United Nations Development Programme

Global Environment Facility

To: Mr. Avani Vaish
PDF and Enabling Activity
Coordinator, GEF

Date: 25 ~~September~~ August, 1997

Fax: 202-522-3240

From: Richard Hosier
Principal Technical Adviser
on Climate Change

Subject: **Submission of revised enabaling activity proposals**

Please, find enclosed the second revision of the enabling activity proposal for the Bahamas in response to your comments.

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Mr. Avani Valsh
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Washington, D.C. 20433
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DEHS/25/5

July 28, 1997.

RE: COMMONWEALTH OF THE BAHAMAS: UNFCCC/CPACC

The above titled project has been reviewed by this office and has its endorsement as a tool to assist The Bahamas in fulfilling its commitments under the United Nations Framework Convention on Climate Change.

Any assistance you could provide in facilitating The Bahamas participation in the project would be greatly appreciated.

Sincerely,

Dr. Donald L. Cooper
Director
GEF Operational Focal Point - The Bahamas.

DLC/bmtt

c.c. Mr. Richard Hoosier
UNEP/F, New York

UNITED NATIONS DEVELOPMENT PROGRAMME
GLOBAL ENVIRONMENT FACILITY

Proposal for Review

Country:	**The Commonwealth of The Bahamas**
Project Title:	**Enabling The Bahamas to Prepare its First National Communication in Response to its Commitments to the UNFCCC**
GEF Focal Area:	**Climate Change**
Country Eligibility:	**[x] Eligible under financial mechanism of the UNFCCC** **[ ] Eligible under paragraph 9 (b) of the Instrument**
Date of Ratification:	**March 29, 1994**
Total Costs:	**US $ 185,300**
GEF Financing:	**US $ 185,300**
Counterpart Financing:	**US $ or n. a.**
GEF Implementing Agency:	**UNDP**
Executing Agency:	**The Government of The Bahamas**
Local Counterpart Agency:	**Ministry of Health and Environment**
Estimated Starting Date:	**September 1997**
Project Duration:	**18 months**

ANNEX II

BUDGET FOR EXPEDITED PROCESSING OF THE ENABLING ACTIVITY PROPOSAL FOR PREPARING THE INITIAL NATIONAL COMMUNICATION OF BAHAMAS

Information to be included into the national communication	Enabling activity to produce the information needed	Type of Activity			Total Costs in US $
		Planning and execution	Capacity Building		
			Inst.	Training	
1. National circumstances	Compilation of the information from existing sources	-	-	-	-
2. Greenhouse gas inventory	Data gathering and an inventory of GHG emissions	23,800	11,600	17,500	52,900
3. General description of steps (a) programs related to sustainable development, research, public awareness, etc.; (b) policy options for monitoring systems and response strategies for impacts; c) policy frameworks for implementing adaptation measures and response strategies; d) building capacity to integrate climate change concerns into planning; e) programs to address climate change and its adverse impacts, including the abatement of increase in GHG emissions and enhancement of sinks	An assessment of potential impacts of climate change in the country	-	-	-	-
	An analysis of potential options to adapt to the impacts of climate change	-	-	-	-
	An analysis of potential options to abate the increase in GHG emissions and enhance sinks.	7,200	3,500	5,200	15,900
	Formulation of programs and policy frameworks for implementing the identified response measures.	17,500	4,600	7,000	29,100
4. Other information: a) Financial and technological needs and constraints associated with the implementation of the Convention under art. 4 and 12 b) projects for financing c) material relevant for calculation of global emission trends	Based on the results of the studies, compilation and preparation of the additional information that the country wants to present in its national communication	10,000	-	-	10,000
5. Compilation and production of national communication	Preparation, translation (as appropriate), and publication of the national communication.	10,000	5,000	5,000	20,000
Project management		16,700	8,100	12,200	37,000
Monitoring/Evaluation		15,000	-	-	15,000
Subtotal		***100,200***	***32,800***	***46,900***	***179,900***
Project support services (3%)					5,400
GRAND TOTAL		**100,200**	**32,800**	**46,900**	**185,300**

Background and Project Context.

The Commonwealth of The Bahamas is a unique sub-tropical archipelagic nation with a total area of 125,483 sq. mi. (325,000 sq. km.), of which 5,380 square miles (13,930 square km) are terrestrial. It is located some 60 miles (96 km) east of the state of Florida of the United States of America at its northwestern point and some 60 miles (96 km) north of Cuba at its southeastern extent. Being an archipelago, the country has 700 islands and cays, of which 22 are inhabited.

The islands of The Bahamas are of low relief, usually long and narrow, each rising from the shoreline to a low ridge. The highest point in The Bahamas is about 206 feet (63 meters) above mean sea level. The islands are composed mainly of calcareous sand, originally derived from marine shells, which were piled up into low ridges and rounded hills by wind action at a time when the whole shelf stood above sea level. Some rocks are still loose and sandy but others have been consolidated by age and weathered in upland areas into a typical karstic landscape. Lying beyond these ridges are mainly lagoons and swamps. Many of the islands depend upon fresh-water lenses for potable water. In some islands, such water is plentiful and readily available; in others, this is not the case. The climate is subtropical. Temperatures seldom fall much below 16°C in winter with a daytime maximum of about 24 °C.

