

The Indigenous Peoples Planning Framework

1. Introduction and Description of Project

“The right to development is an inalienable human right by virtue of which every human person and all peoples are entitled to participate in, contribute to, and enjoy economic, social, cultural and political development, in which all human rights and fundamental freedoms can be fully realized. As development occurs in countries where indigenous people live there is a need to implement measures that recognise the requirements to safeguard the rights, assets and cultural integrity of the people.”¹

Further, the International Decade of the World’s Indigenous Peoples (1995-2004) was proclaimed by the General Assembly of the United Nations through Resolution 48/163 of 1993. Its objective was the strengthening international cooperation by contributing solutions of the problems that affect Indigenous Peoples in areas of health, human rights, environment, education and development. In recognition of this, the World Bank has articulated and adopted, annex ‘C of OP 4.10’ as part of its operational policy to guarantee the protection and involvement of indigenous peoples in all development activities which have the likelihood of impacting on members of this group, whether as individual, groups or communities. In this regard, the Indigenous Peoples Framework of the University of Guyana/ World Bank Science and Technology Project is set out as a social tool to inform and evaluate any specific activity or subcomponent of this project which is likely to impact on existing and future indigenous population of Guyana. Accordingly, this IPPF is authored to provide guidelines for the social assessment and management of all project activities but in particular, and to operationalise as obligatory, the need for “free, prior and informed consultation leading to broad community endorsement or support; and to attest, the preparation and disclosure of an individual IPP in relation to all such activities flowing from this project which are intended to be carried out in areas occupied by members of the indigenous population .

The herein referred to as the University of Guyana (UG) Science and Technology Project is described as follows:

Component 1: Education Quality Improvement Program (EQIP) (estimated total cost: US\$1.7 million). This component would (i) promote the revitalisation and reorientation of the University of Guyana science curriculum toward critical needs for the LCDS; and (ii) provide support for essential research which would contextualise and provide a practical orientation to the curriculum. Through both of these activities, the technical and pedagogical skills of the UG lecturers to develop and deliver quality teaching would be considerably strengthened.

Sub-Component (a) – Curriculum Reform (US\$1.1 million) would support a standardised process for the updating of existing curricula and the development of entirely new curricula to support the LCDS, through the provision of targeted technical assistance from instructional design and content specialists, as well as through provision of stipends to UG lecturers who

¹ Avruch, K. (1998). Culture and conflict resolution. Washington: U.S. Institute of Peace Press, p.172.

dedicate time, expertise and energy to this process. These reforms would include the development of practical assessment components for each of the courses. At least 12 new courses and 40 research projects relevant to the LCDS would be developed over a 3-year period.

Component 2: Infrastructure rehabilitation (estimated total cost: US\$5 million). This component would (i) improve the existing laboratory and building infrastructure at the four faculties consisting of a total of 14 buildings; (ii) provide these laboratories with basic scientific equipment to enable the delivery of practical science education and research; and (iii) support the establishment of a campus wide Internet network.

Sub-component (a) on laboratory and building rehabilitation would first rehabilitate 14 science laboratory buildings in the four focal science faculties on the campus by improving the physical infrastructure to allow for basic teaching and research. The rehabilitation would include new floor surfaces, new cupboards, new water and power systems, new lighting, provision of air conditioning, new furniture, etc. The component would also address basic electrical, water, sewage, and roofing for the buildings in which the laboratories reside. Finally, the sub-component would address the campus-wide issue of appropriate drainage and pumps to avoid frequent flooding on the campus.

Sub-component (b) would equip the labs with basic scientific equipment such as microscopes, slides, flasks, water testing kits, etc. as well as multi-media equipment. The equipment will be prioritized based on low operating costs, low level of technical skills for use and greatest benefit to students and faculty.

Sub-component (c) would support the establishment of a campus wide Internet network to connect all faculties to the Internet and prepare the University to connect into an international link, which will be established as part of the e-government broadband network currently under construction (scheduled to be operational by end-2011). In conjunction with the connectivity, a set of software applications would be developed such as e-learning tools and digital content repositories to support the design and delivery of the new curriculum in component 1.

Component 3: Institutional Capacity Building (US\$1.3 million). This component will support the building of institutional capacity at the University of Guyana to (i) manage the Project; (ii) plan for future phases of its strategic plan; and (iii) monitor and evaluate the Project.

Sub-component (a) will strengthen the existing capacity of the University with additional coordination, curricular supervision, civil works, ICT and facilities management capacities. Environmental consultancies will be contracted in conjunction with the facilities management functions on an as needed basis. As the facilities management capacities will be essential in order to maintain and sustain the investments in basic infrastructure rehabilitation and equipment, this component would establish a comprehensive and systematic facilities management system at the University and finance capacity building for staff in charge of undertaking continuous review and maintenance of infrastructure and equipment. The financial management and procurement capacities would be leveraged from the Ministry of Education's Education Sector Development Unit (ESDU).

Sub-component (b) would provide essential technical assistance and capacity building for future strategic planning to expand the science offerings of the university; improve research; and more

effectively link knowledge to demands in the productive sector. Three forward looking feasibility studies would be supported: (i) Options and viability options for a new biodiversity institute on the campus; (ii) Research and Innovation Fund to support development of new knowledge; and (iii) Establishment of a Business Development Unit which would focus on connecting university talent with external needs on a fee for service basis.

Sub-component (c) will support monitoring and evaluation studies to assess the progress of the investments in achieving the Project Development Objective.

Financing and Lending Instrument: The proposed Project will be financed by an IDA credit in the amount of US\$10 million carried out over a period of five years. The Project is designed as the first phase of a long term investment in the institutional reform of the University of Guyana. The Project is therefore meant to provide catalytic investments that would be followed up with subsequent investments in later phases of the Project financed by the World Bank, other donors or the Government of Guyana.

2. Topography, Boundaries and Administration in Guyana

Guyana is made up of four (4) natural regions:

- i) The Flat Alluvial Coastal Plain, where about 90 % of the population lives;
- ii) The Hilly Sand and Clay Belt, mainly covered by forest, which supports the main extractive industries (gold, diamond, timber);
- iii) The Highland Region;
- iv) The Interior Savannahs.

For administrative purposes, Guyana is divided into ten (10) regions, named as follows:

Region 1: Barima/Waini

Region 2: Pomeroon/Supenaam

Region 3: Essequibo Islands/West Demerara

Region 4: Demerara/Mahaica

Region 5: Mahaica/West Berbice

Region 6: East Berbice/Corentyne

Region 7: Cuyuni/Mazaruni

Region 8: Potaro/Siparuni

Region 9: Upper Takatu/Upper Essequibo

Region 10: Upper Demerara/Upper Berbice

Guyana is also known as the land of many waters, because of the many rivers in the country. Most regional boundaries are established and identified following the natural features of rivers.

2.1 Description of Guyana's Population and Its' Indigenous People

According to the Guyana National Census Bureau (GNBS), the national population of Guyana is considered as ethnically heterogeneous. It is composed chiefly of a native Amerindian population together with the descendants of immigrants who came to the country either as slaves or as indentured labourers. The population, therefore, comprises groups of persons with nationality backgrounds from Europe/Portugal, Africa, China, and India, with the Amerindians as the indigenous population. Note is taken, that essentially, this latter group, while being recognised as indigenous people are commonly referred to as Amerindians across the national language and other associated cultural systems. It is recognised here and elsewhere in this document that in line with the World Bank policy document OP4.10 and in tandem with the Amerindian Act of Guyana, the term "Amerindian(s)" is used to identify and recognise the indigenous people of Guyana on account of the principles of self-identity.

These groups of diverse nationality backgrounds have been fused together by a common language, that is, English. However, the Amerindians are known for being able to retain their indigenous languages. Hence, while they are integrated into the national language system and have acquired competencies in the use of English, they have as a group, been able to maintain their specific languages and other cultural characteristics which serve to maintain their cohesiveness and functionality as indigenous people.

