responsibility for protected areas .....	50
Figure 12: Map showing locations of Local Forest Management Committees relative to Forest Reserves and Forest Management Areas (Source: Forestry Department) .....	54

## Acronyms

ACCJ	American Chamber of Commerce Jamaica
AIC	Agro-Investment Corporation
AIJCFA	All-Island Jamaica Cane Farmers Association
ALGAJ	Association of Local Government Authorities of Jamaica
ASJ	Archaeological Society of Jamaica
AWOJ	Association of Women's Organizations in Jamaica
BB	Banana Board
BCDP	Bauxite Community Development Programme
BDPAJ	Beef and Dairy Producers Association of Jamaica
BGBC	Biodiversity and Game Bird Committee
BITU	Bustamante Industrial Trade Union
BJ	Birdlife Jamaica
BJCMNP	Blue and John Crow Mountains National Park
C-CAM	Caribbean Coastal Area Management Foundation
C-CAM	Caribbean Coastal Area Management Foundation (C-CAM)
CANARI	Caribbean Natural Resources Institute
CAPRI	Caribbean Policy Research Institute
CBD	Convention on Biological Diversity
CBO	Community Based Organisation
CCCCC	Caribbean Community Climate Change Centre
CCD	Climate Change Division
CCDC	Caribbean Coastal Data Centre (UWI)
CCSG	Cockpit Country Stakeholders Group
CDC	Community Development Committees
CFA	Coffee Farmers Association
CHFP	Climate Change Focal Points
CIB	Coconut Industry Board
CIB	Coconut Industry Board
CL	Crown Lands
CLA	Cannabis Licensing Authority
CMS	University of West Indies Centre for Marine Sciences
CST	Client Services Technicians
DAC	Development Area Committees
DAC	Development Area Committees
DO	Development Orders
EIA	Environmental Impact Assessment
ELA	Eastern Livestock Association
EU	European Union
FD	Forestry Department
FFP	Food for the Poor
FMA	Forest management Areas
FR	Forest Rangers
FR	Forest Reserves
FT	Forest technicians
GB	Gender Bureau
GSFA	Goat and Sheep Farmers Association
HWU	Household Workers' Union
ICENS	International Centre for Environmental and Nuclear Sciences (ICENS)
IDB	Inter-American Development Bank
IGDS	University of West Indies, Institute for Gender, and Development Studies
IMBAJ	Incorporated Master Builders Association of Jamaica
JAMALCO	Jamaica Aluminium Company
JAMPRO	Jamaica Promotions Limited
JAS	Jamaica Agricultural Society (JAS)
JBDC	Jamaica Business Development Corporation

JBI	Jamaica Bauxite Institute
JCC	Jamaica Chamber of Commerce
JCC	Jamaica Council of Churches
JCCBCI	Joint Consultative Committee for the Building and Construction Industry
JCDT	Jamaica Conservation and Development Trust
JCEA	Jamaica Coffee Exporters Association
JCF	Jamaica Constabulary Force
JCFA	Jamaica Cocoa Farmers Association
JCO	Jamaica Caves Organisation
JCPD	Jamaica Council for Persons with Disabilities
JCTI	Jamaica Centre of Tourism Innovation
JCTU	Jamaica Confederation of Trade Unions
JCWU	Jamaica Civil Service Union
JDDDB	Jamaica Dairy Development Board
JEFA	Jamaica Egg Farmers Association
JET	Jamaica Environment Trust
JFB	Jamaica Fire Brigade
JFCU	Jamaica Fishermen's Cooperative Union
JFSN	Jamaica Fish Sanctuary Network
JGGFA	Jamaica Grassroots Ganja Farmers Association
JHCBS	Jamaica Hope Cattle Breeders Society
JHTA	Jamaica Hotel and Tourist Association
JIA	Jamaica Institute of Architects
JIE	Jamaican Institution of Engineers
JISCO	Jiquan Iron and Steel Group
JLA	Jamaica Livestock Association
JMEA	Jamaica Manufacturers and Exporters Association Ltd.
JNHT	Jamaica National Heritage Trust
JNHT	Jamaica National Heritage Trust
JNRWP	Jamaica Network of Rural Women Producers
JNRWP	Jamaica Network of Rural Women Producers
JOAM	Jamaica Organic Agriculture Movement
JOAM	Jamaican Organic Agriculture Movement
JPFA	Jamaica Pig Farmers Association
JPG	Jamaica Producer's Group
JRA	Jamaica Rifle Association
JTA	Jamaica Teachers Association
JTB	The Jamaica Tourist Board
JTEF	Jamaica Tourism Enhancement Fund
JWC	Jamaican Women in Coffee
JWPC	Jamaica Women's Political Caucus
KFCA	Keystone Farmers' Cooperative Association
KSAC	Kingston and St. Andrew Corporation
LDUC	Land Development and Utilization Commission
LEAF	Lowering Emissions by Accelerating Forest finance (LEAF) Coalition
LFMC	Local Forest Management Committees
MAOJ	Media Association of Jamaica
MBMPT	Montego Bay Marine Park Trust
MC	Municipal Corporation
MCGES	Ministry of Culture, Gender, Entertainment and Sport
MCGES	Ministry of Culture, Gender, Entertainment and Sport
MD	Meteorological Department (MD)
MEGJC	Ministry of Economic Growth and Job Creation
MFAFT	Ministry of Foreign Affairs and Foreign Trade
MHURECC	Ministry of Housing, Urban Renewal, Environmental and Climate Change
MIDA	Micro Investment Development Agency
MIIC	Ministry of Industry, Investment and Commerce
MLG	Ministry of Local Government
MLG	Ministry of Local Government

MOA	Memorandum of Understanding
MOAF	Ministry of Agriculture and Fisheries
MOT	Ministry of Tourism
MP	Marine Parks
MPAC	Marine Park Advisory Committee
MSME	Small and Medium Sized Enterprise Alliance
MTM	Ministry of Transport and Mining
NAPDC	National Association of Parish Development Committees
NCFC	National Council of Farmer Cooperatives
NCOCZM	National Council on Ocean and Coastal Zone Management
NCRPS	Negril Coral Reef Preservation Society
NCTFJ	National Conservation Trust Fund of Jamaica Ltd.
NCTFJ	National Conservation Trust Fund of Jamaica Ltd.
NCU	Northern Caribbean University
NEPA	National Environment and Planning Agency
NEPT	Negril Area Environmental Protection Trust
NFAC	National Fisheries Advisory Council
NHT	National Housing Trust
NIC	National Irrigation Commission
NJCA	Northern Jamaica Conservation Association
NLA	National Land Agency
NMP	Negril Marine Park
NORANDA	NORANDA Bauxite Ltd.
NP	National Park
NPAC	National Protected Areas Committee
NPAC	National Protected Areas Committee
NRC	National Restoration Committee
NRCA	Natural Resources Conservation Authority
NROCC	National Road Operation and Construction Company
NSDMD	National Spatial Data Management Division
NSWMA	National Solid Waste Management Authority
NWA	National Works Agency
NWC	National Water Commission
NWU	National Workers Union
NYOC	National Yam Oversight Committee
OACPS	Organization of African, Caribbean and Pacific States
ODPEM	Office of Disaster Preparedness and Emergency Management
ODPEM	Office of Disaster Preparedness and Emergency Management (ODPEM)
OPD	Office of the Public Defender
PAAC	Protected Areas Advisory Council
PAJ	Port Authority of Jamaica
PBFMC	Portland Bight Fisheries Management Council
PBPA	Portland Bight Protected Area
PDC	Parish Development Committee
PDC	Parish Development Committees
PERB	Professional Engineers Registration Board
PIOJ	Planning Institute of Jamaica
PMC	Portland Municipal Corporation
PSOJ	Private Sector Organisation of Jamaica
QAC	Quarries Advisory Committee
RADA	Rural Agriculture Development Authority
RAJ	Realtors Association of Jamaica
SBA	Suncoast Beekeepers Association
SBAJ	Small Business Association of Jamaica
SCA	Special Conservation Area
SCJH	Sugar Company of Jamaica Holding Ltd.
SDC	Social Development Commission
SDC	Social Development Commission
SDG	Sustainable Development Goals

SFC	Sandals Foundation Company
SFCA	Special Fishery Conservation Area
SRI	Sandal Resorts International
STATIN	Statistical institute of Jamaica
STEA	Southern Trelawny Environmental Agency
TCA	Tree Conservation Area
TCPA	Town and Country Planning Authority (TCPA)
TLN	Tourism Linkages Network
TNC	The Nature Conservancy
TPD	Town Planning Department
UAWU	University and Allied Workers Union
UDC	Urban Development Corporation
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UOT	University of Technology
USAAW	Union of Schools of Agriculture and Allied Workers
USAID	United States International Aid Agency
UTASP	Union of Technical, Administrative and Supervisor Personnel
UWI	University of West Indies
WB	World Bank
WBO	Women Business Owners Jamaica Ltd.
WCJ	The Women's Centre of Jamaica
WEHGFA	Westmoreland Hemp and Ganja Farmers Association
WICC	Women Incorporated Crisis Centre
WINDALCO	West Indies Alumina Company
WMW	Women's Media Watch
WRA	Water Resources Authority
WRC	Windsor Research Centre
YEA	Young Entrepreneurs Association

## EXECUTIVE SUMMARY

This report presents the results of a participatory analysis of stakeholders in relation to the preparation of Jamaica's National Strategy for Reducing Emissions from Deforestation and Degradation Plus (REDD+). The objectives of this stakeholder assessment are to inventory and map stakeholder groups/bodies that are relevant to the development and implementation of REDD+, either through their link to causes and drivers of deforestation, its associated safeguards, rights, and/or role they must and/or could play in achieving REDD+ objectives.

The combined assessment was conducted in four stages including: (1) A thorough literature review of national policies and plans, peer-reviewed academic articles, and other published studies and reports; (2) Field and virtual rapid participatory assessment through semi-structured individual and group interviews, focus groups and round tables with a combined total of more than 72 meetings with more than 400 participants from 76 institutions; (3) Web research on the activities of various stakeholder bodies, including coverage of group websites and news media reports; and; (4) Participatory cross check of desk and participatory research findings against other research findings and preliminary results of IIED-led team's geospatial study of land use change in Jamaica over the past 20 years. COVID-19 restrictions were handled using extensive virtual meetings which greatly added to the time for the assessment.

The assessment divided stakeholders into six main categories including: (1) Government; (2) Forest landowners; (3) Protected area management authorities; (4) Stakeholders as proximate causes and drivers of deforestation (5) Stakeholders as proximate causes and drivers of forest degradation; (6) Other national stakeholders.

Overall, the assessment finds that Jamaica is a middle-income country that is heavily indebted and whose main foreign exchange earning sectors impact heavily on its natural environment, namely tourism, construction, bauxite mining, quarrying, and agriculture. Jamaica has experienced a downturn in traditional large-scale, mostly monoculture agriculture, namely sugar, cattle, and citrus leaving much idle land, though coffee production remains stable. Small-scale farmers produce the bulk of the country's food in biodiverse mixed crop systems mostly on small family farms or rented land but lack adequate land to produce at scales that allow them to accumulate savings to escape poverty. Because Jamaica's food import bill is very high, representing a significant leakage of foreign currency in a tight fiscal circumstance, there is a strong interest in reducing the food import as well as expanding food export. There is also strong interest among small farmers, as well as policy makers, in "food forests" or agroforestry systems, that reduce imports for both food and timber.

Government stakeholders are highly relevant to Jamaica's REDD+ programme because much of Jamaica's tree cover lies outside Forestry Department reserves. This report identifies the many national and local governmental stakeholders that are important for REDD+ and their roles, influence, interests, and areas in which they must be engaged. A REDD+ Secretariat chaired by the Office of the Prime Minister and led by Forestry Department, but involving these stakeholders, will be critical.

Protected area management authorities are also highly relevant, as almost 55.4 percent of the Jamaica is under tree cover, but only 24.5% of that cover is managed as forest reserves or management areas. Crown land agents have in total 33.2% and have agreed in principle to the idea of moving more of Jamaica's crown lands into forest protection or management. This could help to build a clear east-west or north-south ecological corridor to provide continuity that is beneficial in island ecosystems.

Forest Landowners are a primary interest group for REDD+ with the largest amount of known forest ownership (approximately 40.8 percent) held by individual landowners. Most of this land was held in very large parcels by a relatively small number of families. Then there were a considerable number of medium-size holders (5-15 Ha) and very numerous small holders (1-5 Ha). Large-scale landowners can have a significant influence on the outcome of REDD+, but most have shown little interest in the decades past in actively protecting forests on their land through the Forestry Department's voluntary opt in programme where landowners can declare Forest Management Areas in exchange for tax

reductions. Portions of these lands are currently being sold for large sums on the international real estate market, but it may be possible to develop support and incentives to encourage market-based forest restoration or form an alliance of private landowners for conservation. At the end of family smallholder farmers, many do not yet have formal title to land or hold complex “family lands” handed down from generation to generation and shared by a clan but held in one person’s name. Some smallholders may be opposed to planting timber trees because of the loss of space for cash crop production. Yet, small holders have been overwhelmingly the participants in the Forestry Department’s private tree planning programme, accounting for some 86 percent – so a land and incentive process for smallholder agroforestry might receive strong support.

Stakeholders linked to (often permanent) proximate causes and drivers of deforestation include the construction of middle-and upper-income settlements, hotels and resorts, and public infrastructure as well as bauxite mining and the cumulative effects of quarrying. Low income and informal settlements also contribute to forest loss but not to the extent as formal middle- and upper-income settlement developments. Bauxite companies show a willingness to work cooperatively with the FD to improve forest management and restoration on mining leases as part of REDD+, but the detail of how collaborative arrangements with communities would work, and how finance would be distributed require further piloting. Housing and infrastructure construction industries are important to Jamaica both in terms of economic value and number of jobs they create. There is high supply and demand for upper-middle income housing, but low supply and high demand for less lucrative low-income housing market, where only the West Indies Home Contractor Ltd. (WICON) operates. A key issue will be how to strengthen rules avoiding the conversion of high value arable agricultural and forest land to housing and establishing well-thought-out zero-net-loss protocols for regular housing development on forested sites. Tourism industries’ historic “sun, sea and sand” niche that has often required the destruction of coastal mangrove forests (with inland clearance for low-income worker housing), could be pushed towards greater community-based ecotourism in the future.

Stakeholders linked to proximate causes and drivers of forest degradation include producers of lumber for housing, scaffolding and furniture, charcoal, and yam sticks. REDD+ could help to improve both profitability and sustainability by registering, regularisation, and supporting sustainable forest-based business value chains and stakeholders. Local communities living in and around forests also have localized effects on forests from farming and animal grazing. However, the FD and the 10-19 Local Forest Management Committees (LFMCs) in varying degrees of activity have had tremendous success in community education, building local commitment, and changing behaviour in forest use over the last decade and half. REDD+ could improve benefits from budget support based around co-management agreements, and benefit sharing mechanisms.

Other national stakeholders also have roles to play, especially organized producer groups of vulnerable stakeholders who can share information, investment and negotiating power to move from informal subsistence to legitimate formalised businesses that build a thriving rural economy. This is the type of transition that many stakeholders wish to see in Jamaica.

## 1. Introduction

Jamaica's National Strategy for Reducing Emissions from Deforestation and Degradation Plus (REDD+) provides for results-based payments to developing countries to address climate change through activities that reduce greenhouse gas (GHGs) emissions from "deforestation and forest degradation, and foster conservation, sustainable management of forests, and enhancement of forest carbon stocks."<sup>1</sup>

REDD+ is an initiative under the Paris Agreement of 2015, of the United Nations Framework Convention on Climate Change (UNFCCC). Jamaica has been a Party to the UNFCCC since 1995, and the Paris Climate Agreement since 2017. In July 2020, Jamaica committed for the first time to address emissions from agriculture, forestry, and other land use (AFOLU). Emissions from AFOLU account for almost a quarter of all global greenhouse gas (GHG) emissions, mainly from forest degradation, deforestation, livestock emissions, and soil and nutrient management.<sup>2</sup> The Paris Climate Agreement allows for REDD+ only at the jurisdictional scale, meaning through government coordinated efforts, as part of countries' Nationally Determined Contributions (NDCs). NDCs detail the target amount, time frame, and means through which a country would reduce GHG emissions, as well as measures that will be taken to adapt to climate change impacts. Jamaica committed in its most recent NDC to reducing emissions from AFOLU by 25.4 percent.<sup>3</sup>

A country's REDD+ programme is developed in three phases: (1) Preparation, which involves developing a national REDD+ strategy and initial capacity building; (2) Implementation, which involves piloting and fleshing out the REDD+ strategy as well as targeted capacity building; and (3) Revenues, which involve payments for demonstrated emissions reductions that must be measured, reported, and independently verified (MRVs).

It takes at least five years to get to phase 3. Phases 1 and 2, Preparation and Implementation, are referred to as "REDD+ Readiness". Jamaica is in Phase 1, the preparation phase for REDD+. Under a Green Climate Fund (GCF) Grant, JAM-RS-003, the Government of Jamaica has engaged the International Institute of Environment and Development (IIED) to develop a National REDD+ Strategy and two concept notes for accessing finance for Phase 2 REDD+ Readiness activities.

The objectives of this stakeholder assessment are to inventory and map stakeholder groups/bodies that are relevant to the development and implementation of REDD+, either through their link to causes and drivers of deforestation, its associated safeguards, rights, and/or role they must and/or could play in achieving REDD+ objectives.

This analysis (GCF Project Deliverable 8) is part of a portfolio of analyses that have been conducted to support the participatory development of the National REDD+ Strategy for Jamaica. This analysis draws on several other studies reported under separate covers, particularly an in-progress Strategic Environmental and Social Safeguards Assessment (GCF Project Deliverable 17). It also draws on the preliminary findings of a year-long geospatial assessment of forest and land use change over the last 20 years (GCF Project Deliverable 11), a Gender Assessment (GCF Project Deliverables 21), an in-progress Gender Strategy (GCF Project Deliverable 22), a Gap Analysis of Legislative, Policy and Institutional Frameworks (GCF Project Deliverable 12), and consultation and assessment for design of a Feedback and Grievance Redress Mechanism (GCF Project Deliverable 7). All these studies contribute to the crafting of the National REDD+ Strategy. This analysis contributes directly to the

---

<sup>1</sup> United Nations REDD: <https://www.unredd.net/about/what-is-redd-plus.html>.

<sup>2</sup> Smith P., M. Bustamante, H. Ahammad, H. Clark, H. Dong, E.A. Elsiddig, H. Haberl, R. Harper, J. House, M. Jafari, O. Masera, C. Mbow, N.H. Ravindranath, C.W. Rice, C. Robledo Abad, A. Romanovskaya, F. Sperling, and F. Tubiello, 2014: Agriculture, Forestry and Other Land Use (AFOLU). In: *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Edenhofer, O., R. Pichs-Madruga, Y. Sokona, E. Farahani, S. Kadner, K. Seyboth, A. Adler, I. Baum, S. Brunner, P. Eickemeier, B. Kriemann, J. Savolainen, S. Schlömer, C. von Stechow, T. Zwickel and J.C. Minx (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

<sup>3</sup> Government of Jamaica (June 2020) Update of Nationally Determined Contribution (NDC) of Jamaica to the United Nations Framework Convention on Climate Change (UNFCCC)

Stakeholder Engagement Strategy component of the REDD+ Communication, Outreach and Consultation Strategy and Action Plan (GCF Project Deliverable 9).

The aims of the analyses were to: (1) Understand the national and subnational contexts and critical issues for development of an effective REDD+ programme; (2) Ensure that stakeholder dialogue and planning is evidence based with transparent use of information; and (3) Create the enabling basis for all stakeholders to be properly informed and prepared to participate on an equitable basis in collective decision making on the national REDD+ strategy.

The overall process for development of Jamaica's REDD+ Strategy (Phase 1) will involve this first set of participatory appraisals and geospatial analysis of forest cover change (August 2020-August 2021). These will lead a progressive process of stakeholder engagement from November 2021 to the June 2022 to develop the national REDD+ Strategy. The stakeholder engagement strategy is provided under separate cover: Jamaica REDD+ Stakeholder Engagement Strategy (Partial GCF Deliverable 9).

### 1.1 Components of a National REDD+ Strategy

REDD+ involves protecting forests and changing land use practices to increase forest cover in a manner that benefits local communities and improves the ecological functions of forests. If conceptualized or implemented poorly, REDD+ could exacerbate social and environmental problems, worsen existing inequalities, and lead to a myriad of other undesirable outcomes. Each country developing a REDD+ program is expected to develop a national approach to promote and support REDD+ safeguards (Cancun Agreement, UNFCCC decision 1/CP.16 Paragraph 2, Appendix 1), consistent with UN guidance on systems for providing information on how safeguards are addressed and respected (UNFCCC decision 2/CP.17).

Learning from experience with REDD+ initiatives, the UNFCCC has taken several decisions over the years regarding safeguards that are meant to protect the natural environment and ecosystem functions, stakeholders, and the integrity of the results-based payment mechanism.

In 2010, parties to the UNFCCC agreed in Cancun, Mexico on seven broad safeguard principles for the implementation of REDD+. Under the Cancun agreement, national REDD+ strategies and activities, must promote and support the following safeguards:

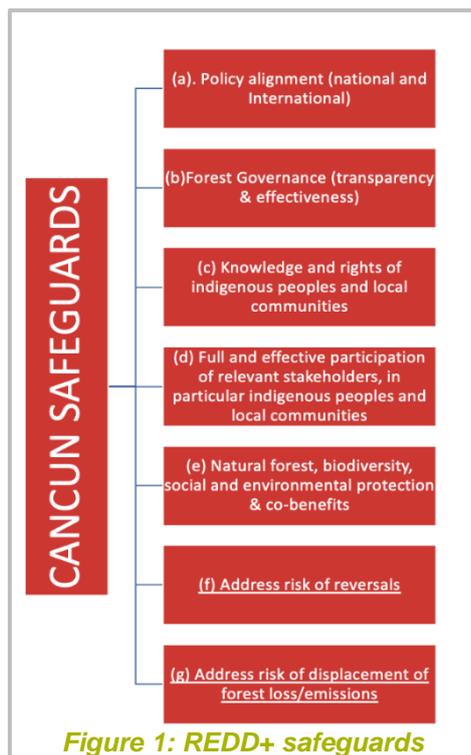


Figure 1: REDD+ safeguards

(a) Actions that are consistent or complement the objectives of national forest programmes and relevant **international conventions and agreements**. For Jamaica this is the Convention on Biological Diversity (CBD), Convention on desertification,

(b) Transparent and effective **forest governance**, which refers to clear and consistent rules, systems and procedures, clear rights and benefits for forest users and groups involved in enhancing and managing forests, fair and equitable access to land

(c) Respect for the **rights and knowledge of indigenous peoples and local communities**

(d) The **full and effective participation** of relevant stakeholders, in particular local communities in and around forests and indigenous peoples

(e) Actions that are consistent with the **conservation of natural forests and biological diversity**, ensuring that REDD+ is used to incentivize the protection and conservation of natural forests and their ecosystem services, and to enhance other social and environmental benefits

(f) Address **risk of reversals** (the country or landowners not sticking to the agreement on amount of forest cover that will be protected in exchange for payment or withdrawal from REDD+); and

(g) Address **risk of displacement** of carbon emissions (protecting one area in a manner that causes destructive activities to move elsewhere).

In its final form, the Phase 1 Jamaica National REDD+ Strategy will be comprised of: A National REDD+ Strategy/Action Plan; A National Forest Reference Level (the baseline carbon dioxide stock of forests); A national Forest Monitoring System (to evaluate how forest carbon stock changes); and a Safeguards Information System (to ensure that all social, environmental, and payment for results safeguards are met. These four components are also known as the Warsaw Framework Elements. In addition, there must be a Gender Strategy, Grievance Redress Mechanism, Social and Environmental Management Plan, and Multi-Stakeholder National Steering Committee in place.

The Safeguard Information System (SIS) must transparently track indicators used to verify that safeguard requirements are being addressed or respected throughout the implementation of REDD+ activities. This system must: (1) Provide transparent and consistent information that is accessible by all relevant stakeholders and updated on a regular basis; (2) Be transparent and flexible to allow for improvements over time; (3) Provide information on how all safeguards are being addressed and respected; (4) Be country-driven and implemented at the national level; and (5) Build upon existing systems, as appropriate. The system will be developed from analyses conducted and discussion with stakeholders, as it should be accessible to all stakeholders. Figure 2 summarizes the main elements of a REDD+ national strategy.



Figure 2: Main components of a National REDD+ Strategy

## 1.2 Research methodology

### 1.2.1 Overall study approach

This analysis was developed from a review of published peer-reviewed academic studies, historical reports, professional technical reports, statistical data, and combined rapid participatory appraisals conducted by the IIED-led team (minus the geospatial specialists) with key stakeholders to inform several studies. These include: a Strategic Social and Environmental Assessment; Policy and Governance Analysis; Gender Analysis; Stakeholder Analysis, Stakeholder Engagement Plan, Communications and Outreach Analysis, and Grievance Redress Mechanism. Findings that are relevant to this stakeholder analysis and engagement plan are reported here.

The combined assessment was conducted in four stages as follows:

- (1) A thorough literature review of national policies and plans, peer-reviewed academic articles, and other published studies and reports from international and local governmental and non-governmental organisations
- (2) Field rapid participatory assessment through semi-structured individual and group interviews as well as focus groups and round tables with a representative range of stakeholders and key informants across Jamaica
- (3) Web research on the activities of various stakeholder bodies, including coverage of group websites and news media reports; and
- (4) Participatory cross check of desk and participatory research findings against other research findings and preliminary results of IIED-led team's geospatial study of land use change in Jamaica over the past 20 years. This final stage helped corroborate the qualitative analysis of forest change and proximate causes with geospatial data and to focus stakeholder analysis and engagement plan.

### 1.2.2 Field participatory rapid assessment

The field participatory rapid appraisals were conducted in three phases over the period August 2020-August 2021. In **Phase 1**, initial meetings were held with relevant staff of the Forest Department to understand the state of forest management, critical issues, and identify any relevant studies conducted and stakeholders. A working inventory of stakeholders, forest cover changes, proximate causes and underlying drivers was created. Documents were collected, and further background desk research was done on various stakeholder bodies. In addition, discussions were held with Working Groups that form part of an interim National REDD+ Steering Committee (NRSC) assembled by the Climate Change Division and FD (FD) to identify any critical issues and additional stakeholders.

In **Phase 2**, participatory rapid appraisals were conducted with frontline FD field staff and management teams of Local Forest Management Committees (LFMC), which represent groups living around Forest Reserves (FR) and Forest Management Areas (FMA). Focus groups were held with Forest Department field staff to gain deeper insights into stakeholder issues, observations of forest changes, proximate causes and drivers of forest degradation and deforestation, systems and procedures for forest management, quality of relationship with stakeholders, and to gather specific information on types of stakeholders they interacted with. These sessions were also used to assess the capacity of field personnel, challenges, and needs for engaging REDD+.

Following this, semi-structured interviews were held with management team members of LFMCs, which are recognised under Forest Act, and have been involved over the past twenty years with assisting the Forest Department improve forest protection. These interviews focussed on the history and work of each LFMC, their experience over the period of their existence, achievements, how they saw their roles, their governance system and managerial capacity, gender balance in their management and activities, their accounts of their relationship with the FD and other governmental and non-governmental stakeholders involved in forest and land use management, conflicts and grievances, and what systems were used for resolving conflicts or concerns. Interviews also included

their assessment of the state of the natural environment, pressures and problems in their areas, socio-economic challenges and community priorities, and factors that help or hinder their ability to achieve their goals. A SWOT analysis was conducted of each LFMC and their working relationship with the Forest Department. Finally, an analysis of attitudes, knowledge, and understanding of REDD+, training, and communication needs was conducted.

In **Phase 3**, semi-structured interviews were held with a strategic set of governmental, non-governmental, and private sector individual organisations involved in various sectors and cross cutting issues that are relevant to REDD+. These included national planning and management, local government, forest, land use and environmental management, bauxite mining, agriculture, tourism, construction, housing, and social development, gender, youth, environmental advocacy, and religious groups. In addition, six gender and age disaggregated focus groups were held in to explore issues in more depth. The discussions in these engagements covered: (1) Land use change patterns, main stakeholders, drivers, and barriers to reform; (2) Stakeholder roles, experience, activities, forms of organisation, relationship with other stakeholders, capacities, concerns, and potential role in REDD+; (3) Policies and plans and other issues related to governance at the national and organisational levels; (4) Potential roles and opportunities to address challenges in REDD+; (5) Conflicts and how grievances are addressed by their organisation; (6) Gender issues and how they are addressed; and (7) Knowledge and understanding of REDD+, training and communication needs; needs of different stakeholder groups.

The information collected reflected stakeholders' direct experience, knowledge, perceptions, and documented facts. Each successive interview was used to validate information provided by other stakeholders, where necessary, with the aim of triangulating information received. The information provided was analysed for any patterns in direct experience and perceptions about forest change, drivers, and actors involved and corroboration with published research and preliminary findings from the geospatial study. All interviews were done under agreement to protect informant confidentiality to encourage honest and open assessments of the situation. As a result, no attribution of ideas or experiences are made to specific individuals in this report. Annex 1 provides a list of 72 stakeholder engagements, which were comprised of individual semi-structured interviews, group interviews, round tables, and focus groups that were held as part of the field participatory rapid assessment exercise.

This draft stakeholder assessment will be put to the FD, Climate Change Division, NRSC and Working Groups, and LFMCs for review before it is finalised.

### 1.2.3 Fieldwork Limitations

Due to travel constraints imposed by the COVID-19 pandemic, all engagements were Virtual via *Zoom*, *Microsoft Teams*, and *WhatsApp*, with supplementary telephone link to some rural areas where Internet coverage was poor. Overall, the process was iterative, and stakeholders were engaged over a planned process of six months between October 2020-March 2021. In practice it was challenging to organize and secure virtual sessions with stakeholders. The engagement period was extended to August 2021.

Working electronically has natural limitations. The transaction time to organise interviews coupled with bureaucratic requirements, technological limitations, and the difficulty of stakeholder availability within the time frame, led to a prioritization process whereby stakeholders were strategically engaged to provide a broad view of issues as well as specific information on critical issues. These were adequate for this analysis in terms of the stakeholder landscape and general mapping. There will be a continuing process of stakeholder engagement as REDD+ process advances.

## 1.3 Conceptual approach to stakeholder identification and mapping

**Stakeholders** are any group, organisation or person that have a right or interest, could influence or could be affected by an activity. However, not all stakeholders have the same degree of interest, influence, risks, or rights. Stakeholders can also have overlapping characteristics as well as interests in multiple areas.

Forests tend to involve a particularly large and diverse range of stakeholders, often with competing interests and conflicts. Some actors that are not involved directly in forest matters may also exert considerable influence over forestry. For this REDD+ analysis, stakeholders are classified by as follows:

- (1) Governmental Stakeholders with various responsibilities for governance at all levels that touch upon or otherwise affect land use and forestry and REDD+
- (2) Types of Forest Landowners
- (3) Governmental and civil society stakeholders directly involved in managing existing protected areas as well as civil society organisations, transnational organisations, and inter-governmental organisations supporting conservation and environmental management in Jamaica
- (4) Stakeholders related to proximate causes and underlying drivers of forest degradation
- (5) Stakeholders related to proximate causes and underlying drivers' deforestation and forest destruction; and
- (6) Other stakeholders in the national landscape according to REDD+ general categorisation of types of stakeholders - the purpose for which a body exists or a group that shares a specific vulnerability or unique characteristic e.g. research and education organisations, non-governmental organisations, private sector bodies, media outlets, trade unions, indigenous tribal peoples and minorities, and stakeholders addressing issues specific to vulnerable groups such as poor women, youth, disabled persons etc

This approach focusses on the most critical stakeholders in a staged process that allow for a final cross check that all types of stakeholders are considered. The analysis of stakeholders covers: (1) The role they play in relation to forests and land use as well as their potential role in REDD+; (2) Their power in terms of level of access to the Highest level of governmental decision making or ability to influence other stakeholders; (3) Their overall influence on forests resources; (4) Their interests (where this has been determined to date); (5) Their current degree of engagement with the FD; (6) Their importance to the REDD+ strategy development and implementation process; and (7) The main ways in which they should be engaged (consult, participate, and/or collaborate). These parameters are presented in narrative form per categories 1-6 of stakeholders listed above. Then, a matrix analysis of power, influence on forests, interests, relationship with the FD, Importance in REDD+, and type of engagement is provided.

## 1.4 Organisation of this Document

This document is organized around the groupings of stakeholders and analyses discussed in the previous subsection. **Chapter 2** identifies national and local governmental stakeholders, identifying all bodies that are important for REDD+ and their roles, influence, interests, and areas in which they must be engaged. It covers key statutory Governmental positions, Ministries of Government, governmental agencies, including the various divisions of the FD, quasi-governmental entities, elected local government bodies, and the civil service.

**Chapter 3** focusses on different types of forest landowners, of which there is a complex diversity. It identifies the types and relative influence of landowners in terms of the amount of forest land they own or over which they exert legal control, and what is currently known about their interest in REDD+, and trends in land uses. These landowners include the Crown, which owns lands that are managed by several different agencies, private landowners ranging from large-scale to small-scale holders, institutional owners such as churches and gun clubs, Maroon Communities, private companies, and more.

**Chapter 4** provides a brief overview of protected areas in Jamaica and identifies the various governmental and non-governmental organisation (NGO) and community-based organisations that are the legally designated management authorities such areas. These include NGOs managing major protected areas such as the Blue and John Crown Mountains, and CBOs such as the LFMCs those managing Special Fisheries Management Areas, many of which contain sensitive mangrove forests. This chapter also focusses on: non-governmental bodies that are involved in environmental management, research, conservation, and environmental advocacy; national focal points for international environmental agreements such as the Convention on Biological Diversity; forest dependent communities and other community-based bodies participating in conservation; transnational environmental organisations, intergovernmental and donor organisations support forest management and conservation, and academic institutions involved in conservation, resource management, and research; and stakeholders involved in natural hazard damage prevention and response.

**Chapter 5** covers at stakeholders related to the proximate cause of deforestation. These include bauxite mining companies, other mining and quarry operators, hotels and resort owners and developers, luxury property and middle-HIGH income planned settlements, planned and informal low-income housing, and infrastructure builders and operators.

**Chapter 6** is focussed on stakeholders related to the proximate causes and underlying drivers of forest degradation, including those that are producers of timber and non-timber forest products, communities using nearby forests, and agriculture sector producers, including livestock producers. Chapter 6 is focussed on stakeholders involved in activities that result in deforestation and forest destruction, including mining and quarrying, hotel, and resort construction, and nears forests primarily through the harvesting of forest products. It covers non-timber forest product harvesters including those that are part of the well-established traditional medicinal sector in the country, craft producers, and other low impact users such as beekeepers. It also covers timber harvesters producing yam sticks, charcoal, scaffolding material for construction.

**Chapter 7** provides an overview of notable stakeholders in the national landscape that have a right and role to play in REDD+ based on classification according to type of stakeholder, such as academia, media etc. It is not possible to provide an exhaustive analysis of such stakeholders, the focus is on some of the main actors that exert influence in national and local affairs, or that are vulnerable groups that must be mindfully included in the REDD+ development and implementation process.

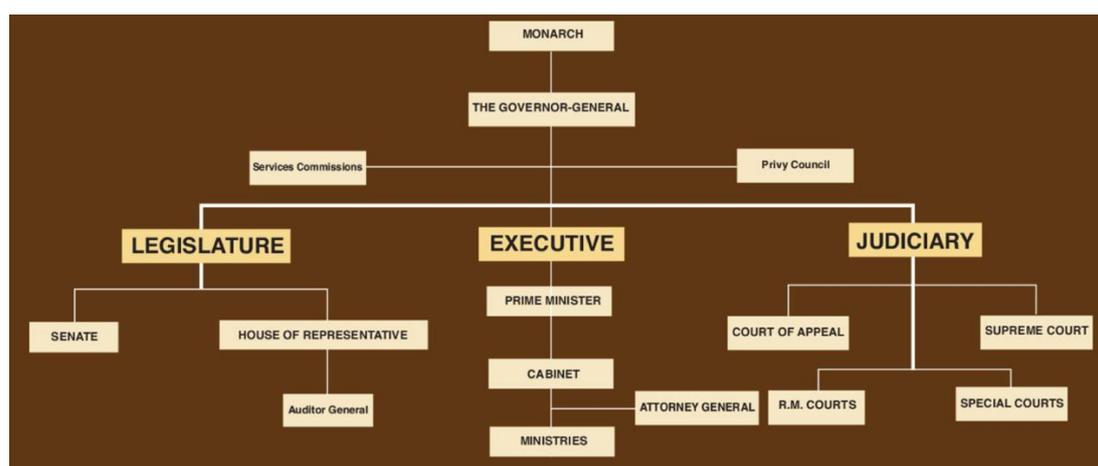
## 2. Governmental stakeholders

### 2.1 National governance arrangements

Jamaica is a Small Island Developing State (SIDS) located in the Caribbean Sea. It is the third largest island and largest English-speaking Island country in the region. Its **Head of the State** is Queen Elizabeth II of the United Kingdom. Her appointed representative in country is the Governor General.

The country has three branches of national government: The Legislature; Executive; and Judiciary. The **Legislature** is comprised of the **House of Representatives** and a **Senate**. The House of Representatives or Parliament is comprised of 63 members of Parliament elected in single-seat geographical constituencies to five-year terms on the first past the post electoral system under adult suffrage. The Senate is comprised of 21 senators, 13 of which are appointed by the Governor General on the advice of the Prime Minister and 8 are appointed on the advice of the Leader of the Opposition. The Senate usually functions as a review chamber but can also initiate legislation.

The **Executive** is comprised of the Prime Minister and Cabinet. The Prime Minister is appointed by the Members of Parliament of the political party with the most votes. The Prime Minister appoints a cabinet from the members of both houses. Other HIGH level governance positions are the Office of the Opposition Leader, the Chief Justice, and the Attorney General.



