
IWOKRAMA

A Unique Place



A Special People



An Exceptional Mission



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Iwokrama

Patron: His Royal Highness, the Prince of Wales

A one of a kind institution that has the ability to demonstrate that environmental conservation, social consciousness and sustainable economic activities can be mutually reinforcing and help reduce the global rate of deforestation by providing models of sustainable forest management using multiple forest resources.

Who we are and what we do

The Iwokrama International Centre for Rain Forest Conservation and Development (*Iwokrama*) was created in the “run-up” to the Rio Summit in 1992. It is a key environmental programme dedicated by the Government of Guyana to the Commonwealth in 1989 at the Commonwealth Heads of Government meeting in Malaysia.

Since its foundation, through an Act of Parliament in 1996, *Iwokrama* has sought to advance best practice in the sustainable management of the world’s remaining rain forests.

The successful conservation of rain forests requires that local people and national governments see financial benefits from sustainable use. Otherwise, tropical rain forest degradation will continue unabated at a rate of approximately 14 million hectares annually – the equivalent of losing a tract of rain forest, the size of the Iwokrama Forest, every ten days, as has occurred since Iwokrama was proposed a decade and a half ago.

Iwokrama manages the 371,000 hectare (nearly one million acre) Iwokrama Forest in central Guyana to show how tropical forests can be conserved and sustainably used for ecological, social and economic benefits to local, national and international communities.

Its mission is:

“To promote the conservation and the sustainable and equitable use of tropical rain forests in a manner that will lead to lasting ecological, economic and social benefits to the people of Guyana and to the world in general, by undertaking research, training and the development and dissemination of technologies.”

There is growing international awareness of the reality of climate change; in 2010 Global CO₂ emissions surpassed 35 billion metric tonnes. The Intergovernmental Panel on Climate Change’s (IPCC) Working Group I contribution to the 5th Assessment Report, which was released in September 2013 confirms that climate change is being caused by human actions.

The Working Group II Report released at the end of March 2014 highlights the serious impacts of climate change, providing strong reasons for the mitigation of greenhouse gas emissions (GHGs), options for mitigation are provided in the Working Group III report, released in April 2014. This latter report places emphasis on sustainable forest management

and reducing deforestation as cost effective mitigation measures, which further reinforces the relevance of Iwokrama's work on climate change and sustainable forest management.

COP 21 in Paris in December 2015 saw the international community reaching an agreement on climate change. It underscored the importance of reducing CO2 emissions from deforestation and forest degradation and the recent adoption of the UN's Sustainable Development Goals further highlighted the importance of sustainable forest management.

Iwokrama is a unique institution that is firmly grounded in the reality of the people who live in tropical forests and whose entire economies rest on the fate of their environment. It aims to show that forests are “worth more alive than dead” and that you can “use a forest without losing it.”

Iwokrama's core values

- A **people centered** approach to conservation and wise use;
- Developing **low volume, high value** markets for **all forest products and services**;
- Encouraging local, national and international **partnerships** for development; and
- **Active learning by doing**

How we achieve our mission – Our Work Programmes

The set of activities necessary for *Iwokrama* to demonstrate that successful forest management is attained by developing conservation models through the wise use of multiple forest resources is a complex one. It requires the development of technologies and governance models that will build capacity and produce innovative businesses and models for collaborative management. Figure 1 below represents these relationships.