Historically, the national population has evolved out of, at least five distinct nationality backgrounds and the native Amerindian. Over centuries, there have been intermarriages between the various groups and as a result, a group of 'mixed heritage' persons has emerged. This is now a significant and growing group within the national population construct, comprising of various combinations of ethnic groups. The national census of 2002 recognise that unlike the situation that exist in the Caribbean nation of Belize, which labels such combinations, for example, as Creoles (a mix of white and black) and so on, no such labels are officially recognized in Guyana. This group of persons is generically referred to as 'mixed.'

The 1992 Contraceptive Prevalence Survey Report as well as the 2002 Census Report recognises that race and ethnicity issues are important, since they are social determinants of the demographic processes, particularly of fertility. The race/ethnic composition of the population also affects education, health customs, livelihoods and other social and economic variables. It is within this context that the race distribution of the population is often analysed for the country.

2.2 Ethnic Composition

The largest nationality sub-group is that of East Indians comprising 43.5 percent of the population in 2002. They are followed by persons of African heritage (30.2 percent). The third in rank are those of Mixed Heritage (7 percent), while the Amerindians are fourth with 9.2 percent. The smallest groups are the Whites (0.06 percent or 476 persons), the Portuguese (0.20 percent or 1497) and the Chinese (0.19 percent or 1396). A small group (0.01 percent or 112 persons) did not identify their race/ethnic background. (see Figure 1 to 4.)

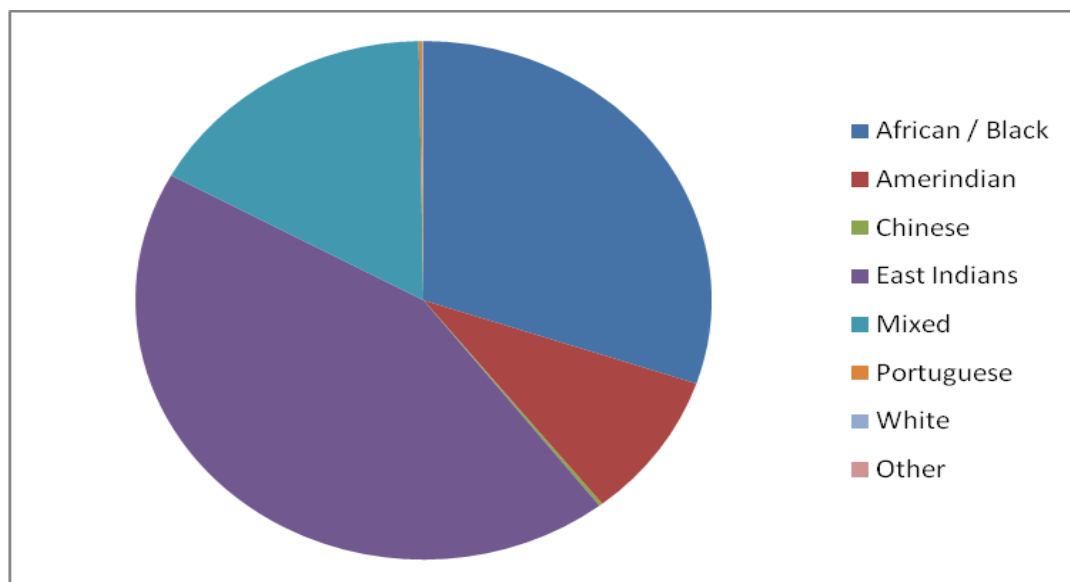
This reported number of persons of unspecified ethnicity, though small, is significant in the sense that ethnicity is determined by self-description of all respondents. Nevertheless, it is possible that the growth in the mixed population represents a growing sense of separate and distinct identity by the majority of persons within that group.

Fig. 1. Distribution of the Population by Nationality Background/ Ethnicity, Guyana: 1980 – 2002

Ethnicity	Population			Percentage		
	2002	1991	1980	2002	1991	1980
African / Black	227062	233465	234094	30.20	32.26	30.82
Amerindian	68675	46722	40343	9.16	6.46	5.31
Chinese	1396	1290	1864	0.19	0.18	0.25
East Indians	326277	351939	394417	43.45	48.63	51.93
Mixed	125727	87881	84764	73	12.14	11.16
Portuguese	1497	1959	3011	0.20	0.27	0.40
White	477	308	799	0.06	0.04	0.10
Other	112	107	294	0.01	0.10	0.04
TOTAL	751223	723671	759586	100.00	100.08	100.01

Source: Guyana Population Census 2002; Published by the Guyana National Bureau of Statistics Georgetown, Guyana.

Fig. 2. Population Distribution by Nationality Background/Ethnicity Guyana: 2002



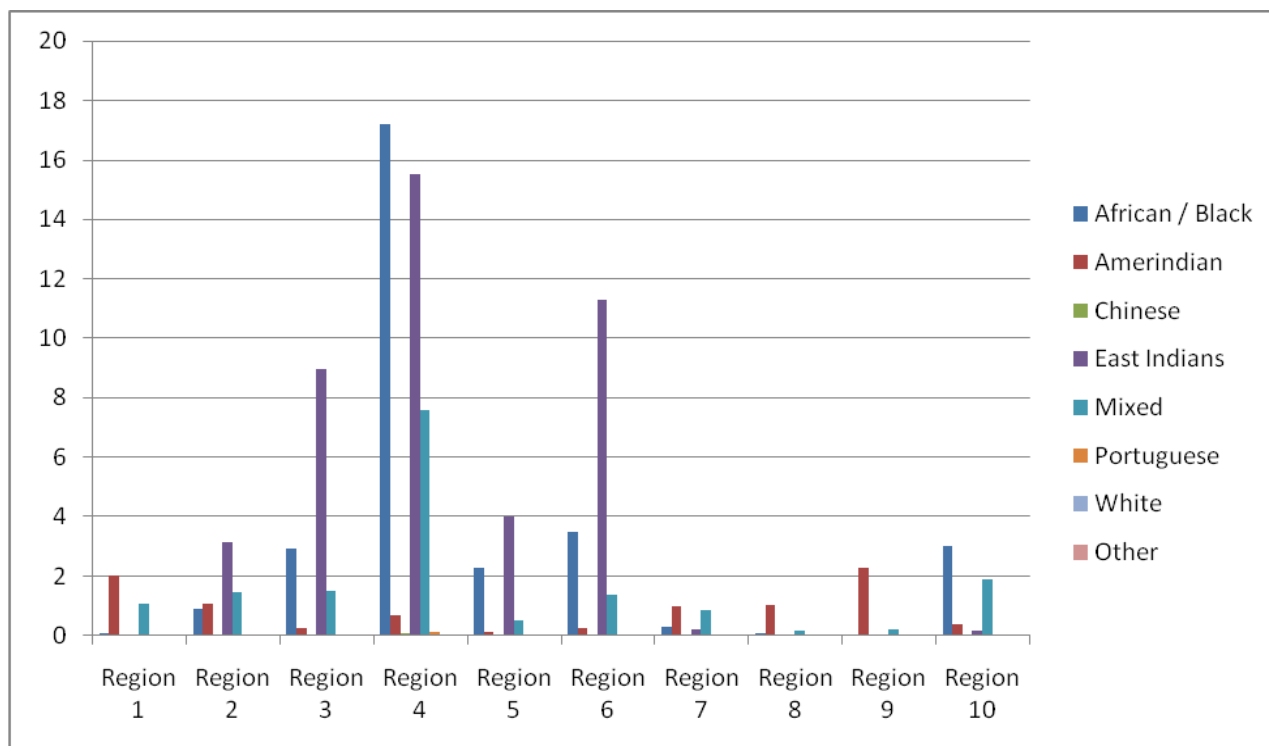
Source: Guyana Population Census 2002; published by the Guyana National Bureau of Statistics Georgetown, Guyana.