**Figure 3: Organisational Chart of Jamaica's National Government System (Source: Government of Jamaica [jis.gov.jm](http://jis.gov.jm))**

The **Judiciary** spans local and national government levels. There is a network of Special Courts and Resident Magistrates Courts across the island. Special courts exist for specific issues, such as Family, Traffic, Gun, Revenue, Coroner's, and Civil matters. Magistrates Courts deal with petty civil and criminal offences and serves as the coroner that conducts inquiries into criminal matters. The Supreme Court of Jamaica hears serious criminal and civil matters. The Chief Justice sits at the Court of Appeal with six other judges. This is the highest national court for hearing cases where parties are dissatisfied with the decision of the lower courts. Further appeal may be made to the Caribbean Court of Justice, which serves CARICOM territories and final appeal may be made to the **Judicial Committee of Privy Council (United Kingdom)**. Jamaica's Office of the **Public Defender (OPD)** is functional entity to which citizens can look for support to hold government accountable in public interest matters. Recently the office has provided support to citizens on two environmental matters relevant to REDD+ taken up in against the state. The first concerned national controversy over bauxite mining in the ecologically unique and sensitive Cockpit Country and the administratively declared boundaries of the sensitive ecosystem versus the ecological boundaries. The second concerned the decision of the Office of the Prime Minister to reverse a decision of the National Environmental Planning Agency (NEPA) to deny an Environmental Permit for quarrying in Puerto Bueno, a site of some of Jamaica's last remaining limestone forest as well as Taino cultural heritage.

The OPD has a critical role to play in providing support where grievances under REDD+ are significant and against the public interest.

**Cabinet** is the main policy making and executive decision-making body of government. It is comprised of the Prime Minister and a minimum of 13 other ministers, from both houses, with a maximum of 4 representatives from the senate. Each minister is responsible for at least one government portfolio and heads the ministry responsible for that area. The Prime Minister may recommend that the Governor General appoint ministers without portfolio to the Cabinet. There are also nine **Ministers of State** that are not part of the Cabinet, who assist with operations in various sectors. In addition, there are two **Ministers Without Portfolio**, in the Office of the Prime Minister and one in the Ministry of National Security.

The **Ministries** are: (1) Ministry of Economic Growth and Job Creation; (2) Ministry of National Security; (3) Ministry of Agriculture and Fisheries ; (4) Ministry of Culture, Gender, Entertainment and Sport; (5) Ministry of Education, Youth and Information ; (6) Ministry of Finance and The Public Service; (7) Ministry of Foreign Affairs and Foreign Trade; (8) Ministry of Health and Wellness; (9) Ministry of Housing, Urban Renewal, Environment and Climate Change; (9) Ministry of Industry, Investment and Commerce ; (10) Ministry of Justice; (11) Ministry of Labour and Social Security; (12) Ministry of Local Government and Rural Development; (13) Ministry of Science, Energy and Technology; (14) Ministry of Tourism; and (15) Ministry of Transport and Mining. Figure 2 shows gives an overview of ministries and associated department, the ones outlined in red are directly relevant for REDD+ and will be discussed in later sections. Each Ministry is administered by a Permanent Secretary, a post that is supposed to be apolitical. An important stakeholder group is members of the civil service, which is responsible for executing plans.

## 2.2 Office of the Prime Minister and Cabinet

As an international instrument for forest and climate change solutions, REDD+ can only succeed if it is championed at the highest level of government. Countries that have succeeded in attracting large amounts of finance have done so through their Prime Ministers' bilateral and other lobbying efforts, supported by their forestry and climate change departments, and ministries responsible for finance and foreign affairs. A High-level commitment to international lobbying and attraction of sizeable capital should in principle constitute the first pillar of a REDD+ strategy.

However, such a process would require the Office of the Prime Minister to commit to protection and restoration of the island's ecosystems and to the economic trade-offs that this would require. These trade-offs often have to do with foregoing highly visible and direct present revenue gain from investments that harm ecosystems in favour of investments that produce less visible, but larger long-term benefits by protecting ecosystems, which are Jamaica's core economic assets. This is a significant challenge for the Government of Jamaica, which is particularly constrained by an extraordinary debt burden and a lack of full autonomy in deciding the country's priorities. Consequently, the Office of the Prime Minister has a heightened role to play in actively seeking bilateral funding support, debt for nature swaps, and other measures for attracting large-scale capital for conservation-based development activities. The REDD+ strategy is meant to provide the enabling framework for the highest level of government to seek support.

Jamaica is presently in a unique position to actively pursue international capital for the country's contribution to global climate change mitigation and ecological restoration. Companies from countries such as Norway and the United States of America (USA), countries that have committed to furthering climate change objectives globally, have benefitted from bauxite mining and other activities that have adversely affected Jamaica's capacity for coastal and terrestrial protection as well as land-based and coastal natural assets. A significant amount of lucrative European and North American private investments is at high-risk in the coastal tourism industry. This industry is directly responsible for significant adverse impacts on coral reef ridges that once protected the island from storm damage as well as mangrove forests and sea grass meadows.

Even though there are a myriad of policies championing sustainable outcomes in Jamaica, it is often the decisions on large investments made at the level of the Office of the Prime Minister and Cabinet that shape the ecological and socio-economic fate of the country. A commitment to REDD+ will

require a proactive approach to ensuring that HIGH level decisions on investments do not promote or condone activities that undermine protection and conservation development opportunities for the island. The Office of the Prime Minister has already taken steps in this direction by withdrawing from contentious and legally contested land use decisions for bauxite mining and quarrying in the Cockpit Country and Hellshire Mountains, respectively. However, the Jamaica Promotions Corporation (JAMPRO) is actively promoting “shovel ready” tourism investments that are based on the destruction and permanent removal of already endangered mangrove forests and coastal habitats. There are presently no conservation-based investments in JAMPRO’s portfolio. Cabinet has an important role in screening the activities they approve for consistency with national climate change investment goals and in actively seeking out investments and improvements in various sectors that result in conservation based economic growth, such as agroforestry and community-based ecotourism development.

Given the context involved, it would be beneficial if the Office of the President undertook at least five direct leadership roles in REDD+. The first is to commit and champion REDD+ through Parliament and nationally. Secondly, to lobby and seek out large scale funding internationally, much as the Government of Guyana was able to attract from the Kingdom of Norway for its forest protection efforts, or even private carbon offset options. Thirdly, to provide clear direction to Cabinet and relevant ministries to screen the activities they promote to ensure that they do not undermine conservation-based development and climate change objectives. Fourthly, provide a clear directive to all state agencies and departments handling land use planning, environmental management, and land management to collate and share their respective databases and accelerate the development of the integrated national spatial data planning process in the context of REDD+. Finally, to provide clear direction to the myriad of government bodies with shared and overlapping responsibilities work together on the assessment and planning process needed for the country to reach a transparent and effective REDD+ strategy.

There is an Annual Cabinet Retreat usually in the month of January, where the critical issues for the coming year are discussed and prioritized. The next meeting will occur just around the time when there is greater clarity on REDD+ options for Jamaica following widespread consultations. It is hoped that these options could be considered at the next Cabinet meeting in 2022.

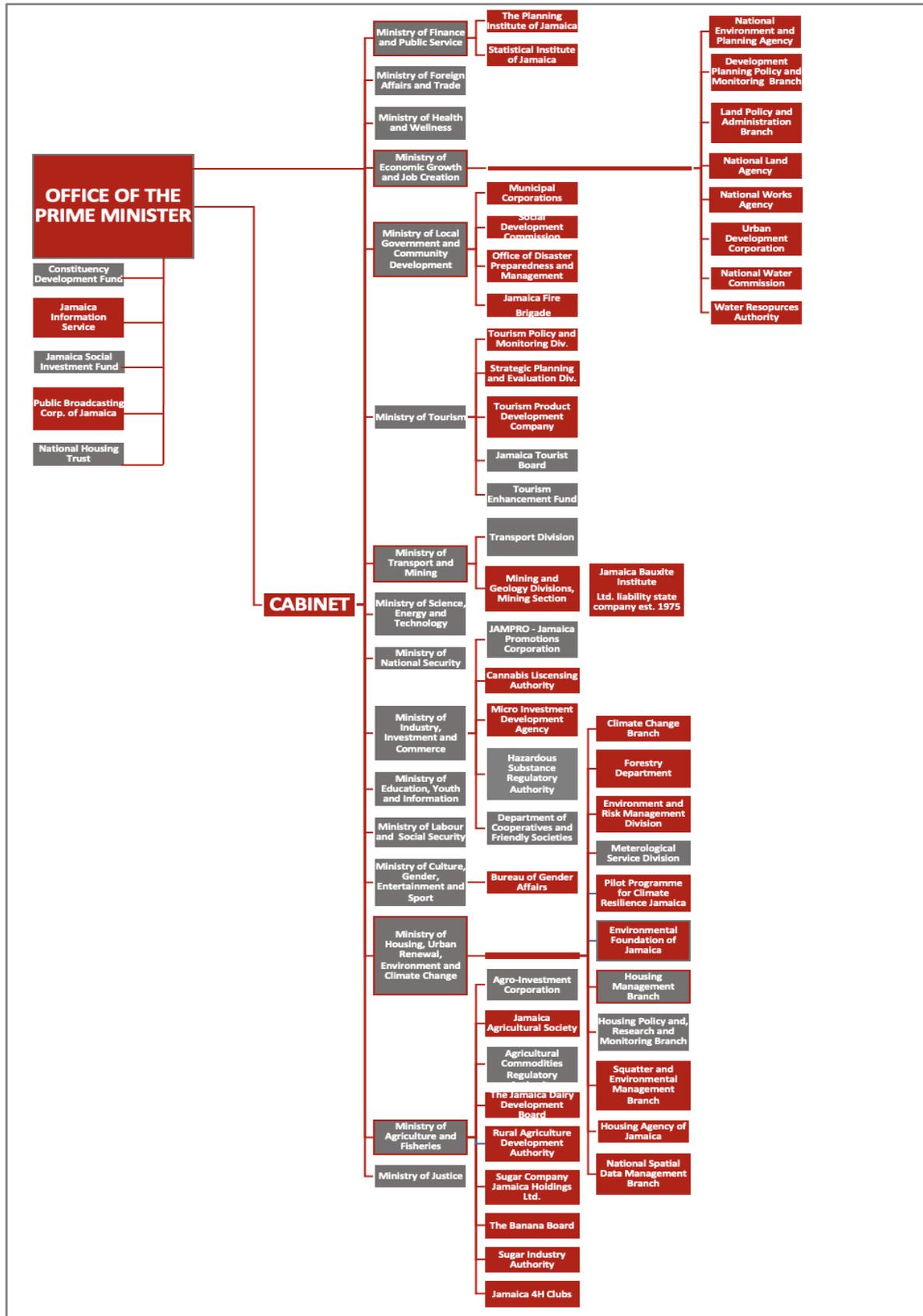


Figure 4: Schematic of various governmental management bodies in Jamaica. Red = REDD+ Role

### 2.3 Parliament and Office of the Opposition Leader

The risk of reversal in REDD+ is highest at the level of country leadership when government administrations change. Thus, any decision concerning the national REDD+ strategy must involve the country's Parliament as well as the Office of the Opposition Leader. This is necessary not only for avoiding the risk of reversal but also limiting the possibility of political party actors embrace and promote REDD+ across the country rather than REDD+ getting caught up in political rivalry. The Government may call upon Parliament to pass various policies, laws, or regulations to facilitate REDD+. The Office of the Leader of the Opposition along with all Members of Parliament must be provided sufficient information and directly engaged to enable their participation and input into the development and implementation of the national REDD+ strategy.

### 2.4 Ministry of Foreign Affairs and Foreign Trade

This Ministry is a critical stakeholder for promoting Jamaica's interest at international climate conventions and supporting the Office of the Prime Minister, Climate Change Division, and FD in seeking international financial support for Jamaica's REDD+ strategy through bilateral and multilateral means. Chief among these is securing market-based financing under the recently launched Lowering Emissions by Accelerating Forest finance (LEAF) Coalition, founded by the governments of Norway, United States, and United Kingdom. The Coalition is a public-private partnership mechanisms that allows private companies such as Microsoft and Amazon to pay into a fund to halt deforestation by financing large scale tropical forest protection. In 2021, the Coalition mobilized \$1bn in financing, kicking off largest-ever public-private effort to protect tropical forests. Many forest-rich dependent states have been preparing to access LEAF results-based finance under the Paris Agreement REDD+ framework.

### 2.5 Ministry of Finance and Public Service

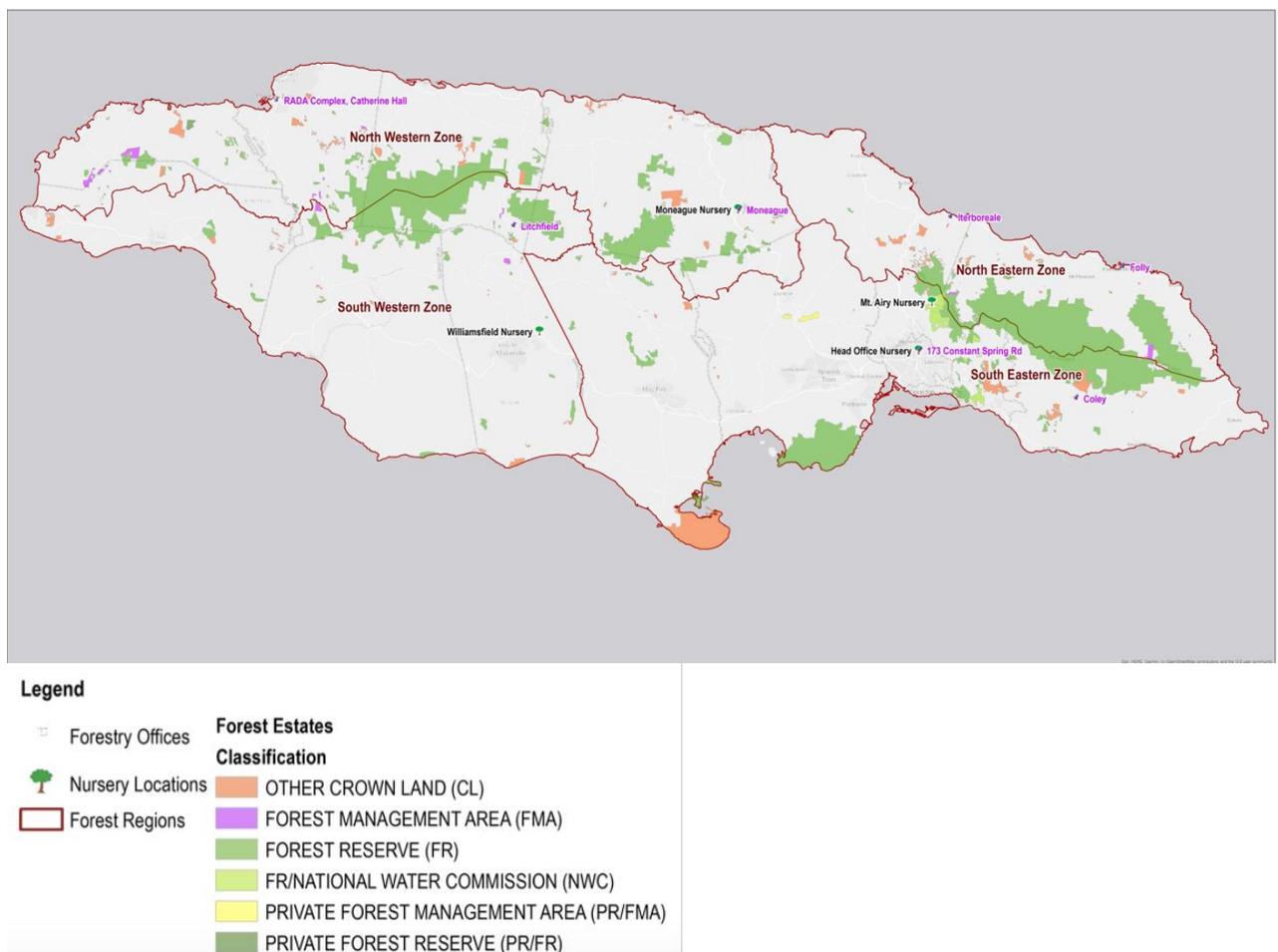
This Ministry houses two bodies that are critical to the success of REDD+, the **Planning Institute of Jamaica (PIOJ)** and **Statistical institute of Jamaica (STATIN)**. The PIOJ is the country's central planning agency, which develops policy through a consultative process with all other relevant agencies and local government organs on objectives and cross cutting elements. It is the agency spearheading the development of a national spatial plan. Whereas much forest related work is being conducted at the FD, a national REDD+ strategy relies on country-wide integrated spatial data management that reflect forest, land uses, land ownership, gendered uses, and many other parameters to support a social and environmental management plan and Social Safeguards Information System. The development of REDD+ strategy, also requires prioritisation of sensitive ecological areas, features of HIGH ecosystem and climate adaptation or mitigation value, biodiversity protection, and socio-economic value. There are several governmental ministries and bodies spanning different sectors that must collaborate early in the REDD+ strategy development process to identify critical areas and geographies that may not be currently protected but could result in significant co-benefits if they were protected and managed as forests. The PIOJ is uniquely suited to convene such a process in conjunction with the FD to identify priority areas according to multiple criteria to inform the further development of the REDD+ strategy.

STATIN also plays a crucial role in collecting as well as collating data collected from various governmental bodies to track important sustainable development parameters. There are still many challenges to achieving a system that systematically and regularly tracks data related to the Sustainable Development Goals, one of which is STATIN's dependency on agencies to report data, a process that is not streamlined. Many agencies do not necessarily collect the relevant information for tracking parameters such as land degradation, gender disaggregated use of natural resource and distributional benefits etc. REDD+ readiness must tackle the capacity for nationally data collection and integrated spatial analysis, as these are pivotal to the successful implementation of REDD+, especially its associated safeguard measures.

## 2.6 The Ministry of Housing, Urban Renewal, Environment and Climate Change (MHURECC)

This ministry is directly responsible for REDD+. It houses the **Climate Change Division (CCD)** and the **FD (FD)**. The CCD oversees all aspects of climate change mitigation, adaptation efforts, UNFCCC, and related agency interactions, as well as resource mobilization for addressing climate change. This includes REDD+. However, the FD is the Executive Agency with direct responsibility for managing forests and REDD+. The CCD has established an established network of **Climate Change Focal Points (CHFPs)** in various government ministries and statutory bodies to support advancement and implementation of climate related policy and initiatives. These focal points are critical resources for integrating and supporting REDD+ related work in the various ministries and statutory agencies.

The FD presently manages approximately 117,000 Ha of forest that are protected mainly in **Forest Reserves (FR)**, with a smaller amount in **Forest Management Areas (FMA)** and other Crown Forests (Figure 5).



**Figure 5: Areas managed by the FD as forests**

The FD is comprised of four departments. These are: Forest Operations; Legal and Enforcement; Forest Science and Technology Services, and Corporate Service Divisions. The Forest Operations Division is structured into an east and west zone, each subdivided into the north and south regions. (See Table X)

In addition to its main office in Kingston, the FD has 6 field offices across the island and four nurseries. The Western Zone field office is in Moneague, St. Ann. The Northwest Regional Office is in Montego Bay, St. James and the Southwest one is in Litchfield, Trelawny. The Eastern Zone field office is in Kingston along with the southeast regional office. The Northeast Regional Office is in Port

Antonio, Portland. There are approximately 100 field officers involved in forest management, protection, and private tree planting programme. There are 20 **Client Services Technicians** that work with private landowners promoting and supporting tree planting initiatives. Some 20 **Forest Technicians** work on forest management and restoration in FR and FMAs. **Forest Rangers** patrol and enforce the forest laws and regulations. Each regional office has a director who reports to the Zonal Director, who in turn reports to the Forest Operations Division. The FD also maintains four nurseries for stocking timber seedlings for the reforestation programmes. Three of the nurseries are open to the public. These are located at Head off in Kingston, Williamsfield in Manchester, and Montague in St. Ann.

Under the Forest Act, **Local Forest Management Committees (LFMCs)**, formed by the FD and local communities, in and around FRs and FMAs, are responsible for aspects of forest management. Relations with LFMCs are coordinated by the Forest Operations Division. Some 10 LFMCs were formed in the eastern zone and 9 in the western zone. LFMCs will be addressed in a later sub-section on community-based organisations involved in resource protection. Private landowners with forested lands have been able to apply for their lands to be declared as either a Private Forest Reserve or Private Forest Management Area in exchange for a property tax break. Figure x shows a map of the Forest Reserves, Forest Management Areas, Private Forest Reserves, Private Forest Management Areas, Crown Lands managed as forests, the FD's four administrative zones, and locations of FD's offices and nurseries.

Department	Functions
Forest Operations Division	Implements forest management activities. This includes managing the forestry nurseries, reforestation, community, and social programmes. It is also responsible for implementing forest management plans and promoting alternative livelihoods. This division's work is critical to achieving REDD+, which is fundamentally a social forestry programme.
Eastern Zone	<u>Northeast Region</u> - St. Mary and Portland.
Western Zone	<u>Southeast Region</u> - St. Thomas, St. Andrew, St. Catherine, Clarendon. <u>Northwest Region</u> - Hanover, St. James, Northern Trelawny, and St. Ann. <u>Southwest Region</u> - Manchester, St. Elizabeth, Westmoreland, and northern Trelawny.
Forest Science and Technology Services	This division develops the scientific techniques and guidelines for the management of forest resources. It also develops and monitors the Forest Resource and Land Information Management programme, develops and monitors forest management plans and develops and implements applied forest research programmes. Uses Global Positioning Systems (GPS), Geographic Information Systems (GIS), remote sensing, and forest modelling technologies to assess and manage forests at a landscape level. This divisions' work is critical for REDD+ in quantifying land cover change and carbon stock as well as integrating socio-economic data and environmental changes with forest cover data to track drivers of forest change, impacts of REDD+ initiatives, environmental outcomes, and stakeholder impacts (Part of the Social Safeguard Information System).
Legal and Enforcement Division	Provides legal advice and support to the Agency, as well as general oversight of the permit and licensing system. Also responsible for compliance and enforcement of activities under Forest Act and the Forest Regulations and Forest Policy development. This Division is important for moving forward policy and regulations that enable REDD+.
Corporate Services Division	Provides support services to the Agency, tracks performance efficiency, coordinates the Agency's disaster management and business continuity programme, and manages corporate and strategic planning and enterprise risk management processes.
Information and Communication Technologies Branch	Provides ICT infrastructure and framework technical support. Also responsible for the development of database management applications to support the technological requirements for the Agency. This branch has a key role to play in development of the REDD+ Safeguards Information System.
Public Relations and Corporate	The chief communication arm of the Agency. Responsible for improving visibility of the Agency's programmes and encouraging sustainable forest management

Communications Branch	practices through public education and awareness programmes. Markets the Agency's products and services. Key role in public education and outreach for REDD+.
-----------------------	---

*Table 1: Forestry Department divisions and functions*

The MHURECC also houses the **National Spatial Data Management Division (NSDMD)**, which is mandated to establish the National Spatial Data Infrastructure Based on a Geographic Information System with the coordination of the PIOJ. The NSDMD is responsible for coordinating, implementing, and managing national GIS programmes. This role is critical to providing the combination of social, economic, and ecological data required for jurisdictional land use rationalisation as well as monitoring change. The Division has a crucial role to play in creating an integrated data platform using information from various agencies that supports REDD+ Monitoring, Review and Verification and its Social Safeguard System. Also in this ministry, is the **Environment and Risk Management Branch (ERMB)**, which oversees the international biodiversity obligations. The **Meteorological Department (MD)**, tracks weather and climate, and plays a pivotal role in advance warning that is relevant for minimizing anticipated forest hazard impacts, such as wildfires. In addition, the **Beach Control Authority (BCA)**, mediates public and private beach access and use of nearshore environment through a use-licensing process. They have a role to play in the protection of coastal mangrove forest and sea grasses, and control of illegal sand mining that damages coastal systems. In its housing portfolio, the ministry's **Squatter and Environmental Management Branch (SEMB)**, **Housing Agency of Jamaica (HAJ)** are important stakeholders for addressing the effect of unplanned housing on forests.

## 2.7 The Ministry of Economic Growth and Job Creation (MEGJC)

This is a powerful ministry with control over land use as well as conservation and environmental protection in Jamaica. This ministry houses the **National Environment and Planning Agency (NEPA)**, **Water Resources Authority (WRA)**, **National Land Agency (NLA)**, which manages land tenure nationally, as well as **the National Water Commission (NWC)** and **Urban Development Corporation (UDC)**, both of which manage forest areas on Crown lands related to their functions.

The NLA controls title for all Crown lands that are under various management agreements with other governmental agencies and leases with public and private entities. It is also the agency responsible for land titles and property tax collection. The NLA also leases land directly for various land uses. The NLA is a critical decision making and stakeholder for REDD+, that must work collaboratively and supportively with the FD if REDD+ is to succeed. It holds crucial data on who stakeholders are with respect to owners of land and tenure, a factor central to designing and implementing REDD+, including developing benefit sharing agreements between Government and non-governmental landowners regarding REDD+ responsibilities and rights.

NEPA has broad ranging responsibility for safeguarding the nation's environment, managing natural resources, and for land use and spatial planning. It is involved in granting permits and licences for a wide range of land uses that directly and indirectly impact on forests and other ecosystems. It is also responsible for monitoring, evaluation, and reporting on environmental compliance, research, and producing reports on the state of the environment. Several independent entities and departments are subsumed under NEPA. These are: The **Natural Resources Conservation Authority (NRCA)**; **Town Planning Department (TPD)**; **Land Development and Utilization Commission (LDUC)**; **Town and Country Planning Authority (TCPA)**, and **Negril/Green Island Local Planning Authority**.

The NRCA has primary responsibility for the management of national parks, protected areas, marine parks, and public recreational facilities as well as environmental and physical environment and is a critical stakeholder in REDD+ with links to all the management authorities for protected areas and parks, as such it must be in a close collaborative working structure with the FD.

The LDUC has responsibility for agricultural lands, this includes ensuring that such lands are properly developed and utilized, a function that appears to have significant challenges achieving its aims, as most lands zoned for agriculture held by large-scale landowners continue to lie fallow and unproductive despite the HIGH demands for arable land among the nation's farmers. Most of this land

is now “ruinate” or under regenerated forest cover and is being counted in the total forest cover of Jamaica, representing well over 50 percent of all forests in Jamaica. This is where the greatest challenge lies in developing a successful REDD+ strategy, as private landowners have not been disposed to joining the FD’s programme, which allows the FD to manage their lands in exchange for a tax break. It is more lucrative to rent some of these lands to small farmers to maintain their agriculture designation and to sell parcels over time to developers. The FD has no meaningful jurisdiction over such lands and its only role is in giving it view when applications are made for land use change or in an environmental permitting process administered by NEPA. The LDUC in principle has a legal function and duty to ensure that all lands zoned for agriculture are productive and has a role to play in exploring REDD+ options with private landowners together with the FD and other key collaborating agencies.

The TCPA’s mandate is to provide for orderly development, and it is the main agent working with local government bodies in the coordination and development of Development Orders for parishes or local planning areas. This statutory body is a key to the development of REDD+, both in terms of the ground level planning involving harmonization of any REDD+ sites with local development objectives as well as national jurisdictional scale consistency with various Development Orders and REDD+ objectives.

NEPA also has a central responsibility in REDD+ as the lead agency that has had the responsibility for some time now to prepare policies and legislation to facilitate access to biological resources and equitable benefit sharing. Such policies, legal and regulatory frameworks governing Access and Benefit Sharing (ABS) are a requirement of the Convention on Biological Diversity (CBD) as part of the Nagoya Protocol and are also required for a functional REDD+ programme.

The **Water Resources Authority (WRA)** is responsible for the preservation, conservation and maintenance of the island’s water resources. It allocates and regulates water and monitors water quality. The WRA’s mandate is closely intertwined with the FD’s functions, as forests play a critical role in water below ground and above ground water resource quantity and quality. The WRA has an important function in the REDD+ strategy development, especially when it comes to identifying ecologically sensitive areas that could potentially be prioritized as REDD+ sites. The **National Water Commission (NWC)** is the utility company that provides potable water and wastewater services. The NWC also controls some Crown lands that are important watershed areas and engages with resident communities on watershed protection and rehabilitation. These lands may be suitable for incorporation into REDD+, and the NWC’s field staff would be important stakeholders for the implementation of REDD+.

This ministry also oversees the **Urban Development Corporation (UDC)**, which is tasked with facilitating the development of urban areas for economic, social, and environmental benefits. The UDC also controls some Crown Lands and is important to REDD+ in so far that such lands could be brought on management for conserving or increasing their carbon stock under REDD+. In addition, the UDC is involved in developing commercial areas and decisions to permit or pace new developments on greenfield sites reduce existing forests and/or the potential for the development of forests. Therefore, rationalizing the long-term strategic vision for urban development and expansion of built areas with maximization of fertile land is relevant to REDD+, and must be explored with the UDC, which is an important stakeholder.

MEGJC is also the ministry responsible for works. The **National Works Agency (NWA)** is mandated to provide safe and efficient road network and flood control system and the **National Road Operation and Construction Company (NROCC)** is directly involved in construction. The Ministry also oversees the **Port Authority of Jamaica (PAJ)**, and **Professional Engineers Registration Board (PERB)**, which is an entry point to these stakeholders involved in design of construction activities not only for infrastructure but built spaces such as hotels, resorts, and housing developments, all of which are activities that replace forests with non-fertile surfaces.

Road construction, quality, and forests are closely linked. Road construction opens access to forest areas with knock on use effects resulting degradation and deforestation. At the same time, maintaining forests on hillsides is crucial for preventing landslides that block roads and for flood control. Works agencies are not critical to REDD+, but coordination is important when the road

network is expanded and for road management considerations to reduce the impact of infrastructure development on forests. In some instances, mangroves have been destroyed to build roads, a practice that the island can ill afford to continue. The construction of airports and ports have also resulted in significant mangrove forest destruction, and one area that must be explored under REDD+ is policy alignment where this is concerned, as there is a gap between the importance and financial value the country recognises in mangroves, and actual practices of removing these forests for infrastructure and other developments. The loss of multiple ecosystem values and protection in a particular place, cannot be offset by a no-net loss policy that replants mangroves elsewhere. A notable feature is no separation of powers between the Executive and this line ministry. The Prime Minister is the minister directly in charge. From a governance perspective, this could represent a risk to REDD+, as the decisions concerning land and environmental matters of the agencies in this ministry could by law be overridden by the Prime Minister in favour of more pressing matters with immediate short term financial benefit. On the other hand, this could be beneficial if the Prime Minister champions REDD+ directly, as it would remove many layers of relay between the FD, CCD, and the Minister in charge of these agencies, Cabinet, and Parliament.

## 2.8 Ministry of Industry, Investment and Commerce (MIIC)

The Ministry of Industry, Investment and Commerce (MIIC) is strongly orientated towards attracting foreign investment but is also supporting domestic small and medium scale enterprise development. MIIC has a crucial role to play alongside the Office of the Prime Minister, Climate Change Division, and the FD in positioning Jamaica to take a stake in the evolving global carbon market. The Ministry's plans are well aligned with REDD+, which may offer a direct mechanism for MIIC to achieve its goals to increase support Jamaican micro, small, and medium enterprises (MSMEs) by integrating those goals with the AIC's drive to make farmlands productive, Ministry of Finance's needs to lower the HIGH national food import bill, the broader need for arable land access to address economic stagnation of small-scale farmers, and REDD+ goals to actively manage lands to increase carbon stock in a manner that supports the small scale domestic sector and communities.

The MIIC's 2025 goals are specific and offer a clear path on ways in which MIIC could advance some of those goals in a REDD+ context. They are to increase Jamaican micro, small, and medium enterprises (MSMEs) access to finance and support services by at least 10 percent, manufacturing output by 23 percent, market access for Jamaican goods and services by 20 percent, to have youth, women, and persons with disability, micro enterprises or any vulnerable group as 20 percent of its programmes' beneficiaries, contribute at least 25 percent to national investment targets, increase exports by 20 percent, to development and commence implementation of at least four (4) key industries within the next four years along with the development and implementation of twenty-nine (29) supporting policy, legal and planning frameworks that will build resilience and protect the Jamaican brand, consumers, and local businesses.

The MIIC's **Micro Investment Development Agency (MIDA)** can play an important role as a one stop shop support for promoting community based sustainable initiatives, including public-private partnerships. A closer collaborative relationship between the key agencies on co-benefits to pursuing a global carbon market can also provide an opportunity for Jamaica to align another of MIIC's agencies, the **Jamaica Promotions Ltd. (JAMPRO)**'s investment promotion portfolio with socio-ecological and socio-economic priorities that are more responsive to small scale actors, and to ensuring that investment promotions are consistent with national needs to protect and monetize ecological assets through conservation development initiatives.

In addition to JAMPRO and MIDA, two other agencies associated with MIIC are of relevance to REDD+. The first is the **Jamaica Business Development Corporation (JBDC)**, which can help support business development related to REDD+. Second is the **Cannabis Licensing Authority (CLA)**, which currently is focussed on attracting formal investments, but has the potential to create and brand community-based cannabis production linked to Jamaican "roots". The cost and current licencing procedures ironically marginalise the bread-and-butter farmers and youths that have historically engaged in this industry, albeit illegally. The licencing structure is inadvertently serving to snatch the opportunity from these marginalized members of society and redistribute to wealthy formal actors. Yet Jamaica has an opportunity for reform and meaningful positive economic transformation in the cannabis industry if it were to develop a stronger pro-poor, pro-youth, pro-legal reform policy

framework as well as management and support mechanisms. Cannabis needs sunlight and cannot easily thrive as an agroforestry crop. Often forests are cleared in remote inaccessible areas for illicit production. However, there is a well-developed science of growing cannabis in greenhouses. There has also been a growing effort by bauxite companies to support greenhouse enterprises on mined out bauxite lands. Opportunities may exist to offer managed alternative production spaces to regularize cannabis farmers and open opportunities for communities as part of a broader REDD+ alternative livelihoods approach.

The point is that creating meaningful economic enterprises that can generate direct substantial revenue flows to rural communities and small producers that can lift them out of economic depression is a paradigm that can be embraced as central to the Jamaica's REDD+ strategy. The MIIC and its agencies such as JAMPRO as well as other agencies such as the AIC must be engaged to explore and devise ways of achieving this in the REDD+ strategy, making REDD+ relevant to Jamaica beyond the protection of forests and management of carbon stocks.

## 2.9 The Ministry of Agriculture and Fisheries (MOAF)

This ministry is responsible for agriculture, aquaculture, and fisheries. It is the focal point for agricultural policy, food security, food production, livestock management, plant protection, research and marketing, extension services, and regulation of agricultural commodities. A notable exception is cannabis, which is licenced and regulated by the Ministry of Industry, Investment and Commerce.

One of the most important departments of this ministry is the **Rural Agriculture Development Authority (RADA)**, which is heavily involved in promoting sustainable farming and climate change adaptation practices and providing other forms of support to small farmers in rural areas in and around forests. Also reposed here is the **Jamaica Agricultural Society (JAS)**, which promotes sustainable farming practices among the general population of farmers. The JAS is a government-run membership-based body that was once a civil society entity. The **Jamaica 4-H Clubs** serve a similar function as the JAS but focusses on sustainable farming among youth. The **Sugar Company of Jamaica Holding Ltd. (SCJH)** holds considerable prime acreage of prime irrigated land well suited to agroforestry as well as potential commercial forestry. Many of these lands have not been in production for years, and the Government is seeking ways to make them productive again. The **Agro-Investment Corporation (AIC)** is an important agency associated with this ministry. Among the agency's focus are the aims of increasing competitiveness of the agriculture sector in the domestic and global market and facilitating optimal and effective use of Crown properties and fixed assets. The AIC facilitates agro-investment and is seeking uses and investors for vast tracks of idle agricultural lands. While large investments dominate its outlook, the agency has been renting lands to small farmers. It has a critical role to play in creating economic opportunities for small farmers through REDD+ agroforestry initiatives strategically designed to reduce the country's food import bill, earn carbon finance, and potentially develop commercial tree crop opportunities to service some aspects of local construction needs.

The AIC is also promoting agro-processing and has developed Agro-Park sites. There are presently three such sites: The Plantain Garden River (PGR) Agro-Park in eastern St. Thomas with 253 acres of prime agricultural lands that are suited to the production of a wide array of crops from roots and tubers to herbs and spices; 2,340 acres Amity Hall Agro-Park in St. Catherine, which supports integration of production with value added and export suited to fruits and vegetables for the local tourism industry as well as roots and tubers; and an adjoining 1197 acre Spring Plain and 944 acre Ebony Agro-Park in Clarendon that supports fruit trees, condiments, and vegetable production. Fruit trees have a good socio-economic and agroforestry potential, however the lands at these parks are aimed at investors who require 20 acres or more. Access to organised small farming initiatives could be an area to explore under REDD+.

Also, within this ministry are bodies that deal with frontline stakeholders involved in the production, processing, and export of various agricultural commodities. These are important entry points of access points for engaging producers to assess options for their involvement in REDD+. The **Jamaica Agricultural Commodities Regulatory Authority (JACRA)** is responsible for the regulation, promotion, standardization, and development of the agricultural commodities industry. JACRA was set up in 2018 and is an amalgamation of several exiting commodity boards. These are

the Cocoa Industry Board, Coffee Industry Board, and Coconut Industry Board. JACRA is also responsible for spices including pimento, which is a tree crop, nutmeg, ginger, and turmeric.

JACRA has taken up the functions of the Cocoa Industry Board (CIB), which was an affiliate of the **International Cocoa Organisation (ICO)**. Jamaica is one of eight countries that produces the world's finest cocoas. The MOAF is in the process of divesting the CIB's assets, which include 28, 732 Ha (71,000 acres) in cocoa fermenting plants at Richmond, St Mary; Morgan's Valley, Clarendon; and Haughton Court, Hanover and a 40-acre cocoa farm in Montrose, St Mary. The Ministry's approach has been to attract large investors and it is unclear as to whether options for small farmers have been explored. Cocoa is an excellent agroforestry crop, with researching showing a better potential than coffee. The opportunity to integrate trees in combined agroforestry systems to ameliorate abiotic stress due to climate change is promising for the future and cocoa can be well integrated with bananas as shade trees with additional benefit of stabilizing slopes.<sup>4</sup> However, cocoa needs steady water supply and access to irrigated areas suitable for growing cocoa is one factor that could be considered if agroforestry on currently unproductive agricultural Crown were assessed under REDD+.