The population grew rapidly between 1963 and 1990, rising from 130,220 persons to 254,685 by 1990 and is concentrated into relatively few locations. Almost two-thirds (171,542 persons) of the nation's people live on the one island of New Providence with a population density of 2,143 persons per square mile. The second most populous island is Grand Bahama with an estimated 40,000 inhabitants. The balance of the population (some 40,000 persons) is distributed amongst the other 20 or so inhabited islands. The population of the country as a whole is very young with an estimated 50% of the population being 20 years old or younger. The average per annum net increase in population between 1980 and 1990 was 1.97% per year.

The Economy

The Bahamas is a stable, developing nation whose economy is based primarily upon its services industries of tourism, banking and retailing. There are limited agricultural, fisheries, and manufacturing sectors.. Tourism alone provides about 50% of GDP and directly or indirectly employs about 50,000 people or 40% of the local work force. The economy has slackened in recent years, as the annual increase in the number of tourists slowed. Nonetheless, per capita GDP is one of the highest in the region. GDP was $4.4 billion in 1994, with a real growth rate of 3.5%.

Tourism

The tourism industry of The Bahamas has been established since the mid-nineteenth century. The Bahamas enjoyed its first one million visitor year in 1968 and 15 years later, in 1983, the country received a total of two million visitors. The annual visitor total exceeded three million in 1986 as

ANNEX I

COVERAGE OF THE ACTIVITIES IN BAHAMAS TO PREPARE THE INITIAL NATIONAL COMMUNICATION

Information to be included in the national communication	*Enabling activity to produce the information needed*	*Type of Activity*[1]		
		Planning[2] *and execution*	*Capacity Building*	
			Institutional	*Human*
1. National circumstances	Compilation of the information from existing sources	X	X	X
2. Greenhouse gas inventory (incl. CO_2, CH_4 and N_2O) for: - all energy sources - industrial processes - agricultural processes - land use change and forestry - other sources	Data gathering and inventory of GHG emissions from: - all energy sources - industrial processes - agricultural processes - land use change and forestry - other sources	 X X X X X	 X X X X X	 X X X X X
3. General description of steps taken or envisaged to implement the Convention including, as appropriate: (a) programs related to sustainable development, research, public awareness, etc.; (b) policy options for monitoring systems and response strategies for impacts; c) policy frameworks for implementing adaptation measures and response strategies; d) building capacity to integrate climate change concerns into planning; e) programs to address climate change and its adverse impacts, including the abatement of increase in GHG emissions and enhancement of sinks	An assessment of potential impacts of climate change in the country	CPACC	CPACC	CPACC
	An analysis of potential options to adapt to the impacts of climate change.	CPACC	CPACC	CPACC
	An analysis of potential options to abate the increase in GHG emissions and enhance the sinks.	X	X	X
	Formulation of programs and policy frameworks for implementing the identified response measures.	X	X	X
4. Other information including, as appropriate: a) Financial and technological needs and constraints associated with the implementation of the Convention under articles 4 and 12. b) projects for financing c) material relevant for calculation of global emission trends	Based on the results of the studies, compilation and preparation of the additional information that the country wants to present in its national communication	X	X	X
5. Compilation and production of the initial national communication	Preparation, and publication of the national communication (incl. the preparation of an executive	X	X	X

the volume of cruise visitors continued to grow rapidly. During the late 1980's and early 1990's, the visitor total stabilized at just over three and one half million visitors a year. In 1994 more than half (52%) of these were cruise visitors. The balance were either persons staying 24 hours or more (stopovers) comprising 44% of the overall visitor count or day visitors (4%). Tourism remains the leading economic activity in the country, directly and indirectly responsible for improvements in communications, telephone services, water supply, air and sea links, new airports, new docks, etc.

Financial Services Sector

The Bahamas has evolved into a choice offshore jurisdiction for financial services ranging from offshore banking, asset protection trusts, international business companies, and estate planning to captive insurance and ship registration. The financial services sector's significance to the economy is highlighted by its contribution to gross domestic product and direct employment generating opportunities. Accounting for approximately 15% of GDP, the sector provides employment for some 10.0% of the labor force.

Manufacturing and Industry.

There are limited numbers of manufacturing and industrial establishments in The Bahamas. Most of the plants are located either in New Providence or Grand Bahama and are concentrated in specific areas such as the industrial park in Grand Bahama. The manufacturing plants in New Providence tend to be of small size and depend upon import substitution for their markets. Some are linked with the tourism industry and manufacture garments or souvenirs. Plants in Grand Bahama tend to be more linked with the pharmaceutical industry. Grand Bahama also has two oil storage terminals, one in Freeport itself (BORCO) and one at the eastern end of the island at South Riding Point.

