



Iwokrama International Centre  
for  
Rain Forest Conservation and Development

## Public Summary

### Iwokrama's Forest Certification process

Updated June 2009

#### What is Iwokrama

The Iwokrama International Centre for Rainforest Conservation and Development (IIC) is an autonomous non-profit institution established by Guyana and the Commonwealth. Through the dedication of approximately 360,000 hectares<sup>1</sup> (about one million acres) of intact tropical rainforest by the Government and People of Guyana to the International Community, the IIC aims to show how tropical forests can be conserved and sustainably used for ecological, social and economic benefits to local, national and international communities.

The responsibility for management, conservation and sustainable development of this forest area (the Iwokrama Forest) was entrusted to the Iwokrama International Centre, through the Iwokrama International Centre for Rainforest Conservation and Development Act of 1996, and an Agreement between the Government of Guyana and the Commonwealth signed in November 1995. The Centre is as an autonomous corporate body, governed by an International Board Trustees. Six percent (about 22,000 hectares) of the Iwokrama Forest is owned by Fair View Village through Amerindian land title obtained in July 2006.

Fundamental to the work of the Centre is the geographical zoning the Iwokrama Forest into two spatially equal zones: a Sustainable Use Area (SUA) and a Wilderness Preserve (WP).

The SUA is available for multiple resource use to yield benefits to present generations while maintaining the potential to meet the needs of future generations. The SUA is managed by the Centre and the local communities and in particular Fair View Village.

The WP serves as a reference area for studying the impacts of human activity through comparison with uses in the SUA, and to maintain a pool of genetic resources in an intact state.

The mission of the Centre is,

---

<sup>1</sup> GIS mapping shows the actual size of the Iwokrama Forest to be 371, 681 hectares

*“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.”*

### **Key Milestones in the History of the Iwokrama Centre**

- 1989 His Excellency Desmond Hoyte, President of Guyana offers one million acres of pristine rainforest to the international community through the Kuala Lumpur Commonwealth Heads of Government Meeting
- 1993 US\$3M secured from Global Environment Facility for legal establishment, demarcation and research, and institutional development
- 1995 November 9<sup>th</sup>. Iwokrama Agreement signed by His Excellency Cheddi Jagan, President of Guyana and Chief Ameka Anyaoku, Secretary General of the Commonwealth
- 1996 May 7<sup>th</sup>. Iwokrama International Centre for Rainforest Conservation and Development Act passed unanimously by the Guyana Parliament
- 1998 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.
- 2000 HRH the Prince Charles of Wales becomes Royal Patron to Iwokrama
- 2001 Forest zoned into Sustainable Utilization Area and Wilderness Preserve
- 2002 Representative of the local North Rupununi communities appointed to the International Board of Trustees
- 2003 Programme restructured to meet shortfall in global realignment in donor support focus, leading to 40% reduction in operational costs
- 2005 July 1<sup>st</sup>. Collaborative Management Agreement signed with Local Communities (through the North Rupununi District Development Board (NRDDB) for management of the Iwokrama Forest
- 2006 Fair View Village, the only community within the Iwokrama Forest receives Land Title to 21,950.83 hectares of the Iwokrama Forest; and opts to remain a part of the Protected Area.
- 2007 Joint Venture Agreement signed and Iwokrama Sustainable Timber Inc, Joint Venture Company, commences timber harvesting in the Iwokrama Forest.
- 2007 Shareholding Agreement signed with Fair View Village for sharing of benefits from the Timber business
- 2008 The 371,000 hectares of the Iwokrama Rainforest receives FSC Certification.
- 2008 August 6<sup>th</sup>, revised Collaborative Management Agreement signed with the NRDDB.

## **Socio-Economic Context**

There are 16 Amerindian communities that are associated with the Iwokrama forest. Fair View Village lies within the Iwokrama Forest and has title to 22,000 hectares of forest since 2006. The other 15 communities lie south of the reserve in the North Rupununi. The population of these communities is now over 5000.

In the North Rupununi, health care is very basic and villages are equipped with health centres and community health workers. There is a medex based at Annai. Malaria is considered the most serious health problem though other health concerns are emerging.

Local and regional governments are the Village Councils, Annai District Council, Regional Democratic Councils, and regional representatives of Ministries of Amerindian Affairs, Agriculture and Health.

Institutionally, the communities of the North Rupununi (including Fair View) are represented by the North Rupununi District Development Board (NRDDB), which consists of leaders from all the 16 villages.