Fig. 3. Percentage Distribution of Guyana's Population by Nationality/Race/Ethnicity and Region

Ethnicity/Background	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	Total
African / Black	0.07	0.88	2.91	17.21	2.27	3.47	0.27	0.09	0.03	3.01	30.2
Amerindian	2.01	1.07	0.28	0.7	0.14	0.27	0.98	1.02	2.3	0.39	9.14
Chinese	0	0.01	0.02	0.11	0.01	0.03	0	0	0	0.01	0.19
East Indians	0.05	3.14	8.98	15.51	4.03	11.31	0.21	0.03	0.01	0.17	43.5
Mixed	1.09	1.45	1.51	7.59	0.53	1.38	0.88	0.19	0.23	1.89	7
Portuguese	0	0.01	0.01	0.14	0	0.01	0	0.01	0	0.01	0.2
White	0	0	0	0.04	0	0.01	0	0	0	0	0.06
Other	0	0	0	0.01	0	0	0	0	0	0	0.01
Total %	3.22	6.56	13.71	41.31	6.98	48	2.34	1.34	2.57	5.48	100
Numbers	24,275	49,254	103,061	310,320	52,428	123,694	17,597	10,094	19,388	41,114	751,223

Source: Guyana Population Census 2002; published by the Guyana National Bureau of Statistics Georgetown, Guyana.

Fig. 4. Population by Nationality Background/Ethnicity by Region of Residence, Guyana



Source: Guyana Population Census 2002; Published by the Guyana National Bureau of Statistics Georgetown, Guyana.

3. Agency Responsibilities/Institutional Arrangements and Processing Requirements

All activities in relation to this project must flow in accordance with the World Bank IPPF instrument OP 4.10 of 2005. For the avoidance of doubt these activities are also required to comply with all applicable local laws approved in accordance with the constitutional provisions of the Parliament of Guyana. Further, these activities and their antecedents must also comply with all applicable provisions and regulations approved and enforced by the Academic Board of the University in association with the governing Council of the University of Guyana.

3.1 The Academic Board and the Research and Publications Committee of the University of Guyana

The University of Guyana Academic Board, its constitution and functions are established under Statute 14, 15 and 16 of the University of Guyana Act Chapter 39.02 of 1963. In accordance with these provisions, the Research and Publication Committee of the University is established as a creature of the Academic Board. Its membership is comprised of the following:

- The Vice Chancellor
- The Deputy Vice Chancellor
- The Bursar of the University

- The Deans of Faculties and Schools
- The Librarian of the University
- The Director of the University of Guyana Berbice Campus
- A Representative of each Faculty/School

3.2 Procedures of the Research and Publications Committee

3.2.1 Structural Arrangements for the Submission of Research Proposals

The procedures which are to be followed for submission, consideration and receipt of grants through the grant application process must conform to the standard arrangements outlined by the University of Guyana Research and Publication Committee and approved by the Academic Board of the University. These are outlined as follows:

- a) After completing the research proposal, this document must be evaluated by the researcher(s) in accordance with the IRB checklist, the indigenous People's checklist and the indigenous people's categorisation form. These completed instruments must accompany the research proposal at the time of submission. It is the responsibility of the researcher(s) to forward two copies of the completed forms/evaluations and the research proposal to the Amerindian Research Unit (ARU) and Environmental Specialist for the University of Guyana Science and Technology Support (UG STS) Project. For the purpose of this project this arm of the University is tasked with the continuous role of collaboration with the Environmental Specialist in pre-screening all research proposals and to monitor the implementation processes of Indigenous Peoples Plans submitted by researchers according to specifications contained in the approved research project document.
- b) In the event that a project is assessed as one that involves human subjects, eight copies of the proposal must be submitted to the Institutional Review Board (IRB) of the Ministry of Health through the office of the Chief Medical Officer for review and approval by that body.
- c) If either of the two agencies offer an objection, or solicit a clarification in relation to the research proposal it is the responsibility of the researcher(s) to provide any additional information or document required by these bodies to enable their decision on whether to grant or not to authorisation/approval for the execution of the particular research study. For the avoidance of doubt, it is mentioned here that studies which require entry into areas occupied by the indigenous/Amerindian people, either demarcated by law or in other way recognised as Amerindian land or habitats, it shall be the responsibility of the researcher(s) to obtain approval from the Ministry of Amerindian Affairs/Government of Guyana and or any other prescribed state agencies charged with the responsibilities of granting such permission to execute the particular study prior to approaching the Institutional Review Board and or the Amerindian Research Unit (ARU) of the University.

- d) Provided that the Institutional Review Board of the Ministry of Health and or the Amerindian Research Unit of the University, (whichever is applicable) approves the research proposal and accompanying protocols, the researcher(s) shall now be authorised to submit this proposal for grant funding arising out of this project to their Faculty Research Committee (FRC), or Faculty Coordinating Committee (FCC) on behalf of the relevant Faculty Board of the University to obtain endorsement.
- e) Provided, that the body/bodies named in subsection (d), whichever is applicable in accordance with the statutes and regulations of the University, maintain a no objection to the proposal, this body shall be responsible for the conveyance of the proposal and their recommendations to the Research and Publications Committee of the University for funding.
 - (e) i. In the event that the Faculty Board is unable to approve the research proposal and the accompanying application for funding, this body (Research and Publications Committee) is empowered to request any additional information it may require from any source it deems relevant for the purpose of fulfilling its mandate.
 - (e) ii. In the event that the decision of the Research and Publications Committee rejects the request for funding, the researcher(s) presenting the proposal shall enjoy the right to appeal the decision of the Research and Publications Committee, in writing, to the Academic Board of the University within thirty (30) days of the decision tendered in writing to the researcher, by the Secretary of the Research and Publications Committee. For the avoidance of doubt, any appeal against a decision made by the Research Publications Committee by a party of interest in relation to a specific request for funding must be submitted by the appealing party in writing to the Registrar of the University.
 - (e) iii. For the avoidance of doubt, the Research and Publications Committee through its Secretary must at all times convey its decision(s), in respect to any application for grant funding submitted to it as a body corporate, in writing to the applicant(s) through the office of the Dean or Director of the relevant Faculty or School.
- (f) Provided that an application for funding is approved by the Research and Publications Committee of the University, that decision accompanied by a relevant extract of the minutes of the meeting at which the decision to grant approval was taken, must be forwarded to the Bursar of University with an approved schedule of payment in accordance with the activities proposed and approved in the research proposal and accompanying application tendered to this body (the Research and Publications Committee).
- (g) For the avoidance of doubt, the office of the Bursar in association with the Amerindian Research Unit (ARU), the Faculty Research Committee and / or the Office of the Dean shall continue to be charged with the responsibilities for oversight, in relation to any approved study which is financed by the resources of this project. This is to ensure general compliance with all rules and regulations governing the financial responsibilities and obligations of the University as well as the approved technical and scientific standards of the project.
- (h) After the completion of any research, financed by resources derived from this project, the researcher(s), may seek the support of the University or any approved alternative source,

to finance the publication of the study, with due compliance with the procedures outlined by the Research and Publications Committee for the purpose of publishing their work.

3.3 Allied Agencies and their Role

In congruence with the aforementioned document (*Procedures for Research and Publications under the Auspices of University of Guyana*) and the provisions therein, and for the specific purposes of the UG/GOG/World Bank Science and Technology Project, all activities to be considered and authorised for performance within the settings of the Indigenous People/Amerindians of Guyana shall also, where necessary receive authorisation under the Amerindian Peoples Act of Guyana and/or the Institutional Review Board (IRB) of the Ministry of Health to enable consideration by the Research and Publication Committee of the University.

3.3.1 Role of the Amerindian Research Unit (ARU) of the University of Guyana

It is also proposed that the Amerindian Research Unit of the University of Guyana shall be involved as a formal body in the activities of monitoring and evaluating all relevant activities referred to under item 3.3.

For the avoidance of doubt the Amerindian Research Unit (UG) shall be/is empowered as an advisory agency but its advice must be taken into consideration to inform the decisions of the Research and Publications Committee and/or the Academic Board of the University.

Where appropriate the Research and Publications Committee (UG) is compelled to accept any advice offered by the relevant authority under the Amerindian Peoples Act of Guyana and/or the Institutional Review Board (IRB).

3.4 Grievance Mechanism for University Stakeholders

(a) Any decision to finance any activity in relation to this project shall arise out of the explicit decision of the Research and Publications Committee of the University. To avoid any potential conflict of interest it is herein made clear that no member of the Research and Publications Committee who has vested interest in any particular activity or project presented for consideration shall be present during the deliberations of that committee. Any such member shall only enjoy the right to appear before the committee to provide evidence/information to enable the deliberations of the said committee.