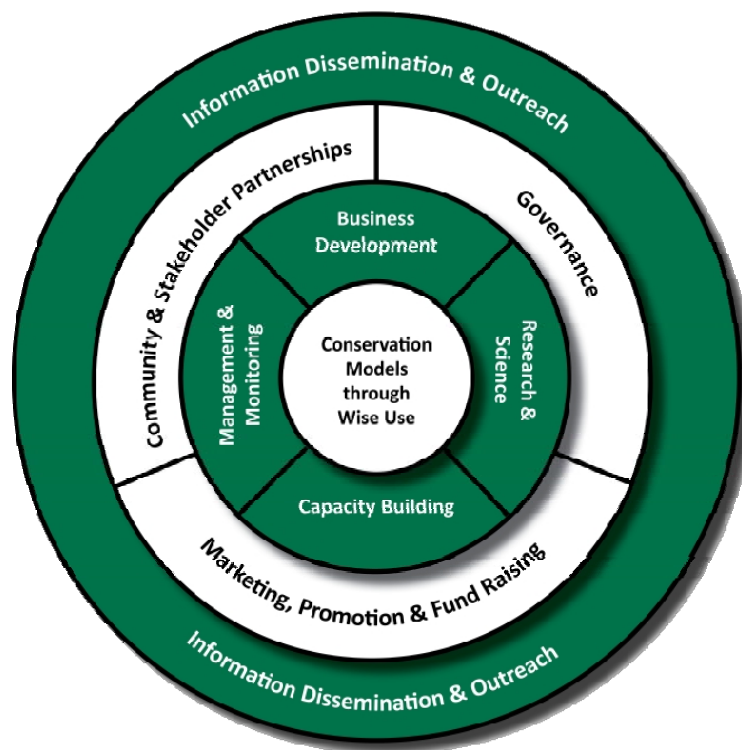


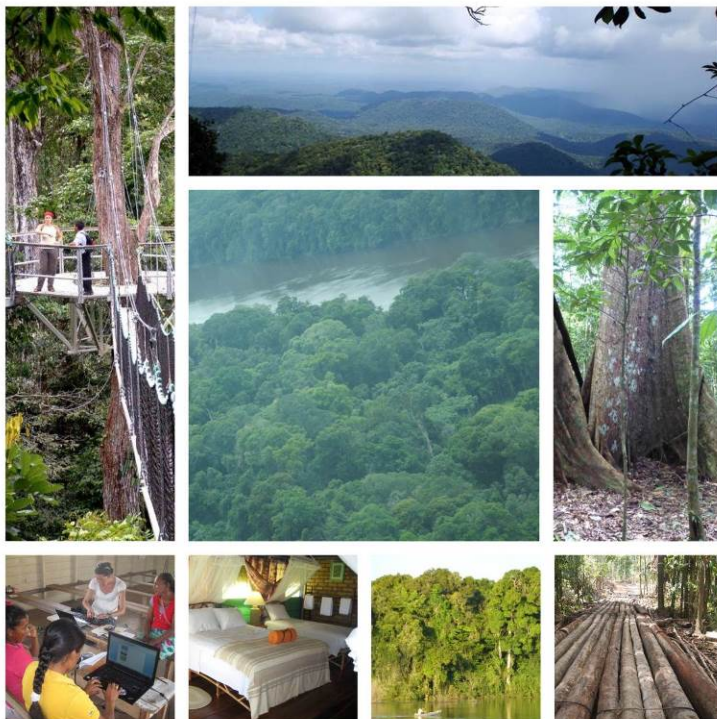
Figure 1: Operating Model of the Iwokrama International Centre

The second level consists of the four essential programmes required to achieve effective conservation: ***Business Development, Research and Science, Capacity Building and Management and Monitoring.***

Business Development

concentrates on the establishment and testing of innovative models of private – public – community partnerships for the development of forest-based businesses in the areas of sustainable timber harvesting, ecotourism, learning services and intellectual property and services including eco-system services. These businesses also form the basis for the Centre's research programme which essentially attempts to measure the environmental and social footprints of these businesses on the forest.

Iwokrama's ecotourism business is its oldest (some 19 years old) and the Centre is now entering phase two of its sustainable timber operations where it will concentrate on marketing non-traditional species and developing a sound financial, social and environmental model. Learning Services continues to grow with annual visits from Operation Wallacea and Earth Expeditions. In 2008, the Centre issued the first private sector driven eco-system services arrangement in Guyana and is currently exploring other such arrangements. All business operations follow international best practices which are verified by independent third-party certification systems such as Forest Stewardship Council (FSC) certification.



Sustainable Business at Iwokrama

For more information contact:

IWOKRAMA INTERNATIONAL CENTRE FOR RAINFOREST CONSERVATION & DEVELOPMENT
77 High Street, Kingston
Georgetown,
Guyana

Phone: 592.225.1504 592.225.1186

Email: tourism@iwokrama.org

iwokrama-general@iwokrama.org

Web: www.iwokrama.org

Web: www.iwokramariverlodge.com

Facebook: Iwokrama International Centre for Rain Forest Conservation and Development

Instagram: Iwokrama Tourism

Research and Science: The Iwokrama Forest is the best researched ecosystem in Guyana; it has been effectively surveyed for vertebrates, flora, timber trees, archaeological remains and fungi. The Iwokrama Science Committee (ISC) was inaugurated in 2009 and the committee formulated the Centre's research strategy.

*Iwokrama's clear vision and unique partnership with local communities, science and business, its innovative work on the impacts of climate change on tropical forests and the contribution of ecosystem services to their financial value, makes it a worthy participant in a number of studies for instance, those that seek to find answers to guiding questions for research such as *how to make the forests pay for themselves without cutting them all down?*, *how resilient is Iwokrama to change that might affect the forest's utility value?* and *how can the local communities best enhance and benefit from the natural capital of Iwokrama?**

Iwokrama's Research and Science

Iwokrama has completed number of natural, social, economic and cultural surveys as well as ecological inventories of the SUA including examining key timber and non-timber forest products (NTFPs).

More recent research includes valuation of ecosystem services, chainsaw lumbering, and the development of sustainable businesses from biodiversity more specifically butterflies.

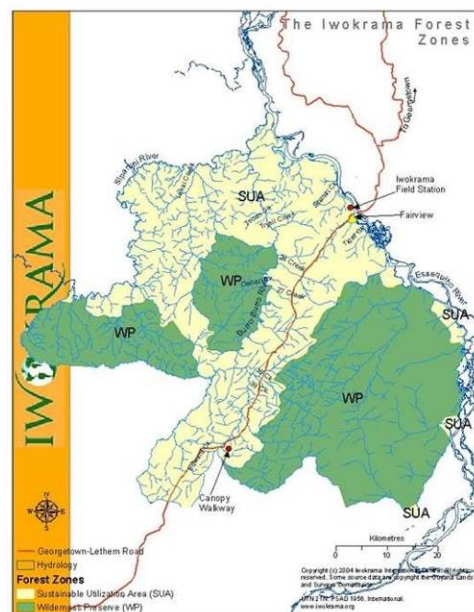


The Centre also has installed a number of weather monitoring stations and equipment throughout the Iwokrama Forest and the surrounding areas from which data is collected and analysed. The first results of the Centre's science programme were presented at the Commonwealth Forestry Conference in 2010.