Other institutions include the Bina Hill Institute for Research, Training and Development which has a strong focus on Training, and the Makushi Research Unit, which carries out social, economic and ecological research. Other groups that are active include the Fisheries committee, womens' groups, wildlife clubs and sports clubs.

### **Association with Iwokrama**

Iwokrama has a strong partnership through the NRDDB with the 16 communities and involves the people in management planning and development activities. At the level of the Iwokrama International Board of Trustees, there is a community representative. Employment priority is also given to persons from these communities once they can meet the qualifications required for the relevant job opportunities.

A collaborative management agreement with the NRDDB set out frameworks on how the Iwokrama Programme site should be collaboratively managed between the Centre and the communities. A separate collaborative management agreement is signed with Fair View village due to their status as title holders within the Iwokrama Forest.

At the level of business development, communities are also included as shareholders and relevant shareholding agreements are worked out to cover aspects of benefit sharing.

## **Sustainable Business Development and Iwokrama**

Another way of expressing Iwokrama's original mandate is to test the proposition that conservation, environmental balance and sustainable economic activity are mutually reinforcing, not contradictory. To do this Iwokrama must address the parameters that affect the conservation and sustainable and equitable use of tropical rainforests.

Within the context of ecosystem conservation, Iwokrama therefore seeks to develop global models for sustainable, profit-making, rainforest enterprises, integrating the private sector with local communities within a sound, regulatory environment. The businesses it incubates and helps to develop will be distinguished by the production and marketing of low volume, high value services and products with a brand signifying quality and sustainable fair trade practices. The principles under which such businesses operate would be available to Guyana and the rest of the World as model techniques of sustainable development.

In development of its sustainable business models, Iwokrama is situated at the interface between the private sector and local people – the investor and the resource owner. It would have achieved its mission when investors and local people can work together to achieve a single set of objectives which guarantees long term enhancement of livelihoods of people through the conservation and sustainable development of natural resources.

The Iwokrama Business Plan 2006-2010, describes four areas for business investment: Sustainable Timber Harvesting; Ecotourism; Training; and Intellectual Property and Services. Together, these areas cover a broad spectrum of forest-based businesses ranging from the sustainable extraction of timber, through to the sale of services based on the Centre's experiences, and on the environmental services associated with carbon sequestration, watershed management and other non-timber forest products.

## **Sustainable Forestry at Iwokrama**

In February 2007, the Iwokrama Board of Trustees agreed that its subsidiary, Iwokrama Timber Inc. should enter a joint venture agreement with a local timber company, Tigerwood Guyana Inc (TGI) for the express purpose of carrying out the Centre's timber business. The ITI-TGI alliance produced a new joint venture company Iwokrama Sustainable Timber Inc (ISTI). The sustainable timber operations are required to function under FSC-endorsed forest certification, in accordance with the decision by the Iwokrama Board of Trustees to pursue forest certification according to the Forest Stewardship Council (FSC) guidelines.

Iwokrama Timber Inc. (ITI) is a company formed by decision of the Iwokrama Board of Trustees in 2004, to carry out its timber operations. Part ownership of ITI (24%) lies with Fair View Village and the local communities as a result of the land title obtained by Fair View Village in 2006, and the historical relationship with the local communities through the North Rupununi District Development Board. Fair View Village percentage ownership is commensurate to the percentage of the SUA that the village now owns, while the percentage shareholding by local communities is in keeping with the Iwokrama Intellectual Property and Benefit Sharing Protocol.

TGI is a wholly-owned company that has partnered with Iwokrama Timber Inc, to establish a commercially successful business employing international best practices and high standards of social justice in the sustainable management, harvesting and processing of timber from tropical rainforests. Its aim is to provide high quality, certified timber to customers world wide; to enhance the livelihood of the local communities; and to contribute to Iwokrama's valuable work in Research and Development into sustainable forest management

To demonstrate best practice, an Environmental Impact Assessment (EIA) for the Sustainable Timber Operations was prepared in accordance with the Environmental Protection Act. The Environmental Protection Agency (EPA) of Guyana issued an Environmental Permit in 2007 which was revised in 2008, acknowledging that the EIA, which includes the Environmental and Forestry Management Plan (EFMP) met national environmental guidelines.

The EFMP was further adapted to meet the conditions established under the Joint Venture Agreement between ITI and TGI, and this was submitted to the EPA and the Guyana Forestry Commission (GFC) in February 2007. The EFMP respects all national environmental and forestry guidelines, and in particular the Code of Practice for Timber Harvesting.