(b) If a faculty member or any group of such persons is aggrieved by any decision of the Research and Publications Committee he/she or the group reserves the right to appeal the decision(s) of the Research and Publications Committee to the Academic Board. This must be done in writing to the Registrar of the University within thirty (30) days of the decision.

(c) Upon receipt of any complaint tendered in accordance with item (b) above, the Registrar shall be compelled to submit the complaint for review by the next statutory meeting of the Academic Board of the University or no later than thirty (30) days after receipt of the complaint, whichever date is earlier.

(d) If the complainant is a member of the Academic Board of the University, he/she or they is compelled to remove themselves from any such meeting or part thereof convened for the purpose of hearing the complaint. The complainants shall have the right to appear before the meeting of the Academic Board convened to hear the appeal/complaint made by them.

(e) The decision of the Academic Board under this subsection, as an appeal authority shall be binding.

3.5 Procedures and Grievance Mechanism to be followed by Parties Solely External to the University of Guyana

(a) If an external party is aggrieved by any decision or action authored or performed by any agent of the University that party shall have the rights to complaint in writing to the Academic Board of the University through the Registrar.

(b) Upon receipt of any complaint tendered in accordance with the provision of this subsection, the Registrar of the University shall be compelled to submit the complaint for review by the next statutory meeting of the Academic Board of the University or no later than thirty five (35) days after receipt of the complaint, whichever date is feasible.

(c) The Academic Board reserves the right to receive evidence from any party including the complainants to enable its decision in relation to any complaint laid before it. The decision of the Academic Board under this subsection, as an appeal authority shall be binding.

The hearing of all complaints must be scheduled and completed within a reasonable time having due regard for the time lines prescribed in these provisions.

3.6 Grievance mechanisms currently enforced by the Ministry of Amerindian Affairs

Currently, the Ministry of Amerindian Affairs (MoAA) has identified the following instances qualified for dealing with complaints from Amerindian communities about research activities:

- District Council, composed by all Toshaos from the district along with one representative from each Village Council in the district;
- Community Development Officer: located at a district level and responsible for intermediating between Amerindian communities and the MoAA;
- National Toshaos Council: comprising all elected Toshaos in the country; meets annually;
- Complaints can also be filled directly with the MoAA or, if the research targets human subjects, with the Institutional Review Board of the Ministry of Health, which includes Amerindian representation.

4. Potential Positive and Adverse Effects of the Project Components on the Indigenous Population

The following assessment of possible social impacts on Indigenous Peoples (Amerindians) was conducted based on consultation with relevant stakeholders (Annexes 1 and 2), ensuring effective participation of all affected and interested parties.

Throughout the project preparation phase, this consultative process has been followed, providing opportunities for the voices of civil society organizations focusing on environmental and Amerindian issues as well as University stakeholders to be heard. Specifically during the elaboration of this document, discussions were held early enough in order for impacts, compensation and mitigation measures to be identified by the stakeholders themselves. Participative mechanisms for fostering ownership and minimizing impacts will be further pursued in the course of the project.

4.1. Component 1: Education Quality Improvement Program (EQIP)

- Sub-Component (a) Curriculum Reform

(a) Positive impacts

- Since the curriculum reform is to be geared towards the Low Carbon Development Strategy, new courses will likely be relevant to Indigenous Peoples and to their livelihood practices. Possible confluences between the new curriculum on sustainable development and subjects that affect Indigenous Peoples are:
 - Feasibility of new low carbon industries, especially in the interior;
 - Integrated Natural Resources Management;
 - Sustainable and clean mining;
 - Land use, rotating agriculture and shifting cultivation;
 - Environmental monitoring and evaluation.

(b) Negative impacts

- There is a risk that indigenous peoples would be excluded from the consultation and deliberation process for the curriculum reform;
- In the case that new courses advance knowledge on sustainable environmental practices and livelihoods, the lack of opportunities for (distance) learning provided to Amerindian communities would prevent them from benefiting from that increased knowledge;
- Traditional knowledge on fauna and flora might be overlooked in the process of developing the new curriculum.

(c) Mitigation measures

- Since the curriculum reform process will be linked to research projects supported by Component 3 of this Project, emphasising research on alternative livelihoods and environmental management in the interior is key for the inclusion of these subjects in the new curriculum. Both research and subsequent curriculum developments
- The curriculum reform coordinator should liaise with representatives from Indigenous Peoples and with the Amerindian Research Unit regularly and include their feedback on the development process of new courses.

- *Sub-Component (b) Research grants*

(a) Positive impacts

- Research projects might target the improvement of livelihoods in communities and enhance the application of Amerindian traditional knowledge;
- Amerindian community members could be actively involved in research projects, assisting in the collection of data or providing background information;
- Social engagement strategies in the research projects could include the active participation of students and thus raise awareness on Indigenous Peoples issues among them;
- Research activities involving Amerindian communities or areas might foster stronger linkages between Amerindian groups and the Amerindian Research Unit.

(b) Negative impacts

- Research agenda might only target Amerindian areas but not provide benefits and participation opportunities for communities;
- Scientific language used for the discussions between researcher and communities on the research proposal might be unfamiliar to the communities, impairing their deliberation about the implications of a consent;
- Permission granted by Toshao to research projects might not reflect a consent or even awareness about the research project by the all members of the community, in the case that no appropriate consultation is conducted with the village council;
- Social or economic exploitation of Amerindian communities might occur due to lack of legislation on intellectual property rights;
- There might be no recognition of intellectual contributions by Amerindians in the final research product;
- Possible lack of appropriate systems for providing feedback to Amerindian communities.

(c) Mitigation measures

- Research in subject areas of interest for Amerindian communities should be promoted;

- Specific guidelines should be in place to ensure broad community support and free prior and informed consultations of research carried out within Indigenous communities;
- Ongoing consultation, engagement and training of indigenous communities to ensure mutual benefits of research activities in terms of their socio-economic development;
- The engagement between researchers and communities could include property right education and other such training which can improve the governance systems in Amerindian villages;
- Amerindian representatives could participate in the Steering Committee or any other decision making body for the project, specifically regarding curriculum and research content.

4.2. Component 2: Infrastructure rehabilitation

While no impact on Amerindians could be identified, the infrastructure rehabilitation works might cause general social impacts, including disruption of activities in the University and temporary relocation of students.

4.3. Component 3: Institutional Capacity Building

(a) Positive impacts

- New distance learning technologies can provide Amerindians with improved access to University education without being displaced from the local community;
- The studies on business development in context of the LCDS could include outreach to other groups directly involved in the wellbeing of Amerindian communities, such as small-scale miners and mining companies. Miners could be trained in water systems management and pollution control.

(b) Negative impacts

- New technologies and improved academic and institutional capacity on campus can contribute to further alienate faculty and students from traditional indigenous knowledge.

(c) Mitigation measures

- A strategy for long-term social engagement could be prepared by the University in order to foster dialog and exchange of knowledge with Amerindian communities;
- Studies on distance learning should contemplate the inclusion of Amerindian communities in the programs.

	- No feedback on research results to the communities		
Component 2: Infrastructure rehabilitation	- Disruption of activities in the University and temporary relocation of students	- Low	<ul style="list-style-type: none"> ▪ Adequate planning, grievance and monitoring mechanisms
Component 3	<p>+ The studies on business development in context of the LCDS could include outreach to other groups directly involved in the wellbeing of Amerindian communities, such as small-scale miners and mining companies</p> <p>- New technologies and improved academic and institutional capacity on campus can contribute to further alienate faculty and students from traditional indigenous knowledge</p>	-/+ Low	<ul style="list-style-type: none"> ▪ The University Administration shall optimise opportunities by networking with other social partners (private sector, NGOs, among others)

5. Framework for Free Prior and Informed Consultations

This component is in keeping with the World Bank Indigenous Peoples Planning Guidelines OP 4.1.0 of July 2005. It also draws on the Nuremberg Code of 1949 which sets out a set of principles to guide environmental and social research involving human subjects or vulnerable groups. The core principles of this framework are outlined as follows:

- i. Voluntary consent
- ii. Outcome(s) should benefit society
- iii. Results should justify the study
- iv. Avoid unnecessary suffering
- v. Do not risk death or disability
- vi. Risks should not exceed the importance of the problem
- vii. Individuals should be protected from possible harm
- viii. Investigators should be qualified
- ix. Participants must be able to voluntarily withdraw from the study at any time
- x. Studies should be terminated at any point that humans may be injured, disabled, or die.