JACRA is an important stakeholder for REDD+, as the opportunity to integrate carbon stock management into agriculture is significant in a wide range of crops, not just cocoa and coffee. In addition, commercial scale and small-scale coffee production is linked to forest loss and degradation, especially in the eastern uplands in and around the Blue and John Crow Mountains. Efforts to improve practices and market shade grown climate friendly coffee would be mutually beneficial for REDD+ and Jamaica's marketing efforts.

Also, under the MOAF is the **Banana Board (BB)**, which promotes banana and plantain export sales, oversees quality control in production and export, and manages disaster preparedness and response, these crops are particularly susceptible to storms. The **Jamaica Dairy Development Board (JDDB)** oversees the dairy industry, and is linked to farmers, processors, and actors throughout the value chain serving as an important entry point to these types of stakeholders in and around managed REDD+ sites. Dairy has been in decline with large grazing areas returning to rinate vegetation. However, the JDDB continues to work to support production and processing. Jamaica is the world's largest yam producer and MOAF has recently established a **National Yam Oversight Committee (NYOC)**, which aims to increase yam production and export earnings. The NYOC is tasked with developing a National Yam Strategy along with JAMPRO. This has implications for forests, particularly in Trelawny and surrounding areas where yam sticks harvesting without any form of oversight of sustainable management plan by the FD has been resulting in significant denudation of certain species and forest degradation. The NYOC and FD have crucial collaborative roles to play in linking economic production goals with sustainable resource use to protect and increase forest carbon stocks under REDD+.

Also, within the portfolio of the portfolio of the MOAF is the **National Irrigation Commission (NIC)**, a statutory body responsible for providing irrigation services to the agricultural sector, and some industrial and commercial operators. Most of the lands supplied with irrigation water have been under large-scale monocrop and corporate production, though some effort is being made to address irrigation for small farmers. Some 75 percent of all farmers, mostly small-scale farmers rely on surface irrigation and suffer tremendous losses during periods of intense precipitation and droughts. Another 8 percent of farmers nationally have some form of localized water source. The Food and Agriculture Organisation (FAO) map of zones of irrigation development, gives a visual sense of the areas currently served by irrigation versus those that are unserved, as an indicator of the communities in and around such areas and farming needs.<sup>5</sup>

Irrigation access is crucial for the future success of REDD+, as stakeholders report that changing weather patterns of prolonged drought and hotter temperatures, is already causing farmers to retreat into cooler forest areas. The ability to access irrigation in and around forest areas is both an

---

<sup>4</sup> de Sousa, K., van Zonneveld, M., Holmgren, M. *et al.* (2019) The future of coffee and cocoa agroforestry in a warmer Mesoamerica. *Sci Rep* 9, 8828 <https://doi.org/10.1038/s41598-019-45491-7>

<sup>5</sup> Food and Agriculture Organisation (2015) Country Profile: Jamaica. <https://www.fao.org/3/ca0415en/CA0415EN.pdf>

adaptation and mitigation measure for preserving forests. Equally important is the ability of the island’s existing small farmers to access arable and irrigated lands for economically viable agroforestry opportunities under REDD+. The NIC has a key role to play in forward planning by identifying priority areas and initiatives and must be an integral part of the REDD+ strategy development and long-term implementation.

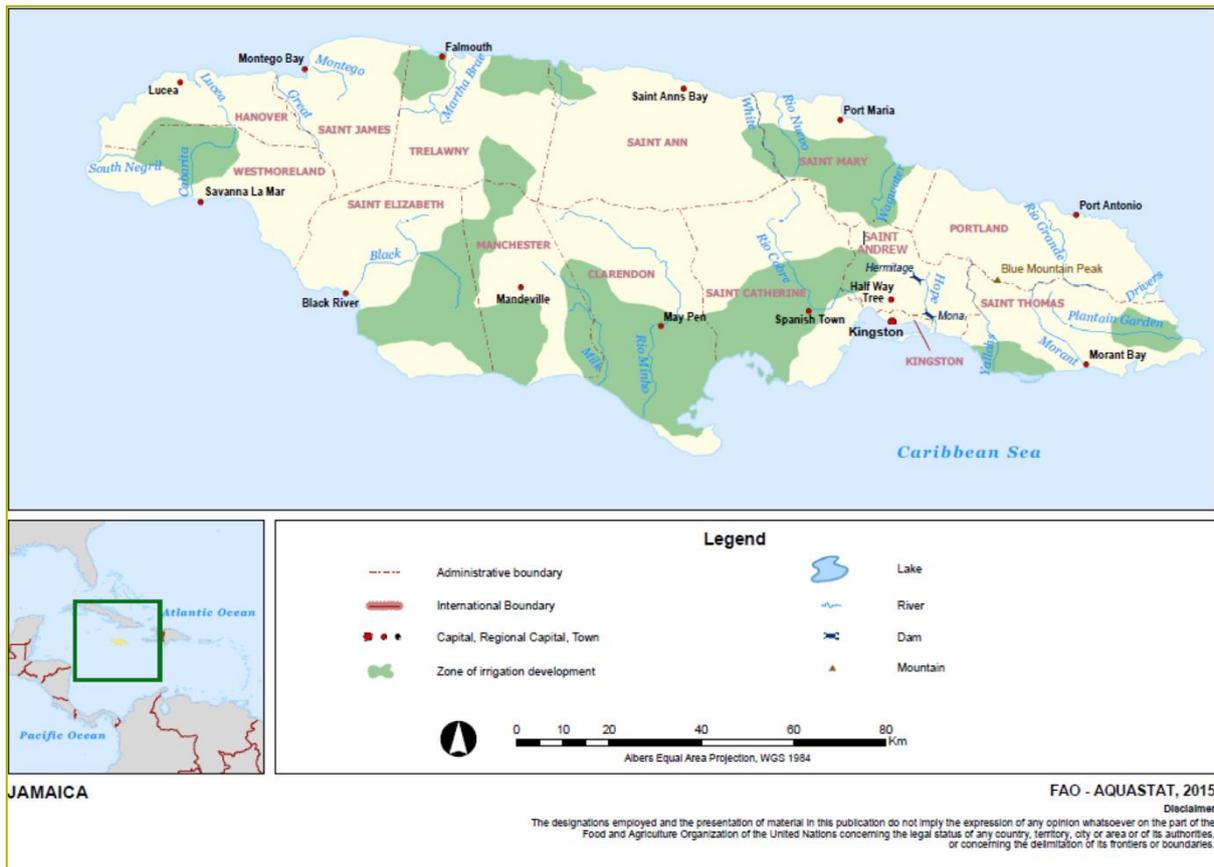


Figure 6: Farming areas in Jamaica with access to irrigation (Source: FAO 2015)

## 2.10 The Ministry of Transport and Mining (MTM)

This ministry is responsible for managing prospecting licences as well as land use and their impacts related to mining, including bauxite mining, quarrying, surface sand mining, and non-bauxite minerals. The **Jamaica Bauxite Institute (JBI)** is reposed at this ministry. JBI promotes bauxite mining and engages companies and communities through the **Bauxite Community Development Programme (BCDP) Community Councils (BCDPCC)**. In this regard it effectively acts as a mediator between communities and bauxite companies that operate by purchasing private land, which requires the involuntary displacement of communities. There are 15 councils incorporated in the bauxite mining parishes of Manchester, St. Catherine, St. Elizabeth, St. Ann, and Clarendon. These were set up primarily as grievance redress forums but undertake other functions. Government companies that are part owners of bauxite mining operations are also handled by this ministry. These are the **Jamaica Bauxite Mining Company Ltd.** and **Clarendon Alumina Production Ltd.**

It is noteworthy that in addition to being the entity that promotes and supports bauxite mining, the JBI is also the regulator. The NRCA/NEPA delegated the responsibility for environmental monitoring of the bauxite-alumina industry to the JBI in 1994 through a Memorandum of Understanding (MOU) that was renewed in 2013. There is no independent third-party verification process. The environmental impact of bauxite is garrisoned from public participatory scrutiny and very little is available in the public domain concerning the degree of reforestation the industry has achieved over the years. As landowners and operators of an industry associated forest loss, degradation of farmland and water

supplies, and chronic population displacement and resettlement, bauxite companies and the JBI have a crucial role to play in determining mutually beneficial cations for achieving REDD+ objectives.

The MTM manages quarries directly through the **Mines and Geology Division (MGD)**, which has set up a **Quarries Advisory Committee (QAC)** that assists with the review and granting of licences. Quarries are typically much smaller scale undertakings than bauxite mines, but there have been over 300 licenses issued for quarries countrywide over the last twenty years to numerous small-scale owners and operators, and some corporate entities, including bauxite companies. A variety of limestone, sandstone, silica sand, marble, marl, and fill are mined. JAMPRO has been actively promoting and supporting an expansion of limestone quarrying by pursuing unexplored market opportunities, particularly for marbles and HIGH value non-industrial uses. The trend is clearly to increase quarrying and value added. The MGD is an important entry point to stakeholders and partner for the FD in identifying quarry sites and potential quarry sites in the coming years in relation to compatibility with REDD+ plans and objectives.

The MTM has established a **National Mine Restoration Committee (NRC)** to ensure that bauxite and quarry mines are restored post mining. Stakeholders were not certain whether the Committee was functional, but it has an important oversight role. Bauxite companies report that they have a stringent schedule of 3 years to gain certification for restored mine pits or face penalties. The quarry sector, with many small-scale operators does not have to conform to the same system.

## 2.11 Ministry of Tourism

This ministry is responsible for promoting and managing tourism, though it does not have a direct role in controlling and accounting for ecological degradation and mangrove destruction caused by commercial tourism. At this ministry the **Jamaica Tourist Board** is responsible for worldwide tourism marketing and promotion for Jamaica. Its mandate is to promote Jamaica as a preferred travel destination, identify new and emerging consumer groups, cultivate new relationships with travel partners and disseminate timely and useful marketing information to its offices and travel partners worldwide. Thus far the Board has fully embraced the sand and sea vision of tourism which enjoys strong demand, though it has an important role to play in national branding of Jamaica as a proactive climate friendly destination through the work of REDD+. This association may help to create greater opportunities for community-based ecotourism experiences linked to the sun and sea travel as a co-benefit of REDD+. The Board's expertise with national branding is also important, as Jamaica may wish to promote and seek private sector and bilateral opportunities for REDD+ and other climate finance.

The **Tourism Product Development Company (TPDCo)** seeks to facilitate the diversification, development, and improvement of Jamaica's tourism product. It assists with environment and infrastructure improvement in tourist towns, establishes and monitors compliance with standards, conducts training to build capacity for the sector is directly involved in developing plans and programmes to enhance infrastructure and the physical environment of resort towns, encouraging investment in tourism related activities, setting and monitoring standards in the industry, and providing training to build capacity and quality in the industry. The institute has an important role to play in animating the National Community Tourism Policy and Strategy and can potentially find a focussed way to do this as part of REDD+.

The **Jamaica Tourism Enhancement Fund (JTEF)** established in 2005, is financed by a \$20 USD tax per arriving passenger and dedicated to implementing the recommendations of the Master Plan for Sustainable Tourism Development (2002), which include aesthetic enhancement of areas frequented by tourists. The structure and management of the funds has been recommended as a model for how REDD+ funds could be managed to ensure direct benefit sharing with those who contribute to the programme. The JTEF manages three initiatives that may be relevant to REDD+: (1) The Tourism Linkages Network (TLN), Craft Development Institute (CDI), and Jamaica Centre for Tourism Innovation (JCTI).

The **Tourism Linkages Network (TLN)** was set up to increase the consumption of goods and services in the tourism sector that can be competitively sourced locally. The TLN could potentially create linkages for agroforestry product value added processing and food provision for the local

market as a co-benefit under REDD+. The **Craft Development Institute (CDI)** is working on promoting artisanal products, such as craft made from non-timber forest products and is seeking to improve the quality of artisanal products aimed primarily at the tourist market through a partnership with the Edna Manley College of the Visual and Performing Arts (EMC) and. However, craft marketed to tourists tends to be a low value sector in general and has a low appeal in rural areas in and around forests. Nevertheless, the opportunity for co-benefits may exist under REDD+ for sustainable harvesting of non-timber forest products for artisanal products such as utilitarian products for resorts and other developments such as table ware (mats, bread baskets), table organisers (in-room baskets etc.), hotel sized soaps, honey etc. or other markets with the climate change friendly branding. The **Jamaica Centre of Tourism Innovation (JCTI)** facilitates the certification and licensure of Jamaicans working in tourism and fosters innovation in the sector and would have a role in supporting local communities in developing REDD+ linked ecotourism-based co-benefits.

## 2.12 Ministry of Culture, Gender, Entertainment and Sport (MCGES)

Among other things, The MCGES houses the **Gender Bureau (GB)**, which is mandated to ensure the integration of gender in all national development plans and policies to achieve gender equity. The Bureau houses a Male Desk. It also coordinates **Gender Focal Points (GFPs)** in ministries and government agencies that are meant to animate gender objectives in their organisations as well as monitor and report progress. However, these are not job portfolios in and of themselves and each entity usually designates a staff member hired for other purposes to carry the organisation's gender portfolio. Typically, but not always, this is the person with the human resources portfolio. While there is a natural place for matters of gender equity in the human resources, the tendency is to see gender equity in terms of how the organisation is managed and functions. This includes the balance of men and women hired at all level and issues of gender sensitive systems. The disadvantage of this for agencies dealing with land and environment which must deal with complex stakeholder groups and issues, is gender is not well positioned in how those agencies operate among their stakeholders and serve those stakeholders. Typically gender considerations will be included as part of project design, particularly if funders require that the issue is addressed. This is a piecemeal approach that misses the opportunity to be strategic and transformative.

Of all land and environment agencies reviewed, only RADA had commissioned a gender disaggregated study of its client base. This was its first and only one and even with that having been done, there has been nothing in RADA's annual reports reflecting its findings and how it has been working to address gender issues. In fact, annual reports of land and environment agencies do not account for gender equity issues, goals, and how they are being addressed. This will be necessary under REDD+ safeguard requirements. One way in which gender equity can be addressed within agencies and in the execution of mandates with stakeholders is to repose the responsibility for gender at the leadership level with the section of agencies responsible for planning, programming, budgeting, a monitoring, and evaluation. Therefore, personnel involved with these portfolios are critical to the REDD+, as is the GB, which though resource constrained has consistently invested in training and supporting focal points. The Jamaica REDD+ Gender Assessment & Strategy Options (separate cover) addresses situational finding sand relevant issues. Suffice it to say that the Gender Bureau and existing Gender Focal Points, as well as leadership personnel in land and resource management agencies, have important roles to play in achieving REDD+ objectives of gender equity and women's economic empowerment.

The **Institute of Jamaica (IOJ)**, at this ministry is responsible for the collection and preservation of Jamaica's tangible and intangible heritage. Aside from research it manages all the island's museums and conducts education and outreach. The IOJ is the lead body in a multi-agency effort to conduct research and characterize indigenous plants with pharmaceutical and nutraceutical properties that have medicinal and other beneficial properties and to assist in the conservation and sustainable management of significant medicinal and aromatic plants. It is unclear at this time whether this is rooted in protecting and recognizing the Traditional Ecological Knowledge (TEK) and Intellectual Property Rights (IPR) of those who are involved in the country's well established herbal medicine sector. However, the IOJ is also the lead agency responsible for the protection of traditional knowledge and creation of a traditional knowledge register/Library. Respect for TEK and IPR are central to REDD+ safeguards.

## 2.13 Ministry of Local Government (MLG)

The MLG is responsible for development planning, solid waste management, overseeing the work of Parish Councils, coordinates and oversees Local Authorities and portfolio agencies, and supports effective and sustainable local governance. The Ministry is a major facilitator of local development through Parish Development Orders developed by **Parish Councils** in conjunction with NEPA, and which lays out permissible land uses per each parish. The ministry's portfolio also covers poor relief, minor water supplies, street lighting, fires services, solid waste management, parochial road maintenance, markets, municipal parks and beautification, fires services, and regulation of local amenities such as abattoirs, pounds, and cemeteries.

MLG's **Social Development Commission (SDC)** is the principal community organization agency working with communities in Jamaica. It covers almost 800 communities and has a key function in the REDD+ planning process in identifying and creating linkages to communities in REDD+ priority areas. There are currently some 4637 active **Community Based Organizations (CBOs)**; 415 active **Community Development Committees (CDCs)**, representing 53 percent of 775 communities; 44 active **Development Area Committees (DACs)** accounting for 61 percent of 73 Development Areas; and 11 or 85 percent active **Parish Development Committees (PDCs)** under the SDC's umbrella. These types of citizens-based groups in geographical areas directly influenced by REDD+ activities are crucial front-line stakeholders that must be engaged in the development and implementation of the national strategy. Those in and around existing forest reserves and protected areas and any geographical areas targeted for REDD+ activities must be grouped as part of local comity stakeholders, while others can be reached as part of the public at large.

MLG also oversees several important entities that are important for managing risks to REDD+: The Jamaica Fire Brigade and Office of Disaster Preparedness and Emergency Management (ODPEM). **The Jamaica Fire Brigade (JFB)** is the first responder to wildfires. It provides training in fire control, and it maintains a record of fire events that help to track long term trends. The JFB has an important role to play in training first responders and supporting forest protection. The **Office of Disaster Preparedness and Emergency Management (ODPEM)** manages disaster preparedness, response, and relief throughout Jamaica, working with parish and community forest responders known as **Disaster Committees**. These local committees are important local stakeholders even though disaster response, they offer a representation of proactive community members across the country. Through its network of local actors, the ODPEM provides protection in advance and support in the aftermath of earthquakes, landslides, floods, hurricanes, and droughts. The agency has also been developing a drought and desertification management initiative to deal with anticipated progressive drying of the south coast and eastern parts of the island due to rising global temperatures.

The MLG also houses the **National Solid Waste Management Authority (NSWMA)**, which is responsible for waste control and protecting ecosystems from chemical and physical pollution. This agency has a role in the development of the Social and Environmental Management Plan for the REDD+ programme, depending on whether specific pilot areas are initiated.

## 2.14 Other Ministries: Key agencies and programmes

Aside from the ministries with central roles in REDD+, there are programmes and agencies at other ministries with potentially important roles. The **Scientific Research Council (SRC)** at the **Ministry of Science, Energy and Technology (MSET)** is responsible for framing a national research agenda, coordinating scientific research, and promoting its application. The Council's work has been heavily focused on the macro-industrial sector and provision of training and technical assistance. It can play an important role in long term monitoring and research of biophysical and socio-economic impacts of REDD+.

The **Ministry of Justice (MOJ)** hosts the **Dispute Resolution Foundation (DRF)**, which is a civil society-based entity that encourages and educates the public about using Alternative Dispute Resolution (ADR) techniques and community and restorative justice practices to promote peace and to resolve conflicts without resorting to violence. The DRF has been running service centres, known as **Peace and Justice Centres (PJs)**, in communities throughout Jamaica and works to increase the mediation and arbitration services in the legal system. This Foundation may play a key role in the

overall design and operation of a Feedback Grievance Redress Mechanism (FGRM) for REDD+ and PJs may serve important local roles in resolving site-based issues.

The **Jamaica Council for Persons with Disabilities**, which is a governmental body under the **Ministry of Labour and Social Security** has responsibility for implementing government policies and programmes for persons with disabilities. The Council represents persons with both physical and mental challenges, advocating for physical accessibility, policies and practices that are inclusive, and livelihoods for differently abled persons. The council identifies and registers persons with disabilities, provides rehabilitating grants for income generation, and conducts public education campaigns to ensure that the society understands and can respond to the needs of disabled people. The Council has a role to play in identifying stakeholders with special needs in and around forests sites managed under REDD+ as providing support for equitable access and benefit sharing.

## 2.15 Regional and local government stakeholders

The local government system is comprised of 12 **Municipal Corporations (MC)**, the **Kingston and St. Andrew Corporation (KSAC)**, and **Portmore Municipal Council (PMC)**, a lower-tier jurisdiction within the parish of St Catherine). There are a total of 228 elected councillors serving the 14 councils, each of which is headed by a mayor who acts as the chairperson of the council. All councillors are elected using the first- past-the-post system for a four-year term. The KSAC is the largest local authority with 40 councillors. The mayors heading the Municipal Corporations are elected by their peers for the term of the council, but the mayor for Portmore Municipal Council is directly elected, as it is a lower-tier body.

Each Local Authority has two arms, the political and the administrative. The political arm is made up of Councillors, headed by the mayor who chairs the Council and is responsible for determining policies. The administrative arm headed by a manager who advises and implements the policies of the council. The head of the administrative arm of Council is also secretary to the Council and is therefore called the Secretary/Manager except in the case of the Kingston & St Andrew Corporation where this person is called the Town Clerk and PMC where this person is called the Chief Administrative Officer. Local Authorities are empowered to make by-laws, regulations, and rules for the good governance of the parishes over which they have jurisdiction.

Each Parish has two standing committees, one responsible for finance and local public accounts and another responsible for poor relief. Each Parish also has a **Parish Development Committee (PDC)**. These are comprised of civil society, community-based organisations, and the private sector. They also include local and central government agencies. The function of these committees is to facilitate the participation of local stakeholders in the management of local affairs and to guide local development through the preparation and implementation of Parish Development Plans (PDP). The Municipal Corporations and National Environmental Planning Agency, Town and Country Planning Authority work together to craft Development Orders, for the entire parish and/or sensitive areas. Development Orders guide land use at the municipal level.

A **National Association of Parish Development Committees (NAPDC)** was established to support the PDCs and monitor their progress. The **Association of Local Government Authorities of Jamaica (ALGAJ)** is the organisation responsible for representing the interests and welfare of local government authorities. Its membership is drawn from councillors and the mayors of all 14 local authorities. It is comprised of six committees: international relations; ethics, standards, and discipline; economics and development; policy and reform; membership and training; and infrastructure and physical development. Most of the local government income comes from property taxes (approximate 60-70 %) and revenues from licences and fees. Central government provides around 20-25 percent of revenue support. Around three quarters of local government budgets are spent on services such as roads and water. On average around 25-30 percent is spent on staff and administrative costs combined.

Five of the fourteen municipal corporations (Clarendon, Manchester, St. Catherine, St. Elizabeth, Trelawny) have elaborated Local Sustainable Development Plans (LSDP) while the others are in progress. Through a partnership with the European Commission (EC), the Commonwealth Local Government Forum (CLGF) is supporting the localization and implementation of the LSDPs under the

project “Strengthening local government’s role as a partner in development”. Corporations play an important role in permitting developments and land use change. Specific responsibilities of a corporation include:

1. Developing, managing, and maintaining infrastructure and public facilities such as parochial roads, water supplies, drains and gullies, parks, recreational centres, markets, abattoirs, pounds, cemeteries, transportation centres, public sanitary conveniences, and public beaches
2. Provision of local services such as poor relief, public cleansing, public health, and street lighting.
3. Regulatory powers in respect to building and planning approvals and development control, licensing of trades and businesses, street parking, control of public vending
4. Coordinating inter-agency collaboration among non-governmental organizations (NGOs), community-based organizations (COBs) and government agencies which operate in the parish and are engaged in the delivery of local services or in local development
5. Supporting national policies/development programmes at the local level
6. Spearheading plans and initiatives for the orderly, balanced, and sustainable development of the parish, and major towns, and boosting economic activity and local wealth creation within the parish

Given their profound land management roles, Municipal Corporations/Parish Councils are important partner stakeholders for the FD and other agencies in the development and implementation of the REDD+ strategy.

## 2.16 Civil Service

An often-overlooked group of stakeholders is the civil service. As new ideas, programmes, objectives place a constant demand on civil servants to keep up and respond. The capacity to understand, embrace and implement social forestry, which integrates the socio-economic and biophysical aspects of management is an essential skill that is needed for Jamaica to succeed at REDD+. This is not a well-developed skill area or practice area in the FD. This will require significant investment in training and development of social forestry skills from the leadership to local levels, involving FD staff and staff of other agencies participating in REDD+ as well as Local Forest Management Committees.

Jamaica is known for having one of the most competent civil services in the Caribbean. However, civil servants face many barriers to effectively and efficiently delivering on their mandates. Ministries, agencies, or departments with inextricably intertwined mandates are not necessarily sharing resources and data in regular a coherent way. In addition, various aspects of resource management are organized around economic sectors such as agriculture or mining rather than ecosystems and national development priorities. Data on land ownership, use and trends are spread out among different agencies. The STATIN is dependent on many agencies to collect and transmit data but has noted that this is a point of weakness, due to the absence of shared platform and consistency. The work around these barriers has been to establish multi-stakeholder committees with representatives of various agencies or cross representation at the board levels. This has improved coordination at a management level. The challenge for REDD+ is to create functional day to day working relationships that pool resources, information, and benefits for a more coherent, efficient, effective, and cost-effective approach to resource management. This will take a major culture shift in ministries and agencies.

Agencies and ministries are also often resource starved given Jamaica’s fiscal situation and rely on raising revenues through the sale of data collected. This does not support cooperation; it encourages differentiation to secure resources. The kind of collaboration required by REDD+ will push the present boundaries and staff will need support to achieve day to day collaborative management in practice. The development and design of the REDD+ strategy must include attention to civil servants as stakeholders in need of meaningful support, training, and skills to prepare them for the demands of programme.

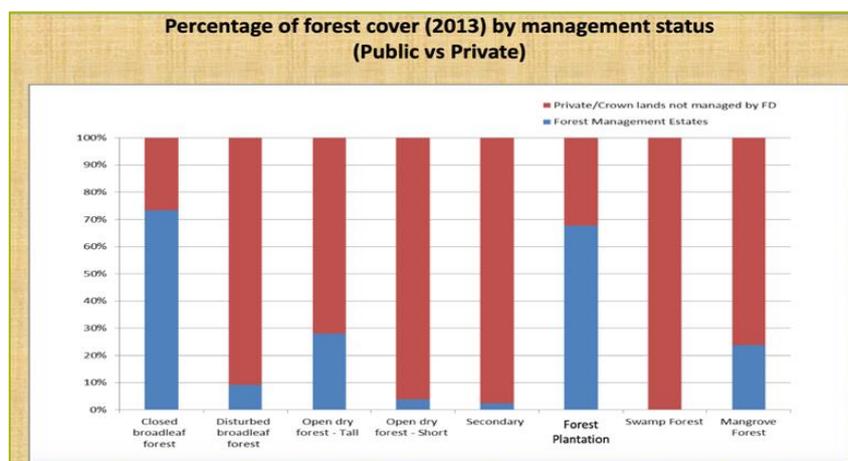
### 3. Forest landowners

#### 3.1 Introduction

Security of tenure is an important enabling condition for REDD+ payment. The Cancun Agreements “request developing country parties to address land tenure issues (1/CP.16, paragraph 72) when developing and implementing their national strategies.<sup>6</sup> UNREDD+ is clear that: “The tenure of land, forests and other natural resources has crucial implications for REDD+ goals, planning, and implementation processes. Tenure is a decisive factor in the identification of stakeholders whose rights, territories and livelihoods are affected by REDD+ activities. It is important to understand the multiple and complex tenure systems at play in forest areas because these are central to establishing who to reward for contributing to REDD+ and how – the basis upon which to create effective benefit-sharing systems. The domestic laws and policies framing forest tenure systems also play a major part in the achievement of REDD+ goals: their provisions may result in either reduced or increased deforestation. While tenure-related risks will affect the implementation of REDD+, REDD+ activities may also reduce or exacerbate land conflicts by changing the value of forests.”<sup>7</sup>

Security of tenure is essential for long term commitment to managing carbon dioxide emissions under REDD+. The matter of who owns lands with forests, whether they are willing and able to commit those lands to a long term 30-year process to retain tree cover and carbon capture, and how the responsibilities and benefits of REDD+ will be distributed are critical issues in the design of Jamaica’s REDD+ strategy.

While 50 percent of the Jamaica has tree cover, only 10 percent of the island is under active forest management by the Forest Department (FD). This amounts to only about 24 percent of all forest lands. There is a multitude of forest landowners in Jamaica that makes for a very complex stakeholder landscape. Figure 6 shows the relative proportion of key forest types owned by private entities that are not actively managed as forests. The FD has practically no management control over forests of HIGH biodiversity and ecological value, such as swamp forests and low levels of control over dry forests and mangroves.



**Figure 7: Land Use Change Forest Cover: The Jamaica Scenario; Trees and Sustainable Cities Forest Forum (Source: Forestry Department 2018)**

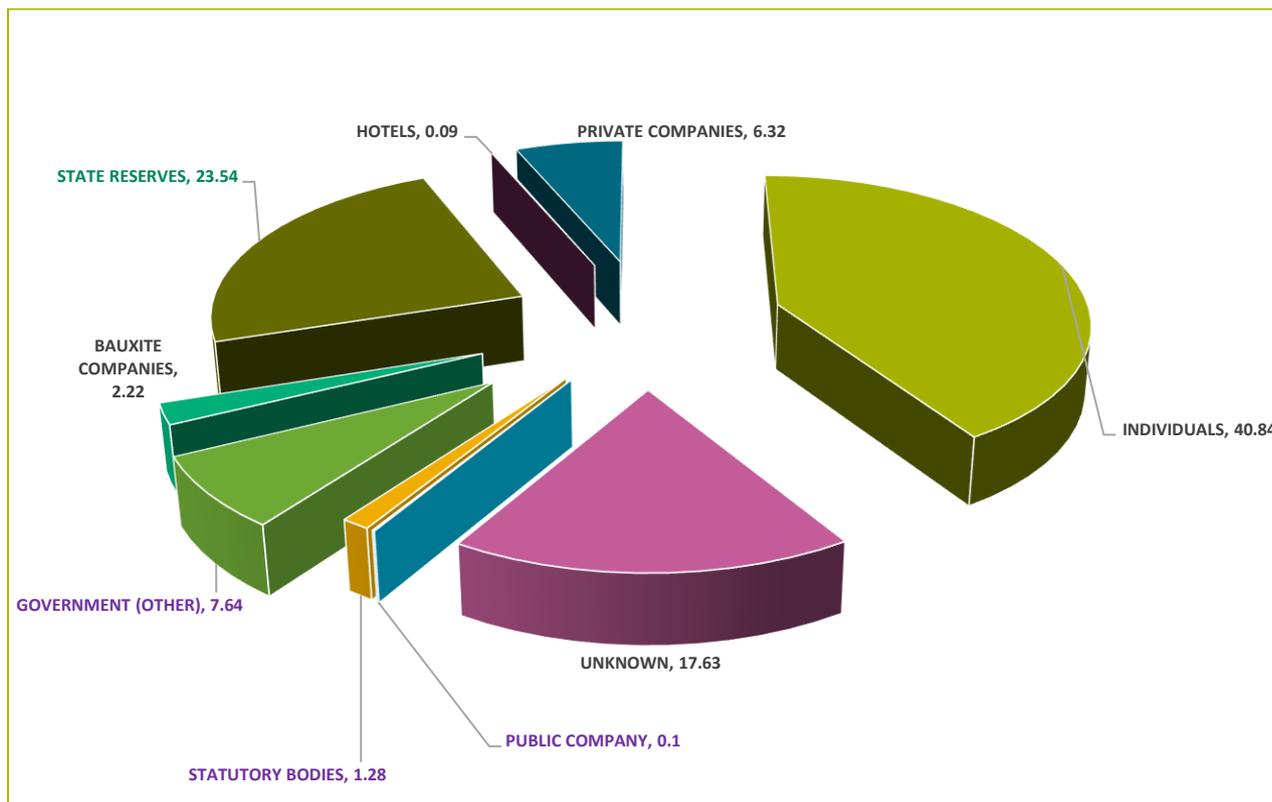
<sup>6</sup> Cancun Agreement 72. Also requests developing country Parties, when developing and implementing their national strategies or action plans, to address, inter alia, the drivers of deforestation and forest degradation, land tenure issues, forest governance issues, gender considerations and the safeguards identified in paragraph 2 of appendix I to this decision, ensuring the full and effective participation of relevant stakeholders, inter alia indigenous peoples, and local communities.

<sup>7</sup> UN REDD Programme (unredd.net)

### 3.2 Types and relative influence of forest landowners

Currently forest lands are owned by a range of different types of stakeholders, of which the majority (40 percent) is private individuals or families. Most private lands are held in large parcels that belong to a few families, but there is a considerable number of small and medium sized landowners. Individual private landowners have the greatest control over forests in Jamaica based on title to land. A large portion of this is secondary forest that has passively regenerated on idle farmlands over the years, but these landowners have significant control over dry forests, mangroves, open broadleaf, a considerable proportion of closed broadleaf forests. The FD does not have jurisdiction to directly oversee the management of forests on these lands. It relies on voluntary measures such as a private tree planting programme and a voluntary opt in mechanism for lands to be managed as Forest Reserves and Forest Management Areas. Its only other role is consultative. For example, it is consulted when applications are made to change the land use designation of a parcel of land, or the NEPA requires an Environmental Impact Assessment (EIA) for a specific activity. The FD does not have decision making power in these processes. The only other management role it has on lands that it does not directly manage is in processing and granting licenses for tree harvesting, an activity that is not part of an integrated sustainable national forest management process.

The FD manages the second largest amount of forested land. This amounts to approximately 117,000 Ha of forests on **Crown lands**. Managed forest areas fall into three categories: (1) Forest Reserves (FR)- Government and privately owned lands that have been gazetted as Forest Reserves; (2) Forest Management Areas (FMA)- Private lands co-managed by the FD and gazetted as Forest Management Areas; and (3) Crown Lands (CL)- Lands transferred to the FD for management by the Commission of Lands (not legally gazetted reserves). An additional 9 percent of forested land is owned by the Crown, but these are not presently managed as forests (government bodies and public companies). Much of this is arable land previously under sugar production and held by the SCJH or land held by the NWC and UDC. The FD does not presently have a detailed breakdown of percentage government ownership and locations. The Department purchased data from the NLA and is in the process of ascertaining the ownership of forest land and developing a geospatial database. It is hoped that this database will also be capable of carrying other information needed for forest management, such as basic demographic data on owners and that the FD can move towards integrating socio-economic information with biophysical information to improve its capacity for sustainable forest management. At the time of this analysis the ownership of 18 percent of forest lands was unknown and thus, the percentages presented here are subject to update.



**Figure 8: Percent ownership of land under forest cover in percentage (Source: Computed from data provided by the Forestry Department).**

Private companies, bauxite companies and hotels own a combined 8.63 percent of land presently under forest cover while statutory bodies, which include churches and maroon communities own some 1.28 percent. Figure 7 shows the ownership breakdown based on information available to date.

### 3.3 Interest in REDD+ among landowners

At least 9 percent of additional forested land not managed by the FD is held by the Crown, and there may be more as the figures presented here are not yet final. Most Crown lands were leased to companies for large-scale commercial agricultural production. The AIC is currently promoting these lands for agriculture and light manufacturing, and some are being made available to small farmers. There could be a strong alignment with REDD+ objectives, national fiscal priorities such as reducing the food import bill, which currently stands at 900 USD per annum, access to arable land for small-scale farmers, and direct opportunity for economic advancement of small farmers through agroforestry regimes on these lands. REDD+ also requires the conservation of ecologically sensitive forests and forest areas, some of which may be on Crown lands not currently managed by the FD or other protected area management authorities. An important step in the REDD+ planning process must involve a governmental multi-agency engagement to explore the central government's level of interest and identify and evaluate the suitability of all Crown lands for the REDD+ programme.

The Forest Act 1996 provides for private landowners to opt into a programme to retain forests on their land in exchange for a Private Forest Reserves of Private Management Areas property tax waiver. The FD set a qualifying criterion of at least 10Ha of forests. Over the years, private uptake has been meagre. There are currently only four participants with a land area amounting to only 712.62 Ha of land, but each of these indicated different motivations and suggest opportunities may exist for REDD+. Table 5 shows the participating landowners. The security of tenure is 20 years (guaranteed forest cover remains). For three of the landowners this will expire in 5-6 years.