More recently, the Centre has worked with overseas and local partners to develop Guyana's first Community Monitoring Reporting and Verification (CMRV) system.

Automatic Weather Station

Management Planning and Monitoring activities seek to develop management planning tools for sustainable forest management including resource mapping, forest zoning, GIS mapping exercises and effective border monitoring systems. Complex and extensive Management Plans have been developed for the Road Corridor, the Wilderness Preserve (WP) and the Sustainable Utilisation Area (SUA). *Iwokrama* also undertook a very detailed zoning process and has published several methodologies for zoning, addressing model development and participatory processes for planning. *Iwokrama's* monitoring system considers the social and environmental impacts of the various activities on the forest. It includes boundary monitoring which is becoming increasingly important as improving road conditions have increased threats to the Iwokrama Forest. It is the intention of the Centre to develop management plans that would help mitigate the negative risks that can result from forest infrastructure such as roads which are important for national development.



Iwokrama Forest - Zoning

Capacity Building includes building the capacity of local communities, national, regional and international communities and in both the private and public sectors in the various facets of *Iwokrama's* work – conservation, research, monitoring, and community engagement. *Iwokrama* played a major role in the production of a climate change manual, the only one of its kind in Guyana which is now widely used nationally and has been translated into 6 languages for international use. The Centre trained 111 trainees in areas of ranger training, guide training, protected areas management and collaborative management to support the then Guyana Protected Areas System.

Interns, volunteers and researchers come to work and conduct research at *Iwokrama* and we have been getting more interest from Universities and environmental groups.



Capacity Building

The third level includes the cross-cutting and support activities that support *Iwokrama's* work – ***Community and Stakeholder Partnerships, Governance and Marketing, Promotion and Fund Raising.***

Community and Stakeholder Partnerships: *Iwokrama* operates in close partnership with a wide range of local, national and international partners. The Centre's two founding partners are the Government of Guyana and the Commonwealth Secretariat.

Iwokrama also has a close working relationship with the 20 local communities in close proximity to the *Iwokrama* Forest. These communities fall under the umbrella organization, the North Rupununi District Development Board (NRDDB), the brainchild of *Iwokrama* in 1996. *Iwokrama* has also supported the development of conservation leaders through community-based wildlife clubs. Wildlife clubs are an integral part of a wildlife and environmental management programme of the North Rupununi and allow youth to gain first hand experience of natural resource management.

Iwokrama's Collaborative Management Partnerships

One of *Iwokrama's* major strengths is its capacity to collaborate with local communities and other partners in the management of the *Iwokrama* Forest and surrounding areas. The foundation for collaborative management has been laid through the recognition of indigenous rights (including intellectual property rights) in the *Iwokrama* Act and the implementation of shared decision-making mechanisms which include innovative collaborative management agreements and complex benefit-sharing and shareholder agreements through consultations with the NRDDB.



Community Partners

The village of Fair View is the only village within the boundaries of the *Iwokrama* Forest and with the Centre's support, acquired legal title to approximately 22,000 ha of the *Iwokrama* Forest in 2006. The community opted to remain part of the *Iwokrama* Forest and has signed several agreements with the Centre which elaborate collaborative management, business and benefit-sharing arrangements and community management planning – a testament to co-management in practice.

Iwokrama's community partners have successfully moved from stakeholders to shareholders at *Iwokrama* and community members sit on the Centre's recruitment panels and are integrally involved in all facets of *Iwokrama's*

operations. A senior community member also sits on the Iwokrama Board of Trustees – the Centre’s highest level of governance and decision making.

Governance: The International Board of Trustees (IBoT) has ultimate responsibility for the management of *Iwokrama*. It determines the policies and priorities of the Centre, appoints the CEO and plays a substantial role in fund-raising. The IBoT also makes strategic decisions, sets operational administrative systems for the Centre’s CEO and management team to use in managing the Iwokrama River Lodge and the Georgetown Office. These activities include donor and management reporting, budgeting, procurement, accounting and administrative support and production of annual audited accounts.

Iwokrama’s International Board of Trustees

Mr. Deodat Maharaj: Deputy-Chairman, Deputy Secretary-General (Economic & Social Development) Commonwealth Secretariat

The Honourable Mr. Sydney Allicock: M.P: Minister of Indigenous Peoples’ Affairs

Mr. James Singh: Commissioner of Forests, Guyana Forestry Commission, Guyana

Dr. Kenrick R. Leslie CBE: Executive Director of the Caribbean Community Climate Change Centre (CCCCC), Belize

Dr. Elizabeth Losos: President and Chief Executive Officer, Organization of Tropical Studies (OTS)

Dr Thomas E Lovejoy: Professor of Environmental Science and Policy at George Mason University and a Senior Fellow at the United Nations Foundation

Ms. Frances J Seymour: Senior Fellow at the Centre for Global Development, Washington D.C.