The EFMP covers a period of five years and is augmented by an Annual Operations Plan that provides specific detail on operations for the year. The EFMP is adaptive in nature, and is revised annually to take into consideration the results of monitoring and assessment of impacts, management decisions, and the deepening relationship with Fair View Village and other communities. The last revision was submitted in early 2009.

### **Management Objectives**

The general objective of the joint venture timber operation is to be a global model for timber harvesting, demonstrating innovative governance models (including communities and private sector), environmental sustainability, social sensitivity and economic viability.

The specific forest management objective of Iwokrama and the JVC is to ensure the long-term growth and productivity of the Iwokrama Forest beyond the first cutting cycle.

In the first five years the Sustainable Timber Harvesting Operation will process logs into hewn squares and rough sawn lumber. It shall also:

1. test models of governance, planning, harvesting and management; this includes economic, social and environmental assessment of the process
2. acquire practical experience in establishing, managing and operating a certified timber operation
3. address one of the principal commercial values of the Tropical Rainforests

Future developments will look to phase in the production of kiln dried and dressed sawn wood and other high value and downstream timber products for the local and export markets.

### **Area Description**

The Iwokrama Forest (371,000 hectares) has been zoned into two distinct areas: the Wilderness Preserve (WP) and the Sustainable Utilization Area (SUA). The WP has been set aside as a biodiversity reserve, wherein all activity will be severely restricted. The SUA is the area that has been designated for sustainable management of the forest's multiple resources. The SUA has been divided into five Compartments for forest management planning purposes.

The Net Operable Area (NOA) is the area selected for timber harvesting purposes. Located within the SUA, the NOA excludes non-commercial forest types, which are mostly located in two major land areas: the Pakatau Hills area in the north-west and the Maipa Mountains area in the far south.

The other excluded areas are: special use reserves; river and stream buffers; road buffers; slopes greater than 40%; and small, isolated inaccessible areas.

Iwokrama has an up to date GIS facility so that harvested areas and areas to be harvested are clearly mapped. All necessary operational plans are also clearly defined on the maps prior to harvesting including trees identified for harvesting, skid trails alignment etc.

### **Inventory Design**

Iwokrama carried out the management level inventory of the NOA in April and May 2003, with the assistance and collaboration of the GFC. Both the “Inventory Design Document” and “Final Inventory Report” have been submitted to the GFC.

The pre-harvest inventory, or 100% enumeration, is carried out on each annual cutting area to determine precisely the volumes by species and size classes that will be felled. A digital GIS map indicating the location, species, size and quality of all potentially merchantable trees is produced to support the level of detailed harvest planning required for the implementation of Reduced Impact Logging procedures and planning skid trail networks. The output will also facilitate development of processing and marketing strategies based on estimates of expected production.

The post-harvest inventory will be carried out on each Management Unit immediately upon completion of the harvesting in that area. It will be designed to ascertain the following:

- Amount and quality of trees remaining;
- Trees planned for removal but not removed, or trees removed that were not planned;
- Trees felled but not extracted;
- Assessment of gap size and damage to residual stand;
- Assessment of whether planned skid trail design was achieved or not;
- Assessment of skid trail damage: compaction, erosion, etc.

### **Management Regime**

With a Net Operable Area of 108,992 ha and a felling cycle of 60 years, the maximum annual harvesting area would be 1,816.5 hectares. This would yield about 36,330 m<sup>3</sup>/year using the GFC's recommended allowable cut of 20 m<sup>3</sup>/hectare. The adjusted weighted average volume for the three forest types to be harvested during this plan period is 17.5 m<sup>3</sup>/ha.

The NOA accounts for only 29% of the entire Iwokrama Forest.

For the duration of this Plan, based on an estimated average sustainably harvestable commercial volume of 17.5 m<sup>3</sup>/ha and the JVC's mandate to harvest only 20,000 m<sup>3</sup>/year, or 100,000 m<sup>3</sup> over the plan period, the average annual harvesting area will be about 1,140 hectares or a five-year total of 5,700 ha. Upon completion of harvesting activities, felling blocks will be closed down and the environment directly affected will be rehabilitated to the extent that is practicable.