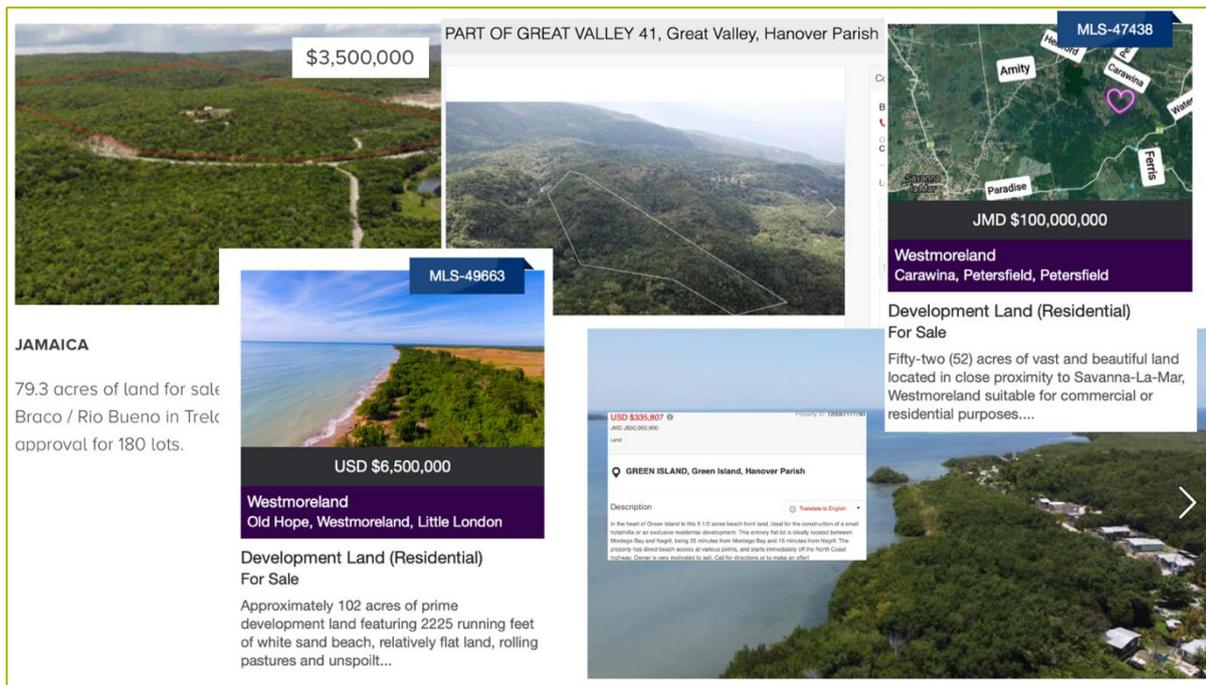
Private Forest Reserve/Forest Management Area	Time Period	Size	Parish
Croydon Mountain Forest Reserve	Mar 2006-Mar2026	53.4 Ha	St. James
Hampton Forest Management Area	Mar 2005-Mar 2025;	120 Ha	St. Catherine
Tulloch Estate Forest Management Area	Mar 2005-Mar 2025	324.7 Ha	St. Catherine
Tryall Estate Forest Reserve	2016-2036	14.52 Ha	Hanover

*Table 2: List of private forests declared as Forest Reserves and Forest Management Areas*

**Tulloch and Hampton Estates** are part of a family's large-scale holdings that once had significant acreage under cattle and dairy production. The downward agricultural trend in these sectors has led to idle land returning to a "ruinate" state. Interviews with the landowners that opted into the FD programme, suggest that Roger Turner, the owner of these estates is sensitive to environmental conservation and not representative of the broader group of individual large-scale landowners, who are not likely to commit their lands to forest management under REDD+. The four main reasons given for this were: (1) Wariness of government claims on private property; (2) Interest in keeping options open for the highest financial return; (3) Complications with inheritance processes if land were committed to long term protection under REDD+; (4) The tax break incentive is insufficient motivation, landowners still have the cost of maintaining roads for access etc; and (5) Lack of certainty of an organised and worthwhile revenue stream from REDD+. The FD reported that their efforts in the past to interest large landowners in participating in the program were not successful. The majority indicated that they did not see the benefit to participating, as more economically rewarding opportunities may arise.

There is a clear trend of large-scale landowners selling portions of their lands to lucrative multi-million US dollar villa, resort, or subdivision developments. At these price points REDD+ cannot compete with alternative financial rewards currently available or the opportunity cost they face if they were to commit their forested lands to REDD+ for a 20–30-year period. A review of Jamaica's international real estate offerings reveals that lands are being sold for private villa, resort, or subdivisions for middle- and upper-income housing are forested lands, indicating an instability in existing forests on private lands. This presents a risk to the country if it were to set its reference level for results-based payments for forest protection and carbon capture on the rates of forest loss and gain of all tree cover during the last two decades, when the downturn in agriculture resulted in passive and unintended forest gain on private lands. This is a critical issue that must be discussed further, as a considerable number of lands are under forests merely because of temporary trends in other markets.

**Tryall Estate** part of a luxury villa, golf and tourism space that has market interest in integrating more sustainable eco-tourism options and welcomes the assistance of the FD in managing forests, which are under pressure from various uses such as farming, logging etc. Tryall has also engaged with local communities, ceding some land to community use and has a strong interest in community-based approaches to forest protection. Other opportunities may exist with other tourism sector property for forest declaration and management. However, key informant interviews with long standing specialists in that sector suggest that hotels and resorts would want to maximize the areas used for their central product and have a particular aesthetic of what a resort landscape would look like. While the opportunities for any significant opt into REDD+ on resort lands may be limited, there may be opportunities for education and development of small managed forested areas on resort lands. This would have to be explored with individual resorts and would likely involve a process of aesthetics shift, as there is an entrenched manicured landscape aesthetic in the industry.



**Figure 9: Illustrations of some privately owned forested lands currently for sale (Source: Jamaica Real Estates Sites, specific vendors protected for privacy)**

The third type of landowner participating in the private forest programme is a retired professional, Mr. **Dalkeith Hannah**, who had the foresight to invest in land for sustainable timber production as a retirement transition. This landowner is a strong advocate for making use of all aspects of timber and embracing sustainable timber production for the local market. This scenario provides a model for how medium-scale landowners may embrace forest protection with medium-long term economic goals. Mr. Hannah is already a well-spoken advocate and may be a key change agent for promoting economically viable REDD+ options to other stakeholders.

**Small-scale landowners** interviewed expressed the greatest alignment of interest with REDD+ if they could get access to arable land with a lower cost of production than the steep uphill marginal slopes in which they are concentrated. Small-scale farmers reported that under the present circumstances, they are land starved, cannot access capital or adequate land at a conducive price point, cannot reduce the cost of production on the steep slopes where they farm as they are limited in their ability to use mechanized clearing, and suffer crop loss due to the vagaries of weather as the irrigated lands tend to be available to large-scale producers in the desirable low-lying fertile areas. Some small holders can afford the current rent of J\$ 5000-9000 per year, depending on the locations, for three-year leases that are being offered on idle sugar lands. However, single women and youth especially, reported that they did not have the capital based or economy of scale on their own to afford these rents. The possibilities for REDD+ on Crown lands available for lease could also address some of the issues micro farmers face through the design of agroforestry initiatives.

Small holders also expressed the greatest interest in increasing long term tree cover on their properties. This show of interest is strongly supported by empirical data. Analysis of the FD’s Client Services Division’s database of private landowners participating in their tree planting programme shows that small landowners with 1-5 acres of land comprise over 90 percent of the actors that have opted over the decades to plant trees on their land. However, the 10 Ha minimum land size that the FD has selected as the minimum cut off for its tax incentive programme does not reward these landowners in anyway, though they express a great interest in being able to benefit.

There are several constraints to the number of trees that these landowners can plant because of the small size of their lands. Many opt for boundary trees which provide protection from strong winds and allow sufficient light for planting other crops. The dominant type of crop farmed influences the number of trees that could be put in. Yams, for example, need a lot of light and impose space constraints. Coffee and cocoa on the other hand thrives well under agroforestry conditions.

Informal collective rights to family land also make tree planting complex, as family members must all agree to put portions of their already limited land under long term tree cover. The ability to access property tax breaks, agroforestry training and support, and training in how to include timber for medium to long term gain, were all factors cited that could lead to successful REDD+ at the small scale. In addition, small holders expressed a strong interest in fruit trees.

The main economic factor influencing their choice is the ability to have an economic portfolio of returns of short-term crops, medium term fruit trees, and longer-term timber. They cannot afford to plant only timber on their land, as they have no alternative means of survival while waiting 10-15 years for these trees to mature. The FD has for the most part focussed its private tree planting programme on timber, missing the opportunities for increasing long term tree cover and improving socio-economic conditions of small landowners. More recently it has started to pay attention to fruit trees and will likely take a more agroforestry approach to managing trees on farmlands under REDD+.

There are instances where small-scale family lands are in remote, inaccessible and are not cost effective to use. There are also situations where families have migrated, and their land is unattended to. There is a potential for strong alignment with REDD+ in these situations, as it offers these landowners the opportunity to opt in and benefit from REDD+, either through whatever direct benefit sharing mechanism is decided between the government and stakeholders or the active management of their lands, which are otherwise at risk for informal capture. The task of identifying and engaging these numerous small-scale actors is not one that could be achieved in this stage of REDD+, but Local Forest Management Committees (LFMCs) and other community-based management bodies in and around protected areas would play a key role in executing and managing such a process in Phase 2 of REDD+ readiness.

**Churches** reported that they own considerable land, particularly the Anglican church. Many of these are not under active management. A considerable amount has been captured for informal housing and agricultural production and churches have had to accept government regularization of these lands. The losses have been in all parishes, but especially in St. Catherine, St. Andrew, St. Ann, and Trelawny. In several cases lands captured were substantial and not captured by the poor in need. Churches are in a morally difficult position when it comes to eviction. However, integration of church lands into a REDD+ programme with community-based approaches and poverty reduction goals may offer a solution to the present problem that should be explored further.

**Gun Clubs** also hold lands and have an interest in forest protection. The **Jamaica Rifle Association (JRA)** is a long-standing membership-based NGO that represents the interests of Gun Clubs and enthusiasts and is an entry point for reaching these stakeholders.

**Maroon Communities** are critical stakeholders. They own substantial land, with the Leeward Maroons owning some 74, 726 Ha in Cockpit Country, where the country's last remaining natural forests can be found. Maroon communities were formed by escaped African slaves during the colonial period, many of whom intermingled with remnant indigenous Taino peoples in the rugged densely forested mountains. Maroons successfully resisted and defended the lands they occupied against the British, who eventually signed treaties agreeing to maroon lands and autonomy from colonized spaces. Consequently, Jamaica's Maroons enjoy rights to treaty lands and indigenous peoples' status under the United Nations. They hold lands acquired in 1739–1740 treaties with the British and currently claim rights that are acknowledged and some that are disputed by the Government of Jamaica. There are four official maroon communities. These are **Accompong Town**, St. Elizabeth and **Trelawny Town**, Trelawny (Windward Maroons) and **Moore Town** and **Charles Town** in Portland and **Scott's Hall** in St. Mary (Leeward Maroons). Each maroon community elects a Colonel in Chief as the Head of Government. The Colonel then appoints an independent Maroon Council, which is the Executive with legislative authority and responsibility for governing communities. Maroon communities also have an **Indigenous/Maroon Council** with representatives from different maroon communities.

Maroon councils form an umbrella body, **Yamaye Council of Indigenous Leaders (YCOIL)**, which was formerly known as the Maroon Secretariat. The Council represents maroon issues nationally and is the main interlocutor with the State over land rights. It also has among its membership the Yamaye Guani (Jamaica Hummingbird) Taino People of Jamaica, who do not own land, and the **Maroon**

**Indigenous Women's Circle (MIMC)**, which provides a forum for maroon women's voice in their society and externally and for women to preserve and transmit unique maroon culture.

Initial online interviews with **representatives of** indicate an alignment between their interests and REDD+ in protecting forests as well as generating income and meaningful opportunities for economic advancement at the local level. However, as much of the fieldwork was conducted remotely, the opportunities to explore this further has been scheduled for the earliest country visit, when the correct protocols of engagement can be observed. Given the emphasis that UN REDD+ places on Free Prior and Informed Consent (FPIC) of indigenous communities, the results of preliminary interviews are not reported here. Suffice it to say, that interests are aligned with REDD+ and all Maroon Councils indicated an interest in exploring the benefits and responsibilities that would be involved and ways in which maroon communities could participate in REDD+.

Initial interviews with **bauxite companies**, holders of approximately 3 percent of land under mining leases, suggest some potential to pursue REDD+ on lands mined for bauxite within the current national framework for bauxite mining. All the companies, **Noranda Bauxite Ltd. (NORANDA)**, **West Indies Alumina Company (WINDALCO)**, **Jamaica Aluminium Company (JAMALCO)** and **Jiuquan Iron and Steel Group (JISCO)** were open to discussing the options one on one, as the possibilities for forest management during bauxite mining and forest restoration post-mining are specific to their land holdings and types of operations. NORANDA, for example, indicated a willingness to examine lands that they will not mine where the grade of the ore is not suitable for their refinery specifications, whereas other companies did not have the same issue. The possibility exists to look at entire operations from clearance that maximizes standing trees, protection of standing areas, size of mining roads, and mature vegetation restoration under managed forests or agroforestry.

There are several factors to consider. The first is some lands under bauxite leases are owned by private individuals. Any effort at improving forest management or in forest restoration would also have to be discussed with these private landowners. Secondly, the companies are required by law to rehabilitate mined lands within three years of the conclusion of mining. These rehabilitated lands are inspected and certified and there is a financial penalty for not achieving restoration within the three years. Companies are not required to restore mature vegetation or forests on the mined lands, and forests cannot materialize in a three-year timeframe. Some company representatives reported that the restored areas can and do sustain farming of certain crops such as ground provisions. However, some small-scale farmers near restored areas indicated that they could no longer use the lands for the type of agriculture they practiced pre-mining, as the soil was impoverished, and drainage altered. The main use they could make of the lands was grazing animals and some areas are used as water catchments. The post mining agriculture they described involved more greenhouses on permanently converted land rather than fully rehabilitated land sustaining crops.

The issue of the thickness of the topsoil on restored lands was discussed with companies, which indicated that they often restore more than the required 6-inch thickness. The specifications related to land rehabilitation to nurture the return of mature vegetation must be discussed. A key factor is that under the current regulatory and management regime, the FD has no formal role in rehabilitation and restoration of mined lands to mature vegetation. The JBI has all control over regulation of land and environmental matters on bauxite lands. The FD would have to explore the possibilities with the companies and JBI, along with the **National Restoration Committee (NRC)** established in 2009, and chaired by the Commissioner of Mines, as well as residents in and near bauxite mining and resettlement areas have critical roles to play in this process. The JBI has a well-established structure of **Community Councils** for engaging local communities through the **Bauxite Community Development Programme**.

## 4. Protected areas management authorities and stakeholders in conservation

### 4.1 Protected areas in Jamaica

According to the Protected Areas System Master Plan, 2013-2017, Jamaica's terrestrial protected areas represent approximately 18 percent of the total land area (200,000 Ha) and the marine, approximately 15 percent (180,000 Ha):

- Forest Reserves & Forest Management Areas
- National Parks (NP)
- Protected Areas (generic)
- Game Reserves (GR)
- Marine Parks (MP)
- Special Fishery Conservation Areas (SFCA)
- Heritage Sites (HS).
- Tree Conservation Areas (TCAs)
- Special Conservation Areas (SCA)

There is a daunting list of overlapping designations, which may be streamlined in the future revision of the National Protected Area System Masterplan (NPASMP) by a multi-stakeholder **Protected Areas Committee**, which exists to oversee the implementation, review, and updating of the PASMP.

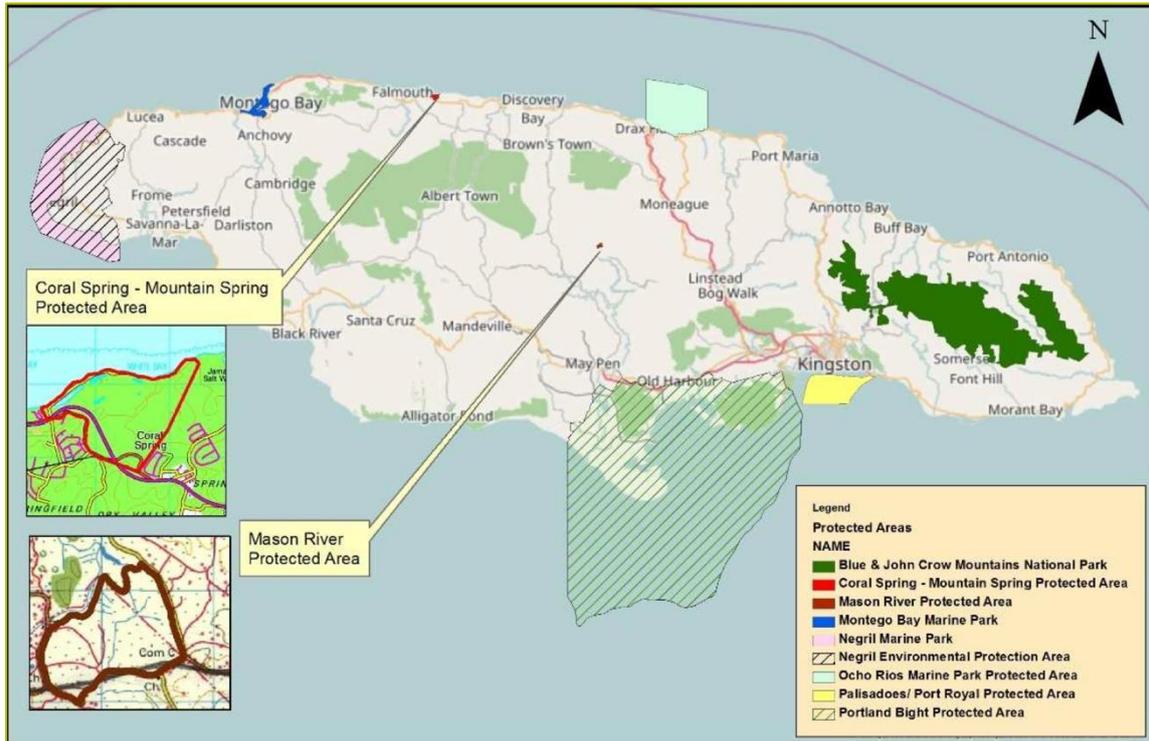
All forest reserves are also game sanctuaries. Some forest reserves are part of, or also, national parks, such as the **Blue and John Crown Mountains National Park (BJCMNP)**, or protected areas, such as the **Portland Bight Protected Area (PBPA)**. Several marine parks and fish sanctuaries include mangrove forests, and they also have extensive sea grasses, which are increasingly being recognised for their carbon storage capacity and may in the future be integrated into REDD+. In addition to the main types of protected areas, there are also Tree Conservation Areas, which may be designated in towns and settlements and Special Conservation Areas may be designated and gazetted by Parish Development Orders. These instruments could also be used to designate REDD+ sites at the parish level.

As of 2013, there were some 350 declared protected areas. Since then, additional forest reserves, protected areas, and fish sanctuaries have been declared. Just recently in March 2021, the Government announced that an additional 15 areas were slated for protection, including some private lands. The objectives of protected areas are to preserve any object or unusual combination of elements of the natural environment that is of aesthetic, educational, historical, or scientific interest or HIGH value ecological function, such as landslide protection, soil protection, erosion prevention, maintenance of water supply and amenities, flora, and fauna protection. Table 3 shows the types of protected areas, summary definitions and government agencies responsible for these areas. This list may not be up to date, as there is no single publicly available comprehensive list of all protected areas by category and acreage. Figure 10 is comprised of two maps showing existing and proposed protected areas.

TYPE OF PROTECTED AREAS OF RELEVANCE TO REDD+	RESPONSIBLE GOV'T BODY
<b>Forest Reserves</b> -For conservation of naturally existing forests, establishment of forest plantations, generation of forest products, conservation of soil and water, recreation, and protection of flora and fauna	FD
<b>Forest Management Areas</b> -Any land not in a forest reserve can be declared a forest management area, including private land, if the Minister is satisfied that the use of the land should be controlled for the protection of the national interest. These areas may be used for conservation of naturally existing forests, establishment of forest plantations, generation of forest products, conservation of soil and water, recreation, and protection of flora and fauna.	FD

<b>National Parks</b> - are lands or sea managed mainly for the conservation of the ecological integrity of ecosystems and managed for scientific research, education, and recreation, generally maintained for the benefit of the public	NEPA
<b>Marine Parks</b> - Any area of land lying under tidal water and adjacent to such land or any area of water managed mainly for the conservation of the ecological integrity of ecosystems and managed for scientific research, education, and recreation, generally maintained for the benefit of the public	NEPA Fisheries Division, MOAF
<b>Protected Areas</b> - Any area of land or sea dedicated to the protection and maintenance of natural and cultural values and managed through legal and other effective means. These areas may accommodate industrial and other types of economic activities.	NEPA, NRCA, FD (depending on the area)
<b>Protected Watershed</b> – Any watershed designated protected to restore and preserve its ecological functions	NEPA. NWC
<b>Special Fishery Conservation Area</b> - No fishing zones reserved for the reproduction of fish population with the aim of gradually increasing fish populations affected by overfishing, habitat degradation and land-based nonpoint- source pollution, among other stressors. Also designated for the protection of ecological characteristics such as seagrass beds, a reef system, and/or shallow waters abutting mangrove stands, all of which are important nursery grounds and habitats for most juvenile reef fish species.	Fisheries Division. MOAF
<b>Special Conservation Areas</b> - An area of special architecture or environmental interest, the character or appearance of which it is desirable to preserve or enhance and within which are specific controls over development and the felling of trees	Parish Councils, NEPA
<b>Game Sanctuary</b> – Areas where hunting any animal or bird, taking the nest or egg of any bird, taking any dog into, or knowingly permitting any dog to enter, and carrying any gun, catapult, or other weapon capable of being used to hunt animals or birds is prohibited. All Forest Reserves are also game sanctuaries.	NEPA, FD
<b>Game Reserves</b> - Areas of land, which maintain such restrictions as noted for game sanctuaries except where permits are granted for hunting animals and birds	NEPA
<b>Tree Preservation Order</b> - Order to preserve the position, spatial plan of trees, groups of trees or woodlands on public or private property	Local Authority & Town and Country Planning Authority
<b>World Heritage Site</b> – Site of international natural and cultural significance	NEPA, UNESCO
<b>Ramsar Site</b> – wetlands of international significance	NEPA, Ramsar

**Table 3: Table of types of protected areas in Jamaica that are relevant to REDD+**



Source: Protected Areas Branch, NEPA

Map prepared by  
Protected Areas Branch, NEPA  
December 2016

**Protected Areas Under the  
Natural Resources Conservation  
Authority Act**

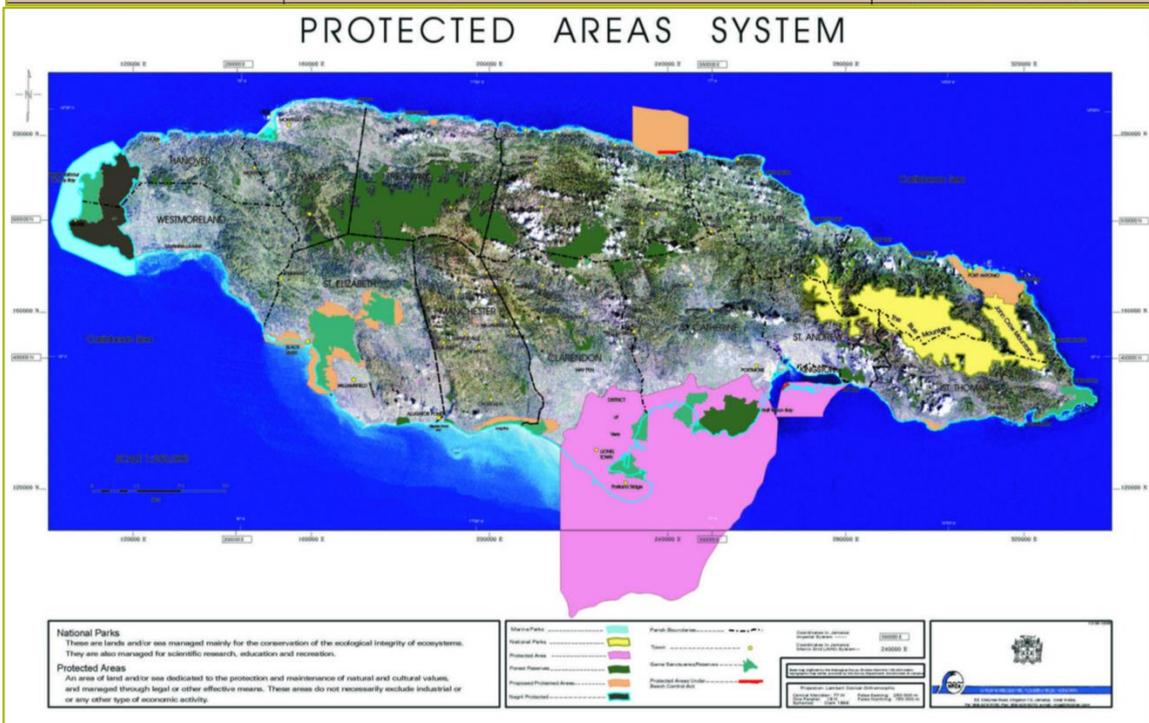


Figure 10: Visual depiction of existing and proposed protected areas (Source: NEPA)

Financial support for protected areas come from a combination of government subsidy and project funds from international donors. The **National Conservation Trust Fund of Jamaica Ltd (NCTFJ)** was established as a not-for-profit NGO to mobilize financial resources for funding projects, networking, and building partnerships for Jamaica’s system of protected areas. Most donor funds and budget allotments are channelled through the **Environment Foundation of Jamaica (EFJ)**, a well-

established body born out of the “debt swap” agreement brokered by Conservation International between the Government of the United States and Jamaica. The EFJ has operated for almost two decades and has provided small grants to over a thousand different NGOs and CBOs to implement conservation and sustainable development projects, many in and around existing protected areas or areas that eventually gained formal protection.

### 4.2 Governmental management authorities for protected areas

The management of protected areas is the responsibility of NEPA, the FD, the Fisheries Division of the Ministry of Agriculture and Fisheries, and the **Jamaica National Heritage Trust (JNHT)**, depending on the site and objectives of protection. The NEPA-NRCA has the overarching authority for management of protected areas and national parks, and additionally designates NGOs with the power to manage and enforce legislation that falls under its jurisdiction. NEPA is responsible for ecological protection in these areas and across Jamaica.

Governmental bodies, NGOs, and CBOs that have been designated management authorities or given other statutory roles in the management of protected spaces have a strongly aligned interest with REDD+ in terms of resource protection and opportunity to generate revenues from community-based conservation activities. Their primary concern centre on the allocation of responsibilities, rights, and benefits commensurate with their contribution to REDD+. In addition to these types of stakeholders, the **National Protected Areas Committee (NPAC)** and National Conservation Trust Fund of Jamaica Ltd. (**NCTFJ**) are important stakeholders. The **Institute of Jamaica**, which is responsible for living and material cultural heritage also has a role in protected areas management. Figure 11 is a rough illustration of how management responsibility for protected areas is apportioned among the main governmental bodies.

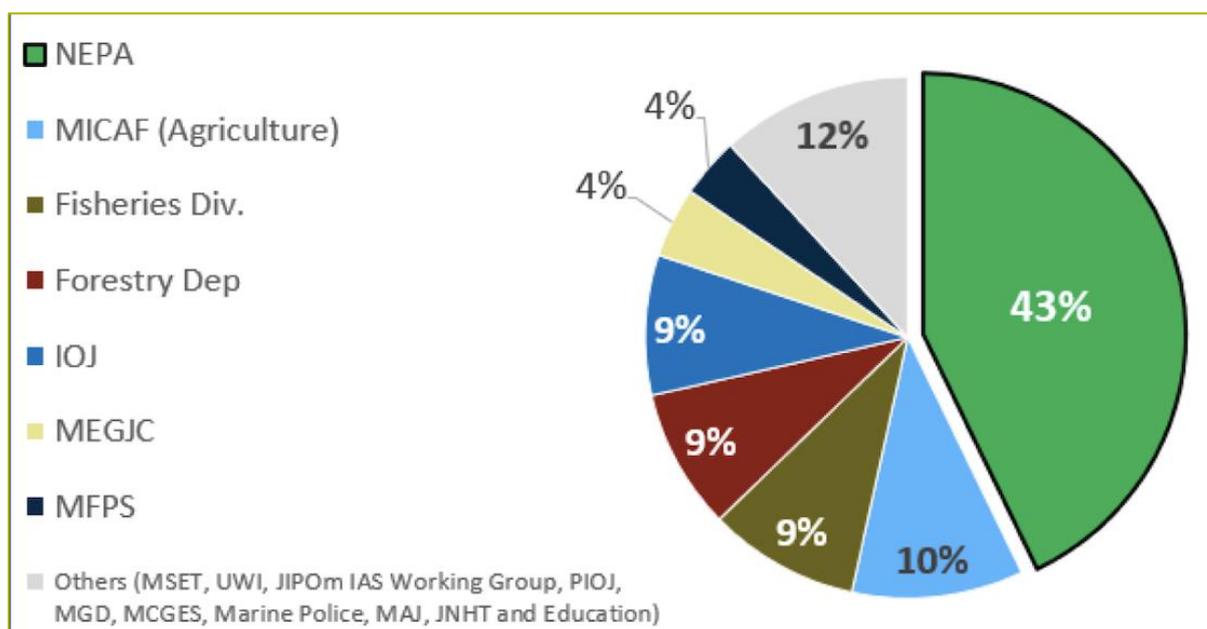


Figure 11: Government agencies’ relative weight of responsibility for protected areas

### 4.3 NGO- and CBO- designated management authorities for parks and protected areas

The main terrestrial and land-sea boundary protected areas, general description of the area, responsible government authority, and designated NGO management authority are presented in Table 4 below.

PROTECTED AREA	RESPONSIBLE GOVERNMENT AGENCY	NGO/CIVIL SOCIETY DESIGNATED MANAGEMENT AUTHORITY / CO-MANAGERS
<p><b>Blue and John Crow Mountains National Park (BJCMNP)</b> Forest Reserve &amp; UNESCO World Heritage Site (est. 1937 under the Forest Act as Forest reserve, 2015 World Heritage status; 495.2 km<sup>2</sup>; 4.5 percent Jamaica’s land area) St. Mary, St. Andrew, Portland, and St. Thomas</p> <p>The BJCMNP accounts for 4.5 percent of Jamaica’s land surface and includes the Blue Mountain Peak at 2,256 metres (7,401 feet). This area is also the home of the Windward Maroons. The Park is an important protected area for natural and cultural values but is under threat from mining, encroachment for commercial and small-scale coffee farming, invasive alien species, fire, climate change, and frequent slides.</p>	<p>NEPA FD</p>	<p><b>Jamaica Conservation and Development Trust (JCDT)</b> The JCDT is a registered charity that was founded in 1988. It is part-funded by the Government of Jamaica and relies on financial support from donor agencies, companies, and individuals to safeguard the natural and cultural heritage of the protected area. IT is involved in all aspects of park management from planning, administration, fundraising, conservation, research, public education, management recreation, enforcement, and participatory engagement with stakeholders.</p>
<p><b>Portland Bight Protected Area (PBPA)</b>, Designated Ramsar Site (est. 1999, 1,350 Km<sup>2</sup>, 5 percent Jamaica’s land area and about half of its island shelf) Clarendon and St. Catherine, just west of Kingston</p> <p>PBPA includes Hellshire Hills and Peake Bay Forest Reserves and some 8,000 ha of coastal mangroves, among the largest contiguous mangrove stands remaining in Jamaica, as well as a salt marsh, several rivers, offshore cays, coral reefs, seagrass beds, and open water. More than 3,000 fisher families depend on the area for their living.</p>	<p>NEPA FD</p>	<p><b>Caribbean Coastal Area Management Foundation (C-CAM)</b> C-CAM is an NGO established in 1997 with the goal of promoting sustainable development of the (PBPA through stakeholder participation in the implementation and management of programmes and projects, including livelihood enhancement activities for stakeholders as well establishing a sustainable financing programme for C-CAM operations and park protection.</p>
<p><b>Negril Marine Park (NMP)</b> (est. 1988, Environmental Protection Area, 259 km<sup>2</sup>, of which 99 km<sup>2</sup> is land area and 1.60 km<sup>2</sup> marine area, 33 km<sup>2</sup> shore length, Westmoreland</p> <p>Protects the entire Negril watershed (the area drained by the Orange, Fish, Newfound, North Negril and South Negril Rivers), including the Great Morass swampland and all land areas that drain into the Caribbean between Green Island and St John’s Point. Includes Green Island on the north coast to St John’s Point (south of Negril) and inland to Fish River village and Orange Hill. It also includes a marine park extending out to</p>	<p>NEPA</p>	<p><b>Negril Area Environmental Protection Trust (NEPT)</b> was founded in 1994 (registered as a charitable company 1995), as an umbrella organization representing environment and sustainable development concerns in the Negril areas. It lobbied for protection of Green Island and Negril and an Environmental Protection Area and manages the land area from the forest ridges of Negril and Fish River Hills, through Negril Great Morass to the sea. The <b>Negril Coral Reef Preservation Society (NCRPS)</b> est. in 2002 has delegated authority to manage the marine side of the park. The NCRPS</p>

sea and comprises coral reefs, seagrass beds, and mangrove forests.		is a small NGO with approximately 6 staff members focused on managing the NMP in collaboration with fisherfolk and other stakeholders.
Mason River Protected Area, Bird Sanctuary and Ramsar Site (est. 2012, 0.82 km <sup>2</sup> Clarendon and St. Anne. Small, isolated area with several surface depressions, ponds, and sinkholes that seasonally store surface water, located in the hilly countryside of central Jamaica. All its wetland types have an important ecological function in preventing downstream flooding by absorbing precipitation. The site is a representative and rare example of an upland peat bog and scrub savannah.	NEPA Jamaica National Heritage Trust (JNHT) est. 1958, responsible for preservation, protection, and management of material heritage sites.	---
Montego Bay Marine Park (MBMP) (est. 1991, 15.2 km <sup>2</sup> ) St. James. The MBMP covers the entire Montego Bay beginning at the HIGH tide mark extending to 100 m depth at sea covering a diverse environment of mangrove forests, islets, beaches, river estuaries, seagrass meadows, corals.	NRCA/NEPA	<b>Montego Bay Marine Park Trust (MBMPT)</b> was established in 1991 after years of lobbying, specifically to oversee the MBMP, and registered in 2013 as a charitable company. It manages the marine park and two Special Fisheries Conservation Areas.
<b>Palisadoes Port Royal Protected Area</b> , Ramsar Site (est. 1998, Ramsar 2005, 7523 Ha.), Kingston region. Designated Protected area located on the south-eastern coast just offshore from the capital Kingston. This is the world's seventh largest natural harbour. The site contains cays, shoals, mangrove lagoons, mangrove islands, coral reefs, seagrass beds and shallow water, thus hosting a variety of underrepresented wetland types.	NEPA	NEPA-Led Multi-stakeholder Management Committee
Black River Morass Conservation Area, Game Reserve, and Protected Area (est. 1997, 5700 Ha) St. Elizabeth. The largest freshwater wetland ecosystem in Jamaica and the Caribbean, encompassing mangrove swamps, permanent rivers and streams, freshwater swamp forest, and peatlands. The site supports human habitation, livestock grazing, fishing, tourism, and cultivation.	NEPA	NEPA-Led Multi-stakeholder Management Committee
<b>Morant Cays</b> (100km <sup>2</sup> ) SSE of Morant Point (near Kingston). Four uninhabited islets and a 7km long coral bank with extensive seagrass meadows. Open to seasonal fishing	Fisheries Division	Multi Stakeholder Morant Cays Management Committee
<b>Pedro Cays</b> (8040 km <sup>2</sup> ), 50 miles SW of Jamaica /180 km south of Treasure Beach	Fisheries Division	Multi Stakeholder Pedro Cays Management Committee

Large bank of sand and coral rising steeply from the seabed comprised of islets, cays and rocks and extensive seagrass meadows		
--	--	--

**Table 4: List of National Parks, Protected Areas, and Marine Parks, and their Governmental and Non-Governmental Management Authorities**

#### 4.4 Local Forest Management Committees (LFMCs)

The Forest Act, Section 12 provides for the designation of Forest Management Committees (FMCs) for the whole or any part of a forest reserve or forest management area. In practice these are referred to as Local Forest Management Committees (LFMCs). The roles of these committees as set out in the Act are to:

- Monitor the condition of natural resources in the relevant forest reserve, forest management area or protected area
- Hold discussions, public meetings and like activities relating to such natural resources
- Advise the Forest Conservator on matters relating to the development of the forest management plans and the making of regulations
- Propose incentives for conservation practices in the area in which the relevant forest reserve, forest management area or protected area is located
- Assist in the design and execution of conservation projects in that area; and
- Such other functions as may be provided by or under this Act.

Most LFMCs were established in the early 2000s but some were established in the last 10 years. While the Forest Act has foreseen a management role for the LFMCs, in practice they are localized to relations with the FD as external community bodies that are interfaced with through the FD's Client Services Programme, which also interfaces with private landowners. They are not well integrated into the FD's strategic approach to forest management, are not provided any budgetary financial resources to execute their functions, and do not have any representation at the level of the board of the FD or in any senior planning processes.

Client Services field officers do provide technical assistance to LFMCs to write funding proposals for projects, but Jamaica's embrace of project-based funding for community-based initiatives is extreme and most organizations waste hundreds of hours of transaction time applying for grants that they do not get because there are insufficient resources to allocate. LFMCs must compete with a large pool of CBOs, many of which do not have formal legal responsibilities, and neither LFMCs nor these CBOs in are able to attract consistent support to upkeep the momentum of their initiatives. The consequence is despondency in communities, loss of community interest and support, periods of dormancy, volunteer fatigue, and a constant investment in effort to rejuvenate community interest in conservation activities. LFMCs have a central role to play in forest management and have already contributed tremendously to education and changing community's attitudes and use patterns, and they are critical to the success of REDD+. These bodies are a priority for capacity strengthening and support as Jamaica continues it REDD+ readiness, network building with other land and environmental management agencies, and financial support for discharging their responsibilities. Reform of structures and development of capacity for social forestry at the FD are necessary for integrating LFMCs into the forest management role envisioned under the Forest Act.