Additionally, this component is also informed by the Declaration of Helsinki of 1964 which emphasise, in addition to the Nuremberg Code of Ethics, that all research should adhere to local laws and establish procedures for obtaining voluntary and informed consent. Further, it is herein recognised that the fundamental ethical principles established under the Belmont Report of 1979 are equally important. These principles draw attention to the need for all research involving human subject or vulnerable groups to embrace

Respect for Persons: This principle emphasise that:

- People should be treated as autonomous (self-determination)
- Persons with diminished autonomy are entitled to extra protection
- Requires that persons participating in any research study should be able to do so voluntarily and with adequate information

Beneficence: This principle emphasise that:

- Research should do not harm
- Research should at all times maximize impossible benefits and minimize potential harms

- Researcher and research subjects must be able to decide or agree when it is justifiable to seek certain benefits despite the risks involved, and when the benefits which are likely to accrue from research should be foregone because of the risks associated with the particular research activity/study

Justice: This principle emphasise that:

- There must be fairness in societal distribution of the risks and benefits of research
- There must be reasonable, non-exploitive procedures
- There is reasonableness surrounding who is selected to participate in research and why?

The IPPF Framework is therefore a lead instrument for protecting the rights and welfare of those who participate in research sponsored by the World Bank through the practices of investigators, programme leaders and relationships emerging out of any such research with external partners.

Research not involving human subjects should meet the following requirements:

- The unit of analysis is identified non human components such as physical facilities, bio diversity material, floral/fauna etc **OR**
- Data or specimens from deceased persons **OR**
- Data that is unlinked and anonymous whereby there is:
 - No contact with human participants
 - Data/specimens collected for another purpose and no additional data/specimens are to be collected for the purpose of the newly specified study/investigation; and identifying information was either not obtained **or** has been removed so that data cannot be linked or re-linked with identifiable human subjects.

5.1 Rationale for Free Prior and Informed Consent

This component is derived from the three coequal fundamental ethical principles which are given as respect for persons, beneficence and justice.² Informed consent is an essential model for

² The Belmont Report of 1978.

ethical decision making when conducting research that involves human subjects/vulnerable groups. The goal of informed consent is to protect the right of a competent/vulnerable person such as the members of minority groups/human population to make their own decisions based on personal goals and values. Informed consent facilitates both research decision making and care decisions that are participant centered.

The informed consent process forms one of the cornerstones for ethical conduct when engaging in research. Potential participants must be informed on the intent and design of the of the particular research study, with affirm right to voluntarily consent to participation. The consent process must take place in a way that ensures that prospective subjects are informed and enjoy the right to voluntary decide on their own participation without compromise. All consent documents must communicate the necessary information in a meaningful way, to the research subjects to provide them with a clear understanding of the objectives and interest which are to be pursued in the study. Additionally, legal requirements of the Government of Guyana to obtain both the consent of Amerindian communities and a research permit should be met, as specified in the following section.

5.2 Institutional arrangements for consulting and obtaining approval for research on Amerindian areas

According to the Amerindian Act of 2006, researchers planning to conduct research on Amerindian areas are instructed to obtain:

- a technical approval from the Environmental Protection Agency (EPA), responsible for monitoring if research proposals are in accordance to adequate formal and technical specifications
- a permission to enter Amerindian villages granted by the Ministry of Amerindian Affairs (MoAA). The permission to enter Amerindian districts is intended to make it possible for researchers to seek approval from the communities to the conduction of research in their area
- once in direct contact with the Amerindian community, researchers might seek the approval of the Amerindian governing bodies, including the village council, the elected Toshao for the village and, on a district level, the District Council (composed by all Toshias from the district along with one representative from each Village Council in the district).

5.3 Scope and Application

The purpose of this unit is to provide some basic background information on scientific research design, some of the research techniques used by scientists, and some ethical considerations raised by these designs and techniques.

The value of research depends upon the integrity of study results. One of the ethical justifications for research involving indigenous subjects and/ or their physical communities is the social value of advancing scientific understanding and promoting or advancing human welfare through

beneficence. But if a research study is methodologically flawed that little or no reliable information will result, it is unethical to put subjects at risk or even to inconvenience them through participation in such a study. One question which is often posed by Research Review Committee/Boards and other ethical bodies is “To what degree is it their responsibility to review the underlying science of the proposed research?”³ Clearly, if it is not good science, it is not ethical. National regulations under which the local Institutional Review Board (IRB) operate and the regulations of the University of Guyana research and Publications Committee operate however, do not clearly require the review or evaluation of the research design for scientific validity. Nonetheless, there is the requirement to determine whether “risks to subjects are reasonable in relation to...the importance of the knowledge that may reasonably be expected to result”. If the underlying science is no good, then surely no important knowledge may reasonably be expected to result.

Left without clear direction on this point, IRBs and other research management bodies appear to take the following approach, which has been described approvingly by Robert Levine (1986, p. 21): Where the investigator conducting the research under review is seeking government funding or other extramural funding agency, rigorous review of the science is left to the agency’s peer review process. The IRB therefore, provides a less detailed examination to satisfy itself that there are no obvious flaws that would place subjects at unnecessary risk. Where the protocol will not receive such detailed scientific review, IRBs should review the research design with much more care, perhaps with the assistance of consultants, if the IRB itself does not possess sufficient expertise to perform such a review. Levine suggests that IRBs should establish their authority to criticize the scientific merits of protocols and to exercise that authority to require that investigators correct design flaws identified by the IRB before receiving IRB approval, but that IRBs should recognize their limits in this regard as well. Similarly, it is suggested that given the critical role of this project in supporting the alignment of research and the university curriculum along the pathway of the Low Carbon Development Strategy (LCDS), the University of Guyana Research and Publications Committee is anticipated to be proactively involved in guiding the processes for the development of research emanating from this project. Research must be both valid and of value [Freedman (1987b)]. Although members of research regulatory bodies do not need to be experts in scientific methodology or statistics, they should understand the basic features of experimental and survey design in particular, and they should not hesitate to consult experts when aspects of research design seem to pose a significant problem. Any requisite realignment of the University of Guyana procedural structure and guidelines in relation to this project should take cognizance of this observation.

5.4 Specific Funding Requirement of the World Bank’s Policy OP 4.10.

Policy document OP4.10 of the World Bank contributes to the Bank's mission of poverty reduction and sustainable development by ensuring that any development activity and their

³ Neuman, W.L (2000) Social Research Methods: qualitative and quantitative approaches (4th ed.) Boston: Allyn and Bacon

accompanying processes fully respects the dignity, human rights, economies, and cultures of Indigenous Peoples. Hence, it is a requirement that all projects which are proposed for financing by the World Bank; and affect Indigenous Peoples (who are recognised as Amerindians in the case of Guyana), must provide for a process of free, prior, and informed consultation. For the avoidance of doubt, it is emphasised that the World Bank provides project financing only where free, prior, and informed consultation results in broad community support to the project by the affected Indigenous Peoples. Consequentially, any activity which is proposed under the University of Guyana/Government of Guyana/World Bank Science and Technology project must include measures to (a) avoid potentially adverse effects on the Indigenous Peoples' communities; or (b) when avoidance is not feasible, minimize, mitigate, or compensate for such effects. Bank-financed projects are also to be designed and structured in a manner to ensure that the Indigenous Peoples receive social and economic benefits which are culturally appropriate and gender and intergenerationally inclusive.

The Bank recognizes that the identities and cultures of Indigenous Peoples are inextricably linked to the lands on which they live and the natural resources on which they depend. These distinct circumstances expose Indigenous Peoples to different types of risks and levels of impacts from development projects, including loss of identity, culture, and customary livelihoods, as well as exposure to disease. Gender and intergenerational issues among Indigenous Peoples also are complex. As social groups with identities that are often distinct from dominant groups in their national societies, Indigenous Peoples are frequently among the most marginalized and vulnerable segments of the population. As a result, their economic, social, and legal status often limits their capacity to defend their interests in and rights to lands, territories, and other productive resources, and/or restricts their ability to participate in and benefit from development.