## **Silviculture System**

The silvicultural system applied on the Net Operable Area (NOA) of the Iwokrama Forest will be a natural regeneration system. This is a simple system consisting of selecting only a few trees at a time for removal, allowing natural regeneration to fill in the gaps created, and maintaining standing volumes of all tree species. It may also be called “selective cutting” or “selection system”. It falls within the “polycyclic systems” of forest management and regeneration, as it contains trees in different stages of their growth cycles.

The resulting managed forest maintains the uneven-age characteristic of the original forest. The regeneration of the desired species occurs naturally, without further manipulation or enrichment. The removal of isolated individual trees resembles natural tree-fall, and regeneration takes place normally as in undisturbed forests.

Iwokrama has implemented a comprehensive volume and decay study in order to generate more realistic estimates of standing commercial volume. A Permanent Sample Plot (PSP) programme for growth and yield assessment to assist in setting realistic harvesting cycles has also been established with initially 13 plots. Data from PSP’s assessed by Tropenbos in the DTL concession, and the Barama Company Limited, to develop growth models and volume equations for general use in Guyana, have been applied to the more common species found in the Forest.

## **Infrastructure Development**

During the first three years of this plan, the JVC will clear and develop a forest products processing and base camp site, in an area of low-volume Wallaba Forest on white sand, off the Linden-Lethem road about 8 km south of Kurupukari crossing. It will provide equipment maintenance and storage facilities, mobile safety services, housing, offices, medical centre, communications, married and single accommodations, a community centre, a shop, and recreation facilities. Depending upon a number of business factors that will be assessed by the JVC corporate structure, the harvesting operations equipment may be located at sites remote from the base camp.

Over the first five year period, the Linden-Lethem road will serve as the primary logging road. Secondary road development into the forest could extend up to 18 km and feeder road development up to 27 km. Only one major bridge will be constructed during this period.

## **Employment and Training**

There are approximately 4,500 people living in 16 communities associated with Iwokrama, 15 of which lie south of the Iwokrama Forest in Region 9. Approximately 90% of them are Amerindian. This potential labour base is readily accessible via the north-south road connector to Lethem. Preferential employment is given to residents of local communities.

The JVC will be practicing Reduced Impact Logging (RIL) and, to that end, all personnel involved with the harvesting operation, from supervisors to labourers, will receive adequate training in RIL procedures.

Some of the specific training opportunities already provided and/or planned for the near future by Iwokrama, are:

- Ranger training, with emphasis on patrolling/monitoring and research;
- Training in the specific skills required for ecotourism development;
- Training in the management and harvesting of NTFP's;
- Forest inventory training including tree spotting, note keeping and surveying;
- Training in the establishment and measurement of PSP's;
- RIL training;
- Machinery operator training;
- Training in log scaling and grading;
- Training in lumber grading.

## **Standards and Guidelines**

The natural ecosystem is rich in flora and fauna. Iwokrama and the JVC will implement practices and take measures that accord with the Guyana National Initiative for Forest Certification (GNIFC), National Standards for Forest Management (such as the Code of Practice and other GFC requirements) and those of the Forest Stewardship Council (FSC), to conserve and protect the ecosystem. With this commitment, ecosystem effects are predicted to be mainly temporary and acceptable. Monitoring programmes will be in place to observe effects leading to changes in operations as required.

The JVC will integrate its security plans with those of Iwokrama, which has implemented regular monitoring and patrolling routines to ensure that illegal mining, forestry, hunting, or fishing activities do not take place within the Forest

## **Endangered, Rare and Threatened Species**

It is understood that Guyana is not home to any internationally endangered or rare tree species though Iwokrama is home to several endemic species including Greenheart (*Chlorocardium rodiei*).

Of the 29 species of mammals in Guyana listed as endangered under the CITES (Appendix I and II), 16 have been documented in the forest and an additional four species are expected to occur there.

Iwokrama has prepared a list for the suites of ERT species for monitoring purposes. (Ref: Iwokrama EFMP, Volume II).

## **Iwokrama Monitoring**

At Iwokrama, given the nature of its work, the Centre must ensure that there is a system in place to track the health of the forest – to keep activities in check. The Centre monitors its operations within the forest and along the rivers and road corridors. Iwokrama has settled arrangements with the Ministry of Public Works and Communication (MPWC) to assist in the management of the Linden to Lethem Road, including the ongoing data collection of vehicular traffic data. The

Centre has also set up an arrangement with the Guyana Police Force which has stationed police ranks at the Ranger Stations at the North and Southern road boundaries. The Wildlife Division also collaborates with Iwokrama in the recording of wildlife traffic. Iwokrama also has maintained good stakeholder relations with the Mekdeci Mining Company who maintains the Iwokrama Road corridor.