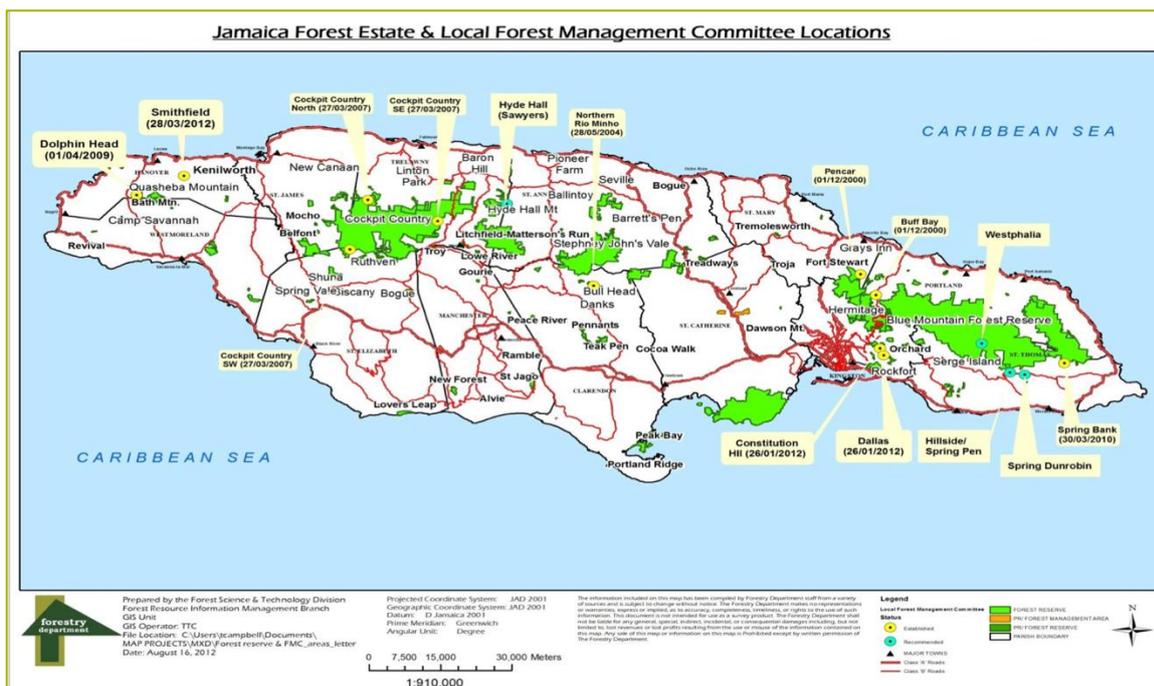


Figure 12: Map showing locations of Local Forest Management Committees relative to Forest Reserves and Forest Management Areas (Source: Forestry Department)

Table 5 lists existing LFMCs. Each committee’s membership is drawn from the villages around forest reserves and management areas. The membership tends to be balanced with both males and females represented in the general membership as well as management levels.

NAME OF LFMC	FOREST RESERVE AREA	COMMUNITIES/DISTRICTS SERVED	DATE ESTABLISHED/ANY DORMANT PERIODS
<b>1. Cockpit Country SE Local Forest Management Committee</b>	Cockpit Country Forest Reserve	(Twenty-two communities, including Albert Town, Troy, Oxford, Litchfield, New Hope and Wilson’s Run	Formed in 2009 Registered with the Company Office of Jamaica for entire Cockpit Country (Awaiting relevant documents to register with Department of Corporative and Friendly Societies (DCFS) for Southeast Cockpit Country)
<b>2. Cockpit Country North Local Forest Management Committee</b>	Cockpit Country Forest Reserve	Quick Step, Flagstaff, Maroon Town, Sweet Water, Garlands, Maldon, Troy, Oxford, Litchfield and Auchtembeddie	Formed 2009 Dormant period (5 years) Revived in 2015 Registered with Department of Co-operatives and Friendly Societies (DCFS) - May 2019
<b>3. Buff Bay Local Forest Management Committee</b>	Lancaster Forest Reserve, Portland	Buff Bay, Belvedere, Cascade, Banga Ridge, Pencar, St Mary, Green Hill, Swift	2000 No dormant period Registered with Department of Co-

		River, White River, and Silver Hill Gap	operatives and Friendly Societies (DCFS) in 2011
<b>4. North Rio Minho Local Forest Management Committee</b>	Bull Head Forest Reserve, Clarendon	(Northern Rio Minho Watershed), Red Lands Ballard's River, Crooked River, Sandy River, Croft's Hill, Brandon Hill, Bull Head Mountain, Kellits, Pennants, Morgan's, Pass, Colonel's Ridge, James Hill, Trout Hall, Parts of Chapleton/Summerfield, Parts of Frankfield Reckford	2004 Dormant some months in 2015 Registered with Companies Office of Jamaica 2014. No charitable status
<b>5. Constitution Hill Local Forest Management Committee</b>	Constitution Hill Forest Reserve, St. Andrew	(East Rural St. Andrew - Trumpet Tree Region) Constitution Hill Queens Hill Chatsworth Upper Halls Delight Lower Halls Delight Dallas Castle Broadbelt	2011/2012 Launched January 26, 2012 Not formally registered
<b>6. Sawyers Local Forest Management Committee</b>	Hyde Hall (Sawyers) Forest Reserve, St. Ann	Sawyers The Alps Brompton Sansound Blagrove Drive Jackson Town Stewart Town	2012 LFMC registered as a Benevolent Society in 2017
<b>7. Hillside Local Forest Management Committee</b>	Hillside/Spring pen Forest Reserve, St. Thomas	(Morant River Watershed) Hillside District  Blue and John Crow Mountains Forest Reserve	2014 Dormant for past 2 years (Chairman overwhelmed with volunteering duties - Parent teachers Association (PTA) Secretary at Seaforth HIGH School; Shelter Manager and United Nations (UN) Parish Representative)
<b>8. Spring Dunrobin formerly Whitehall Local Forest Management Committee</b>	Blue Mountain, Spring Dunrobin, St. Tomas	(Plantain Garden River Watershed) Whitehall Golden Valley	2014 Was dormant for 3 years
<b>9. Grants Mountain Local Forest Management Committee</b>	Stephney John's Vale, Forest Reserve St. Ann	(St. Ann - Stephney-John's Vale Forest Reserve area) Grant's Mountain Hessen Castle	2013 Launched March 6, 2014 Registered with Department of Co-

		Calderwood Glen Murray Mountain Nine Miles	operatives and Friendly Societies (DCFS) - November 19, 2019
<b>10. Westphalia Local Forest Management Committee</b>	Blue Mountain Forest Reserve, St. Thomas	Blue Mountain Watershed Area, Westphalia,	2002 Launched September 2012 Dormant 4 years since 2016 Not registered
<b>11. Cockpit Country SW Local Forest Management Committee</b>	Cockpit Country Forest reserve	(44 Communities - St. James + St. Elizabeth), Flagstaff, Maroon Town, Maggoty, Quickstep, Accompong Town, Elderslie Cockpit Country	2007 Was dormant, revived in early 2017 Registered with Department of Co-operatives and Friendly Societies (DCFS)
<b>12. Dolphin Head Local Forest Management Committee</b>	Dolphin Head Forest Reserve, Hanover	Appears dormant, unable to contact	
<b>13. Pencar Local Forest Management Committee Pencar Forest Reserve, St. Mary</b>	Pencar Forest Reserve, St. Mary	Dormant from lack of resources	
<b>14. Smithfield Local Forest Management Reserve Smithfield Forest Reserve, Hanover</b>	Smithfield Forest reserve, Hanover	Dormant from lack of resources	
<b>15. Dallas Castle Local Forest management Committee</b>	St. Thomas	Dormant	
<b>16. Hansen Castle</b>		Dormant	Est. 2014.
<b>17. Stephney</b>	St. Ann, Clarendon	Dormant	Unable to reach

**Table 5: Local Forest Management Committees**

#### 4.5 Special fisheries management area CBOs and NGO- management authorities

NGOs and CBOs engaged in managing Special Fisheries Management Areas (SFMA) must deal with a large array of fisherfolk and other stakeholders. They are generally skilled at community-based management. Many SFMA contain mangroves and sea grasses and nearshore areas are impacted by land-based activities, including forest loss and increased erosion and sediment run off. Management Authorities' interest in conserving mangrove and other forests align with REDD+. Those that are involved directly in mangrove forest protection are frontline stakeholders that must be engaged in the development of the REDD+ strategy and implementation. Table 6 lists the Special Fisheries Conservation Areas and their management authorities.

<b>SPECIAL FISHERIES CONSERVATION AREA</b>	<b>GOVERNMENT MANAGEMENT AUTHORITY</b>	<b>NGO AND CBO MANAGEMENT AUTHORITY</b>
Alligator Head Special Fisheries Conservation Area, Portland	Fisheries Division	Portland Environmental Protection Association
Southwest Cay Special Fisheries Conservation Area, Pedro Bank	Fisheries Division	Jamaica Environment Trust
Bluefield's Bay Special Fisheries Conservation Area, Westmoreland	Fisheries Division	Bluefield's Bay Fishermen's Friendly Society
Bogue Islands Lagoon Special Fisheries Conservation Area, St. James	Fisheries Division	Montego Bay Marine Park Trust (MBMPT)
Discovery Bay Special Fisheries Conservation Area, St. Ann	Fisheries Division	Alloa Fishermen's Association
Galleon Harbour Special Fisheries Conservation Area, St. Catherine	Fisheries Division	Caribbean Coastal Area Management Foundation (C-CAM)
Galleon St. Elizabeth Special Fisheries Conservation Area, St. Elizabeth	Fisheries Division	Breds Treasure Beach Foundation
Montego Bay Point, Special Fisheries Conservation Area, St. James	Fisheries Division	Montego Bay Marine Park Trust (MBMPT)
Oracabessa Bay Special Fisheries Conservation Area	Fisheries Division	Oracabessa Foundation (with St. Mary Fishermen's Cooperative)
Orange Bay Special Fisheries Conservation Area, Hanover	Fisheries Division	Negril Area Environmental Protection Trust (NEPT)
Salt Harbour Special Fisheries Conservation Area, Clarendon	Fisheries Division	Caribbean Coastal Area Management Foundation (C-CAM)
Sandals Boscobel Special Fisheries Conservation Area, St. Mary	Fisheries Division	Sandals Foundation
Sandals Whitehouse Special Fisheries Conservation Area	Fisheries Division	Sandals Foundation
Three Bays Special Fisheries Conservation Area, Westmoreland, St. Catherine	Fisheries Division	Caribbean Coastal Area Management Foundation (C-CAM)
Bowden Harbour Fish Sanctuary (St. Thomas)	Fisheries Division	-
Bird Cay Special Fisheries Conservation Area (Pedro Banks, Offshore)	Fisheries Division	Caribbean Coastal Area Management Foundation (C-CAM) The Nature Conservancy
White River Special Fisheries Conservation Area, Ocho Rios, St. Ann	Fisheries Division	White River Marine Foundation
Rocky Point Special Fisheries Conservation Area, St. Thomas	Fisheries Division	Rocky Point Fisherfolk Association

*Table 6: Protected Areas System Masterplan: Jamaica 2013-2017*

#### 4.6 Focal points for International Environmental Agreements (EIAs)

Jamaica is signatory to several international environmental agreements for which national focal points have been appointed. Work is being done to various degrees to meet commitments for conservation of biodiversity, address desertification, climate change adaptation and mitigation, and other related aims. Table 7 lists these agreements and corresponding national focal points that must be engaged in the development of the REDD+ strategy.

ENVIRONMENTAL CONVENTION/INTERNATIONAL AGREEMENT	FOCAL POINT AGENCY
International Plant protection Convention, Rome (ratified 1969)	NEPA
Convention on Fishing and Conservation of the Resources of the HIGH Sea (ratified 1966)	Fisheries Division
Convention concerning the Protection of the World Cultural and Natural Heritage, Paris, 1972 [WCNH] (Accepted 1983)	Jamaica National Heritage Trust
Protocol of 1978 relating to the International Convention for the Prevention of Pollution from Ships, London, 1973 (Ascended 1991)	Previously Ministry of Transport and Works (now changed) - Ministry of Mines and Transport
Vienna Convention for the Protection of Ozone Layer, Vienna, 1990 (Ascended 1993)	Previously Ministry of Water, Land Environment and Climate Change (changed) now MHUHREC
United Nations Framework Convention on Climate Change (UNFCCC), New York, 1992 (Ratified 1992)	Climate Change Division, MHURREC
Kyoto Protocol to the United Nations Framework Convention on Climate Change, Kyoto, 1997 (Ratified 1992)	Climate Change Division, MHURREC
Convention on Biological Diversity, Rio de Janeiro, 1992 (ratified 1995)	Several Focal Points: Primary Focal Point – Environmental Risk and Management Division, MEGJC Nagoya Protocol – NEPA Access and Benefit Sharing- unknown Work programme on Protected Areas - NEPA
United Nations Convention to Combat Desertification (acceded to the Convention on 22 November 1997.	Environmental Risk and Management Division, MEGJC Note: This is a key convention, as it is the only legally binding instrument that links development to sustainable land management. The UNFCCC requires that REDD+ meets the requirements of other UN instruments to which a country is party. Jamaica
Cartagena Protocol on Biosafety to the Convention on Biological Diversity, Montreal, 2000 (ratified 2012)	Environmental Risk and Management Division, MEGJC
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (ratified 1987)	NEPA Jamaica Scientific Authority
Protocol to the Cartagena Convention concerning Cooperation in Combating Oil Spills in the Wider Caribbean Region [Oil Spills Protocol] (Ratified 1987)	Environmental Risk and Management Division, MEGJC
Protocol on Specially Protected Areas and Wildlife [SPA/W] to the Cartagena Convention on the Protection of the Marine Environment of the Wider Caribbean Region, Signatory 1990, not ratified)	NEPA

Protocol on Land-based Sources and Activities to the Cartagena Convention on the Protection of the Marine Environment of the Wider Caribbean Region (Acceded 2014)	NEPA
--	------

*Table 7: Focal Point organisations for international convention and treaties dealing with forest-related and environmental matters*

#### 4.7 Forest dependent communities and other local communities participating in conservation

Jamaica has a long record of community level activism against large-scale environmental threats as well as self-mobilised volunteerism. This tends to wax and wane depending on whether there are clear and present threats and the level of financial and other resource support for community-based activities. Management authorities for national parks, protected areas, and special fisheries conservation have all embraced community-based management with a focus on livelihoods and actively engage and mobilize communities. There have been strong and successful environmental educational programmes and mobilisation in communities that have reduced degradation rehabilitated, and improved the protection of protected areas, parks, forest reserves and forest management areas, much to the credit of the NGOs and CBOs and field staff of government agencies. However, the extent to which initiatives have responded impactfully to local livelihood needs has varied.

Many communities that have been giving their time and labour to tree planting exercises and other efforts to rehabilitate slopes to protect roads from landslides, and rehabilitate watersheds work voluntarily or for extremely low wages. They provide a subsidised service to downstream commercial and domestic water users, the tourism industry that benefits from aesthetics and ecosystem services of the island's forest, and tour operators that traverse the roads to access inland sites etc. Poor communities do not see a direct reciprocal contribution to their efforts or livelihoods. The inequitable distribution of effort and benefits is a perverse transfer of value from the poor to the wealthier segments of society and represents a disconnect in conservation value chains that must be addressed as the current situation is not sustainable. This situation contributes to chronically resource starved NGOs and CBOs that are creating positive economic value for the country at great consequences, including physical burn out, leadership fatigue, and eventual community despondency and conflicts. Community engagement is a critical area where REDD+ must be vigilant about benefit sharing mechanisms and the equitable distribution of responsibilities and benefits.

Most initiatives that aim for economic returns with communities are based on the alternative livelihoods' paradigm. In this regard, bee keeping has been a success story on a micro-scale. It has been actively promoted by the FD and other organisations, and some communities reported positive experiences with training and creation of livelihoods opportunities for some residents. The question of marketing remains uncertain, but **beekeepers** interviewed reported positive experiences and expressed strong interests in participating in forest protection activities. There is also a strong interest in conservation-based livelihoods, especially among the youth who are interested in becoming rangers and working in conservation, but who also reported that the various national agencies, including the FD, have no internship, active recruitment and local advertising, or entry-level professional training opportunities specifically targeting residents of rural communities in and around protected areas.

In the case of fisheries management, the involvement of fisherfolk in marine protection is an investment in the resource base that benefits community livelihoods directly. On land, it has been more challenging to find meaningful alternative livelihoods for those who forego undesirable activities. Land based situations are more complex, often requiring full investment in the needs and welfare of communities and not just their changing their actions when it comes to protecting the forests or other areas. Communities that have invested in forest reserves and forest management areas need adequate coordinated multi-agency support to address their development priorities outside of the welfare of the protection of forests. Protected areas management authorities cannot address the myriad of issues by themselves and must rely on cross-sectoral multi-agency and real-time problem solving focussed on local issues at the community level. This is a challenge for stakeholder

engagement, as government agencies typically function around their mandate rather than area-specific needs requiring close collaboration with other agencies.

There is a strong tradition of multi-agency input led by the PIOJ at the macro planning level, but many stakeholders reported despondency when it came to meaningful integration and success-based multi-agency efforts at the ground level. Thus, community-based stakeholders were wary of REDD+. They have a strong interest in moving out of economic and decision-making-power stagnation, but mixed views on whether yet another programme that speaks of community participation will materialize real progress on the ground. These stakeholders have great influence in REDD+, because they interact with the forest resources the programme is seeking to conserve. They are best placed to participate in active management and monitoring and are the targets of REDD+ economic benefits and safeguards. Jamaica would not be able to meet all the requirements for results-based payments under REDD+ if local communities around REDD+ sites were to withhold their participation. Therefore, attention to building a multi-stakeholder approach to REDD+ development is critical as is early efforts to properly identify and respond to community interest, including clarifying roles, responsibilities, benefit sharing rights and mechanisms, and access to “real decision-making power” in REDD+ rather than being the “consulted” in what they describe as a mere “tick the box” process of legitimizing REDD+. Both the REDD+ strategy and consultative processes to develop the strategy must also pay keen attention to adequate preparation and information sharing and involvement of forest dependent communities in decision making.

#### 4.8 National and regional NGOs, CBOs, and citizens’ networks in conservation and environmental management

Jamaica has a long tradition of environmental activism and lobbying with dynamic involvement of civil society in this area. Over the decades there have been many different community-based groups organized around specific concerns, some of which have succeeded in lobbying for long term protection and are now well-established registered organisations managing those areas. Many have also dissipated over time as new organisations form. At the national level, the most formidable advocate for conservation and environmental management is the **Jamaica Environment Trust (JET)**, which has used a range of strategies in its work, including collaboration, education, research and analysis, targeted activism with confrontation, and litigation. With thirty years of experience, the Trust is regarded as the main independent environmental advocacy organisation in the country, and it has an important role to play in the REDD+ process. The **Windsor Research Centre (WRC)** in Cockpit Country Trelawny, has been steadfast in advocating for the protection of Cockpit Country against all forms of destructive practices, particularly bauxite mining. It has been engaged in research, education, and conservation activities. The **Cockpit Country Stakeholders Group (CCSG)** is an alliance formed around the protection of Cockpit Country during a dispute with the Government on the ecological boundaries versus boundaries that the Government proposed to declare for a national park. The **Southern Trelawny Environmental Agency (STEA)** was formed around similar concerns and is active on this issue as necessary.

The **Caribbean Policy Research Institute (CAPRI)** is a not-for-profit organisation that produces and disseminates evidence-based knowledge and engages in advocacy to inform economic, governance, sustainable and social policy decision-making in Jamaica and the wider Caribbean. CAPRI has recently concluded an assessment of Jamaica’s environmental regulatory framework highlighting the need for urgent action in several areas, which also happen to be critical areas that stakeholders reported must be addressed if Jamaica is to meet the requirements of CANCUN Safeguard (a): Policy, legislative, regulatory, and institutional governance enabling framework for REDD+. These issues include the need to: complete and rationalize the many environmental policies that are still in draft form; complete and promulgate environmental impact assessment regulations as well as regulations to streamline all types of parks and protected areas; and complete outstanding Development Orders and rationalize all of these and fast track the development of the National Spatial Plan. In addition, CAPRI and other NGOs recommend the establishment of a Parliamentary Commission on the Environment and investigate the feasibility of an Environmental Court for Jamaica. There is a clear alignment between the policy-oriented work of CAPRI and REDD+, which makes the organisation an important civil society stakeholder in the REDD+ process.

The **Northern Jamaica Conservation Association (NJCA)** was founded in 1989 and, like JET, had maintained a strong focus on environmental management nationally. It too embraced education, communication, advocacy, and litigation where necessary to ensure protection of sensitive ecological

areas. The organisation has a record of successes but has been dormant recently due largely to burn out of the small volunteer core, lack of access to consistent financial support for its work, and an overwhelming demand from community groups seeking assistance with problems that could not be met by the small staff and resources available to the organisation. However, the actors have important institutional memory and the potential to reactivate given the right kind and amount of support.

The **Jamaica Caves Organisation (JCO)** is an active membership-based body of cavers that are committed to conservation of Jamaica's unique cave ecosystems and cavernous landscape. They are actively involved in many projects with NEPA, JTB, WRA, TPDCo and other bodies on preservation and enhancement of cave and the island's karst water system. The organisation has been hosting visiting scientists for a wide variety of research on cave ecosystems and habitats and promoting public awareness of the ecosystem and biodiversity value of caves and the role that sustainable access could play in diversifying Jamaica's tourism product portfolio. Karst and cave tourism is a major industry worldwide industry employing over 100 million people.<sup>8</sup> The JCO has an important role to play in the development of a Social and Environmental Management Plan for REDD+ and may also be catalytic in developing economic co-benefits centred on value chains of preservation, research, ecotourism, eco-exploration, and spa experiences around caves. The **Archaeological Society of Jamaica (ASJ)**, which along with the JNHT, plays a central role in preserving the country's material and living cultural heritage also has a role to play in the development of the Social and Environmental Management Plan for REDD+ as well as eco-tourism co-benefits that may be possible.

The **Sandals Foundation Company (SFC)** is an example of successful corporate tourist sector effort to support conservation and communities in a consistent and meaningful way. This not-for-profit foundation was set up in 2009 by **Sandal Resorts International (SRI)** and has supported small scale sustainable livelihood efforts, marine and land protection activities, skills training for conservation and environmental management, tree planting initiatives, and children's education through scholarships and other forms of support for educational facilities. The Foundation is well integrated into the Jamaican landscape and brings experience and insights as well as linkages to the tourism sector to REDD+ planning. The SRI also holds some lands and may consider having these managed as part of the REDD+ programme. This would have to be explored with the SRI.

The **Jamaica Youth Climate Change Council (JYCCC)**, which was formed as a youth arm of the Climate Change Advisory Council, is engaged in advocacy, education, and other activities to address climate change. It is an entry point for engaging youths in REDD+ and encouraging participation of rural youth in climate change issues.

#### 4.9 Transnational environmental organisations, inter-governmental and donor organisations supporting conservation and environmental management

The United States of America (USA) based organisation, **The Nature Conservancy (TNC)** has a consistent presence and track record of work on ecological gap assessments and support for land, fresh water, and marine conservation and livelihoods. It has also been working in areas of climate change mitigation and finance. The TNC would be an excellent partner for REDD+ given its track record of supporting a multi-agency effort to identify and prioritize sensitive ecological areas for protection and work on coastal and marine management. It has a critical role in REDD+ in identifying priority areas for improved forest protection, contributing to the development of the Social and Environmental Management plan, and for resources and expertise it could leverage for research, monitoring, and evaluation of REDD+. **Birdlife Jamaica (BJ)** is a chapter of Birdlife International. It is focussed on promoting the conservation of birds and their habitat, including forest habitats. It has an important role to play in the development and implementation of the Social and Environmental Management Plan for REDD+.

The **Caribbean Youth Environment Network (CYEN)** has a local chapter in Jamaica where youth are engaged on a wide range of sustainable development issues. Also active in the region is the

<sup>8</sup> Forti, Pablo (2015) The scientific importance of karst and caves and their vulnerability. International Union of Speleology. <https://sustainabledevelopment.un.org/content/documents/5640Scientific%20and%20socio-economic%20importance%20of%20karst%20and%20caves%20and%20their%20vulnerability.pdf>

**Caribbean Natural Resources Institute (CANARI)**, a not-for-profit technical institute that has worked over the past thirty years in research, policy support, and capacity building for participatory natural resources management. The Institute has conducted research and implemented various projects in Jamaica over the years. It is currently administering the Critical Ecosystem Partnership Fund (CEPF), which provides grants to non-governmental organisations, community groups, producer groups, private enterprises/small businesses, universities, and other civil society organisations active in and around the Blue and John Crow Mountains and Portland Bight areas of Jamaica. These areas are regarded part of the Surrey County critical ecosystems. CANARI may have a supportive role to play in REDD+ in terms of access to resources for communities, training, and external monitoring and evaluation of success. The **Caribbean Community Climate Change Centre (CCCC)** based in Belize serves Caribbean countries. It is currently implementing a four-year Euro 12 million project to enhance climate resilience (2019-2023) in the Caribbean. It is also administering a climate change and health project aimed at strengthening climate resilient health systems (2020-2025). Both projects are funded by the EU and the Climate Change Division is the Jamaican counterpart focal point for the CCCC.

The **United Nations Environment Programme (UNEP)** has a long-standing **Caribbean Environment Programme (CEP)** regional office in Jamaica that has consistently supported a range of conservation and environmental initiatives, capacity building, and integrated environment and development programmes. UNEP's recent support has been focussed on assisting Jamaica achieve its Vision 2030 national plan through the Caribbean Green Economy Project (GGEP), which seeks to integrate conservation and good environmental stewardship with economic development objectives. UNEP works in coordination with other agencies such as the **United Nations Development Programme (UNDP)** and **World Bank** and many governmental and civil society bodies.

The **United Nations Food and Agriculture Organisation (UNFAO)** has been consistently active in supporting sustainable agricultural practices and sector management in agriculture, fisheries, and forestry though its most recent work has been focussed on agriculture and fisheries. It works primarily through farmer education, research, and project technical support. The UNFAO used to maintain information on land use and agriculture as well as basic data on gender, production systems, production, and other statistics, though this does not appear to have been updated in recent years.

The **United States Agency for International development (USAID)** has a long relationship with Jamaica and in sustainable resource management and livelihoods. The Farmer Field School programme implemented in collaboration with RADA was very well received and referred to by almost all rural stakeholders interviewed as a means through which they learned important sustainable farming skills and a model for education. The Jamaica Rural Economic and Ecosystems Adapting to Climate Change (JaReach) I and II programmes, which focus on adaptation to temperature increases, extended droughts, and more frequent natural disasters, build on the field school successes. USAID's focus, experience, and resources make it an important stakeholder for REDD+.

The **UNDP** also has a long history of supporting unsustainable livelihood-based research and projects in Jamaica in poverty alleviation, sustainable resource management, gender, and youth development. Its current focus on supporting the achievement of the Sustainable Development Goals (SDGs), which are important targets that must be integrated with the REDD+ strategy where appropriate along with means of measuring progress. The UNDP, and **European Union (EU)**, both strong partners supporting good environmental stewardship and economic growth in Jamaica are also promoting the mining of "development minerals" through an **Organization of African, Caribbean and Pacific States (OACPS)** initiative. This initiative is financed by the EU and implemented by the UNDP.

Mining is by nature destructive to ecosystems and forests, and proper ecological rehabilitation is expensive and often prohibitive of revenue generation goals. The **European Union (EU)** has been a strong supporter of forest protection and management. It is presently providing the main budgetary support to the FD and is the main source of support for mangrove research and protection. However, it is funding minerals development in a context where there still is no nationally rationalised land use plan and no ecological impact feasibility assessment of the degree of mining that Jamaica as a small island can bear. In this regard, both the UNDP and the EU have conflicting and aligned interests with REDD+. A challenge for REDD+ is whether and how to reconcile the two opposing thrusts of mining and protection of the nation's ecological

assets. This is a broader national issue that will have to be explored in the REDD+ strategy planning. Despite this situation, the overarching interest of these international bodies has been to support Jamaica's need to earn national revenues and achieve a healthy balance of payments while protecting and enhancing the country's natural resource base. This too is a challenge that must be addressed in the REDD+ strategy itself, with the implications of REDD+ for the balance of payments, and balance of revenue generation with other social and ecological benefits at the national and site levels. All of Jamaica's traditional international partners have much to contribute to brainstorming and consultative process on these and other REDD+ matters.

#### 4.10 Academic institutions: Conservation, resource management and research

The **University of West Indies Centre for Marine Sciences (CMS)** has been conducting research to support marine management in Jamaica and the wider Caribbean through two laboratories located at Port Royal Marine Laboratory and Biodiversity Centre and Discovery Bay, which were established in the 1950s and 1960s, respectively. The Centre provides advice to NGOs and other management bodies on ecosystem studies, pollution monitoring and mitigation, marine biology research, and coastline management. The Centre also manages the **Caribbean Coastal Data Centre (CCDC)** that provides data management services to support coastal and marine management projects and has conducted considerable research and undertaken projects in mangrove restoration.

The CMS' work includes a baseline survey of vulnerable and impacted mangroves, conducted between 2011-2014, especially those associated with special fisheries conservation areas from Kingston, Port Royal, in St. Ann, Trelawny, St. James, and St. Elizabeth. The Centre has central role in the crafting of the National Mangrove Management Plan (NMMP), which the FD is in the process of developing through a consultative process on a schedule for 2022. The CCDC has critical expertise and experience a critical role to play in developing and implementing the national REDD+ strategy.

Other University of West Indies academic departments also have roles to play in capacity building for REDD+, research, and implementation. These include the **Departments of Life Sciences, Geology and Geography**, and **Physics**, which runs the **Climate Studies Group Mona (CSGM)**. Formed in 1994, the CSGM conducts biophysical research to understand climate change and localized impacts and may play an important role in strategic forest protection and management by tracking forest change and threats due to changing climatic conditions and providing early warning to address these threats to forests before they become impactful. This includes tracking shifts in increasing dependence on forested microclimate for agriculture and animal grazing as temperatures rise and drought incidences increase.

The **UWI Institute for Gender and Development Studies (IGDS)** has been engaged in applied research on gender and climate change and is an important stakeholder for REDD+ given the strengths it brings to assessing and monitoring progress with gender transformation objectives. Other UWI institutes are engaged in work that touch upon specific areas that may be of interest in REDD+. The **International Centre for Environmental and Nuclear Sciences (ICENS)** has been conducting research on carbon dioxide emissions from agriculture soils. The **Biotechnology Centre (BC)** focusses on research and development of agrobiotechnology. The **Sir Arthur Lewis Institute of Social and Economic Studies (ASISES)** encourages a range of development studies and economic research that could form part of ongoing long term socio-economic assessment and improvement of REDD+ programme socio-economic impacts.

Aside from the University of West Indies, The **Northern Caribbean University (NCU)**, a private, liberal-arts institution owned and operated by the Jamaica Union Conference and the Atlantic Caribbean Union Mission of Seventh-day Adventists, offers training in environmental science and professional development opportunities, and can support skills building for REDD+ implementation at the community level. The **University of Technology (UTech)**, a polytechnic institute engaged in work-based training and professional development may also be suited to developing specific training programmes in social safeguards monitoring and evaluation, and certificate programmes to formally certify and include community members in the conservation value chain. UOT is currently working on a project related to the development of the medical cannabis industry and may have a role to play in co-benefit activities related to REDD+.

## 5. Stakeholders: Proximate causes and drivers of deforestation

Mining and quarrying, road building, other infrastructure including airports, ports, hotel coastal construction, formal and informal settlement are the leading causes of deforestation and permanent loss due to conversion to build structures.

### 5.1 Bauxite mining

Bauxite mining and alumina production are valued for their contribution to Jamaica’s GDP and foreign exchange earnings, but stakeholders widely reject the idea that the industry is in the best interest of the country. There has been a long history of conflict, power struggle, and confrontation between multinational companies and the Government, communities and companies, communities, environmental NGOs, and government over the distribution of benefits, effects of mining and threats to forests, ecosystems, biodiversity, karst topography, ground water systems, human health, and community wealth and stability. The geospatial analysis showed that forest have been removed without replacement in areas mined for bauxite in the past 20 years. Forest loss is associated with construction of mine roads, mine pits, scraping of hillsides to refill mine pits, lack of restoration of mature forest vegetation, or construction of homes for resettled communities on mined lands. Secondary forest degradation is also linked to access areas opened by mine roads and a chronic process of displacement and resettlement of communities, which often leads settlers to encroach on forest lands to farm.

The underlying drivers for continued mining are the strong power position of the industry given its history of domination by foreign multinationals, Jamaica’s dire debt situation and balance of payment problems, international pressure to honour sanctity of contracts and to maintain a reputation for giving unfettered access to foreign direct investment, and lack of serious effort over the past decades to develop an industry exit strategy with alternative economic activities. Bauxite demand is strongly linked to world market conditions and waxes and wanes. The industry is currently operating below its usual capacity, but this can change. The industry is shepherded by the JBI, which is a critical stakeholder if measures to reduce forest loss on bauxite lands are to succeed. Bauxite companies have HIGH power and HIGH level of influence over the outcomes of REDD+ and are critical stakeholders. The FD does not presently have a day to day working relationship with these companies, but the JBI does and is a key partner for supporting forest management.

Table 9 provides the list of bauxite companies, their operations, and locations, along with The JBI’s Bauxite Community Development Programme’s Community Councils.

COMPANY INFORMATION	OPERATIONS	JBI’s BCDP COMMUNITY COUNCILs
<p><b>JISCO Alumina Jamaica II Limited, Alumina Partners of Jamaica (ALPART)</b>                      This company was first established in the early 1960s under the union of three companies (Anaconda, Kaiser Aluminium and Reynolds Metals). Since then, it has undergone several partnership and ownership changes, the last of which took place in 2017, resulting in full ownership of the company being transferred to Chinese multinational Jiuquan Iron &amp; Steel Company (JISCO)</p>	<p>Alumina Partners of Jamaica (ALPART) has its bauxite mining and alumina processing plant located at Nain, St. Elizabeth</p> <p>The refinery was closed in 2009 in the wake of the Global Financial Crisis. However, in June 2017 JISCO reopened it after acquiring the company. Alpart has a capacity of 1.65 million tonnes, which makes it the largest refinery in Jamaica. It can be further expanded to 2.0 million tonnes.</p>	<p>Nain Joint Bauxite Council</p>

<p><b>JAMALCO</b>  <b>Jamalco is a joint venture between General Alumina Jamaica LLC (formerly known as Alcoa Minerals of Jamaica, LLC) and Clarendon Alumina Production Ltd. (a wholly owned Government company).</b> Clarendon Alumina Works refinery and related mining and port operations, which continue to be carried out under the name “Jamalco”, is owned 55% by General Alumina Jamaica LLC (GAJ) and 45% by Clarendon Alumina Production Ltd (CAP).</p>	<p>JAMALCO is in Clarendon and ships alumina from Rocky Point Port in Clarendon.</p>	<p>Jamalco Refinery                  Community Council                  Jamalco Railway                  Community Council                  Mocho Joint                  Community Council                  Mitchell Town                  Community Council</p>
<p>Noranda Jamaica Bauxite Partners II, formerly St. Ann Bauxite Jamaica Limited and prior to that Kaiser Jamaica Bauxite Company, is a partnership between Noranda Bauxite Limited (NBL), a Jamaican limited liability company, and the Government of Jamaica. Noranda Bauxite Limited has a 49% interest in the partnership and holds and operates the physical mining assets and operations. The Government of Jamaica owns the remaining 51 percent. A concession from the Government of Jamaica permits Noranda Bauxite Limited to mine bauxite in Jamaica through 2030.</p>	<p>Noranda mines in St. Ann and the bauxite ore is transported via railway to Port Rhoades. There, it is dried and shipped to its customers. Gramercy refinery in Louisiana is a major recipient, who then refines it into alumina. Major expansion work in 2011 resulted in a production capacity boost from 4.5 million tonnes of bauxite per annum to 5.4 million tonnes per annum.</p>	<p>Noranda Discovery                  Bay Community                  Council                  Noranda Water                  Valley Council</p>
<p>West Indies Alumina Company (WINDALCO), formerly Jamalcan, is a fully owned by Russian multinational company Rusal.</p>	<p>The entity comprises two alumina plants – Ewarton Works in St. Catherine and Kirkvine Works in Manchester. The company owns bauxite mines in Schwallenburgh (Ewarton) and Russell Place (Kirkvine) and farms in Manchester and St Ann. Shipments depart Jamaica from its shipping port, Port Esquivel. Alumina processing started at Kirkvine Works in December 1952. In 1956, construction work began on a second alumina plant at Ewarton in St. Catherine. Alumina was first produced at Ewarton Works in October 1959. Ewarton Work’s production capacity stands at 600,000 tonnes of alumina per annum.</p>	<p>Manchester Plateau                  Community Council                  South Manchester                  Community Council                  Kirkvine Joint                  Community Council                  Schwallingburgh                  Community Council                  Mt. Oliphant/Victoria                  Town Council                  Harmons Valley                  Community Council                  Ewarton Joint                  Community Council                  Port Esquivel                  Community Council</p>

**Table 8: Bauxite mining companies, operations, locations and BCDP Community Councils (Source: Compiled from information on the Jamaica Bauxite Institute website)**

## 5.2 Quarrying

Quarrying results in deforestation directly through pit mining and indirectly by opening access roads to forests for other users. There is a poor track record of rehabilitation and reforestation of quarries. This combined with a national policy of promoting mining investments supported by the UNDP under the EU financed “development mineral” initiative suggest that their impacts on forests will grow. JAMPRO has been promoting investment in the following areas: Cambridge Sherwood Forest just outside of the protected area, Santa Cruz Mountain, Negril Hill, Colbeck, Grange Hill, and Hellshire Hills. The latter is a sensitive dry forest area and plans to mine there have been disputed by environmental groups in Court. The government recently announced that these plans were put on hold. The government has also been promoting investment in mining semi-precious stones, namely agate, chert, jasper, and quartz.

Jamaica has bauxite, cobalt, copper, gold, iron, lead, manganese, silver, titanium, and zinc, and is actively promoting exploration in these metals across the island, wherever they occur. Aside from bauxite, and the production of some gold and silver by Pennant Gold Mine at Main Ridge, metallurgic quarrying is not common. Gypsum, clay, black sand, aggregate, alluvium sand and gravel, dolomitic limestone, limestone (whiting grading with 98 percent purity), and limestone (chemical, metallurgic, and industrial grading) are most commonly commercially. In the past two decades, marl and fill, limestone, sand and gravel, shale, pozzolan, gypsum, silica sand, clay, and marble have been topped the production list. There is also mining of riverbeds for sand, a considerable amount of which is illegal, but stakeholders reported that the Jamaica Constabulary Force (JCF), which is responsible for enforcement, does not consistently enforce the laws against these activities.