Mr. Dane Gobin: CEO, Iwokrama, Guyana

Marketing, Promotion and Fund Raising activities include attendance at trade shows to promote *Iwokrama*’s sustainable businesses, production of annual reports, maintenance of donor relations, proposal writing, sponsorships of environmental and community development events such as the popular annual wildlife festival for the wildlife clubs from the communities.

The outer level represents the final outcome of Iwokrama’s mandate – ***Information dissemination and outreach***

Information dissemination and outreach: The long term vision is that there will be a proliferation of successful forest management programmes across the world using *Iwokrama*’s blueprints and techniques for collaborative management and innovative business models. To truly participate in the study and development of additional conservation measures and participate in the international transition to low carbon economies, *Iwokrama* must document and share the lessons-learned and continue to collaborate with local communities, national agencies, international organizations, universities and schools and businesses in the management of the Iwokrama Forest.

Key Milestones in the History of the Iwokrama Centre

Year	Milestone
1989	Guyana offered one million acres (371,000 hectares) of intact rain forest to the international community through the Kuala Lumpur Commonwealth Heads of Government Meeting, Malaysia.
1993	US\$3M secured from Global Environment Facility for legal establishment, demarcation and research and institutional development
1994	First Field Station built led by Macushi leader, Robert Frederick Allicock who became Iwokrama's first Field Station Manager
1995	Iwokrama Agreement signed by President of Guyana and the Commonwealth Secretary General
1996	<ul style="list-style-type: none"> • Iwokrama Act passed unanimously by the Parliament of Guyana • Iwokrama supported the development of the North Rupununi District Development Board
1997	First Tourists visited the Iwokrama Field Station
1998	<ul style="list-style-type: none"> • US\$10M secured from the International Tropical Timber Organization (ITTO), British Department for International Development (DFID), the Canadian International Development Agency (CIDA) and the European Commission to support the Centre • 11 Community based wildlife clubs formed in Apoteri, Fair View, Annai Central, Rewa, Yakarinta, Massara, Toka, Surama, Wowetta, Kwatamang, and Aranaputa in response to a community-led request to grow capacity in natural resource management.
2000	HRH Prince Charles became Royal Patron of Iwokrama
2001	<ul style="list-style-type: none"> • Forest zoned into Sustainable Utilization Area (SUA) and Wilderness Preserve (WP) • International Wildlife Workshop hosted to address issues and lessons learnt impacting community members and resources, • First Wildlife Conservation Festival hosted in Annai. Two hundred and forty five children from all over the country show an appreciation for and celebrate, Guyana's rich wildlife. • Initiation of Citizen Science monitoring project with 14 communities of the North Rupununi.
2002	<ul style="list-style-type: none"> • An Amerindian representative of the local North Rupununi communities appointed for the first time to the International Board of Trustees. • State of the art Canopy Walkway installed in the Iwokrama Forest • Supported development and programming of Radio Paiwomak, 97.1 FM, the first and only community radio station in Guyana.
2003	<ul style="list-style-type: none"> • Programme restructured to meet shortfall in global realignment in donor support focus, leading to 40% reduction in operational costs. • Iwokrama develops first draft manual on Intellectual Property Rights • First management level inventory carried out in the Sustainable Utilization Area of the Iwokrama Forest
2004	<ul style="list-style-type: none"> • Turtle Mountain Satellite Camp opened • First Environmental Impact Assessment carried out for the Iwokrama Forest
2005	<ul style="list-style-type: none"> • Collaborative Management Agreement signed with Local Communities for management of the Iwokrama Forest. • HRH Prince Charles renewed his Royal Patronage of the Centre
2006	<ul style="list-style-type: none"> • Fair View Village received land title to 21, 950 hectares of the Iwokrama Forest; opted to remain a part of the Forest. Special Collaborative Management agreement signed. • 111 persons from across Guyana trained as rangers, tour guides and protected area managers and in collaborative management. • Airstrip built in Fair View Village within the Iwokrama Forest
2007	<ul style="list-style-type: none"> • Iwokrama began the first phase of its model low impact sustainable timber harvesting operation in the Iwokrama Forest
2008	<ul style="list-style-type: none"> • Iwokrama Forest received Forest Stewardship Council (FSC) Certification for Forest Management • Iwokrama signed innovative Ecosystem Service Agreement with private sector company of the United