The World Bank recognizes and guarantees the need the upholding the rights and role of Indigenous Peoples in sustainable development intervention and the attending processes in accordance with both domestic and international law.

It is recognised here and elsewhere in this document that in line with the World Bank policy document OP4.10 and in tandem with the Amerindian Act of Guyana, the term "Amerindian(s)" is used to identify and recognise the indigenous people of Guyana on account of the principles of self-identity.

Thus whenever considering and/or submitting a project or subproject for financing, researchers must comply with the provisions outlined below.

5.4.1 Processing and screening requirements for Indigenous Peoples Plans

All research projects proposed for financing require screening to identify, among others, whether Amerindians are present in, or have collective attachment to, the project area. Research proposals that are positively screened regarding the former and/or that have been classified as category A in the Indigenous Peoples Impact Categorization Form are required to prepare an Indigenous Peoples Plan before approval of the research grant (see Annex B of Policy OP 4.10 available on

the World Bank Website). According to this policy, the disclosure of the draft Indigenous Peoples Plan is required at appraisal stage. The level of detail necessary to meet the requirements of this policy is proportional to the complexity of the proposed project and commensurate with the nature and scale of the proposed project's potential effects on the Indigenous Peoples, whether adverse or positive. While the outline of the IPP might vary due to the considerations above, basic elements are specified in the Annex B of the OP 4.10.

The following steps are not designed to be a comprehensive guidance in preparing an IPP, but rather to present the minimal requirements researchers must comply with and mandatory steps to be undertaken at appraisal level. Further elements of an IPP are: Consultation framework and communications plan (including institutional arrangements for its implementation); Cost estimates and financing plan; Grievance procedures, and mechanism for monitoring and evaluation.

5.4.2 Core steps for preparing an IPP

- **Initial screening.** In conducting screening for the presence of Indigenous Peoples in the research area, researchers are encouraged to follow applicable local legislation as well as the recommendations in the OP 4.10 for identification of Indigenous Peoples. This might require the judgment of qualified social scientists with expertise on the social and cultural groups in the project area. Further questions to be taken into account are:

- Are there any Indigenous groups that make regular use of the same natural resources that are subject to the research?
- Are there other stakeholders that are both relevant to the research project as well as embedded in the social context that also includes Amerindians? Those could be civil society organizations, private sector or local governing bodies.

- **Social assessment at appraisal stage.** If, based on the screening, the researcher concludes that Amerindians are present in, or have collective attachment to, the project area, the researcher(s) must undertake a social assessment to evaluate the project's potential positive and adverse effects on the Indigenous Peoples, and to examine project alternatives where adverse effects may be significant.

The breadth, depth, and type of analysis in the social assessment are to be proportional to the nature and scale of the proposed research project potential effects on the Amerindian people, whether such effects are positive or adverse (please refer to world Bank policy OP 4.10 Annex A for additional details). For research focusing on biological/ biophysical processes with no foreseeable implication or involvement of Amerindian interests, this does not need to be a comprehensive assessment. It should include:

- Some baseline socioeconomic information on the population, livelihoods as well as stakeholders involved in profit and non-profit activities in the area.;

- Information on the Amerindian representation in the specific village or district, underlining their reputation and representativeness;
- Applicable the legal context, i.e. Amerindian Act and OP 4.10. Each IPP need not repeat these sections from the IPPF, however the IPP must identify key permits and approvals required.
- Summary of the key project specific issues and social impacts. For example, if the research is about water quality, how does this affect local communities? If about wildlife harvesting, what do people say about these practices?

- Framework for achieving broad community support. According to the Amerindian Act of 2006, researchers planning to conduct research on Amerindian areas are instructed to obtain a technical approval from the Environmental Protection Agency (EPA) and a permission to enter Amerindian villages granted by the Ministry of Amerindian Affairs. The permission to enter Amerindian districts is intended to make it possible for researchers to seek approval from the communities to the conduction of research in their area.

For the specific purposes of processing research proposals, both permissions and initial consent from the Village Captain (Toshao) are required to be included in the IPP. The researcher will be advised to seek contact with the village without being required to visit it. At appraisal stage, it can be a written statement by the Toshao with the support to the research project, preferably including the agreed forms of benefit enhancement. The Ministry of Amerindian Affairs might be instrumental for intermediating first contacts with the communities.

Before conducting research activities and possibly after the grant approval, the researcher is required to seek permission from Amerindian governing bodies, including the village council, the elected Toshao for the village and, on a district level, the District Council (composed by all Tshaos from the district along with one representative from each Village Council in the district).

- Action plan for enhancement of benefits. It is required that researchers at least communicate and discuss research results with the communities, be it through the sharing of copies of the research paper or through presentations both at the beginning and at the end of the research project. The plan should delineate culturally appropriate actions to ensure benefits and/or address adverse impacts (if any). Possible initiatives are to hire local research assistants or to involve community in research design.

5.5 Research Methodology in the Development of Science

The pursuit of science is an attempt to understand the physical world; that is, to describe the phenomena that characterize physical reality, and, when possible, to define, predict, and even control the conditions under which these phenomena occur. Basic to scientific inquiry is an acceptance of the philosophical perspectives known as empiricism and determinism. Scientists are expected to be cognisant that knowledge results from experience and is based on observations of physical events. Moreover, these physical events are assumed to follow physical laws in that they depend upon causal factors which are discoverable.

Scientific understanding, then, must be based on objective, systematic observation of physical events and on analytical reasoning, or inference, that is truly logical. The two adjectives used here, objective and systematic, describe critical characteristics of the observations upon which science is based. Objective observations can be experienced directly and are repeatable, making it possible for scientists to verify each others' work. Systematic observations are obtained under clearly specified, and, where possible, controlled conditions that can be measured and evaluated. The research methodology should provide the tools needed to produce objective and systematic observations, called empirical data, and to ensure that inferences based on these observations are grounded in logic.

Scientists develop theories to organize their empirical observations. A theory is a set of principles that attempts to explain the causal factors underlying related scientific observations. The usefulness of any theory depends upon its internal consistency, its ability to account for existing data, and its precision in prediction. Scientists use hypotheses to generate predictions that can be tested empirically. It is important to appreciate that scientific theories and hypotheses can never be "proven true" but can only be supported (confirmed) or not supported (disconfirmed) by currently available data.

Biomedical and biodiversity investigations can be broadly categorized into two types: experimental studies and descriptive studies. A true experimental study is one in which subjects are randomly assigned to groups that experience carefully controlled treatments manipulated by the experimenter according to a strict logic allowing causal inference about the effects of the treatments under investigation. Descriptive studies, although objective and systematic, lack the rigid control achieved through random assignment of subjects and precise manipulation of treatment conditions. As a result, causal inferences cannot logically be derived from descriptive studies

In summary the distinguishing characteristics of research versus non research are:

	Research	Non-research
Definition	"...systematic investigation, including research development, testing, and evaluation, designed to develop or contribute to generalisable knowledge."	May use scientific methods to identify and control a particular problem or concern with benefits to study participants or their communities.
Primary Intent	To generate generalisable knowledge (i.e., information that can be usefully applied in other settings).	To benefit program participants or the communities from which they come.