There are over 240 quarries registered, a few of which are women owned. Quarrying is economically integrated into the construction industry, supplying road building and other construction materials. Some bauxite companies mine for their own road building material. The ability to manage the forest impact of quarries rests heavily on closer collaboration among the FD, NEPA and Mines and Geology Division of the Ministry of Mines and Transport, local government authorities, including Community Development Councils, and the Jamaica Constabulary Force (JCF). These stakeholders are all important for exploring options for reducing impacts, organising quarry owners and operators for skills training as well as better education, monitoring, and reporting from the industry. The **Jamaica Business Development Corporation (JBDC)** has conducted training for some 60 quarry operators in entrepreneurial skills. This organisation is a point of entry to the smaller, more informal, local, small-scale investment quarry operators. However, quarry operators range from more informal individual entrepreneurial enterprises to corporate well financed outfits, and they can be identified from the registration maintained by the Geology and Mines Division.

## 5.3 Built areas: hotels and resorts

**Hotel and resort development** results in removal of forests and replacement with built structures and manicured landscapes. Mangrove forests have been destroyed primarily by tourism development for coastal hotels and resorts as well as cruise port and airport infrastructure serving the industry. Jamaica cannot afford to lose more of its mangrove forests and has been investing in research and restoration, though not all the forests destroyed can be restored. Mangroves have HIGH value ecosystem services specific to the areas where they exist and do not lend themselves well to the concept of “no net forest loss”, which provides for offsets in other geographical areas. Mangrove restoration is also far less desirable and costly option compared with protection.

Stakeholders report that the development of coastal hotels, resort and recreation amenities results in a consistent pattern of displacement of coastal communities and fisherfolk, which often results in resettlement and incursion into forests for alternative or supplemental livelihoods. Coastal tourism development without planning for worker housing has also driven forest loss, as informal settlements develop just inland of coastal areas where workers afford to live and access their jobs. There is no requirement in Development Orders, or the environmental permit system administered by NEPA for applicant for permits to account for this well-known knock-on effect.

NEPA, Municipal Corporations, private landowners, especially those who own mangrove forests, JAMPRO, individual companies, and the **Jamaica Hotel and Tourist Association (JHTA)** are critical

stakeholders, along with the FD, for addressing ways to reduce forest loss and enhance forest carbon stock in hotel and resort developments. The JHTA is one of the most powerful membership-based private sector representative body in the country on account of the large contribution that tourism makes to the GDP (around 20 percent) and employment. As a trade association it promotes cooperation between companies in the industry, addresses labour relations, represents the interests of individual owners and operators, promotes legalisation to benefit the industry, and conducts research and engages in projects that enhance Jamaica's tourism experience and image. This organisation is a critical entry point for tourism sector private stakeholders.

#### 5.4 Built areas: Luxury, high-End, and middle-income settlements

The construction sector was the only sector that grew during the COVID-19 pandemic. However, much of this growth is not responding to low-income housing needs. It represents **luxury, high-end, and middle-income settlement** expansion. Luxury properties (exceeding Jam\$ 30 million in value) and high-income expansion predominate on the north coast and Westmoreland and are linked to active real estate promotion of private agricultural lands that have been idle and have regenerated secondary forests. Middle-income and locally owned upper-income expansion is occurring east from Kingston into St. Thomas and is expected to accelerate with a planned highway and other amenities in St. Thomas. There has also been a gradual creep up into the hills of the Blue Mountains. Mandeville is a choice destination for immigrant Jamaicans.

These developments are a relatively significant cause of forest loss compared with low-income settlements. They have a large footprint with spacious grounds and infrastructure support. Their construction is also spurring both legal and illegal quarry activities and demand for scaffolding wood, which leads to forest degradation. The demand for this type of housing is HIGH, and private large-scale landowners are often interested in raising capital from land sales for villa developments or subdivision.

Stakeholders in the industry report that most of the ideally sloped areas have been consumed and this type of development is moving more and more into steeper hillsides, increasingly stripping sensitive areas of vegetation, increasing runoff during storm events that exacerbate flooding, land slippages, and secondary forest loss. The development of services such as banks, gas stations etc. that service these areas also contribute to forest loss by attracting planned and unplanned low-income housing expansion, as individuals relocate to access much needed services.

**Multinational Construction Companies** are key stakeholders in hotel and resort, luxury and high-end construction, and infrastructure development. Some of the main players are: **Relmac Construction Jamaica**, which has some 70 percent of its business in the resort market; **Wepro Construction Ltd. Jamaica** (resort, commercial, residence); **Cooper & Associates Ltd. Jamaica** (resort, resident, commercial, infrastructure); **Asthrom Building Systems Ltd.** (resort, resident, commercial, infrastructure); and **Nubian-1 Construction Ltd. Jamaica** (resort, resident, commercial, infrastructure). In addition, real estate agents, JAMPRO, and private landowners, have significant influence in promoting and facilitating such developments. Municipal Corporations and NEPA have the primary responsibility for regulating these developments and protecting sensitive forests and ecosystems, including mangrove forests.

The **Realtors Association of Jamaica (RAJ)** is an important membership-based stakeholder group. RAJ offers its members protection through MLS (multiple listing services) listings, the opportunity to be legally called a realtor or Realtor Associate, training and education, exposure of listings via software platforms that maximize their reach nationally and internationally, certification opportunities, as well as association of the National Association of Realtors (NAR), a US based body. The realtor sector in Jamaica is firmly oriented to both the domestic and international markets, with foreign stakeholders that have a HIGH influence on the fate of foreign lands. RAJ's members have first-hand and real time knowledge of trends and specific forested areas that are currently on the market. A collaborative working relationship with RAJ can give the FD an indication of the forests that are currently under threat for conversion to assist with REDD+ strategy planning and provide an opportunity to monitor for risks of reversals over time.

Other important stakeholder bodies in the construction sector that have a role to play in understanding the objectives of REDD+ and designing settlements and infrastructure to maximize forest protection

include the **Jamaican Institution of Engineers (JIE)**, **Incorporated Master Builders Association of Jamaica (IMBAJ)**, and **Jamaica Institute of Architects (JIA)**, all of which are professional membership based bodies that provide entry points to their members education to sensitize professionals and potential joint action to incorporate REDD+ carbon stock goals in their work. There is also a multi-stakeholder **Joint Consultative Committee for the Building and Construction Industry (JCCBCI)**, which is also key stakeholder body for interfacing with the sector.

## 5.5 Planned and informal low-income settlements

The geospatial analysis suggests the cumulative effect of informal and planned low-income developments over the past 20 years is not as large as higher income developments. Low-income developments are more densely planned. However, there can be localized ecological destruction and loss of HIGH value forests. Many stakeholders pointed to an incident where a housing development on the south coast led to significant destruction of mangrove forests as an example of how planned processes can be equally or more destructive than unplanned processes. The tendency for government to rely on Crown lands for low-income development, puts desirable agricultural land, many of which have secondary forests, at risk for conversion to settlements. The displacement of farmers who may have been informally occupying Crown land for planned settlements can lead to movement and encroachment in forests elsewhere, including Forests Reserve.

Jamaica has had a chronic housing shortage and there is tremendous pressure on the Government to provide low-income housing. The **National Housing Trust (NHT)** is a key stakeholder involved in facilitating access to affordable housing, though stakeholders report that the price points and mortgage arrangements are still beyond the reach of most Jamaicans, especially young professionals and a large segment of the population who work in the informal economy and cannot qualify for mortgages. Jamaica's housing crisis is linked to more pervasive forces related to a skewed land tenure system, inertia to land reform, and normalized economic models of tourism and mining based on chronic displacement of communities. In addition, weaknesses in national level spatial planning and lack of rationalization of various national policies for the protection of natural resources, including the Forest Policy with the environmental permit process managed by NEPA and development permissions granted by Municipal Corporations, contribute to the problem.

**Private developers** have historically had a significant role in the low-income housing market, **Wichon Properties**, a local firm and Ashtrom Building Systems, an Israeli firm, were traditionally the main placers. Only Wichon Properties remains in the market. Firms find it challenging to remain in the low-income development market, as such developments cannot pay for the infrastructure layout costs necessary and the interest rates on loans available to local firms such as Wichon are too HIGH for the low-income market to bear. The development of such settlements requires government support for infrastructure development and better finance. Until the deeper structural problems are addressed, the likelihood of formal housing provision stemming informal land capture and associated forest loss is low.

Aside from the NHT, MHURECC's Squatter and Environmental Service Branch, efforts by the NWC and UDC to address informal settlements on lands they manage, and **Food for the Poor (FFP)** provide opportunities for access to formal housing for the needy. FFP is the largest charitable organisation in Jamaica. It is linked to the Food for the Poor Inc., an interdenominational Christian organisation based in the United States. FFP has inroads and capacity to reach the neediest stakeholders that are informally settled and is a key entry point to informal settlers.

## 5.6 Infrastructure development

Highway, airport construction and expansion, access road upgrades, development of grid infrastructure for settlements, power line, seaport construction and dredging, and construction of industrial parks are all activities that remove and replace forests with built surfaces or that damage forest ecosystems. Often very sensitive mangrove and coastal forests are destroyed for ports, coastal Highway developments, and airport expansions. While mangrove forests have been greatly threatened by public infrastructure projects, inland forests are also lost to Highway construction that open new forest areas creating opportunities for secondary activities that lead to degradation and forest loss.

The tourism industry has been a main driver for cruise port development of which there are currently five: Ocho Rios, Montego Bay, Falmouth, Port Antonio, and Kingston. All of these have involved significant ecological destruction with the removal of mangroves, dredging, and removal of sea grasses. Airports have traditionally been built on wetland areas, with uncounted historic ecological damage. Expansion activities further damage these sensitive systems. Bauxite ports have a long history of damage associated with the dusty transport of bauxite ore and alumina. Sediment pollution at bauxite and alumina ports continually stress marine ecosystems, adversely affecting mangroves and sea grasses. Concern about NEPA continuing to issue environmental permits for mangrove destruction for private and public projects, state agencies destroying mangroves without permits, and destruction of restored mangroves was among the top set of grievance stakeholders expressed.

The country faces a tough decision when it comes to protecting coastal forests that protect the island's economic viability. This is likely to be one of the most difficult issues to discuss in REDD+, as it involves options to place a moratorium on any further mangrove removals, with implications for private property use. Private property buy backs may be possible but prohibitively expensive. Municipal Corporations, private landowners, NEPA, the FD, civil society bodies involved in managing protected areas and supporting protection, and the Office of the Prime Minister are critical stakeholders for deciding policy direction and an enabling regulatory framework for mangrove protection under REDD+. The FD is currently engaged in an assessment of mangroves on the island and should soon have in its possession an inventory of existing mangroves areas and potential mangrove restoration sites linked to landownership.

The protection of inland forests rests on more consistent and integrated national spatial planning, management systems such as Road Management Plans for roads constructed in sensitive areas, and greater attention to reviving the island railway system, which penetrates rural areas and could avoid forest loss. There is very little research on how road building has affected forests, so the full and cumulative impacts are unknown. However, its impacts are not at the scale of settlement construction. The government is presently focussed on supporting urban revitalization, which includes denser habitation to avoid greenspace sprawl. The FD has also begun work on urban forestry and may have opportunities to increase carbon stock in built areas. It may be beneficial for REDD+ if the Ministry of Transport and Works and Ministry of together with the FD, MHURECC, and UDC identify greenspaces that could be targeted for avoided deforestation.

## 6. Stakeholders: proximate causes and drivers of forest degradation

Forest users who are dependent on timber and non-timber forest products and land users who compete with forests for agricultural land are primarily responsible for human-induced forest degradation. Climate change and other factors such as wildfire or hurricane disasters are also responsible for forest degradation.

### 6.1 Producers of timber and non-timber forest products

There are hundreds, perhaps thousands, of forest users that are harvesting timber and non-timber forest products mostly on Crown lands but also on private lands, most of which are small-scale actors engaged in survival-based livelihoods in the informal economy. Some are engaged in sustainable husbandry and harvesting activities, such as **honey-bee farming** or low impact gathering of **fruits**. Others are engaged in timber and non-timber forest products value chains at different points, including harvesting, processing, transport, and sale. These support significant formal commodity and service value chains in the country. Timber harvesting for **yam sticks** supports yam production for the domestic and much promoted export markets. Family units of males and females involved in **charcoal** manufacture supply the entire hotel, restaurant, and the domestic spheres. Small loggers supply **scaffolding** for the construction industry and for local **furniture** manufacture. Much of the timber harvested to sustain these formal, well established, and respected business sectors are harvested by informal, poor, stakeholders who are blamed for forest degradation, while the role of formal respected businesses in the value chain that are the underlying drivers are shaded from public discourse. All stakeholders in the value chain are important and must be engaged in REDD+ in efforts to address each source of forest degradation.

Yam is the economic base for thousands of rural farmers. The demand for yam sticks has grown tremendously over the decades with expansion in yam production for the domestic and export markets. Whereas farmers were able to cut their own sticks from neighbouring woodlands in the 1990s, most farmers now rely on informal **yam stick harvesters and traders**. The value chain involves harvesters, truckers, and farmers. Typically, a group of harvesters will participate in harvesting, collection, and loading sticks onto hired trucks, from which sellers typically have a network of areas they supply. Participants in focus groups held with residents in and around Trelawny expressed frustration that the yam stick trade is not being sustainably managed. Researchers have found significant denudation of preferred variety of sticks with the harvesting of progressively younger trees over the years. This is corroborated by farmers who have found that sticks need to be replaced more often and the cost keeps increasing due to more rapid turnover as well as higher prices associated with greater effort that harvesters must put into accessing trees. Yet most farmers prefer the natural sticks on the market. One instance of a farmer using live sticks was reported and has been showcased several times nationally. Studies have been done by the FAO and other organisations dating back to the 1990s and afterwards, but no concerted effort has been made to identify and work with yam stick harvesters, manage the harvesting of sticks, or introduce viable alternatives that are acceptable to farmers.

The FD's legal framework and management mechanism itself was identified as the cause of the problem. It is designed for log harvesting, in which a large tree can yield sufficient board feet of timber to produce an economic return, and thus create a rational basis for engaging the FD to get the proper licence and permit. To cut trees on Crown lands a person needs a licence and a permit. First a person must make an application at the FD, they must obtain a licence, pay for the volume of trees that they wish to cut (rates are set based on species), and acquire a permit to cut. An application triggers a series of inspections to determine if the applicant's credentials meet the prerequisite standards and whether the area where they propose to harvest is suitable. If all yam-stick harvesters were to follow this system, farmers wouldn't get the supply of sticks they need, and there wouldn't be much yam to harvest. The transaction time, cost, and case by case approach is unsuited to the nature of the yam stick market as well as the general poverty and education levels of harvesters, who are ill equipped to present themselves and follow through with FD's paperwork time and time again. Stakeholders are of the view that a different approach is needed, one where the FD is more proactive in designating and identify yam stick harvesting areas, managing those areas, organising, and

supporting harvesters, and using a simplified licensing system. The rates the Crown levies per species also needs to match what the value chain can bear. Currently the level of engagement of stakeholders in the yam stick trade with the with FD is low to non-existent. Considerable effort will be required to create a working relationship that supports sustainable forest use and improved livelihood prospects for these stakeholders. JACRA and RADA have important roles to play in this process.

Vines, barks, roots, and other non-timber products are harvested, manufactured in cottage enterprises, and marketed to support a well-developed **traditional medicine and tonics** industry. Jamaica has a spectrum of healthcare provision operating between two healthcare systems: western biomedicine and traditional medicine. Some 73 percent of Jamaicans self-medicate with plant-based medicines on a regular basis and send medicines and potions abroad to the country's diaspora.<sup>9</sup> The traditional medicinal sector is enormous, mostly informal, and not well documented or supported. The industry is built on centuries of traditional scientific knowledge, the value of which is not fully recognised and protected. Most value chain stakeholders operate informally and do not have much of a relationship with the FD. Harvesting any products in a Forest Reserve is illegal. FD field staff may turn a blind eye to when small amounts of vines are collected, but there is no policy and effort to work with collectors to ensure sustainable harvesting and support traditional medicine livelihoods in rural areas.

The **charcoal** value chain in Jamaica is extensive. It includes, producers, transporters, retailers, and consumers, which includes hundreds of hotels, restaurants, and residential points of demand. Charcoal production requires specialised knowledge and cannot be produced. By just anyone. Often male and female partners in a family will make charcoal, and thousands of families rely on charcoal sales as their main source of income. The value chain has not been well studied and very little work has been done on identifying and assisting charcoal producers with sustainable harvesting practices. There is a growing corporate-led export market for bamboo charcoal, and only bamboo charcoal exports are permitted. There are considerable bamboo stands in some parts of the country, such as St. Mary. However, there are concerns about bamboo's ability to store carbon and the implications for REDD+ and bamboo charcoal need to be explored further.<sup>10</sup> There is currently no relationship between the FD and charcoal producers, save and except occasions when illegal timber harvesters must be prosecuted. However, this is an important trade for the nation and for the many forest users involved, and it impacts on forests. Engaging charcoal producers through social forestry initiatives is important to the success of REDD+.

The main interest that these stakeholders have is in sustaining their livelihoods to support their families, opportunities to harvest products in a managed way rather than a system in which their livelihoods are criminalised, and in receiving support to develop their trade in a more sustainable and profitable way. Their influence on forests is significant given the cumulative impact of numerous dispersed sources of activities.

Except for a few localized charcoal groups, forest users are not well organised into representative bodies or production associations. The FD does not have a social forestry programme through which it is engaged in researching, organising, and developing sustainable harvesting options for these groups. The harvesting of timber and non-timber products without a licence, is managed primarily as illegal activities in a command-and-control forest management regime. However, the Forest Policy 2017 prioritizes a social forestry approach that promotes cooperation, coordination, and sustainable harvesting options for these forest users. This is perfectly aligned with REDD+ priorities for addressing forest degradation.

Considerable work will be needed in Jamaica's REDD+ Readiness Phase 2 to attract resources, develop social forest expertise in the FD and within LFMCs, build staff capacity, conduct field research and outreach, organise, and create participatory production and management systems with these forest actors. The various line ministries dealing with activities in various value chains, such as

<sup>9</sup> Picking, David & Delgoda, Rupika & Vandebroek, Ina. (2019). Traditional knowledge systems and the role of traditional medicine in Jamaica. CAB Reviews Perspectives in Agriculture Veterinary Science Nutrition and Natural Resources. 14. 10.1079/PAVSNNR201914045.

<sup>10</sup> Howard, Brian Clark (201^). bamboo's ability to store carbon called into question. National Geographic <https://www.nationalgeographic.com/science/article/160324-bamboo-materials-carbon-dioxide-emissions-sequestration>.

construction, agriculture, and tourism have a role to play in this process as entry points to forest producers and as partners in a transition to more sustainable production. The various bodies promoting investments, such as JACRA, have an important direct role to play alongside the FD in linking increased export plans to sustainability of the resource base supporting production.

## 6.2 Communities in proximity of forests – forest use for agriculture, and livestock rearing

Local communities have a central place in REDD+. Their interests were discussed in the Chapter 4 and centres on having their pressing socio-economic needs addressed, decision making access, and fair and equitable benefit sharing in REDD+. Communities in and around forests harvest wood for repairing homes and fences, especially after hurricanes and other disasters. Also, a considerable number of rural families depend on firewood as a source of cooking fuel and on the forest for recreation. However, forests represent more than their use values. Forests shape a sense of place and identity for communities. They are the habitat in which individuals are socialized and collective identities and values form. Thus, forest dependent communities have a relationship to forests that is not merely transactional. This is a factor tying many rural communities, especially the elderly, to uphill forest areas where farmlands are marginal and economic opportunities are limited. These socio-ecological factors must be accounted for in REDD+ safeguards in terms of conservation-based livelihood opportunities and benefit sharing mechanisms.

Many ways in which communities interreact with forests follow ancestral practice. Several communities have traditionally farmed in areas declared as forest reserves since the 1920s. Their use continued unabated until Jamaica became world renown for having the world's highest rate of deforestation in the early 1990s. As was the case in the colonial period, forest loss became associated with the flux of forest cover change associated with poor communities living in and near forests rather than the progressive loss of large swaths of forests replaced by hotels and resorts, monoculture commercial farming, and mining. The global and local policy response in the late 1990s, and first decade of the 2000s, has been to focus heavily on working with forest dependent communities to change practices and protect forests. Forest degradation from local community use has been reduced significantly through the combined work of the FD and LFMCs: though successful sensitization; education to change farming practices such as fire use to clear lands inside forests and training on fire management; and tree planting and reforestation programmes. Management authorities of various protected areas have also worked with neighbouring communities to reduce their impacts and promote alternative livelihoods. However, farming and grazing continues in some forest reserves and protected areas. FD Client Services staff also reported incidences in which fires were intentionally set to reforested areas where communities were not permitted to benefit from forest use of fruits and other forest products. Fires remain a risk, as it is the only economical way to clear the steeply sloping farmlands.

Satellite imagery shows a visual pattern of tree loss in valleys in some forest reserves. Stakeholders report that the situation is more severe in areas where communities have been resettled by bauxite companies, as their new lands are sometimes not suitable for farming, causing the displaced farmers to retreat into neighbouring forest areas. Generally, small-scale animal grazing is reported as an issue that LFMC have had some success in curbing. However, one LFMC reported perennial problems with medium scale cattle grazing in its neighbouring forest reserves. Wealthier stakeholders with a larger herd of animals tend to be beyond the influence of LFMCs. Stakeholders also report a low level of responsiveness and effectiveness by the Jamaica Constabulary Force.

FD Forest Rangers also only patrol during workdays, leaving the weekends completely open for the taking, a pattern that illegal forest users have gamed well over the years. Most communities report that the most egregious forms of illegal forest use are perpetrated by individuals from outside their community and LFMCs are not empowered with the rights to address these issues, nor are they regarded in the permitting processes run by the FD and NEPA. They are not informed when a permit has been issued for activities in forests near their communities and are not usually able to tell whether the activities, they are witnessing is legal or illegal.

The chronic lack of farmland, and especially desirable, arable, and irrigated lands is the main underlying driver of forest incursion. Bodies such as the AIC, that are promoting leases of Crown

lands suitable for agriculture have an important role to play alongside the FD in identifying affordable lands for small holder agroforestry to increase carbon stock, while strategically taking pressure off sensitive uphill forest areas. However, the underlying driver of this problem is a broader issue of skewed land tenure, in which a small number of stakeholders own and control the majority of the country's arable farmland. Land tenure reform remains the lasting solution to the problem.

### 6.3 Agriculture sector stakeholders

The agricultural sector is the country's lifeblood, sustaining rural families across the country and supplying around 50 percent of the national food consumed, a figure that is much higher for nationals, given the HIGH dependence on imports for tourist consumption. Agriculture is an important contributor to GDP and foreign exchange earnings. It contributes approximately 7 percent of the total GDP (more than twice the contribution from all mining) and actively employs 15.7 percent of the population, a figure that is considered undercounted as many farmers are not formally registered.<sup>11</sup> The sector has produced traditional crops for exports, such as coffee, cacao, pimentos, fresh citrus fruits, sugar, and bananas. Of these, coffee is currently the largest earner of foreign exchange and holds 74 percent of exports in the agriculture export portfolio. It is followed in importance by sugar, pimento, citrus, banana, and cocoa. However there has been an overall decline in all traditional crops, particularly sugar and citrus. Significant effort is being put into promoting non-traditional exports such as root tubers particularly yams and sweet potatoes, fruits such as papaya and ackee, ginger, and spices. These non-traditional exports have increased in earning by some 43 percent between 2014-2019 and a stable increase is expected in the medium term.

There are approximately 220,000 registered farmers in Jamaica three quarters of which are small holder farmers producing on land in the range of 0.15-2 Ha. Some 30 percent of all farmers are women. It is widely believed that many farmers are not registered, especially women farmers. Most small holder farmers are in uphill areas where there are poor road networks, limited land supply in and around their neighbourhoods, HIGH production costs due to inability to mechanically clear sloping terrain, and lack of irrigation. They are highly vulnerable and suffer frequent crop and economic loss from episodes of intense rainfall and droughts. Yet, these small holder farmers are the economic backbone of the agriculture sector. They feed the nation, contributing some \$1.7 billion to Jamaica's GDP and \$329.9 million to exports (JAMPRO, 2018), and provide millions more in uncounted value via the subsistence economy. Efforts to alleviate their access to land, production conditions, and adaptation to climate change are crucial to the national food system and socio-economic viability of the island and is well aligned with the objectives of REDD+.

The greatest **forest gain** in the last twenty years has occurred on large holder private and Crown-owned agricultural land that have been returning to "ruinate" after declines in sugar, citrus, and dairy industries. There is a flux of the forest gain and forest losses on small holder lands, and a trend of forest loss now on some private and Crown lands that are being leased to large scale investors and rented to small producers for non-traditional crops such as pineapples, spices, and ground provisions. There is a HIGH chance that secondary forests on farmlands will be lost in the near term as Jamaica transitions to new crops. But that can be avoided if the transition is done mindfully via agroforestry and with strategic land management. The interests and input of all farmers, regardless of size, are critical to crafting a REDD+ strategy that effectively addresses the needs of farmers and owners of farmlands. The FD presently has relationships via LFMCS with farmers around forest reserves and management areas and some farmers elsewhere through the private tree planting program. RADA, JACRA, JAS and 4-H Clubs are the main governmental bodies connected to farmers and farmer producer groups. There are several main producer groups and farm groups at the community level that are organised into cooperatives, which fall under the umbrella of the **National Council of Farmer Cooperatives (NCFC)**.

The main interest among small farmers is access to arable land, for some this is needed in proximity of their existing homesteads, but many young farmers are prepared to move to new sites if they have long term economic security. However, leases are currently only 3-years, and this does not encourage sustainable land use or investment in tree crops. These stakeholders have a HIGH influence both in terms of their ability to degrade forests and to expand the country's carbon stock

<sup>11</sup> Statistical Institute of Jamaica 2021

through agroforestry initiatives and improved animal husbandry. Engaging with them is a priority for REDD+.

At the national level, there are as well organisations with specific foci in transforming agriculture. The **Jamaica Organic Agriculture Movement (JOAM)**, which was started in 2001, seeks to develop the local organic agriculture through developing a framework for certification, extension agents and farmers, demonstration sites, and training inspectors is perfectly aligned with REDD+ objectives. So too are the objectives of the **Jamaica Network of Rural Women Producers (JNRWP)**, which was formed in 1999 with the mission of being a socially responsible, creative, and innovative organization, dedicated to the upward mobility of rural women. The JNRWP is a membership-based organisation with some 650 female small holder farmers, including pastoralists and artisan across the agricultural spectrum and different age groups. It also includes members with disabilities. Aside from seeking ways to support and improve farming practice, marketing, and access to resources, the JNRWP has been mindfully seeking to gain female farmer representation at national boards and other levels where important decisions are being made that are not always sensitive to women's unique relationship to farming, given the greater hours of unpaid labour they invest to care for children compared to male counterparts. The JNRWP is an important REDD+ stakeholder in terms of its farming and gender pursuits.

The **Jamaica Producer's Group (JPG)**, formerly the Jamaican Banana Producers Association Limited represents the interest of banana and plantain producers and is an important entry point to farmers for examining the carbon stock enhancement on mixed farms. **Bananas** are a traditional crop dating back to the late 1800s that had a significant positive impact on small holder farming in the past decades. However, it collapsed with the loss of preferential markets to Europe. Banana farmers have reoriented to producing for domestic consumers though there is still a strong focus on finding and restoring export markets. Since 2008, the industry has been in decline with traditional production areas on Portland, St. James, and St. Mary seeing massive declines, but producers remain optimistic.

**Sugar** is the oldest continuous industry in Jamaica with its roots in hundreds of years of African enslavement. It is widely regarded as an industry that was able to earn foreign exchange for the Jamaica at one point but never resulted in social development and transformation of small holder cane producers, instead causing stagnation and a HIGH dependency of cane farmers on commercial estates. The industry's value chain includes contract or wage cane farmers, sugar estates, and rum distilleries. Jamaica's sugar exports collapsed after it lost preferential trade status with the European Union, though farmers still produce for domestic sugar demand, and exports to the United States and European Union. The flailing industry has been subsidized by Government at many points in time. Eventually government divested three major Crown estates, Frome, Monymusk, and Bernard Lodge along with control of surrounding sugar lands under a lease arrangement to China's Complant International Sugar Industry Co. Ltd's, Pan Caribbean Sugar. These are now shuttered along with the historic Appleton Estate, which closed its milling operations in 2020 but maintains its distillery.

The **All-Island Jamaica Cane Farmers Association (AIJCFA)**, incorporated by the Sugar Cane Farmers (Incorporation and Cess) Act, 1941 (SCF Act), is one of the longest standing and well organised agriculture producer groups. It promotes cane farming and welfare of cane farmers, regardless of the size of their holdings, and is also involved in settling disputes between farmers and sugar factories. The AIJCFA's membership base is significant, and it is an important entry point for reaching farmers, especially as many cane farmers are now reorienting to other crops.

The **Jamaica Cocoa Farmers Association (JCFA)** represents cocoa farmers, of which there are some 7000 engaged in farming an estimated total of 8,800 acres of cocoa across the island. Jamaica presently exports cocoa to Japan, Switzerland, Holland, France, and the United States of America. The JCFA was formed in 2008 with the aim of promoting farmer-centred and community-centred approach to sustainable development of cocoa in Jamaica and it also aims for gender inclusion and reducing unemployment among women. It promotes and aids with good farming practices and post-harvest processing to improve quality and remove cost and is the main entry point for reaching the islands cocoa farmers whose interests are aligned with REDD+, especially given that cocoa is an excellent agroforestry crop.

**Coffee** is one of the largest agriculture foreign exchange earners for Jamaica. It is grown at a specific elevation of 900-1700 m above sea level. There are large commercial producers and small farmers. Many reported production arrangements with larger coffee growers and buyers from whom they get inputs such as pesticides. Jamaica's Blue Mountain Coffee is one of the world's finest coffees. To be labelled Blue Mountain Coffee, the crop must be grown in a narrow elevation belt in the parishes of Portland, St Andrew, St. Mary, and St Thomas. The value chain is comprised of growers, processors, exporters, and marketers. Some companies/estates such as Old Tavern Coffee Estate are vertically integrated and performs all these functions. National parks such as the Blue and John Crow Mountains suffer incursion from commercial scale and small-scale coffee farmers when the price of coffee is HIGH. There is a general pattern of expansion and contraction in farming depending on commodity prices for various produce. Jamaica has a contract to supply Japan, which by country is the largest buyer of Blue Mountain Coffee. Given the ecological niche in which this coffee is grown the volumes produced are quite small and can only service niche markets. However, Jamaica does not tap into the existing niches such as for shade grown coffee or speciality coffee based specifically on fair value chain access for poor farmers.

Academic research findings and extension officers indicate that coffee production is not very ecologically sensitive. While coffee is typically intercropped with bananas on family farms, and some shade and mulching are necessary for its growth, there is very little strategic use of shade trees and organic fertilizers, farm planning with regard to sun and slope effects, and no institutional support for production and niche marketing of shade grown coffee.<sup>12</sup> There's a HIGH degree of pesticide use, and considerable forest loss when the world market price for coffee is HIGH, often with entrants rushing into coffee production and clearing slopes without careful technical planning resulting in forest loss, soil erosion and increased vulnerability to slippage, and sub-optimal coffee yields. Whereas these effects are publicly associated with small scale farmers, entrants are often well-resourced larger producers or small farmers backed by the larger commercial producers. Thus, all stakeholders throughout the value chain are associated with forest degradation and deforestation.

There are several large coffee estates up to 70 Ha in size, many dating back to the colonial period but there have been new entrants into the industry. Croydon Estates, RSW Estates, Clifton Mount, Blue Baron, Cinchona, Flamstead, St. Clouds are some estates. Typically, a group of estates will produce for a particular brand. Specialty Coffee Investments Company, a producer of Jamaica Blue Mountain Coffee brand is the main corporate player in the industry with a portfolio of brands that includes Jablum, Wallenford, Mavis Bank. Its customers include Starbucks Reserve and Harrods in the United Kingdom. Japan is the largest importer of Blue Mountain coffee, and some is also exported to the USA. Resident small farmers in the mountains tend to produce coffee in mixed crop setting. Many reported having production relationships with larger estates, where they are provided inputs such as pesticides to grow crops in exchange for selling to the single buyer. Other coffee farmers, some of which were not resident in the Blue Mountain area, reported receiving support from the large established coffee producers to open new farms or get into farming in old areas when the price is good, in exchange for selling the coffee to their backer.

The **Jamaica Coffee Exporters Association (JCEA)** is a membership body promoting Jamaican coffee's overseas and advocating for the interest of exporters in the national landscape. It represents all the powerful stakeholders in the industry and must be engaged to examine REDD+ goals as it pertains to coffee. There is reportedly considerable scope to improve farming practices to reduce ecological impacts and improve yields, as farms tend to be expanded or established hurriedly when the price of coffee is HIGH, missing all the benefits of careful planning, including such things as slope exposure to the sun. There may be scope under REDD+ to address forest loss and support carbon stock enhancement through the development of a national coffee management plan that creates a stable basis for management, which can accommodate expansion and contraction.

Alongside estates, small-family farms, in which coffee is intercropped with bananas and other food crops, make up the backbone of the coffee industry. There are over 8,200 small family coffee producing farms on the island, some 6,000 of which are in the Blue Mountains in a designated area of

---

<sup>12</sup> Willis, Wendy Christina (2015) The Political Ecology of Shade Coffee: Perspectives from the Jamaican Blue Mountain Farmers. Master's Thesis, Master of Arts in Environment and Community, Humboldt State University.

approximately 14,000 acres. These farmers are easily accessible. Those interviewed consistently reported that they gain very little from the value chain, earning less than the cost of production when the price of coffee is low. They are however trapped with a long-term crop that requires significant investment to nurture, and they need cash for basic subsistence, so must sell even when the price is unfavourable. Studies show that less than 3 percent of small farmers report receiving technical assistance from extension and regulatory agencies, 98 percent suffer losses from droughts and rainfall shocks, and none can afford processing equipment. The national coffee processing licencing system's requirements are costed above their reach, and the procedures are cumbersome and aimed at facilitating formal private sector actors and larger-scale producers. While small family farms make up most producers and have influence in terms of volume of coffee produced, they have the least power and derive the lowest benefits in the value chain.

The **Coffee Farmers Association (CFA)**, with a membership of about 250 small-scale producers, formed around addressing the marginalization of small farmers from the lucrative value of the coffee trade. It is focussed on gaining more value for small farmers by supporting the groupings of farmers to process their own coffee and bypass dependency on big estates but supports the welfare of farmers in general. The **Jamaican Women in Coffee (JWC)** organisation takes this redistributive effort further by recognising the role of women producers in the industry, supporting production and greater benefit from other parts of the value chain, promoting entrepreneurial, leadership and networking women, and addressing the effects of climate change and importance of adaptation. In the private sector, the **Blue Mountain Best (BMB)**, is a company with its sights at addressing these problems and responding to the growing demand for socio-ecological value and fairness in speciality coffee chains by working with small farmers to directly involve them in processing and trade as part of its business strategy.

**Cannabis:** After decades of criminalization of production in developing countries, first world countries have embraced and are witnessing the emergence of a thriving cannabis market with companies involved in the entire value chain from production to retail. Jamaican Rastafarians popularized the cannabis in the international imaginary by elevating its ability to invoke higher states of awareness and peace of mind through reggae music culture. Yet the country is behind the curve in tapping into the powerful emerging markets, and the traditional local producers are at risk of being excluded all together from the local corporate and international value chains. Cannabis requires sunlight and remote forest areas are usually cleared for illegal production, whereas legal companies have the financial resources to lease land from the government and openly produce cannabis on farmland. Regularization of traditional small holder producers and support to come out of forests and access lands for production are critical to forest protection goals and well aligned with REDD+.

The **Jamaica Grassroots Ganja Farmers Association (JGGFA)** was formed to secure a space in the newly sanctioned industry for the long-standing producers amidst serious concerns that the licensing system has marginalized the traditional poor producers in favour of wealthy and corporate interests. Traditionally, poor small-scale **cannabis farmers** have been the core of the once fully illicit industry in Jamaica. However, today the CLA has licensed 29 cultivators and has issued 73 licences for transportation, retail, processing, and regularized legal dispensaries known as "herb houses". These houses sell cannabis 5-10 times more expensive than the existing street trade and licensed outfits have largely bypassed the existing producers. The licence process is above the financial and organisational reach of traditional producers and is not accompanied by social programmes to assist small-scale farmers reorient into legal trade.

There may be opportunities for the FD, CLA and RADA to collaborate with the JGGFA to link small farmers to alternative production such as green houses and other farming spaces through social forestry initiatives aimed specifically at protecting forest areas, especially ecologically sensitive remote areas. In addition to the JGGFA, there is also a **Westmoreland Hemp and Ganja Farmers Association (WEHGFA)** representing small holder interests that should be engaged.

Livestock grazing has diminished over the years in Jamaica with the downturn in the cattle industry, resulting in the return of secondary forests on privately held large-scale parcels of land. However, there has been increased attention to small ruminants, mostly raised by small holders. The **Jamaica Livestock Association (JLA)** is a main representative body for the livestock farmers of Jamaica, covering large-scale and small-scale producers. Established since 1942, it provides agricultural

support, access to inputs such as animal feed, chemicals, and health care products through several commercial stores island wide, and support and consultation services through technical field officers. It would be a main entry point for examining trends and issues with respect to REDD+ and livestock farmers' interests. In addition, there are livestock associations focussed on assisting small scale producers and producer associations. The **Jamaica Small Ruminant Association (JSRA)** represents and helps small-scale farmers improve their practices and incomes. There are also associations of farmers focussed on specific types of livestock or geographical areas. These include the **Goat and Sheep Farmers Association (GSFA)**, **Jamaica Egg Farmers Association (JEFA)**, the **Beef and Dairy Producers Association of Jamaica (BDPAJ)**, **Eastern Livestock Association (ELA)**, **Jamaica Hope Cattle Breeders Society (JHCBA)**, **Jamaica Pig Farmers Association (JPFA)**, **Keystone Farmers' Cooperative Association (KFCA)**, and **Suncoast Beekeepers Association (SBA)**. Together these are key stakeholders that must be engaged to understand the scope for reducing forest degradation from grazing.