	<p>Kingdom – the first in Guyana</p> <ul style="list-style-type: none"> • Iwokrama developed first in-land fisheries management system (the Arapaima Management Plan) with the communities of the North Rupununi for Guyana. Formally gazetted by the Ministry of Agriculture • Iwokrama launched innovative inclusive governance arrangement for its Canopy Walkway with shareholder participation by local communities and local and international private sector operators. • Iwokrama received EU funding as part of an international forestry research network project spanning the ACP region. • Iwokrama received funding from the Gordon and Betty Moore Foundation in the United States
2009	<ul style="list-style-type: none"> • Iwokrama Science Committee (ISC) formed, International Resident Scientist recruited. • State of the art climate and hydrology monitoring equipment was installed in the Iwokrama Forest and its environs. • Iwokrama produced the only known Volume and Decay study on tropical forests. • Iwokrama played major role in developing the first Climate Change manual which includes the contributions from communities, NGOs and Government, available in 6 languages. • Ground breaking agreement for climate and forest partnership between Government of Guyana and Kingdom of Norway signed in the Iwokrama Forest. • Iwokrama sponsored only non-governmental public discussion on Guyana's Low Carbon Development Strategy (LCDS). • Iwokrama trained 400 community, private and public sector representatives in climate change and the role of forests. • Iwokrama's brainchild, the Wildlife Festival included in the Ministry of Tourism's national calendar of events. • Iwokrama contracted to define the state of Forest Law, Enforcement and Governance including the role and level of illegal logging in Guyana • Visitor numbers crossed 1,000 for the first time. • First public presentation of Iwokrama's Sustainable Forest Management model at the World Forestry Congress in Buenos Aires, Argentina.
2010	<ul style="list-style-type: none"> • HRH, Prince Charles renewed his patronage of the Centre for an additional five years. • First results of the Iwokrama climate monitoring programme presented at the Commonwealth Forestry Congress in Scotland
2011	<ul style="list-style-type: none"> • Iwokrama in partnership with the Global Canopy Programme launched innovative community Monitoring, Reporting and Verification (MRV) system – the first in Guyana • 10th Wildlife Festival held- growth in conservation leadership seen as a measure of success and commitment
2012	<ul style="list-style-type: none"> • Iwokrama won the Community Benefit Award from the Caribbean Tourism Organisation/TravelMole Sustainable Tourism Awards. • Comprehensive management level inventory completed in Wilderness Preserve.
2013	<ul style="list-style-type: none"> • Iwokrama signed agreement with a development Bank to enter phase two of its low impact model timber operation in the Iwokrama Forest. • Iwokrama led successful lobby in Suriname for Guyana to host the 2016 International Congress on the Biodiversity of the Guiana Shield. • Iwokrama launched its corporate sponsorship scheme. • New species of poison dart frog discovered in the Iwokrama Forest: <i>Allobates amissibilis</i> (in Latin "that may be lost"). • Government of Guyana injected US\$900,000 over the period July 2012 – July 2013. • Three indigenous persons complete Master Degrees in heritage education at Newcastle University supported under the "Encompass" heritage preservation project
2014	<ul style="list-style-type: none"> • Iwokrama signed agreement with a private sector company to conduct sawmilling operations in the Iwokrama Forest • Iwokrama hosted Biodiversity Corridors Workshop in collaboration with UNDP, WWF and CBD • Government of Guyana injected an additional US\$600,000 to support core activities • Iwokrama received funding for Forest Stewardship Council Certification from the the German Government under the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) implemented Caribbean Aqua-

	<p>Terrestrial Solutions Programme</p> <ul style="list-style-type: none"> • Signed Memorandum for Cooperation with village of Surama for co-monitoring of the Burro Burro River • Iwokrama launched new tourism dedicated website – www.iwokramariverlodge.com
2015	<ul style="list-style-type: none"> • Iwokrama River Lodge awarded the TripAdvisor 2015 Certificate of Excellence • Iwokrama started Phase II of its sustainable timber harvesting and sawmilling operations in partnership with Farfan and Mendes Ltd. • Iwokrama and Rupununi Communities rescued and relocated twenty-seven (27) Arapaima (<i>Arapaima gigas</i>)
2016	<ul style="list-style-type: none"> • Iwokrama celebrating its 20th anniversary since passage of the Iwokrama Act • Iwokrama reviewed and renewed Memorandum of Understanding with the North Rupununi District Development Board • Iwokrama reviewed and renewed the Collaborative Management Agreement of the Iwokrama Forest with the North Rupununi District Development Board • Bird Guide Training Course for Iwokrama Tour Guides and NRDDDB partners • Iwokrama showcased model forestry operations in UK at Commonwealth Secretariat

Natural Assets

The Iwokrama Forest

The major asset of the Iwokrama Centre is the 371,000 Ha Iwokrama Forest which sits in the heart of Guyana (see Figure 2). It is located in the centre of the Guiana Shield and represents an important transition zone in rainfall, landforms, human histories and biological communities. To the west of the forest is the Pakaraima Mountain Range that extends through western Guyana and eastern Venezuela and to the east are the inselberg and highland formations scattered through central-east Guyana, Suriname and French Guiana. There are savannahs to the southwest and northeast of the Iwokrama Forest in Guyana, as well as in south-western Suriname.

The forest is zoned into two distinct areas – the Sustainable Utilization Area (SUA) and the Wilderness Preserve (WP). It is contiguous to the North Rupununi Wetlands and together these two areas boast a world class biodiversity hotspot.

As one of only four (4) remaining intact rain forest areas in the world, Iwokrama's 371,000 hectares with its incredible rich biodiversity and stunning geographical features should remain a key international priority for research into climate change and sustainable development.



Figure 2: Map of Guyana showing location of the Iwokrama Forest

Biodiversity of Iwokrama and North Rupununi Area

The Iwokrama Forest and the neighbouring North Rupununi wetlands are an extraordinary ecosystem encompassing a range of habitats which include more than 200 lakes, braided rivers flowing over volcanic dykes, 1,000 meter mountains, lowland tropical rain forests, palm forests, seasonally flooded forests and savannahs.