In addition to management of its borders, it is crucial for the Centre to monitor the various impacts on communities of the North Rupununi. Given the diversity of the various programs and businesses, Iwokrama has therefore developed biophysical and social monitoring frameworks to assess these impacts.

The monitoring frameworks prioritize and recommend practical protocols developed within the context of today's conservation organizations who must demonstrate cost effectiveness and efficiency. These include protocols for monitoring biophysical impacts and socio-economic impacts. There is an equal emphasis placed on operations, monitoring of socio-economic viability of businesses, climate change, infrastructure, biodiversity and investment protection, and a statutory independent assessment.

## **Iwokrama Forest Certification**

Iwokrama is recognized as a global model for best practice and with business development including timber. It is committed to certification of the entire Iwokrama forest.

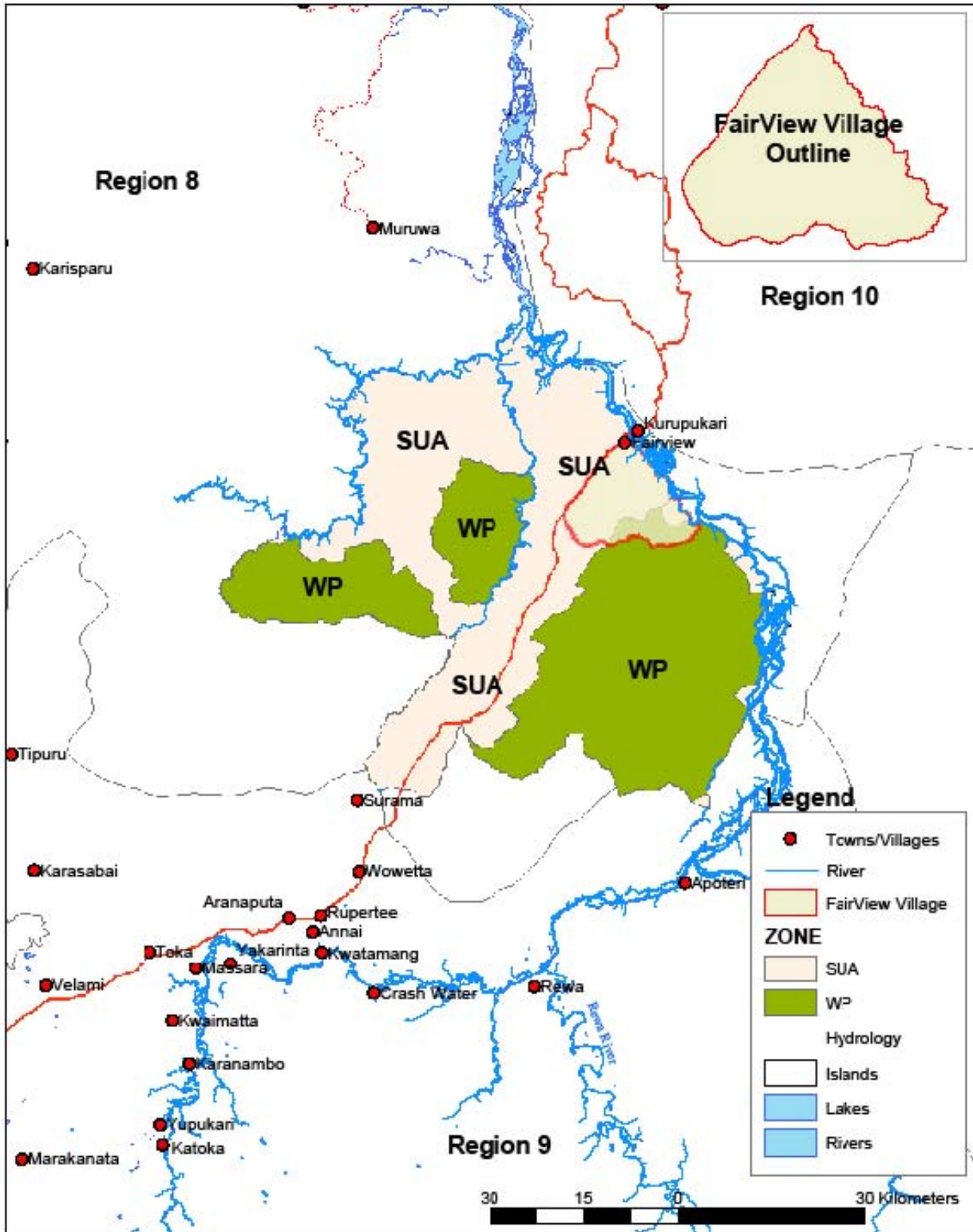
The certification process commenced in September 2005 when the Pre-Assessment was conducted by Woodmark of Soil Association (UK). A number of corrective actions were identified for resolution.