#### 6.4 Stakeholders involved in disaster risk reduction and response

Hurricanes, landslides, floods, droughts, and natural wildfires in the dry season are all responsible for deforestation and degradation in Jamaica's forests. The eastern side of the island is prone to landslides, the western side is prone to flooding from intense rainfall, and the south is dry and prone to fire damage. Jamaica is at a medium risk for earthquakes, which tend to have the greatest effect on forests in the east where the higher incidence of earthquakes combined with sedimentary geologic rocks on very steep slopes lead to boulders getting dislodged and clearing forests in their paths downhill. Historically, considerable coastal land subsidence and forest loss has been reported. HIGH winds from hurricanes tend to damage foliage on broadleaf forest trees, but winds snap single trunk species, such as pine trees. Forests are under greater threat in post disaster recovery periods when communities could ill afford to purchase supplies and rely on forests for wood to repair their homes and fences and use more firewood for cooking.

The FD does not have national post disaster forest management plan that identifies specific supply areas where communities could sustainably access forest products for post disaster needs. Given the frequency of natural disasters, this may be one community-based forest management activity to consider under REDD+. Key stakeholders in post disaster response are the ODPEM, **Parish Disaster Committees**, and community based **Zonal Committees** coordinated by the ODPEM. The Jamaica Fire Brigade is critical for wildfire detection, response, and monitoring. The CCD has several ongoing training initiatives on adaptation and mitigation given climate change trends. A comprehensive assessment of likely changes in existing forests over the next 30 years, adaptation, and mitigation needs, has not yet been undertaken. This is necessary for long term carbon stock management and reversal risk reduction under REDD+. Some LFCMs are involved with Client Services and RADA have been involved in climate adaptation programmes. They along with the CCD, OPDEM, NEPA, and local government organs are key stakeholders that must be engaged to address this and related issues under the REDD+ Social and Environmental Management Plan.

## 7. Other national stakeholders

### 7.1 Citizens and Residents

In the broader landscape all **citizens and residents** of Jamaica at home and in the diaspora are important stakeholders with rights in the REDD+ programme. The crucial role of forests to the island's ecological and economic viability, especially in the face of climate change, makes decisions to protect and enhance forest values a national priority. This will entail hard choices with trade-offs between activities that damage forests but have financial and immediate benefits and activities that protect forests that have less visible benefits that accrue to all sectors of the country and its citizens. These types of decisions are very difficult to make and require clear public knowledge and input, which is needed to give Government the social licence and legitimacy to act boldly.

Jamaica is home to approximately 2,973,463 (United Nations 2021 estimate) million people (2018) and has a diaspora of first to fifth generation descendants of approximately 3 million people settled mostly in the United States, Canada, and The United Kingdom. The tourism industry results in a population increase of some 75 percent of the size of local population in the tourism HIGH season, which is December-April. All the island's residents are beneficiaries of the multiple ecosystem services that forests provide and have a stake in protecting and preserving forests.

Some 76.3 percent of the island's population is of African descent, most commonly of the Akan from present-day Ghana and the Igbo from present-day Nigeria ethnic groups but there are other African ethnic groups. Approximately 15.1 percent are Afro-Europeans; 3.4 percent East Indian and Afro-East Indian; 3.2 percent Caucasian, 1.2 percent Chinese, and 0.8 identify as "other". The official census does not record persons who identify as having indigenous or mixed indigenous identity in terms of the island's original inhabitants or Maroons who self-identify as a culturally distinct group.

Throughout many Caribbean islands indigenous peoples have been "written out of history" by narratives of population decimation and archaeological focus on their material culture rather than remaining living heritage in the Caribbean. However, many people across Jamaica contest this narrative, claiming Taino heritage, especially in the parishes of St. Elizabeth, St. Ann, and St. Mary where phenotypical features of indigenous peoples are reportedly discernible in several communities. Tainos in Jamaica do not collectively own land or live in a community together, but they are increasingly organising around their indigenous heritage. Presently the **Jamaica Hummingbird Tribe (Yukayeke Yamaye Guani)**, represents the contemporary tribe of people with Taino heritage from all over the island. In 2019, they crowned a cacique (leader), Robert Pairman aka Kalaan Nibonri, at Charles Town Maroon Village in Portland. DNA research proves the genetic intermingling between indigenous first peoples and Maroons, who are accorded the rights of indigenous peoples under the United Nations.

About 50 percent of the island's population lives in rural areas, but there has been a long-term trend of urbanization and HIGH population instability due to concentration of jobs and services in coastal areas and towns, and a chronic pattern of dispossession of land in bauxite mining and coastal tourism development. Table 9 shows the current population distribution per parish compared with forest change that has occurred in those forests between 1998-2013.

Forest gain has occurred in parishes where large-scale agricultural land has been idle and regenerated tree cover. Often this gain masks losses in natural forests due to continued pressures on those forests. The size and density of the population per parish does not correlate with the extent of forest loss, reinforcing what we see from the geospatial study, academic, and participatory assessments that forest loss is more closely linked to formal commercial activities. Public perception and media portrayal of the cause of forest loss tends to pivot on the activities of small-scale, illegal, survival activities such as small holder coffee farming, yam stick harvesting, and charcoal production. This is not well supported by evidence which links the greatest threats and forest losses to wealthy pursuits of investments in mining, tourism, and real estate development that occur with the necessary permits. This disconnect between cause and attribution reflects the power differential that exists between socio-economic categories of citizens, and the fact that as a stakeholder group there is no homogenous interest just because everyone has equal rights under REDD+.

While all stakeholders have key roles in REDD+ those that have the highest impact are critical, as it is their practices that must change as well and not just the practices of the poorer multitudes of small-scale actors that degrade forests. Correct identification of the proximate causes, underlying drivers, and actors is essential if REDD+ is to succeed and the first step towards a fair and equitable stakeholder engagement process, which must be evidence-based.

Parish	Capital	Area (km <sup>2</sup> )	Population (2011) STATIN	Population estimates 2019 UN	Population density/km <sup>2</sup>	Population increase	Forest change 1998-2013 Ha
St. Ann	St. Ann's Bay	1213	172362	177054	146	0.33	-3328
St. Elizabeth	Black River	1212	150205	151911	125.3	0.2	2496.4
Clarendon	May Pen	1196	245103	247112	206.6	0.23	-2520
Trelawny	Falmouth	875	75164	78487	89.7	0.39	1670.6
Manchester	Mandeville	830	189797	191720	231	0.17	1843.5
Portland	Port Antonio	814	81744	80921	99.41	0.05	3300.8
Westmoreland	Savannah-la-Mar	807	144103	149857	807	0.41	2324
St. James	Montego Bay	595	183811	191737	322.2	0.5	2315.9
Hanover	Lucea	450	69533	72519	161.2	0.43	-1034
St. Catherine	Spanish Town	436.9	516218	520804	436.9	0.42	5464
St. Andrew	Kingston	431	573369	571947	1327	0.16	1409.2
St. Mary	Port Maria	190	113,615	115090	188.4	0.17	2756
St. Thomas	Morant Bay	743	93,902	94,391	127	0.16	5543.6
Kingston	-	162	565876	579137	3616	0.1	-0.67

**Table 9: Data sources: Forestry department, STATIN**  
<https://www.citypopulation.de/en/jamaica/cities>

There exists in Jamaica substantial inequality in land ownership, access to employment, access to benefits from national economic activities, a socio-economic gender gap, and clear pattern of youth disadvantage. Jamaica had quite HIGH unemployment rates in the 1990s averaging 15-16 percent nationally, but youth employment was double that at roughly 30-35 percent and female unemployment was around 23 percent. Even though employment rates have fallen since the 1990s, the female and youth gap trends persist. An estimated 17 percent of the population lives below the poverty line. Many who live above this line have little or no job security, long term pension, or ability to afford low-income mortgage rates. The lowest 10 percent of the population earns only 2.9 percent of national income, while the top 10 percent earns 29 percent, or a third of national income. The bottom 30 percent earn only 10 percent of total income, whereas the top 30 percent earns approximately 73 percent of national income. In this stakeholder context, careful attention will be needed to ensuring inclusivity and empowerment of different types of stakeholders to contribute to the REDD+ strategy development and implementation.

## 7.2 Private sector organisations

Stakeholders across the board identified the formal private sector and its representative bodies as the most power segment of society with access and influence over decision makers and the financial means to effect change. The **Private Sector Organisation of Jamaica (PSOJ)**, **Jamaica Chamber of Commerce (JCC)**, and **American Chamber of Commerce of Jamaica (ACCJ)** are general membership-based organisations that represent formally registered local and foreign corporate and commercial interests throughout Jamaica. The informal economy in Jamaica is estimated at some 40-60 percent the size of the formal economy, thus the formal private sector entities do not represent all the private economic interests in the country, but they are recognized and regarded as the voice of the private sector.

The **PSOJ** has been operating since 1970s. It is the umbrella body of private sector associations, companies and individuals working to promote a competitive and productive sector. The PSOJ's primary goal is to represent the interest of its membership and to influence national policy, programmes, and actions in their interest. It has close working relationships with elected officials and multilateral and bilateral agencies. The **JCC** is also involved in lobbying, advocacy, promoting trade and commerce, business networking, capacity development, and representation on issues affecting different businesses. The **ACCJ** has been an operation since 1986 and is focussed on enhancing trade opportunities between Jamaica and United States, primarily by attracting investment from the United States into Jamaica and advocating for investors. It has members across different sectors from hotels to industrial manufacturing, trade, banking, export, and import.

Aside from these general business sector organisations, there are several special interest business organisations representing a broad range of stakeholders. These include the **Manufacturers and Exporters Association Ltd. (JMEA)**, **Small and Medium Sized Enterprise Alliance (MSME)**, **Young Entrepreneurs Association (YEA)**, **Small Business Association of Jamaica (SBAJ)**, and **Women Business Owners Jamaica Ltd. (WBO)**.

**JMEA** promotes development of the manufacturing and exports sectors with the aim of increasing their contribution to the socioeconomic well-being of the country by creating jobs and improving the standard of living. The Association was formed in 2018 from the merger of the Jamaica Manufacturers Association and the Jamaica Exporters Association, both of which had been an operation for over half a century.

The **MSME** represents more than 300,000 small and medium sized enterprises in Jamaica across all sectors. The **SBAJ** was established in the 1970s and has approximately 150 members. It represents small businesses across all the major sectors, including construction, agriculture, hospitality tourism and transport, food processing, manufacturing, restaurant, retail, wholesale and distribution, services, and retail. The **YEA** has approximately 70 members. It supports young people in business and aims to build a community of young entrepreneurs who are networked and can improve their chances of business success. The **WBO** promotes the success of women business owners through education, research, mentorship, and networking. The organization also provides resources and opportunities to help promote the development of individual businesses.

### 7.3 Organisations representing vulnerable sub-populations

Gender issues and representation are addressed under a separate cover in the gender assessment for REDD+. Suffice it to say here that the **Association of Women's Organizations in Jamaica (AWOJ)** founded in 1987 is an umbrella organization coordinating and monitoring activities of women's organizations countrywide. The **Jamaica Women's Political Caucus (JWPC)** promotes female leadership and provides training, preparation, and financial aid to female political aspirants on a non-partisan basis. The **Women's Media Watch (WMW)** founded in 1987 is focused on reducing gender-based violence through gender aware media and communications. The organization provides training, development, conflict resolution workshops, public education, and advocacy. The **Women Incorporated Crisis Centre (WICC)** has been operating for over two decades with the aim of supporting and strengthening women's representation, providing support services, and lobbying for legislative changes to address gender-based violence. The organization also offers Shelter and Crisis counselling as well as a referral services through its 24-hour hotline. These organisations have specific outlooks and experience in women's issues and represent important stakeholders whose insights and inputs are important for developing a sound gender strategy for REDD+. The **Maroon Indigenous Women's Circle** focusses on Maroon women's voices within Maroon communities and externally and preservation of maroon culture.

Jamaica has approximately 33, 000 registered persons with physical or mental disabilities, of which some 32 percent are physically disabled. The **Combined Disabilities Association (CDA)** is the main civil society body representing disabled persons. It was founded in the late 1970s and focusses on advocacy for mobility, housing, training and education, employment, recreation and rehabilitation, and health care. The **Abilities Foundation (AF)**, established in the 1990s focusses on offering training opportunities to disabled persons in collaboration with educational institutions so that disabled persons can become graduates and access further education and training to operate as confident and

competent individuals at the workplace and in society at large. Other non-governmental organizations include the **Jamaica Society for the Blind (JSB)** and the **Jamaica Association for the Deaf (JAD)**. There is also a **Clarendon Group for the Disabled (CGD)**. The Jamaica Sign Language (JSL) is derived from American Sign Language which is a new form of Jamaican Country Sign Language, or Konchri Sain (KS).

## 7.4 Religious groupings and organisations

**Christianity** has a very influential role in Jamaican society. Churches have shaped the ideology and the values of the society since the colonial period as well as provided schooling and social services. The umbrella body for the Christian denomination in Jamaica is the **Jamaica Council of Churches (JCC)**, which has been in operation since 1941 promoting unity and fellowship among Christian churches and agencies. This is the main entry point for Christian bodies and programmes in Jamaica. The Council includes African Methodists, the Episcopal church, Ethiopian Orthodox Church, Methodist Church, Roman Catholic Church, and Society of friends (Quakers). It also has associated members, which include Jamaica Association a full Gospel Churches, **Missionary Church Association in Jamaica (MCAJ)**, **Jamaica Association of Evangelicals (JAE)**, Church of God in Jamaica, Salvation Army, **Mentoring a Nation (MAN)**, which addresses gender-based issues by focussing on men, **Church Women United (CWU)**, **Young Women Christian Association (YWCA)**, and **Young Men Christian Association (YMCA)**. In addition to these bodies, the Anglican Church is the most powerful religious body in Jamaica in terms of influence as well as wealth and land ownership.

Churches may be influential as landowners and operators of educational institutions from the tertiary level to kindergarten. Christian preachers, lay leaders, gender, and youth groups, play an influential role in shaping the ideas of communities and providing support to people in need. Their access to a constituency makes them important entry points for direct access to a cross section of the broader public to sensitize about REDD+ and deepen national understanding of the crucial role of forests and forest users. Churches also have support programmes with the most vulnerable members of communities and can help identify and engage marginalized subsets when planning REDD+ activities in communities. Religious organisations may play a role in designing and administration of the REDD+ Feedback Grievance Redress Mechanism, depending on their connections inside communities.

Christian religious influences in Jamaica have only been rivalled by **Rastafarianism**, which is a religion-based social movement that arose in 1930s among socially disenfranchised African Jamaican communities. Among other things, Rastafarianism represents its roots as having grown in response to hegemonic Western Christian beliefs and its support of wealth capture by a few. There are three Rastafarian groups in Jamaica: **Shanti**, **Nyahbinji**, and the **Twelve Tribes**. One of the principal rituals of Rastafari is the use of cannabis which is usually smoked during “groundings” that are moments of spiritual and social reflection. Cannabis is considered a sacrament and is eulogized for inducing feelings of peace and love and cultivating personal introspection while allowing users to discover their energy for doing good. Rastafarianism is Afro-oriented, rooted in nature and natural living practices, and is universal in its appeal of mindful practice. Long hair or dread locks is a symbol of the embodiment of Rastafarian culture. The State has been historically antagonistic towards Rastafarianism, though there has recently been an acknowledgement of some past wrongs as crimes against Rastafarians.

## 7.5 Trade unions

Jamaica’s largest trade unions tend to be politicized and allied with one or another political parties. The **Bustamante Industrial Trade Union (BITU)** is allied with Jamaica Labour Party (JLP) and the **National Workers Union (NWU)** is allied with the Peoples National Party (PNP). The **Jamaica Confederation of Trade Unions (JCTU)** is an umbrella body representing trade union interests.

The **Household Workers’ Union (HWU)** is unlike other unions, as it is focussed on the rights of domestic workers without broader political entanglements. It is a voluntary organization that was established in 1991 to ensure fair wages and working conditions for household workers, and to advance and protect the rights of domestic workers, who are primarily female. The HWU has among

its members many women from rural forest communities who rely on domestic work in the absence of other opportunities. It would be beneficial to engage them in REDD+, especially as it regards to accessing rural women who are most marginalized.

There are also other trade specific unions, among which the **Jamaica Civil Service Union (JCSU)**, **Jamaica Teachers Association (JTA)**, **University and Allied Workers Union (UAWU)**, **Union of Schools of Agriculture and Allied Workers (USAAW)**, and **Union of Technical, Administrative and Supervisor Personnel (UTASP)**, are entry points for sensitization and building an understanding of REDD+. The workers that belong to these unions work in fields that at some point touch upon the forest use and management and have insights that may be helpful for REDD+. Teachers have an important role to play in educating current and future generations of Jamaicans to cope with the changes around them and to acquire life skills to participate in the management of matters of important public interest of which forest and climate change are existential priorities for the small island.

## 7.6 The media

A dedicated study on communications and media was conducted as part of the portfolio of REDD+ analyses (see N. West-Hayes (2021) Stakeholder Outreach and Communications Plan). Suffice it to say here that the formal media has a central role in building national awareness, providing evidence-based information to assist the public with understanding critical issues with REDD+, forests, and Jamaica's future, nurturing national dialogue, and transparently monitoring and disclosing the biophysical impacts and distributional effects of REDD+ as the programme progresses. Social media is very powerful but can also be a multiple point source of misinformation. Engaging via this platform will be central to reaching certain demographics and ensuring the quality assurance of public information on REDD+. Social media is a very effective way of reaching diaspora communities as well. Many people in the diaspora are landowners with a frontline stake in REDD+. The COVID-19 pandemic has opened spaces for diaspora participation in their home country issues via Virtual Platforms, such as *Zoom*. This allows for REDD+ consultative processes that are accessible to Jamaican citizens abroad, many of whom own lands that are not being utilized at home.

The **Jamaica Information Service (GIS)** and **public relations departments of government agencies** are important stakeholders that must be engaged early to ensure that they receive, understand, and are active in disseminating relevant information to the public. **Editors and journalists** for print and other media are important stakeholders that must be sensitized and provided with information as well as access to information in preparation for REDD+ consultations and all subsequent REDD+ activities. The **Media Association of Jamaica (MAOJ)** is a main entry point to stakeholders in the media. The **Jamaica Observer** and **Jamaica Gleaner** are two major national newspapers that enjoy wide readership. The **Jamaica Star** is another daily. The **Mandeville Weekly** has a narrower audience. Lead television stations are **Jamaica TV New Network**, **CMV TV Channel 4**, **Carib TV**, and **Television Jamaica**.

**Radio stations** are important sources of information for communities, stakeholders in rural areas reported and the main source of information due to little internet and television connections. Some rural communities have Internet, but it is expensive and not always reliable. Fewer can afford data for their cell phones to communicate by *What App* much less watch internet TV or other data heavy media.

The **United Nations Educational, Scientific, and Cultural Organisation (UNESCO)**'s **International Programme for Development Communication (IPDC)** trained 30 volunteers to prepare media content for **community media**. This group of volunteers can play an important role in REDD+ outreach, sounding community reactions and concerns, and producing news on community. Table below is a list of radio stations serving communities. The staff at these stations REDD+ training, sensitization before national consultations commence on REDD+. It is hoped that their participation will increase the reach of national conversations and information sharing.

**Low Power Radio Stations**, or short-range community base stations otherwise known as community radio are important media for reaching rural forest dependent communities. **Abeng 88.7**, serving the Accompong Maroon community targets communities in Cockpit Country and **Roots 96.1 FM**, which

targets lower-middle income communities on the fringes of the slopes of St. Mary, Clarendon, and St. Thomas (Blue and John Crow Mountains Protected Area). Other stations target areas with sensitive ecological areas and forests. A list of stations is provided in Table 13.

Other radio stations nationwide with a mixture of entertainment and talk include **TBC Radio 88.5**, **Mello FM**, **Nationwide 90FM**, **Hitz 92**, **News Talk 93FM**, and **Power 10 FM MHz**. These stations can carry both talk programmes and short infomercials on REDD+.

LOW POWER RADIO STATION	LOCATION	COMMUNITIES SERVED
East FM, 96.7	East (south)	Yallas, St. Thomas
Department of Corrections, 88.9	East (south)	Kingston, Spanish Town, St. Catherine
Central 96.3 FM, 96.3 FM	Central (south)	Clarendon
Black Roses Enterprises Ltd. 88.9	Central (south)	Clarendon
Good Gospel FM	Central (North)	Discovery Bay St. Ann
St. Mary Charities 96.3 FM	East (north)	Oracabessa, St. Mary
Jeffrey Town Farmers Association Ltd 88.7 MHz	East (north)	Guys Hill, St. Mary
L West 88.7 MHz	East (north)	Portland
Abeng 88.7	North (west)	Accompong, Trelawny
Bob Marley School for the Arts Institute Ltd., 88.9 MHz	North (west)	Falmouth, Trelawny
Communisausion/FIT 96.1 FM	North (west)	Duncans, Trelawny
Global Community Broadcasting Network, 91.7 FM	West (north)	Montego Bay, St. James
Longmore Communications Groups Ltd. 104.9 FM	West (north)	Montego Bay St. James

*Figure 13: List of Community and low power radio stations*

Annex 1. Governmental stakeholders and their potential role in REDD+

STAKEHOLDER	POWER	INFLUENCE ON FORESTS	INTERESTS	CURRENT ENGAGEMENT WITH FD	ROLE IN REDD+	ENGAGEMENT TARGET LEVEL
<b>Office of the Prime Minister</b>	<b>HIGH</b> Wide discretionary power in law and practice. Level at which environmental and investment policy and practice is ultimately decided and needs to be reconciled.	<b>HIGH</b> Discretionary power to overrule technical environmental regulatory processes, power over the quality and effectiveness of laws and regulations affecting permit processes	<b>CONFLICTING AND ALIGNED, needs to be reconciled</b> Awareness of opportunity to earn foreign exchange through carbon market re: chronic balance of payments problems and external debt, it is not clear whether the financial thresholds make this option is attractive	<b>LOW</b> Indirect Through Line Minister No direct championing of Forest Policy or carbon market yet	<b>CRITICAL</b> Leadership at national and international levels, consistency between investments and REDD+ goals, give direction ministries and agencies to share data, coordinate and collaborate	<b>INFORM ADVOCATE</b> for REDD+ championing role, actions to fill policy and legislative, and institutional collaboration gaps, reconciling investment promotions that affect the environment with REDD+ Provide public <b>LEADERSHIP AND VISION</b> for REDD+
<b>Office of the Opposition</b>	<b>HIGH</b> Elected Parliamentary representation	<b>MEDIUM</b> Elected representatives influence constituency actions e.g., support for re: land capture etc.	Not yet determined	<b>NONE</b> No direct consultative pathways required between Opposition and line agencies	<b>IMPORTANT</b> Acknowledges and no-objection is important for avoiding risk of reversal	<b>INFORM CONSULT</b> via Direct Communication And in stakeholder planning processes <b>RECORD</b> and address any grievance
<b>Cabinet</b>	<b>HIGH</b> Provide leadership of line ministries and agencies	<b>HIGH</b> Collective decisions on investment and development significantly affect land and forest resources	To be determined	<b>N/A</b> Only the Minister responsible for MHURECC is mandated a direct line, and is aware of REDD+ due to direct oversight of FD and CCD	<b>CRITICAL</b> Potentially major national and international environment and development mechanism falls into the Ministry's portfolio.	<b>INFORM ARTICIPATE</b> directly and actively with stakeholders at critical stages of the REDD+ planning process, <b>BRIEFED</b> regularly directly by task teams and provided

				No direct engagement with FD yet to champion REDD+		adequate information to interface with Government counterparts and Parliament to represent the interests of REDD+
<b>Ministry of Finance and Public Services (MFPS)</b>	<b>HIGH</b> Main budget body, resource allocation and Balance of Payments Houses PIOJ and STATIN	<b>MEDIUM</b> Sets development policies through collaborative processes, collects data to monitor and evaluate progress. However, policy implementation success mixed, and some are inconsistent (e.g., investment vs. environment)	<b>ALIGNED</b> Wants REDD+ and related national development goals to materialize primarily for revenue generation and achievement of Vision 2030 goals	<b>MEDIUM</b> PIOJ consults and it involves the FD in collaborative policy making processes	<b>IMPORTANT</b> For reconciliation of sector development plans and environmental goals of REDD+, as well as adequate budget allocation for monitoring and evaluation	<b>INFORM PARTICIPATE</b> in REDD+ planning process, particularly the design of a REDD+ fund structure apart from central budget that handles inbound results-based payments and outbound payments to stakeholders – benefit sharing mechanism
<b>Planning Institute of Jamaica (PIOJ)</b>	<b>MEDIUM</b> Sets policies collaboratively but limited power to execute or hold line ministries and other actors accountable	<b>MEDIUM</b> Policies not always implemented, Local Government Bodies and NEPA hold power to animate policies through permit processes	<b>HIGH</b> interest in achieving Sustainable Development Goals	<b>MEDIUM</b> Consistently engages the FD in collaborative policy planning processes	<b>CRITICAL</b> Key coordinating role in bringing government agencies and local authorities together to rationalize land use and plan priority geographical areas for REDD+. Also, key body for facilitating REDD+ session at Cabinet Retreat	<b>COLLABORATE</b> Partner in collaborative development of REDD+
<b>Statistical Institute of</b>	<b>LOW</b>	<b>LOW</b>	To be determined. However, STATIN has	<b>LOW</b>	<b>CRITICAL</b>	<b>COLLABORATE</b> Partner in

<p><b>Jamaica (STATIN)</b></p>	<p>Data collection and management for evidence-based decisions limited by the parameters monitored and lack of monitoring &amp; feedback mechanism between data and decision making</p>	<p>Weak systematic data collection on relevant parameters of resource use and impacts at most national agencies dealing with land and forest management</p>	<p>publicly expressed interest in improving data collection at agencies responsible for land and resource management in the context of SDGs</p>	<p>No strategic collaborative focus on data collection and reporting in forest sector or related SDG goals</p>	<p>Main agency through which data for monitoring impacts and management can be collected across many sectors related to REDD+. Key to the operation of the Safeguards Information System</p>	<p>collaborative development of REDD+</p>
<p><b>MHURECC</b></p>	<p><b>MEDIUM</b> This Ministry has important functions in climate change and forest management, national spatial data management and housing but these sectors do not earn foreign exchange and are historically not given priority in national decision making as other productive sectors.</p>	<p><b>LOW-MEDIUM</b> Direct influence on land is mediated though FD and climate adaptation programme coordinated by the CCD. FD is consulted by NEPA when processing permits, but has no authority to prevent the destruction of private forests in NEPA and Municipal Corporations' permitting processes, no management control of private forests, and no working relationship in which it manages</p>	<p><b>RESPONSIBLE MINISTRY -ALIGNED</b> Interest in meeting mandate to conserve forests and manage climate change adaptation and mitigation.</p>	<p><b>IMPORTANT</b> Supervisory role, Minister has direct contact with the Conservator of Forests and Head of the CCD</p>	<p><b>CRITICAL</b> This is the lead ministry for REDD+. Must secure collaborative relationships and support of all other government bodies. Interlocutor with the Office of the Prime Minister and Cabinet, must secure Prime Ministerial support and championing domestically and abroad.</p>	<p><b>INFORM COLLABORATE supervisory</b></p>

		informal timber and non-timber sectors				
<b>MHURECC - Forestry Department (FD)</b>	<b>MEDIUM</b> The FD has very little direct decision influence points of contact or decision-making power within the government structure, most likely linked to the fact that this is not a large revenue generator and more valuable investment activities are in direct conflict with forest conservation goals.	<b>LOW- MEDIUM</b> The FD only has control over 24.5 percent of forest lands, and even in these lands there are incursions and unmanaged forest uses. FD is consulted but has no control or decision-making role in the grant of land use / environmental permits by NEPA and Municipalities, respectively.	<b>HIGH</b> REDD+ presents a change of circumstance for managing forests directly, gaining support of more powerful national actors, and a means of financing forest management activities. It is also a means through which the FD can develop greater capacity in social forestry to become more effective in managing forests.	N/A	<b>ESSENTIAL</b> Agency with the legal mandate for managing Jamaica’s forests. The only entity in Jamaica with the capacity for forest management REDD+ carbon credit system, and.	<b>LEAD</b> Must lead the process with staff involvement in all departments and at all levels.
<b>MHURECC Climate Change Division</b>	<b>MEDIUM</b> Increasing awareness of Climate Change and financial prospects on the horizon for meaningful payments for carbon credits is positioning this Division closer to high level decision makers.	<b>MEDIUM</b> Has a high influence when it comes to attracting and managing finance for climate change activities, medium influence in terms of the scale and reach of climate adaptation programme to date, though this is continuously being expanded, <b>HIGH</b> influence on building	<b>ALIGNED</b> – lead body for securing REDD+ and carbon financing	Limited collaboration in terms of project management	<b>CRITICAL</b> Main entity for accessing finance for REDD+ Readiness and co-benefit projects	<b>COLLABORATION</b> as partner in implementation of REDD+, primarily leading access to finance

		awareness nationally.				
<b>MHURECC Environment Risk Management Branch (ERMB)</b>	<b>LOW</b> Focused on biodiversity work that does not have strong traction at the highest level of decision making.	<b>UNKNOWN</b> Very little research work has been done to evaluate Jamaica’s success to protecting its biodiversity.	<b>ALIGNED WITH REDD+</b> , which must conserve biodiversity, especially of natural forests, and integrate ecological management	None, except at reporting period for international agreements	<b>CRITICAL</b> to identifying sensitive ecological areas and targets	<b>PARTICIPATE</b> in identifying sensitive and HIGH priority biodiversity areas in the design of the National REDD+ strategy and in the development of the Social and Environmental Management Plan
<b>MHURECC Squatter and Environmental Management Branch</b>	<b>LOW</b> Does not have political decision-making power or access	<b>LOW - MEDIUM</b> Squatting has cumulative effects in forest loss but is not a major reason for deforestation. The Division also has mixed success in trying to stop land capture, as the driving forces are more pervasive historical and national socio-economic factors that are outside of the Branch’s mandate and reach to address	<b>MEDIUM</b> This Branch struggles with trying to address land capture and is focused primarily on that, but is also open to working on environmentally sensitive areas	None Very little link between this Branch and FD unless there is a specific encroachment problem	<b>IMPORTANT</b> Limited but important role in REDD+ - addressing land capture in forests and ecologically sensitive area	<b>COLLABORATIVE</b> Participate in developing national REDD+ strategy and in identification of squatting areas with important forests/ecologically sensitive area, and collaborative role in outreach and any effort to address forest and carbon capture issues in affected areas
<b>MHURECC National Housing Agency of Jamaica (NHA)</b>	<b>LOW</b> Agency is focused on providing affordable housing, executing directives, not	<b>LOW-MEDIUM</b> Some low-income housing developments have resulted in forest destruction or that have displaced small farmers, placing	<b>CONFLICTING</b> The core focus of the Agency is on housing, there is some sensitivity to forest loss in planned low-income housing provision but no direct	None	<b>SUPPORTIVE</b> Can focus on ensuring that developments are aligned with REDD+ goals	<b>CONSULT</b> In the process of developing REDD+ strategy, consult and keep informed.

	particularly connected to high level decision makers	pressure on neighbouring forests.	link to development planning.			
<b>MHURECC Meteorological Department (MD)</b>	<b>LOW</b> Functions as a data provision entity, no policy interaction.	<b>LOW</b> Weather advisory services	<b>ALIGNED</b> Key data collection for tracking trends and anticipating disaster and short-term management needs	None	<b>IMPORTANT</b> Part of a team supporting integrated data collection and monitoring to track climate change, weather event risks to forests in collaboration with the FD, NSDMD, STATIN. Role in developing the Social and Environmental Management Plan and Safeguard Information System.	<b>PARTICIPATE</b> In design of REDD+ social and environmental impact monitoring and response framework
<b>MHURECC Beach Control Authority (BCA)</b>	<b>LOW</b> Activities tangential to high level decision making, unless there is controversy	<b>MEDIUM</b> Controls localized access to forest areas degraded by commercial tourism and fisheries sector activities	<b>ALIGNED</b> - protection of the near shore environment goals of REDD+	None	<b>IMPORTANT</b> Part of a collaborative effort to manage coastal forests and sea grass environment	<b>PARTICIPATE</b> In REDD+ strategy development and reviews.
<b>Ministry of Economic Growth and Job Creation (MEGJC)</b>	<b>HIGH</b> This agency is directly overseen by the Prime Minister and controls environment and land	<b>HIGH</b> Conservation and environmental management as well as national infrastructure development are profoundly impactful	<b>CONFLICTING IN SOME AREAS AND ALIGNED IN OTHERS</b> Overall alignment will be guided by the Prime Minister's influence.	Case specific, only interaction with FD is through line agencies	<b>CRITICAL</b> Several agencies have a central role in ensuring policy and practice coherence with forest conservation at a jurisdictional	<b>COLLABORATIVE</b> NEPA, the NLA, NWC, UDC, NSDMC are key partners for developing aspects of REDD+ strategy and implementation.

	management, ownership, as well as national infrastructure development - all of which are impactful on the success or failure of REDD+.	on forests in positive and negative ways, respectively.			scale as well as case by case application for land use change. They must be engaged early in the process on policy and regulatory gaps as well, identification of sensitive sites and lands for REDD+, and functioning as partners in the REDD+ process.	
<p><b>MEGJC National Environment and Planning Agency (NEPA)</b></p> <p>Natural Resources Conservation Authority (NRCA); Town Planning Department (TPD); Land Development and Utilization Commission (LDUC); Town and Country Planning Authority (TCPA)</p>	<p><b>MEDIUM</b> Significant statutory power to control activities that destroy forests, but decisions can be overridden by the Office of the Prime Minister</p>	<p><b>HIGH</b> Main agency granting permits for activities that destroy forests – resort construction, mining, formal housing development, etc. Most activities responsible for deforestation over the past 20 years have been undertaken legally with environmental permits issued by NEPA (construction, infrastructure, mining etc). On the other hand, NEPA is responsible and works towards environmental protection and</p>	<p><b>CONFLICTING</b> Mandate aligns with REDD+ but most permit decisions do not - inconsistent regulatory framework compels NEPA to make decisions on development without broader consistent legislative and regulatory national spatial management framework.</p>	<p>NEPA consults FD whenever it has an application for an area that affects forests. There is also some coordination at the Board levels with representation from either agency on each other's board or through.</p>	<p><b>CRITICAL</b> NEPA is the main body overseeing environmental management nationally and REDD+ requires sound social and environmental framework, monitoring, and evaluation in accordance with national statutory frameworks and international agreements.</p>	<p><b>COLLABORATE</b> FD must engage NEPA as a critical partner in developing and implementing REDD+. This includes the sub-sections responsible for protected areas, focal points for international environmental agreements, and sub-sections involved in processing environmental permits.</p>

		restoration. The balance of negative impacts versus protection it has mediated has not been studied and documented.				
<b>National Water Commission (NWC)</b>	<b>LOW</b> No direct link with highest level decision makers	<b>MEDIUM</b> Main decision maker and manager of watersheds managed by the NWC but localized to areas it manages.	<b>ALIGNED</b> NWC has a strong interest in protecting forested watersheds and reducing environmental degradation of all forms.	Occasional interfacing or collaboration on specific projects.	<b>CRITICAL</b> NWC has lands that could be brought under REDD+, capacity in community-based engagements, and watershed management experience.	<b>COLLABORATE</b> In development and implementation of REDD+
<b>Water Resources Authority (WRA)</b>	<b>LOW</b> No direct link to highest level of decision makers	<b>LOW</b> No direct land management role, but responsible for water quality and quantity on island, this is closely linked to forest cover and land use.	<b>ALIGNED</b> Environmental protection and ecosystem services are central to REDD+	Occasional interaction with FD on issue specific basis	<b>CRITICAL</b> WRA is a frontline stakeholder in environmental protection and island water security, the development of the Social and Environmental Management Plan	<b>COLLABORATE</b> In developing and implementing the Social and Environmental Management Plan.
<b>Urban Development Corporation (UDC)</b>	<b>LOW</b> No direct link to highest level decision making	<b>MEDIUM</b> Localized impacts of commercial development in green spaces. Owns lands that could be incorporated into REDD+.	<b>CONFLICTING</b> Main mandate is to develop lands for commercial activities, conservation efforts are limited to specific amenities.	On a case-by-case basis, no ongoing collaboration	<b>CRITICAL</b> As an agency controlling land and commercial development, has a role to play in active efforts to protect greenspaces and promoting urban renewal.	<b>COLLABORATE</b> On assessing and opting lands into REDD+ and management efforts to prevent green space sprawl and include forest carbon stock enhancements into urban projects.