This combined area boasts an extraordinary biodiversity which is world class, it is home to healthy populations of some of the world's largest and most endangered species – the “*Giants of El Dorado*” including the Harpy Eagle, the Jaguar, the Giant Anteater, the Giant River Otter, the Arapaima (the world's largest scaled fish), the Anaconda, the Black Caiman, the Giant River Turtle and the Bushmaster snake.

The Iwokrama Forest and North Rupununi Wetlands also contain the largest number of fish and bat species in the world for an area of its size.

Faunal diversity: 30% of which is classified as rare and endangered.

- + 130 species of mammals
- + 500 species of birds
- ~ 150 species of reptiles and amphibians
- + 420 species of fish
- + 86 species of bats



**Biodiversity of
the Iwokrama Forest**

Floral diversity: There are 9 distinct forest types in the Iwokrama forest.

- The largest forest type covers 33% of the forest - mixed greenheart, black kakaralli and wamara forest.
- Around 20% of the forest is mixed greenheart, sand baromalli and soft wallaba forest
- About 16% of the forest is mora, manicole, crabwood and trysil forest
- 15% of the forest is mixed low stature forest
- 7% of the forest is manicole, kokerite and soft wallaba palm forest
- the remainder of the forest is less than 5% each of wallaba, dakama, muri scrub and liana forest.

Botanical surveys of the Iwokrama Forest have found over 1,250 species of plants. However, the total number expected for the area is likely to exceed 2,000 species with additional work in highland areas.

What is also very impressive about the range and diversity of animals found in the Iwokrama Forest is that it accounts for almost half of all the animal species found in the whole of Guyana. Even more noteworthy is that when those species are combined with those found in the adjacent Rupununi Wetlands, they account for almost three-quarters of all the animal species found in Guyana

Iwokrama's location is also significant because it is in a key geographical position to study the complex interactions between climate and vegetation; and for examining the climatic transition zone existing between Guyana's wet coastal area and the savannah in the south.

The savannah and transitional borderland rainforest forest belt that separates the coastal area of Guyana from the upper Amazon Basin) may expand due to changes in climate such as projected increases in temperature. Edge effects at forest boundaries - and habitat fragmentation - may therefore have complex effects on forest-climate interactions, with important consequences for atmospheric circulation, water cycling, and precipitation. Due to its proximity to the savannah and borderland region, Iwokrama is likely to experience the impact of climate related changes to the rainforests earlier than in other rain forested areas.

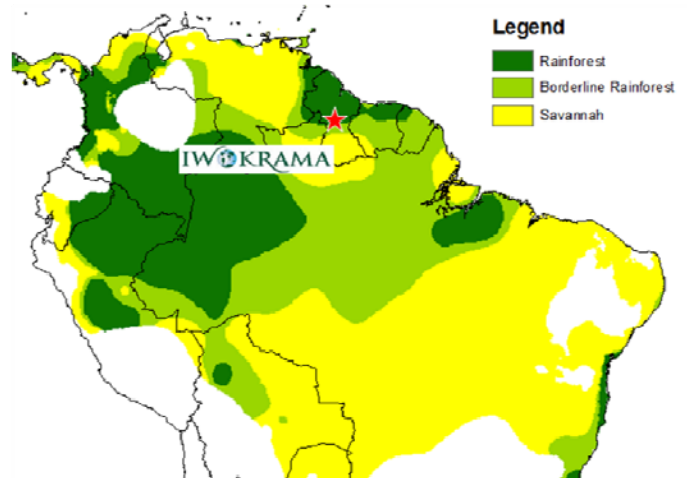


Figure 3: Map showing Rainforest and Savannah across the Amazon Basin

In addition, new evidence suggests that coastal forests, like those of the Guianas, may be critical to maintenance of inland water cycles, such as those occurring within the Amazon biome - by acting as a 'biological pump' drawing moisture, in this case from the SE Atlantic inland to the Amazon basin. Taken together, this increases the need for a well-supported research centre in the region.

The Iwokrama Forest represents a highly significant contribution from the people of Guyana to the success of sustainable forest management and utilization worldwide.

Carbon Stocks in the Iwokrama Forest

Although the Iwokrama Forest exhibits some remarkable differences in floristic composition (Hans ter Steege), the main species composition does not differ to such an extent that it significantly affects the carbon content except perhaps the higher altitude forest on the Iwokrama Mountains. Because biomass is lower in forests surrounding the Rupununi savannah it is also expected that the biomass will decrease towards the southern boundary.

The total carbon stock of the Iwokrama Forest is estimated to be approximately 116 million tons as summarised in the table below

Table 1: Summary of Carbon Stocks in the Iwokrama Forest

Forest Type	Area ha	Carbon T/ha	Carbon Mt/ha
Mixed Forest	308,464	1,454	95
Wallaba Forests	18,019	573	3.4
Swamp Forest	27,964	1,148	10.6
mixed forest/swamp forest	274	334	0.1
swamp forest/wallaba forest	16,582	400	6.6
Clearings	42		
Total	371,345		115.7

Source: Biomass Estimates for Forest in Guyana and their use in carbon offsets, Hans ter Steege.

Ecosystem Services in the Iwokrama Forest

Ecosystem services can be defined as the “conditions and processes through which natural ecosystems, and the species that make them up, sustain and fulfil human life” (Daily 1997). They are the benefits people obtain from ecosystems and include provisioning services such as food and water; regulating services such as flood and disease control; cultural services such as spiritual, recreational, and cultural benefits; and supporting services, such as nutrient cycling, that maintain the conditions for life on Earth.