Methods	<ul style="list-style-type: none"> • Scientific principles and methods used • Hypothesis testing/generating • Knowledge is generalisable 	<ul style="list-style-type: none"> • Scientific principles and methods used • Hypothesis testing/generating • Knowledge may be generalisable, but that was not primary intent <div data-bbox="885 394 1380 464" style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><i>Source: US Centre for Disease Control Guidelines on Human Subjects Research.</i></p> </div>
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5.6 Definitions

- **Adverse Effect:** An undesirable and unintended, although not necessarily unexpected, result of treatment or other intervention (*e.g.*, headache following ingestion of a biological/plant species or residue). The Research and Publication Committee should establish policies and procedures for monitoring such effects in approved studies.
- **Case-Control Study:** A study comparing persons, animal or plant specie with a given condition (the cases) and others without the condition (the controls) with respect to antecedent factors.
- **Clinical Trial:** A controlled study involving human subjects, designed to evaluate prospectively the safety and effectiveness of new drugs, biochemical or devices, or of behavioral interventions.
- **Cohort:** A group of subjects initially identified as having one or more characteristics in common who are followed over time. In social science research, this term may refer to any group of persons who are born at about the same time and share common historical or cultural experiences.
- **Control(s):** Subject(s) used for comparison who are not given a treatment under study or do not have a given condition, background, or risk factor that is the object of study. Control conditions may be concurrent (occurring more or less simultaneously with the condition under study) or historical (preceding the condition under study). When the present condition of subjects is compared with their own condition on a prior regimen or treatment the study is considered historically controlled.
- **Correlation Coefficient:** A statistical index of the degree of relationship between two variables. Values of correlation coefficients range from -1.00 through zero to +1.00. A correlation coefficient of 0.00 indicates no relationship between the variables. Correlations approaching -1.00 or +1.00 indicate strong relationships between the variables. However, causal inferences about the relationship between two variables can never be made on the basis of correlation coefficients, no matter how strong a relationship is indicated.
- **Cross-Over Design:** A type of clinical trial in which each subject experiences, at different times, both the experimental and control therapy. For example, half of the

subjects might be randomly assigned first to the control group and then to the experimental intervention, while the other half would have the sequence reversed.

- **Data and Safety Monitoring Board:** A committee of scientists, physicians, statisticians, and others that collects and analyzes accumulating data during the course of a clinical trial to monitor for adverse effects and other trends (such as an indication that one treatment is significantly better than another, particularly when one arm of the trial involves a placebo control) that would warrant modification or termination of the trial, or notification of subjects about new information that might affect their willingness to continue in the trial. In this regard, the University of Guyana shall assign this responsibility to the Amerindian Research Unit (ARU) for the purpose of pre-screening all research proposals; and monitoring its processes throughout its execution for the purpose of evaluating compliance with approved standards and mechanisms.
- **Dependent Variables:** The outcomes that are measured in an experiment. Dependent variables are expected to change as a result of an experimental manipulation of the independent variable(s).
- **Descriptive Study:** Any study that is not truly experimental (*e.g.*, quasi-experimental studies, correlational studies, record reviews, case histories, and observational studies).
- **Double-Masked Design:** A study design in which neither the investigators nor the subjects know the treatment group assignments of individual subjects. Sometimes referred to as “double-blind.”
- **Ethnographic Research:** Ethnography is the study of people and their culture. Ethnographic research, also called fieldwork, involves observation of and interaction with the persons or group being studied in the group’s own environment, often for long periods of time.
- **Experimental Study:** A true experimental study is one in which subjects are randomly assigned to groups that experience carefully controlled interventions manipulated by the experimenter according to a strict logic allowing causal inference about the effects of the interventions under investigation.
- **Fieldwork:** Behavioral, social, or anthropological research involving the study of persons or groups in their own environment and without manipulation for research purposes (distinguished from laboratory or controlled settings).
- **Historical Controls:** Control subjects (followed at some time in the past or for whom data are available through records) who are used for comparison with subjects being treated concurrently. The study is considered historically controlled when the present condition of subjects is compared with their own condition on a prior regimen or treatment.
- **Human Subjects:** Individuals whose physiologic or behavioral characteristics and responses are the object of study in a research project. In the USA, federal regulations define, human subjects as: living individual(s) about whom an investigator conducting

research obtains (1) data through intervention or interaction with the individual, or (2) identifiable private information [Federal Policy 102(f)]. The same definition is applied under the Ministry of Health regulations governing the local Institutional Review Board (IRB) in Guyana.

- **Independent Variables:** The conditions of an experiment that are systematically manipulated by the investigator.
- **Longitudinal Study:** A study designed to follow subjects forward through time.
- **Masked Study Designs:** Study designs comparing two or more interventions in which either the investigators, the subjects, or some combination thereof do not know the treatment group assignments of individual subjects. Sometimes called “blind” study designs.
- **Null Hypothesis:** The proposition, to be tested statistically, that the experimental intervention has “no effect”, meaning that the treatment and control groups will not differ as a result of the intervention. Investigators usually hope that the data will demonstrate some effect from the intervention, thereby allowing the investigator to reject the null hypothesis.
- **Open Design:** An experimental design in which both the investigator(s) and the subjects know the treatment group(s) to which subjects are assigned.
- **Placebo:** A chemically inert substance given in the guise of medicine for its psychologically suggestive effect; used in controlled clinical trials to determine whether improvement and side effects may reflect imagination or anticipation rather than actual power of a drug.
- **Prospective Studies:** Studies designed to observe outcomes or events that occur subsequent to the identification of the group of subjects to be studied. Prospective studies need not involve manipulation or intervention but may be purely observational or involve only the collection of data.
- **Protocol:** The formal design or plan of an experiment or research activity; specifically, the plan submitted to an IRB/Research and Publications committee for review and to an agency for research support. The protocol includes a description of the research design or methodology to be employed, the eligibility requirements for prospective subjects and controls, the treatment regimen(s), and the proposed methods of analysis that will be performed on the collected data.
- **Quasi-Experimental Study:** A study that is similar to a true experimental study except that it lacks random assignment of subjects to treatment groups.
- **Random, Random Assignment, Randomization, Randomized Conditions, Randomized Trials:** Assignment of subjects to different treatments, interventions, or conditions according to chance rather than systematically (*e.g.*, as dictated by the standard or usual response to their condition, history, or prognosis, or according to

demographic characteristics). Random assignment of subjects to conditions is an essential element of experimental research because it makes more likely the probability that differences observed between subject groups are the result of the experimental intervention.

- **Research:** A systematic investigation (*i.e.*, the gathering and analysis of information) designed to develop or contribute to generalisable knowledge.
- **Retrospective Studies:** Research conducted by reviewing records from the past (*e.g.*, birth and death certificates, medical records, school records, or employment records) or by obtaining information about past events elicited through interviews or surveys. Case control studies are an example of this type of research.
- **Single-Masked Design:** Typically, a study design in which the investigator, but not the subject, knows the identity of the treatment assignment. Occasionally the subject, but not the investigator, knows the assignment. Sometimes called “single-blind design”.
- **Statistical Significance:** A determination of the probability of obtaining the particular distribution of the data on the assumption that the null hypothesis is true. Or, more simply put, the probability of coming to a false positive conclusion. [See McLarty (1987), p. 2.] If the probability is less than or equal to a predetermined value (*e.g.*, 0.05 or 0.01), then the null hypothesis is rejected at that significance level (0.05 or 0.01).

5.7 Informed Consent Document versus Informed Consent Process

Documents of this kind serve as a means of presenting information and as a record of what was supposed to have been communicated. Neither the document itself, nor its signing is consent. It is in no way proof of what participants would have actually understood, nor proof that they voluntarily consented, even if there is a statement contained therein “... I understand...” Informed consent must rely on a process that is guided by voluntariness, comprehension and free of coercive and/or exculpatory language. Hence, all informed consent instruments must embrace eight fundamental elements. These are:

- an explanation that the study is researched
- the associated risks
- identification of all benefits which will accrue (whether predicated or known)
- alternative options available to participants
- confidentiality of identity disclosures
- information about potential harm or injury
- provision of legitimate persons/agencies (referees) to be contacted in the event that there may be questions about the research project, rights as a potential or actual subject, harm/injury etc. (such nominees should not include the researcher(s) since this may generate a conflict of interest. Rather, referees should represent a higher institutional authority for example, the Vice Chancellor of the University, Chair,

UG Research and Publication Committee, Chair of the IRB- Ministry of Health, Guyana or any other relevant authorising body outside of the research team conducting the study); and

- voluntary participation.

Element 1- Explanation that the study is research; this component must provide:

- a. a statement that the study involves research
- b. an explanation of the purposes of the research
- c. expected duration of subject's participation in the research
- d. a description of the procedures to be followed
- e. identification of any procedures which are experimental

Element 2 - Risks - a description of any reasonable, foreseeable risks or discomforts to the subject(s)

Element 3 - Benefits - a description of any benefits to the subject or to others which may reasonably be expected from the research.