<p><b>National Spatial Data Management Division (NSDMD)</b></p>	<p><b>LOW</b> This Division is tasked with achieving integrated spatial data management, but it remains uncertain as to how this is viewed, as its work has been focused on spatial data work for Parish Development Orders. It is unclear as to how the various Orders are rationalized on a national jurisdictional scale, which is the critical scale for REDD+ planning.</p>	<p><b>LOW</b> Currently has a low positive influence, as inconsistencies in various policies, plans, regulatory processes, and activities still result in sensitive forest destruction, such as mangrove losses</p>	<p><b>ALIGNED</b> in principle, as national data management is its core function.</p>	<p><b>LOW</b> No current jurisdictional scale coordination on integrated land use in relation to REDD+</p>	<p><b>CRITICAL</b> REDD+ success rests on an effective national level spatial data management system, as Jamaica is very small and has many competing uses for areas covered by forests. Key role to play in developing a robust national spatial data management system that can support REDD+ goals. Key role in the development of the Social and Environmental Management Plan, and Safeguards Information System</p>	<p><b>COLLABORATE</b> As a partner with FD and STATIN on REDD+ data management.</p>
<p><b>National Works Agency (NWA) National Road Operation and Construction Company (NROCC)</b></p>	<p><b>HIGH</b> These entities enjoy strong high-level support for major infrastructure investment and expansion.</p>	<p><b>MEDIUM</b> High localized damage especially in sensitive ecological areas, but not widespread phenomenon. Infrastructure expansion often results in forest destruction - ports are associated with</p>	<p><b>CONFLICTING</b> Primary interest is lowest cost amenities.</p>	<p>No direct link to FD. The FD is only consulted by NEPA in the environmental permit system or when the “no net loss’ forest policy is triggered. But there’s is no active engagement in site planning and development to</p>	<p><b>IMPORTANT</b> These entities need to work directly with the FD to address forest impacts in the design phase of their projects</p>	<p><b>PARTICIPATE</b> These entities need to participate in REDD+ design and explore opportunities for reducing and managing forest loss – A system for involving FD in project design.</p>

<b>Port Authority of Jamaica (PAJ)</b>		significant coastal forest loss and ecosystem damage from construction, expansion, and dredging.		minimize forest damage.		
<b>Ministry of Industry, Investment and Commerce (MIIC)</b>	<b>HIGH</b> Investment interests are keenly followed and supported at the highest levels of decision making.	<b>HIGH</b> Many investments promoted result in deforestation and forest destruction, few are focused on ecosystem enhancement.	<b>INTEREST CONFLICTING BUT COULD BE ALIGNED</b> to some extent if there is attention to the resource base in investment planning.	None	<b>CRITICAL</b> Investment activities are the main drivers of deforestation and must be addressed in REDD+. REDD+ offers new opportunities for investments that support forest and ecological asset building.	<b>COLLABORATE</b> Must be integrally involved in REDD+ development and implementation.
<b>MIIC – Jamaica Promotions Ltd. (JAMPRO)</b>	<b>HIGH</b> Investments promoted usually have high-level support given the revenue generating potential.	<b>HIGH</b> Many investments rest on forest destruction, especially sensitive coastal forests	<b>CONFLICTING BUT COULD BE ALIGNED</b> If REDD+ objectives are integrated into project design, and could promote investments that support/benefit REDD+	None	<b>CRITICAL</b> Must be integrally involved – integrate REDD+ objectives in investment promotion and can also be an agent of REDD+ co-benefit investment promotion	<b>COLLABORATE</b> as a partner in the REDD+ process
<b>MIIC Micro Investment Development Agency (MIDA) Jamaica Business Development</b>	<b>LOW</b> Work is not directly overseen or linked to highest level decision making, target is less powerful actors in society.	<b>LOW</b> Investment portfolio support not clearly linked to activities that help or harm forests.	<b>NEUTRAL</b> Potential alignment is high -potential to support community-based and forest producer businesses that aim to address forest degradation/deforestation	None	<b>IMPORTANT</b> Key partner in social forestry initiatives to regularize forest products harvesting, provide business support, and support community co-	<b>COLLABORATE</b> in social forestry initiatives during strategy development and implementation

<b>Corporation (JBDC)</b>					benefit economic activities with training etc.	
<b>MIIC Cannabis Licensing Authority (CLA)</b>	<b>MEDIUM</b> Aims at well well-resourced investors, industry receives HIGH level interest	<b>MEDIUM</b> Potential for significant forest impact if licenses grow, also potential to help existing producers reduce forests impacts	To be determined	None	<b>IMPORTANT</b> for reducing forest degradation from illicit cannabis production and creating lasting livelihood alternatives, also important to reconcile investment and licensing with forest protection and REDD+ objectives	<b>COLLABORATE</b> specifically with licensed and unlicensed cannabis producers to reduce forest impacts
<b>The Ministry of Agriculture and Fishers' MOAF</b>	<b>MEDIUM</b> Key sector but not major revenue earner from majority of producers, attention from highest level decision makers on policies and specific commercial investments	<b>HIGH</b> Agriculture sector activities degrade forests, but also idle lands are responsible for secondary forest cover. String connection with farmers and fisherfolk,	<b>ALIGNED WITH REDD+</b> The Ministry has an interest in developing agroforestry and better access to lands for small farmers.	No regular working relationship with the FD	<b>CRITICAL</b> Collaboration for action on agricultural land, both privately and state-owned, is critical for the success of REDD+ as well as collaborative on management of coastal fisheries areas with mangroves and sea grasses	<b>COLLABORATE</b> in strategy development and implementation
<b>MOAF Rural Agriculture Development Authority (RADA)</b>	<b>LOW</b> Activities focused on small farmers who have very little connection	<b>MEDIUM</b> RADA has been the main body promoting ecologically sensitive farming practices in uphill areas this has had positive impacts	<b>ALIGNED</b> -In service of small producers and sustainable farming techniques that are also economically rewarding	No strategic work plan with FD but interconnectedness at the local level where staff participate in	<b>CRITICAL</b> Essential partner in managing farming that affects protected areas and in developing agroforestry to	<b>COLLABORATE</b> as a partner in REDD+ development and implementation

	to HIGH level decision makers	on farming practices that affect forests		development committee work	increase carbon stock on agricultural land, main body with linkages to farmers and producer groups	
<b>MOAF Jamaica Agricultural Society (JAS) &amp; Jamaica 4-H Club</b>	<b>LOW</b> Activities among dispersed marginalized small holder actors not linked to highest level of decision making	<b>MEDIUM</b> Have influences sustainable farming practice and continue to provide training and support	<b>ALIGNED</b> in agroforestry and ecological protection	None	<b>SUPPORTIVE</b> Can support agroforestry training and organization efforts	<b>PARTICIPATE</b> In development of REDD+ strategy and potentially in specific agroforestry education roles in implementation
<b>MOAF Sugar Company of Jamaica Holding Ltd. (SCJH)</b>	<b>HIGH</b> Directly linked to highest level decision makers due to sugar's historic central economic role and decline	<b>HIGH</b> Sugar lands farmed intensively and unsustainably, ecologically damaging and cannot be intercropped with forests, but land left idle are accounting for forest level increase	<b>CONFLICTING BUT COULD NE ALIGNED</b> The current reorientation of sugar lands could be aligned with REDD+ agroforestry initiatives or forest regeneration for sustainable timber harvesting for charcoal, yam sticks etc.	None Some lands were once reforested by the FD but were subsequently cut	<b>CRITICAL</b> as a land holder with lands that could be brought under REDD+	<b>PARTICIPATE</b> in REDD+ strategy design as a landowner/controller and <b>COLLABORATE</b> in implementation
<b>MOAF Agro-Investment Corporation (AIC)</b>	<b>HIGH</b> As highest-level decision makers have a keen interest in making idle agricultural lands productive	<b>MEDIUM-HIGH</b> HIGH potential to out lands that could be under REDD+ into incompatible land uses, has already been converting some fertile land to agro-parks.	<b>NOT WELL ALIGNED BUT COULD BE ALIGNED WITH REDD+</b> if focused on small holder and agroforestry-based value chains	None	<b>CRITICAL</b> Devise investments based on supporting small holder land access (reduce pressure on existing forests), and carbon stock improvement through agroforestry on	<b>COLLABORATE AND PARTICIPATE</b> as a partner in REDD+ strategy design and implementation

					agricultural land available for lease, long with investments with other co-benefits	
<b>MOAF Jamaica Agricultural Commodities Regulatory Authority (JACRA)</b>	<b>MEDIUM</b> Promotes agriculture, with most sub sectors having low level of linkage to highest level decision makers, except traditional sectors of commercial dairy, coffee, and sugar	<b>MEDIUM</b> Has some cocoa lands and asset that support agroforestry, and has an interest in agroforestry but has not advanced promotion for carbon benefits, also promotes crops such as yam stick farming without considering value chain links to forest degradation and unsustainable stick harvesting	<b>CONFLCITING BUT HIGH POTENTIAL FOR ALIGNMENT</b> Strong potential to improve agriculture value chain impacts on forestry through collaborative design and engagement with farmers, also well placed to promote shade grown coffee and evolution to more ecologically and socially responsible coffee that has a niche market	None	<b>CRITICAL</b> to aligning agricultural prometon with forest management objectives. JACRA's objectives; important for linkages to producer groups and vast network of stakeholders using / affecting forests	<b>COLLABORATE</b> as a partner in REDD+ options planning and implementation
<b>MOAF Banana Board (BB) Jamaica Dairy Development Board (JDDB) National Yam Oversight Committee (NYOC)</b>	<b>MEDIUM</b> Large scale dairy producers have direct access to highest level decision makers, Yams are a product that are a priority, but generally banana is on the decline and not as powerful as it once was	<b>HIGH</b> As commodities these crops wax and wane with market demand. Both dairy and yams are not compatible with forest conservation, though dairy could exist in an agroforestry setting. Yam stick harvesting has significant negative effects on broadleaf forests.	<b>CONFLICTING BUT SIGNIFICANT AREAS FOR ALIGNMENT EXIST</b>	None	<b>IMPORTANT &amp; CRITICAL</b> The Yam Stick Oversight Committee must reconcile forest degradation with yam volume export promotion. Many lands previously under dairy production are idle with secondary forests and options must be explored with landowners. Bananas and	<b>COLLABORATIVE</b> These product promotion bodies need to be integrally involved in the design of REDD+ and implementation of specific REDD+ options.

					plantains are excellent agroforestry crops.	
<b>MOAF National Irrigational Commission (NIC)</b>	<b>LOW</b> Executing agency with little influence over decision makers	<b>MEDIUM</b> as irrigation access influences farming behaviour lack of water in dry months can cause some farmers to retreat into cooler forest areas to farm and rear livestock	<b>ALIGNED</b> As irrigation provision main goal is to improve productivity and alleviate crop and climate damage. Wider access can reduce forest pressures.	None	<b>IMPORTANT</b> stakeholder in identifying national areas that are sensitive where irrigation improvement could protect forests.	<b>CONSULT PARTICIPATE</b> in developing national priority areas for environmental and other ecosystem services that is part of the development of the REDD+ strategy, and prioritizing irrigation access to threatened forest areas.
<b>Ministry of Transport and Mining (MTA)</b>	<b>HIGH</b> This ministry oversees bauxite mining which has historically enjoyed privileged access to the highest level of decision making on account of the holistically important transnational players and revenue generation	<b>HIGH</b> Bauxite mining is destructive to forests and is a main cause of deforestation directly through mining activities and indirectly through opened forest access and displacement of communities to new areas where they turn to neighbouring forests for resources. The scale of mining in Jamaica is highly consumptive of total land space of the entire country is significant.	<b>CONFLICTING INTEREST WITH FOREST PROTECTION CLIMATE CHANGE AND REDD+</b> with some minor possibility of alignment in mine site planning to reduce forest loss, rehabilitation of mined areas to forest and agroforestry, and closer engagement with the FD on forest management on lands under bauxite leases.	None Sporadic cooperation in the past to test reforestation but nothing lasting. The JBI has exclusive regulatory rights and FD and other national agencies such as NEPA are entirely excluded from monitoring and verification of resource management activities on bauxite lands.	<b>CRITICAL</b> The cooperation of bauxite companies is critical to addressing some degree of forest conservation on bauxite lands.  <b>NEGATIVE CRITICAL</b> The absence of bauxite mining would remove a significant threat from Jamaica's forests.	<b>COLLABORATE PARTICIPATE</b> Working collaboratively to explore options for increased forest protection, better forest management, and community benefit sharing is necessary.
<b>MTM Jamaica Bauxite Institute (JBI)</b>	<b>HIGH</b> Exceptionally powerful body with direct link to	<b>HIGH</b> on account of its successful promotion of bauxite mining and shielding	<b>CONFLICTING</b> with primarily in maintaining a positive image for the industry and	None	<b>CRITICAL</b> The JBI can open spaces for other agencies to work	<b>COLLABORATE PARTICIPATE</b> JBI is the main interlocutor with

	highest level decision makers. Acts as both guardian and promoter of bauxite mining interests on the one hand regulator on the other with no independent oversight or checks and balance on its powers.	of the regulatory practice and forest impacts from third party monitoring and verification.	addressing conflicts on the ground with communities. There is no opposition to examining REDD+ alignments if this does not affect the profit seeking activities of the companies in any way.		with companies to improve forest management, reduce forest loss, and monitor and evaluate success.	bauxite companies to conduct an assessment with each company of the potential areas for alignment with REDD+ and to develop any REDD+ options that address these. The JBI is also the main entry point for working with Community Councils.
<b>MTM Bauxite Community Development Programme (BCDP) Community Councils (BCDPCC)</b>	<b>LOW</b> Community councils are forums primarily for addressing grievance, allowing the JBI to handle case by case conflicts to create the enabling environment for bauxite mining. The Council have also been entry points for livelihood projects, but they have no link to HIGH level decision makers.	<b>MEDIUM</b> Displaced communities encroach on forests for farming	<b>ALIGNED</b> with REDD+ in so much as the opportunity for arable lands can be met through agroforestry initiatives, and REDD+ aims to benefit forest dependent communities	None	<b>IMPORTANT</b> within the context of forest management and agroforestry o bauxite lands, and specific areas where displaced communities place pressure on existing forests	<b>PARTICIPATE</b> in developing REDD+ options regarding bauxite areas and <b>COLLABORATE</b> in implementation.
<b>MTM</b>	<b>HIGH</b>	<b>HIGH</b>	<b>CONFLICTING</b> with REDD+, as interests	None	<b>IMPORTANT</b> for identify	<b>PARTICIPATE</b> in developing bauxite

<p><b>Government Owned Bauxite Companies Jamaica Bauxite Mining Company Ltd. Clarendon Alumina Production Ltd.</b></p>	<p>Direct link to highest level of government on account of the revenue generation importance</p>	<p>Significant actor in deforestation</p>	<p>are profits. Potential for minor alignment in how standing forests are managed on mining lands and post mining reforestation.</p>		<p>opportunities to improve forest management in mining process, reforestation post mining, and agroforestry initiatives on mined lands.</p>	<p>related REDD+ option and COLLABORATE in implementation</p>
<p><b>MTM Mines and Geology Division (MGD)</b>  <b>Quarries Advisory Committee (QAC)</b>  <b>National Mine Restoration Committee (NRC)</b></p>	<p><b>MEDIUM</b> Quarrying as an economic activity is well supported at the highest levels of government, with interest in expansion</p>	<p><b>MEDIUM</b> localized HIGH impact but present cumulative impact of quarrying is not considered significant, though a study has never been done to characterize the effects of the quarrying sector on overall forest conditions</p>	<p><b>CONFLICTING</b> with REDD+, but scope exists to manage forests better and improve reforestation</p>	<p>None, the FD must build contacts and relationships with these stakeholders</p>	<p><b>IMPORTANT</b> Many dispersed quarry operators</p>	<p>PARTICIPATE in developing REDD+ strategy and COLLABORATE with the FD and MTM to improve quarrying and Forest Management</p>
<p><b>MOT Jamaica Tourist Board</b></p>	<p><b>HIGH</b> Tourism is a critical economic sector; representatives have access to the highest level of decision making</p>	<p><b>HIGH</b> Tourism is historically and continually responsible for the destruction of coastal forests, especially sensitive mangroves through resort and</p>	<p><b>PARTIALLY ALIGNED</b> with importance of National brand image for Jamaica. However, resort expansion and business expansion are incompatible for REDD+ goals.</p>	<p>Limited, tourism stakeholder has served on the FD board.</p>	<p><b>CRITICAL</b> Tourism's value to the economy, impact on forests, and potential for actions to improve forest management in resort development as</p>	<p><b>COLLABORATE</b> in developing and implementing REDD+ options targeting the tourism sector.</p>

		port development and affects terrestrial forests unplanned settlement around coastal development			well as REDD+ co-benefits community tourism is central to achieving REDD+.	
<b>MOT Tourism Product Development Company (TPDCo)</b>	<b>MEDIUM</b> Works mostly with stakeholders that generally have little direct access to HIGH level decision makers or need for contact	<b>LOW</b> influence on the resource base	In principle <b>ALIGNED</b> with REDD+ given its mandate to animate the National Community Tourism Policy and Strategy	None +	<b>IMPORTANT</b> especially linkages with LFMCS and other communities in and around areas managed under REDD+ to develop co-benefits	<b>PARTICIPATE</b> in REDD+ development and <b>COLLABORATE</b> in implementing community-based efforts to improve co-benefits from REDD+
<b>MOT Jamaica Tourism Enhancement Fund (JTEF)</b>	<b>MEDIUM</b> direct link to highest level decision makers not essential for Fund activities but access would be there if needed	<b>LOW</b> Beautification and education activities have some positive impact on the resource base	<b>ALIGNED</b> Jamaica's tourism product would be greatly enhanced by better managed forests and conservation activities	None	<b>IMPORTANT</b> the Fund's operation model can serve as a model for how REDD+ funds are managed	<b>PARTICIPATE</b> in REDD+ development and implementation process
<b>MOT The Tourism Linkages Network (TLN)</b>  <b>The Craft Development Institute (CDI)</b>	<b>MEDIUM</b> Strong interest in local economic linkages at the highest level of decision making, and the TLN would have access as necessary. The craft Institute less so, as it is focused on working in a low	<b>LOW</b> The TLN has not yet had achieve widespread success in establishing linkages, but it has the potential to adversely affect forests if it were to do so by promoting types of agriculture that do not enhance carbon stock	<b>ALIGNED</b> with REDD+ to create co-benefits through agroforestry and craft	none	<b>CRITICAL</b> Links supply with demand and this is critical to the success of nay REDD+ related agroforestry initiative and sustainably harvested non-timber forest products craft	<b>COLLABORATE</b> in design and implementation of REDD+ organized community -based agroforestry initiatives that directly target supply to the tourism industry, integrate craft from sustainably harvested non-timber forest products

	value industry with poor producers.					
<b>MOT Jamaica Centre of Tourism Innovation (JCTI)</b>	<b>LOW</b> Area of work does not require access to HIGH level decision making	<b>LOW</b> influence on resource base as its activities do not directly impact on forests	<b>ALIGNED</b> with REDD+ objectives to achieve co-benefits and meaningful economic prosperity for local communities	None	<b>IMPORTANT</b> role in training and capacity building for community-based ecotourism ventures that are developed as part of REDD+ co-benefits	<b>PARTICIPATE</b> in REDD+ strategy development and implementation
<b>Ministry of Culture Gender, Entertainment, and Sport (MCGES)</b>	<b>LOW</b> This ministry's portfolio concerns stakeholders that have historically been marginalized with little link to the highest level of decision making, except for sport and entertainment where successful stakeholders have access to decision makers	<b>LOW</b> No direct impact on resource base	<b>ALIGNED</b> in the importance of promoting women's empowerment, gender equity, and youth development	None except for a naming of a gender focal point, which at the time of this assessment was not functional. AS replacement has been identified	<b>IMPORTANT</b> To monitoring and verifying that certain safeguards of gender and youth participation are met	<b>PARTICIPATE</b> in REDD+ development, especially the development and implementation of safeguards
<b>MCGES Gender Bureau</b>	<b>LOW</b> Focus is not on an area that involves highest level decision makers	<b>LOW</b> Activities do not directly impact the resource base	<b>ALIGNED</b> with promoting gender equity	Only through appointed Focal Point	<b>CRITICAL</b> body-CANCUN safeguards addressing gender in REDD+	<b>PARTICIPATE</b> in REDD+ Strategy development, especially the Gender strategy and <b>COLLABORATE</b> as a partner in its implementation

<p><b>MCGES Institute of Jamaica (IOJ)</b></p>	<p><b>LOW</b> The Institute does not work in HIGH revenue generating area and is not linked to HIGH level decision makers in the course of its work</p>	<p><b>LOW</b> Activities do not directly touch upon the forest resource based.</p>	<p><b>ALIGNED</b> with REDD+ particularly in the documentation and preservation and respect for Traditional Ecological Knowledge (TEK) and Intellectual Property Rights (IPR) of local and indigenous communities.</p>	<p>None</p>	<p><b>CRITICAL</b> to the development of benefit sharing mechanisms and recognizing and respecting traditional knowledge and property rights.</p>	<p><b>COLLABORATE</b> in the development of REDD+ social safeguards and Social and Environmental Management Plan (indigenous peoples material culture and historic sites, and benefit sharing mechanisms -TEK and IPR)</p>
<p><b>Ministry of Local Government (MLG)</b></p>	<p><b>MEDIUM</b> Main body overseeing all local action activities by elected government officials and statutory bodies, link to HIGH level decision makers as necessary</p>	<p><b>LOW</b> Coordinating role over Municipal Corporations but not direct decision maker on land use</p>	<p><b>ALIGNED</b> in so far that REDD+ presents opportunities for better resource management and local economic development</p>	<p>None</p>	<p><b>IMPORTANT</b> As the body coordinating municipal corporations and the social development activities.</p>	<p><b>PARTICIPATE</b> in development of REDD+ at the ministerial level.</p>
<p><b>MLG Social Development Commission (SDC) Development Area Committees (DACs) Parish Development Committees (PDCs)</b></p>	<p><b>LOW</b> Focuses on ground level coordination work and planning, no direct linkage to highest level decision makers.</p>	<p><b>MEDIUM</b> Most community development plans are centred around sustainable development activities producing a cumulative positive effect in terms of how communities use resources and citizen's education.</p>	<p><b>ALIGNED</b> in principle, communities are seeking to achieve sustainable economic development. REDD+ may offer some opportunities to some communities for conservation-based jobs and</p>	<p>None except for when the FD field staff interfaces with local committees</p>	<p><b>IMPORTANT</b> The SDC and various communities are important entry points to community stakeholders that must be involved in REDD+. Also, these committee have development plans that must be reconciled with</p>	<p><b>COLLABORATE</b> in development and implementation of community-based activities in REDD+, capacity building, monitoring, and verification.</p>

					REDD+ objectives in areas where REDD+ options are pursued.	
<p><b>MLG Jamaica Fire Brigade (JFB) Office of Disaster Preparedness and Emergency Management (ODPEM) Disaster Committees</b></p>	<p><b>MEDIUM</b> These have HIGH direct access to the highest level of decision makers disaster situations</p>	<p><b>MEDIUM</b> The Jamaica Fire Brigade plays a critical role in managing wildfire spread and has positively impacted the resource base with its work. The OPDEM is important for planning ahead and long-term strategies for protecting forests as climate changes in the next 20 years, its influence will grow. Local Committee are crucial to mitigation and response efforts including forests.</p>	<p><b>ALIGNED</b> Protection of forests and efforts to mitigate the impacts of climate change on forests are central to the purpose of these bodies.</p>	<p>No regular relationship, except for the Jamaica Fire Brigade, which conducts training sessions on forest management in communities along with the FD</p>	<p><b>CRITICAL</b> These bodies have key roles to play in forest protection now and anticipating future needs.</p>	<p><b>COLLABORATE</b> These bodies must be involved in designing and implementing REDD+ options. These bodies also have an important role to play in the development and implementation of the Social and Environmental Management Plan.</p>
<p><b>MLG National Solid Waste Management Authority (NSWMA)</b></p>	<p><b>LOW</b> Waste management focus not directly linked to highest level decision making</p>	<p><b>HIGH Significant ecological deterioration from improper industrial, commercial, and domestic waste disposal, including toxic waste generated in the mining industry.</b></p>	<p><b>ALIGNED</b> Would want to see improved ecological management, which the “Plus” in REDD+ is focused on</p>	<p>None</p>	<p><b>IMPORTANT</b> Has an important role to play in identifying legal and illegal dumping sites in relation to REDD+ sites for social and environment management plan.</p>	<p><b>COLLABORATE</b> in the design and implementation of the REDD+ Social and Environmental Management Plan.</p>
<p><b>Parish Councils/Municipal Bodies</b></p>	<p><b>MEDIUM-MIXED</b></p>	<p><b>HIGH - MIXED</b> In some areas efforts to develop Parish</p>	<p><b>CONFLICTING AND ALIGNED</b></p>	<p>None</p>	<p><b>CRITICAL</b> As elected local bodies directly</p>	<p><b>COLLABORATE</b> in REDD+ development and implementation,</p>

<p><b>Parish Development Committees (PDC)</b></p>	<p>These elected bodies may or may not be aligned to Governmental or Opposition political parties and their power would depend on the access that they enjoy with the government in power.</p>	<p>Development Plans are aligned with REDD+, but the permitting process that allows destructive development despite such plans and sustainable development policies, conflict with REDD+.</p>	<p>There's a string pressure to attract development into Parishes and permission is given for socially and ecologically destructive business development, however, there would be HIGH interest in conservation-based opportunities with good economic returns.</p>		<p>overseeing Development Orders and land use permitting process these bodies play a critical role in the fate of forests at the local level and must be integrally involved in REDD+</p>	<p>particular site management and community development initiatives, integrating local planning information and data into national spatial database and seeking reconciliation of land uses at the national scale, and reconciling land use permit process with REDD+ objectives.</p>
<p><b>Ministry of Justice (MOJ)</b>  <b>Dispute Resolution Foundation (DRF)</b>  <b>Peace and Justice Centers (PJs)</b></p>	<p><b>MEDIUM</b> with respect to conflict resolution roles versus litigation.</p>	<p>No direct influence on forest resource base.</p>	<p><b>ALIGNED</b> with REDD+ in developing effective grievance redress mechanisms at the national and community levels.</p>	<p>None</p>	<p><b>CRITICAL</b> role potentially in the Feedback Grievance Redress Mechanism nationally at the community levels</p>	<p><b>PARTICIPATE</b> in development of the Grievance Redress Mechanisms for REDD+ and <b>COLLABORATE</b> in its implementation</p>
<p><b>Ministry of Science, Energy and Technology (MSET)</b>  <b>Scientific Research Council (SRC)</b></p>	<p><b>LOW</b> as research is not a factor that engages HIGH level decision makers</p>	<p>Unknown There are no studies on the types of research conducted, their applications, and outcomes.</p>	<p><b>ALIGNED</b> with REDD+, many existing research interests in climate change and sustainable land management are aligned with REDD+.</p>	<p>None</p>	<p><b>IMPORTANT</b> The Council can be a coordinating body for longer term monitoring research and analysis to track the socio-ecological impacts of REDD+</p>	<p><b>PARTICIPATE</b> in REDD+ development and in its implementation through long term impact monitoring as well as specific research into the effectiveness of benefits sharing mechanism.</p>

	<b>LOW</b>	<b>LOW</b>	<b>ALIGNED</b> with REDD+ goals to be inclusive, especially including marginalized sub-populations in decision making, opportunities and benefit sharing	<b>NONE</b>	<b>SUPPORTIVE</b> - can identify and create links with disabled sub populations	<b>PARTICIPATE</b> – in planning an di
<b>Civil service</b>	<b>LOW</b> Generally not linked to HIGH level decision makers, in interface is up the chain of command through Ministers	<b>MIXED</b> Civil servants in land and resource management agencies have a significant impact on forests to the extent that they purpose their mandates, which for some is protecting forests and ecologically sensitive areas and other promoting investments regardless of the long-term impact on Jamaica and climate change.	<b>MIXED</b> aligned and conflicting with REDD+ depending on which civil servants are considered	N/A	<b>CRITICAL</b> Workers in land and resource management agencies as well all bodies considered critical for REDD+ are the key to success.	<b>PARTICIPATE COLLABORATE</b> with each other in the development of the REDD+ strategy and implementation as well as in sharing information, mutual support, and training to implement REDD+.

## Annex 2. Tables of REDD+ elements, responsibilities for them and critical stakeholders to engage

Elements (REDD+)	Responsibilities (expected)	Critical Stakeholders
<p><b>National Forest Monitoring System (NFMS)</b></p> <p>A system to ensure that REDD+ objectives in forest management with respect to carbon emissions are met.</p>	<p>A robust forest national monitoring system</p> <p>Harmonize decentralized and cross sectoral and data sharing mechanisms amongst relevant agencies/institutions</p> <p>Identify land tenure, biodiversity attributes, and monitoring parameters – geospatial representation</p>	<p>Forestry Department (lead)</p> <p>National Spatial Data Management Division</p> <p>National Environmental Planning Agency</p> <p>National Land Agency</p> <p>Rural Agriculture Development Authority</p> <p>University of West Indies Department of Geomatics Engineering and Land Management</p> <p>National Water Commission</p> <p>Water Resources Authority</p> <p>Urban Development Corporation</p>
<p><b>Forest Reference Level (PREL/REL)</b></p> <p>The baseline level of carbon dioxide emissions from which carbon emission performance and results-based payments would be determined.</p>	<p>Establish FREL/REL based on 20-year trend and national circumstance and discussion of relevant matters with lead bodies.</p> <p>Submit (BURs) to UNFCCC</p> <p>Assist/share relevant data generation and research</p>	<p>FD (lead)</p> <p>Department of Climate Change</p> <p>National Spatial Data Management</p>
<p><b>Safeguards and Safeguard Information Systems</b></p> <p>Mechanisms to ensure that there is participation, equity, transparency, accountability, socio-economic benefit, and environmental protection.</p> <p>A mechanism to collect, track progress on requirements and</p>	<p>Identify indicators to track socio-economic, gender and other safeguards. Integrate into the geospatial and monitoring system.</p> <p>Operationalize the safeguard information system (SIS) – including representing key information geospatially alongside managed forest areas.</p> <p>Transparency and Accountability</p>	<p>FD (lead)</p> <p>Local Forest Management Committees</p> <p>National Spatial Data Management</p> <p>Rural Agriculture Development Authority (RADA)</p> <p>Social Development Committees (Local Government)</p> <p>Gender Focal Points, Land Management Agencies</p> <p>Jamaica Statistics Agency (STATIN)</p> <p>Jamaica Environment Trust (JET)</p> <p>Protected areas management authorities</p> <p>University of West Indies (Development Studies, Anthropology)</p> <p>National REDD+ Steering Committee</p> <p>Jamaica Constabulary Force</p> <p>Jamaica Fire Brigade</p> <p>Media (see Communications strategy)</p>

objectives and report.		
<p><b>Policy and Legal framework to Enable REDD+</b></p>	<p>Policy and Legal framework to Enable REDD+</p> <p>Develop safeguard policies, laws, and regulations to address the specific risks and benefits of REDD+</p>	<p>Office of the Prime Minister FD (lead) Office of the Attorney General Planning Institute of Jamaica Climate Change Division Bureau of Gender Affairs Municipal Corporations NEPA Ministry of Justice</p>
<p><b>National REDD+ Steering Committee</b></p> <p>A representative multi-stakeholder forum to oversee REDD+ implementation according to carbon and safeguard objectives, monitor and address grievances or accommodate suggestions on improvement, and report transparently to the public.</p>	<p>Steer the national REDD+ ensuring that all objectives and safeguards are met.</p> <p>Comprised of the cross section of critical stakeholders committed to protecting the public interest</p> <p>Members must have functional capacity and seniority to speak for their organisations and contribute to collective decision making</p> <p>Public endorsement of membership necessary at national Validation Workshop</p> <p>Members must commit to participate in REDD+ training to meet their roles and responsibilities</p> <p>At least quarterly meetings at different locations across the island, special meetings when necessary.</p>	<p>Representative of the Office of the President Climate Change Division (lead) FD (co-lead) National Spatial Data Management National Environmental Planning Agency Planning Institute of Jamaica University of West Indies Centre for Marine Science (mangroves) Jamaica Environment Trust Maroon Council LFMC representative Rural Women’s Agriculture Association Bureau of Gender affairs Protected Areas Management Authority Representative Jamaica Hotel and Tourist Association Jamaica Coffee Growers Association Jamaica Bauxite Institute Jamaica Youth Environmental Network AIC JACRA JAMPRO RADA</p>

Elements (REDD+)	Responsibilities (expected)	Critical Stakeholders
<p><b>Gender Strategy</b></p> <p>A strategy to ensure fair inclusion of males and females of all ages and opportunities to promote women's economic and social empowerment.</p>	<p>Data sharing and monitoring of gender-based participation and women's access to benefits</p>	<p>Institute for Gender and Development Studies, University of West Indies, Mona Campus (lead)                      Gender Focal Points in Natural Resources Bureau of Gender Affairs                      Bureau of Gender Affairs, Male Desk                      Community Women's Representative                      Community Men's Representative                      Women Business Owners Jamaica Ltd.                      Jamaica Network of Rural Women Producers                      Jamaica Statistics Agency</p>
<p><b>Grievance Redress Mechanism</b></p> <p>A mechanism that allows stakeholders to air their concerns and participate in devising solutions in prevent conflict and for third party mediation and or adjudication where conflicts between stakeholders or grievances about how REDD+ is being managed escalate.</p>	<p>Project, community, and national entry points and processes for preventing conflict and addressing complaints.                      Independent Monitor</p>	<p>Jamaicans for Justice (lead)                      Office of the Ombudsman                      Jamaica Council of Churches                      FD                      Climate Change Division                      National REDD+ Steering Committee                      Local Forest Management Committees                      Alternative Dispute Resolution</p>
<p><b>Environmental and Social Management Plan</b></p> <p>A strategic plan focused on participatory actions to safeguard the social fabric and natural environment primarily around REDD+ sites but also including a national outlook.</p>	<p>Multiple environmental, socioeconomic, and procedural data collection and verification at local, parish and national levels.</p> <p>Representation of critical data geospatially to track trends</p>	<p>FD                      Local Forest Management Committees                      National Environmental Planning Agency                      National Water Commission                      Water resources Authority                      University of West Indies, Port Royal Marine Lab (mangroves)                      Rural Agricultural Development Authority                      Parish Development Committees                      Community Development Committees                      Protected Areas management authorities                      Communities in and around REDD+ sites, landowners, businesses/activities in proximity</p>

Elements (REDD+)	Responsibilities (expected)	Critical Stakeholders
<p><b>Key Non-Individual Landowners/ Holders/</b></p>	<p>Commit lands to REDD+ as managed forests, for agro-</p>	<p>Jamaica Council of Churches                      Anglican Church                      Sugar Company of Jamaica Holdings Ltd.</p>

<p>Management Authorities opt in Agreement</p> <p>A mechanism for a long-term commitment to integrating REDD+ objective in managing their land under the coordination of the FD.</p>	<p>forestry, reforestation, or afforestation.</p>	<p>Urban Development Corporation                  National Water Commission                  National Land Agency                  FD                  Protected areas management authorities:                  Jamaica Conservation and Development Trust (JCdT - Blue and John Crow Mountains National Park) &amp; Windward Maroons                  Portland Bight and Protected Area-Caribbean Coastal Area Management Foundation                  Montego Bay Marine Park Trust -Montego Bay Marine Park                  Natural History Museum of Jamaica -Mason River Protected Area, Bird sanctuary and Ramsar Site (Clarendon, St. Ann)                  Negril Environmental Protection Trust-Negril Watershed Environmental Protection Area                  Jackson Bay Gun Club                  PWD Gun Club</p>
<p>Key Individual/Corporate Landowners opt in Agreement</p> <p>A mechanism for landowners to opt into REDD+ under a long-term commitment that allows the FD to manage those lands to meet REDD+ objectives.</p>	<p>Engage to opt into REDD+</p>	<p>Hotels and Resorts                  Appleton Estate                  Sandals Resort                  Tryall Club                  Small, medium, and large-scale landowners in HIGH priority REDD+ areas (identified based on a list of agreed upon criteria)                  Maroon Councils</p>

Elements (REDD+)	Responsibilities (expected)	Critical Stakeholders
<p><b>Benefit Sharing Arrangements</b></p> <p>A fair exchange of benefits and opportunities between the REDD+ proponents and those who opt into the programme, communities in and around REDD+ sites, and/or stakeholders can otherwise be adversely impacted by REDD+ activities.</p>	<p>Work out the types of benefit sharing arrangements that are feasible under REDD+ and agreeable to landowners.</p> <p>Determine the REDD+ structure and administration.</p>	<p>Office of the Prime Minister Ministry of Finance Climate Change Division FD Tourism Enhancement Fund (Model for REDD+ Fund) Landowners – government and non-government, corporate, individual, large, and small Local Forest Management Committees and focus groups of local community representatives</p>
<p><b>REDD+ Readiness Roadmap</b></p> <p>A list and timeline of agreed actions that the FD and relevant stakeholders will take to fill gaps and establish mechanisms needed to operationalize a national REDD+ results-based programme. This roadmap shall include financial resources, human and other capacity, clear outcomes, and measures of success. It will form the basis of two financing proposals the IIED Led Team will prepare for funding for the second phase of REDD+ Readiness.</p>	<p>Identify actions to advance REDD+ Readiness, including knowledge and capacity gaps that must be filled, further stakeholder inclusion, and timelines.</p>	<p>IIED-Team FD NRSC Climate Change Division</p>

<p><b>Final REDD+ National Validation Workshop</b></p>	<p>A public forum to review and validate REDD+ Readiness National Strategy and Safeguards Roadmap.</p> <p>Key REDD+ frontline participant stakeholders and various bodies responsible for implementation of REDD+ Readiness Strategy and Safeguards must be present</p>	<p>Office of the Prime Minister FD Planning Institute of Jamaica National REDD+ Steering Committee LFMCs Participating landowners National Environment Planning Agency RADA Companies, agencies, community groups that committed to REDD+</p>
--	---	---

Elements (REDD+) & Description	Responsibilities (expected)	Critical Stakeholders
<p><b>REDD + Readiness Strategy and Action Plan (NRS/AP)</b></p> <p>A design of an overall REDD+ strategy and roadmap for the Government of Jamaica to take action to animate the strategy to become ready to move to the implementation stage.</p>	<p>Leads the REDD+ development and implementation process</p> <p>Technical backstopping and facilitating (through advocacy, networking, project development, implementation)</p>	<p>Office of the President (lead)                      FD (lead)                      Climate Change Division                      National Spatial Data Management (NSDM)                      Planning Institute of Jamaica (PIOJ)                      National Environmental Planning Agency (NEPA)                      Multistakeholder National REDD+ Steering Committee                      Local Forest Management Committees (LFMCs)                      Rural Agriculture Development Authority (RADA)                      Protected areas management authorities                      Municipal Corporations                      Parish Development Committees (PDC)                      Community Development Committees (CDC)                      Corporate, institutional, and individual landowners                      Jamaica Environment Trust (JET)                      National Water Commission (NWC)                      Water Resources Authority WRA)                      Urban Development Company (UDC)                      Agriculture Investment Corporation (AIC)                      Jamaica Promotions Ltd (JAMPRO)                      Jamaica Hotel and Tourism association (JHTA)                      University of West Indies Centre for Marine Science (mangroves)                      Maroon councils                      Forest users (legal timber, beekeeping, ecotreks, medicinal herbs, yam stick harvesters)                      Cabinet                      Office of the Opposition Leader</p>