The Iwokrama Forest ecosystem is a relatively intact ecosystem which provides goods for subsistence and commercial use, food, shelter, timber, wildlife, fish, materials for handicrafts and medicines, and services to mitigate droughts and floods, generate and conserve soils and their fertility, disperse seeds and pollinate plants, recycle nutrients, maintain biodiversity, support climate stabilization, and act as the basis for aesthetics, study and culture (see Table 2).

Table 2: Summary of the ecosystem services provided by the Iwokrama Forest

Basis	Process and Function	Ecosystem Service	Value and well being contribution
Provisioning Geomorphology and Forest productivity	Photosynthesis and flood plains	Seasonal flooding: access for spawning and feeding. Refugia for resident and transient populations	Fish for consumption Downstream commercial fishing
Plant Productivity	Productivity, trophic chains	Ecosystem production	Fish and wildlife harvesting
Specific Plants	Species packing	Plant diversity maintained	Medicinal and other useful plants - curare
Clear water streams, topography, geomorphology	Water purification through white sands	Clean drinking water	Drinking water for local people
Regulating Tree and plant productivity	Photosynthesis	Carbon sequestration and storage	Reduced global CO ₂ emissions
Wetlands, creeks and organisms	Photosynthesis and absorption	Carbon sequestration and storage	Reduced global CO ₂ emissions
Geomorphology and forests	Local climate regulation	Local climate effects	Not understood
Geomorphology, climate and hydrology	Hydrological and filtering processes	Water volume and quality; flood control	Downstream uses of water
Supporting Pest Control	Productivity, natural predators	Natural pest control, soil fertility	Farming support
Soil Nutrients	Nutrient recycling	Farming - shifting cultivation	Farm lands for shifting cultivation
Productivity	Pollination, dispersal and photosynthesis	Timber tree growth and regeneration	Timber trees harvested
Cultural Geo-diversity, species richness and productivity	Habitat diversity, photosynthesis and tropic relations	Species richness and diversity	Intellectual basis for research
Geomorphology and habitat diversity	Ecological and geological processes	Existence	Spiritual connectivity
Geo-diversity, species richness and productivity	Habitat diversity, photosynthesis and tropic relations	Species richness and diversity and large predators and herbivores	Existence Values
Geo-diversity, species richness and productivity	Habitat diversity, photosynthesis and tropic relations	Species richness and diversity and large predators and herbivores	Recreational use - ecotourism and sport fishing

Source: Baseline Assessment for Ecosystem Services from the Iwokrama Forest, May 2010

The People

From time immemorial, the Makushi people and their ancestors have traditionally used and otherwise occupied the ancestral Makushi lands of Guyana consisting of the area now described as the North Rupununi sub-region (and its Wetlands) and inclusive of the Iwokrama Mountains and Iwokrama Forest.

Populations in the Forest

Fair View Village is the only permanent settlement in the Iwokrama Forest. It is made up of people of Makushi, Patamona and Wapishana origins and is located on the left bank of the Essequibo River. The village has a population of approximately 232 people in 41 households and the village has legal title to approximately 22,000 hectares of the Iwokrama Forest.



Traditional Fishing and Petroglyphs

Populations South of the Iwokrama Forest:

There are over 5,000 people in the 16 villages linked to the Iwokrama Forest. About 91% of this population is ethnic Amerindian: 77% Makushi, 11% Wapishana, and 3% Arawak. Five percent of households are self-described as 'Mixed,' (Head of Household is half Coastlander/half Amerindian) and 3% of households as 'Coastlander,' (African or East Indian descent).

Populations North West of the Iwokrama Forest:

The majority of Amerindian communities in Region 8 are Patamona, and two communities Itabac and Kanapang are Makushi. These are located to the northwest of the Forest, in upland savannah areas.

Field Infrastructure

Iwokrama River Lodge and Research Centre (IRL)

The IRL provides the living and working environment for forest activities, sustainable businesses, road management, capacity building, communications and research.

The hub of the IRL is the Fred Allicock Building, a spacious utility building that houses the administrative centre, hospitality services (bar, restaurant and gift shop); conference facilities, computer laboratory; medical centre; biodiversity/science laboratory, store and a small library.



Aerial View of the IRL

The River Lodge can presently accommodate up to 42 visitors in cabins and rooms. Lodging includes comfortable single or double beds, cool showers, flushing toilets, mosquito nets ,electricity, wireless internet access and for the more adventurous, hammocks. Staff quarters can house up to 40 people since most of the staff live on site.

Ranger Stations

There are two permanent Ranger Stations at the northern (Kurupukari) and southern (Corkwood) boundaries of the Iwokrama Forest, the points at which the Georgetown-Lethem road enters and leaves the forest. The Ranger Stations are located strategically for the management and monitoring of the road and are manned by officers of the Guyana Police Force, Iwokrama Rangers and staffers from the Guyana Revenue Authority.