The Main Assessment was conducted during the week of September 9-15, 2007 by Woodmark, and the Iwokrama Forest was certified as of January 2008. The first surveillance audit was conducted in January 25-30<sup>th</sup>, 2009.

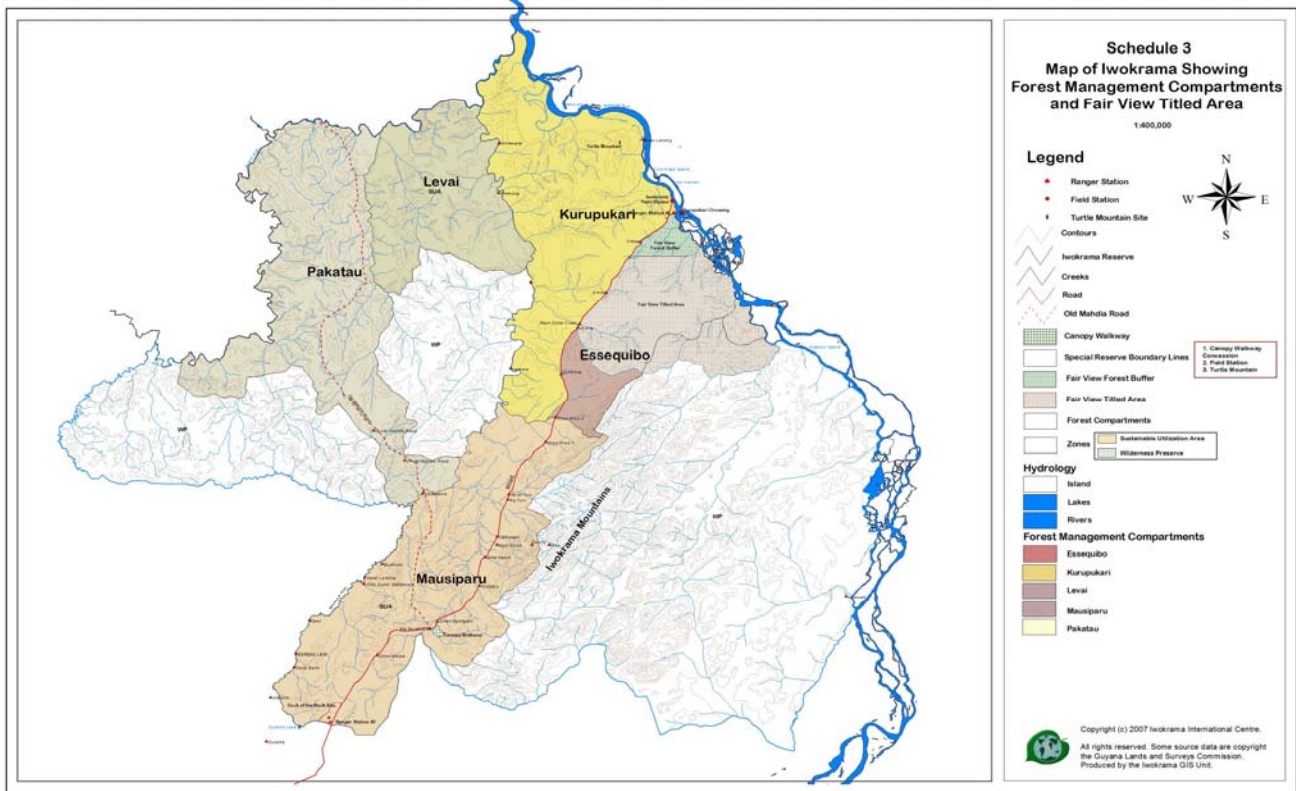
Iwokrama's certification process has received support from World Wildlife Fund (Guianas Programme) and ITTO.

Maps attached

# IWOKRAMA FOREST And NEIGHBOURING COMMUNITIES



# Iwokrama Forest Management Compartments



# Essequibo & Kurupukari Compartments 5 Year Harvest Plan