Element 4: Alternatives - a disclosure of appropriate alternative procedures or courses of treatment, if any, that might be advantageous to the subject

Element 5: Confidentiality - a statement describing the extent, if any, to which confidentiality of records identifying the subject will be maintained

Element 6: For research involving more than minimal risk information about harm/injury:

- a. an explanation as to whether any compensation is available if injury occurs
- b. an explanation as to whether any medical treatments are available if injury occurs, and if so
- c. what they consist of or where further information may be obtained

Element 7: Persons to contact with questions

- a. an explanation of whom to contact for answers to pertinent questions about the research
- b. an explanation of whom to contact for answers to pertinent questions about rights as a research subject
- c. whom to contact in the event of research-related injury or harm to the subject

Element 8: Participation is voluntary

- a. a statement that participation is voluntary
- b. refusal to participate will involve no penalty or loss of benefits to which the subject is otherwise entitled
- b. the subject may discontinue participation at any time without penalty or loss of benefits to which the subject is otherwise entitled.

5.8 Writing Tips for Preparing an Indigenous People Plan

- The Indigenous Peoples Plan and all appendices must be submitted in English, the official language of Guyana.
- Researcher are encouraged to use standard Grade 6 (Primary Level) language when developing instruments which are to be used as part of the process for obtaining free prior and informed consultations/consent and data collection.
- Budgets must be quoted/submitted in local currency units (Guyana dollars[G\$])
- Formatting and version control must be standardized
- Data collection forms and Informed Consent documents must be included
- Informed Consent documents and scripts must include the 8 required elements. Be concise!!!
- Use active voice
- The use of first person is acceptable
- The use of future tense is recommended
- Use version numbers and dates
- Proofread all documents before submission or circulation
- In the event that your work is a collaborative effort, concur with peers/collaborators on the version being submitted.

ANNEX 1**STAKEHOLDERS CONSULTATION****Civil Society Organizations (Environmental and Indigenous Peoples Focus)****April 11, 2011****Participants list**

NAME	ORGANIZATION/ TITLE	CONTACT #	E-MAIL
Peter Persaud	TAMOG (The Amerindian Action Movement of Guyana) President	223-8032	tamog@yahoo.com
Melville Calistro	G.O.I.P (Guyana Organization of Indigenous Peoples) Executive	610-0335; 671-3652; 670-6092	goipguyana@gmail.com
Lawrence Anselmo	APA (Amerindian Peoples Association) Program Assistant	227-0275	apaguyana@gmail.com
René Edwards	Conservation International- Guyana Coordinator	695-3211; 2278171	redwards@conservation.org
Ashton Simon	NADF (National Amerindian Development Foundation)	275-0011	ashton@yahoo.com
Ramon Simon	NADF (National Amerindian Development Foundation)	275-0011	ashton@yahoo.com
Paulette Bynoe	Consultant	222-4180	bynoep2000@yahoo.com

ANNEX 2

STAKEHOLDERS CONSULTATION

Civil Society Organizations (Environmental and Indigenous Peoples Focus)

April 11, 2011

Summary of discussions

Component	Sub-Component	Issues	Discussion results
<p>1. Education Quality Improvement</p>	<p>(a)Provision of technical assistance to:</p> <ul style="list-style-type: none"> • Support a standardized process for updating existing and generate new curricula. • Develop new curricula to support the LCDS. • Provide stipends to UG lecturers who dedicate time, expertise and energy to this process. 	<ul style="list-style-type: none"> • Curriculum 	<ul style="list-style-type: none"> • The University’s curriculum on the LCDS should create linkages at the secondary level so that hinterland students can benefit and roll over to specializations in the sciences at the University and all other tertiary levels • The University should develop courses that target Amerindian community/population to create low carbon industries in hinterland communities. • The curriculum should also address mining since this is part of the livelihood of Amerindian communities. • The curriculum should prepare members of the Amerindian communities to perform work in areas such as environmental monitoring and evaluation. • The curriculum should provide scientific training in areas of rotating agriculture and shifting cultivation, integrated land use and landscape management. • New curriculum areas should tap into traditional/indigenous expertise and knowledge while providing intellectual property rights benefits. • The curriculum should speak to sustainable mining. Additionally, it should target miners since this type of economic activity sometimes negatively impact on the

			<p>livelihood of the Amerindian people since they rely on the water systems of the hinterland. Miners should therefore be trained in water systems management and pollution control. This could be part of the outreach activities of the project.</p> <ul style="list-style-type: none"> • The curriculum should also provide education on poverty reduction by taking a closer look at how this challenge can be overcome by Amerindians as a cultural group. • Curriculum should provide Amerindian groups with property right education and other such training which can improve the governance systems in Amerindian villages. • The curriculum should also focus on improving food and nutrition issues/conditions relevant to the Amerindian people. • The curriculum should provide Amerindians with the opportunity for training in sustainable forestry and the use of integrative technologies.
	(b)Research	<ul style="list-style-type: none"> • Research and Collaboration 	<ul style="list-style-type: none"> • The research agenda of the University should support biodiversity and integrated natural resource management. • Research should be conducted on energy efficiency, waste management and water control. • Research should address improvements in governance systems among Amerindian communities. • The Amerindian people should be provided with recognition on account of their intellectual contributions of local knowledge to research. • The research agenda should not only target Amerindian communities but should also provide benefits. • Systems must be put in place to provide local groups with feedback. • There must be systems emplaced to engage Amerindians in the decision making process relating to research. The

<p>2.Infrastructure Rehabilitation</p>	<p>(a) Rehabilitation of 14 science buildings across Turkeyen campus</p> <ul style="list-style-type: none"> • Would support the establishment of a campus wide Internet network to connect all faculties to the Internet and prepare the University to connect into an international link, which will be established as part of the e-government broadband network currently under construction (to be operational by end-2011). • In conjunction with the connectivity, a set of software applications would be developed such as e-learning tools and digital content repositories to support the design and delivery of the new curriculum in component 1. 	<ul style="list-style-type: none"> • Upgrading Amerindian Skills 	<p>research agenda of the University must address challenges which arise out of the culture of subsistence agriculture to explore shifts to other practices since shifting and subsistence agriculture drives deforestation.</p> <ul style="list-style-type: none"> • UG should foster stronger linkages between Amerindian communities and the University particularly from the standpoint of the Amerindian Research Unit. • The research agenda should also examine what are some of the other areas of functional cooperation which can be pursued with agencies such as the Guyana Forestry Commission and the Guyana Gold and Diamond Association among others. • Training Opportunities should be provided for Amerindians using the new technologies which would be available to the University. Amerindians should be trained in general information systems and remote censoring. • Training should also speak to improving food production and nutrition, and sustainable forestry.
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3. Institutional Capacity Building	(a)	<ul style="list-style-type: none"> • Will strengthen the existing capacity of the University with additional coordination, curricular supervision, civil works, ICT and facilities management capacities. 	<ul style="list-style-type: none"> • Collaboration 	<ul style="list-style-type: none"> • The University must collaborate with local groups so that they can benefit and not become displaced as a result of the project. • The technical outcomes of the project should facilitate improvements in social services in areas such as education and health in hinterland communities.
		<ul style="list-style-type: none"> • And finance capacity building for staff in charge of undertaking continuous review and maintenance of infrastructure and equipment. 	<ul style="list-style-type: none"> • Health and Safety of Amerindian people 	<ul style="list-style-type: none"> • Special attention should be directed to improving the health and safety of Amerindian people.
		<ul style="list-style-type: none"> • The financial management and procurement capacities would be leveraged from the Ministry of Education's Education Sector Development Unit (ESDU). 	<ul style="list-style-type: none"> • Technology 	<ul style="list-style-type: none"> • New technologies should not be applied in such ways to displace local knowledge but rather serve to preserve that knowledge.
			<ul style="list-style-type: none"> • More Amerindian should have access to University-level education 	<ul style="list-style-type: none"> • Distance learning technologies should provide Amerindian groups with improved access to University education without the need to remove from the local community.
		Research and Development and Business and Development	<ul style="list-style-type: none"> • Reciprocity 	<ul style="list-style-type: none"> • There must be a benefit sharing policy.

Annex 3: Institutional Arrangements for Research Development and Publications at the University of Guyana