Canopy Walkway

The Iwokrama Canopy Walkway is located 58 km from the River Lodge at Maushiparu. The 154-metre aluminum Canopy Walkway is the only walkway in the Guiana Shield that is suitable for both tourists and researchers. The Tree-Hugger system that is used to anchor and stabilize the walkway is environmentally friendly and designed to allow the trees in the system to move and grow naturally.

The ***Atta Rain Forest Lodge*** is located at the Canopy Walkway. The facility can accommodate up to 16 persons has grown from hammock accommodation to eight comfortable rooms together with restaurant, bar and internet services.



Iwokrama's Canopy Walkway



Turtle Mountain Camp

Turtle Mountain Camp

The Turtle Mountain Camp is an established satellite camp approximately 40 minutes by boat from the River Lodge providing a step-off point for treks and trails into the Iwokrama Forest. The three-benab camp site can accommodate up to 30 persons in hammocks and the site is also equipped with kitchen and dining facilities and small research area. Because of its remote location it is favoured by researchers.

Financial Profile

Over the years the Centre has been financed primarily by grants from a myriad of donors (please see Appendix 1). In more recent years with a shift in international donor priorities, the Centre has had to consider other financial models in order to maintain its operations.

Iwokrama's current financial model as reflected in its 2013 – 2017 Business Plan prepared by Yale University, includes funding from various sources including earned revenues and investments (from businesses and partners), donor funding and intellectual property and services (including eco-system services) to meet its core costs which two studies have estimated to be between US\$750,000 and US\$1,200,000 annually. The Centre's businesses are in varying stages of development and in the interim the Centre's Trustees are aggressively pursuing funding from various sources including but not limited to traditional multilateral donors, sponsors, institutions, Governments amongst others to meet these costs. The Centre has maintained annual Audited Accounts which have continued to earn clean audit opinions and which are available for review upon request.

How you can help

Interested parties can help by contributing to the Centre's core costs which are between US\$750,000 – US\$1,200,000. These funds will go towards meeting the Centre's work programmes which appear below:

1. Research and Science
2. Forest Management and Monitoring
3. Business Development – timber, tourism and learning services
4. Capacity building
5. Community and Stakeholder Partnerships
6. Information Dissemination and Outreach
7. Marketing promotion and fundraising

Prospective supporters are encouraged to contact the Chief Executive Officer for more information:

Dane Gobin
Chief Executive Officer
77 High Street
Kingston
Georgetown
Guyana
Tel: 592-225-1504
Email: dgobin@iwokrama.org
Website: www.iwokrama.org

Appendix 1: List of Contributors and Partners

Academy of Natural Sciences	European Union	International Development and Research Centre	Panthera
Amazon Conservation Team, Suriname	Evergreen Forest Products Inc.	International Forest Products (UK)	Papua New Guinea Forest Research Institute
Anton de Kon University, Suriname	Eversheds LLP	International Institute for Environment and Development	Protected Areas Commission
Calgary Zoo	Fisheries Department of the Ministry of Fisheries, Crops and Livestock	International Tropical Timber Organisation	Philadelphia Zoo
Canadian International Development Agency	Forestry Training Centre Inc.	International Union for Conservation of Nature	Sterling Products Limited
Canopy Capital	Fund for International Development Archives	Jacksonville Zoo	Rain Forest Alliance
Cara Group	German Government (KfW)	Josephine Whitehead Legal Services	Royal Holloway University
Caribbean Airlines Limited	German Government under the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)	KPMG International	Rumi Foundation
Caribbean Community Climate Change Centre	Global Canopy Programme (Oxford)	Mamiraua Institute for Sustainable Development	Shell UK
Caribbean Development Bank	Global Environmental Facility	McArthur Foundation	Stephenson Harwood LLP
Center for International Forestry Research	Gordon and Betty Moore Foundation	Ministry of Foreign Affairs, Guyana	Surama Village
Centre for Ecology and Hydrology	Guyana Forestry Commission	Ministry of Indigenous Peoples' Affairs, Guyana	Tate and Lyle
Chicago Zoological Society	Guyana Geology and Mines Commission	Ministry of Natural Resources	The British Government
Cleveland Zoo	Guyana School of Agriculture	Ministry of Public Infrastructure	The Government of Guyana
Columbus Zoo	Guyana Shield Initiative	Ministry of Public Telecommunication and Tourism	Tourism and Hospitality Association of Guyana
Commonwealth Foundation	Guyana Telephone and Telegraph Company Limited	Ministry of the Presidency	Tropenbos International
Commonwealth Secretariat	Guyana Tourism Authority	National Audubon Society	United Nations Development Programme
Community and Tourism Services Inc	Guyana Trade and Investment Services	National Parks Commission, Guyana	University of Guyana
Conservation International	Hill and Knowlton	Newcastle University	University of the West Indies
Darwin Initiative	Holloman Price	New GPC Inc.	US Agency for International Development
Department for International Development	Horniman Museum	North Rupununi District Development Board	Warwick University
Earth Expeditions - Miami University	HSBC Holdings	Office of the Climate Change,	Wilderness Explorers
Environmental Protection Agency-Guyana	Institut de Recherche en Ecologie Tropicale (IRET), Gabon	Office of HRH Prince of Wales	World Bank
Environmental Resources Management Foundation	Inter-American Development Bank	Operation Wallacea	World Wildlife Fund