Environment

The Bahamas is a Party to the following accords:

- UN Framework Convention on Climate Change
- Vienna Convention for the Protection of the Ozone Layer 1985. Having ratified the Convention on the 4 May 1993 with the entry into force of the 30 June 1993.
- Montreal Protocol (1985) Substances that Deplete the Ozone Layer 1987, as adjusted and amended on 29 June 1990 (London Amendment).
- Convention on Biological Diversity.
- Convention on International Trade in Endangered Species (CITES)

The country is exposed to natural hazards such as hurricanes and other tropical storms that cause extensive flooding and wind damage.

After the detailed work plan has been prepared, an external review will be undertaken by an outside expert with experience in these types of projects. The purpose of the review is to identify in the early stage of the project the eventual gaps, overlaps and other risks of successful implementation, as well as to identify potential partners and sources of information which the project could benefit from.

The executing agency together with the Project Steering Committee will be responsible for monitoring the project on a continuous basis. In order to do this, the project manager, with the help of the leaders of the research teams, will prepare regular reports on the progress of the project and the different sub-tasks under it.
For the remaining part, the project will rely on common UNDP monitoring and evaluation practices including a mid-term evaluation and a tripartite review to be held within the first 12 months of the start of the full implementation of the project.

The Energy Sector in The Bahamas.

In 1995, petroleum products accounted for 95 % of total primary energy production. The burning of timber is of little importance as domestic fuel source. The Bahamas has no known oil reserves. All fuel is imported. There are no significant applications of renewable energies.

The country's installed capacity is 424,000 kW, with an annual production of 929 million kWh. All power generation utilizes fossil fuel.

Grand Bahama houses most of the nation's industry, including petroleum storage facilities. An oil refinery, now off-line, was originally a part of that energy complex.

Agriculture and Fisheries.

Of the total land area of The Bahamas, only about 10% is considered to have good agricultural potential: approximately 90% of these lands are located in the northern islands of The Bahamas. These islands have relatively large expanses of flat lands with workable soils and ample freshwater resources and are suited to mechanical land preparation and irrigation. Data from the 1994 Agricultural Census (Ministry of Agriculture and Fisheries, 1995) suggests that only about 1.5% of the total land area is presently used for farming. The present total area of about 50,000 acres (20,200 ha) of farm land includes land in short-term crops and in permanent (tree) crops, improved and unimproved pastures, land under roads and farm buildings, and areas of pine or coppice on farms.

The fishing industry makes a significant contribution to the economy of The Bahamas, with vessel owners and operators earning in excess of $52.1 million during 1993. During this year, some US$48.9 million in foreign exchange resulted from the export of fishery resources, in particular crayfish.

Coral Reefs

Nearly 90% of The Bahamas' total surface area is marine, much of which is virtually undisturbed. Marine zones are predominantly shallows, less than 100 feet (30 m) deep, including barrier reefs - The Bahamas has the third longest barrier reef system in the world - and extensive areas of coral heads. The coral head areas are far more numerous, often deeper, and three times as extensive in area as the barrier reefs.

Coral reefs effectively trap carbon dioxide. The Bahamas with its extensive coral reef system has a potentially viable and valuable carbon sink. Results of a sea-bed stratification exercise showed that of the 43,928 mi^2 (113,782 km^2) of shallow water seabed of the Great and Little Bahama Banks, 2% was reef, 14.6% was rock, 68.5% was sea grass and the remaining 14.9% unvegetated

greenhouse gases will be available.

Institutional Framework and Project Implementation

The project will be executed through the Bahamas Environment Science and Technology Commission (BEST) in the office of the Prime Minister. The Project Steering Committee will be charged with overseeing and advising project execution and will have decision making power over all aspects of the project. The project will also collaborate closely with all the other relevant ongoing projects in The Bahamas, both through the Project Steering Committee and between the research teams in order to enable effective information exchange between the projects and full utilization of their results.

Regarding international collaboration, working links with relevant regional and international expert institutions will be created, and, among others, IPCC and UNEP will be consulted when selecting the methodologies for, and implementing the specific activities of the project. As means of identifying and disseminating information, the project will utilize, to the extent feasible, electronic networks such as Internet and cooperate with the CC: INFO initiatives of the UNFCCC Secretariat.

Listed below is the agencies which will comprise the Project Steering Committee:

- The Bahamas Environment Science and Technology Commission (BEST) - Principal Agency and principal policy advisor on the environment, science, technology and energy issues.
- The Ministry of Foreign Affairs (MOFA) - International policy
- The Department of Meteorology - Climate (temperature, rainfall, wind, etc.) monitoring.
- The Legal Department
- The Department of Statistics and Central Bank of The Bahamas - National Inventories.

Other participants will include:

- The Bahamas Water & Sewage Corporation. - Water resources, hydrology and water resources planning.
- The Bahamas Electricity Corporation (BEC) and The Grand Bahama Electricity Company - Inventory of emissions, energy policy etc.
- The Ministry of Agriculture and the Department of Fisheries - Agricultural land use and coral reefs.
- The Department of Lands and Surveys - Land use and forests.
- Bahamas National Trust and other related NGO's such as Re-Earth.
- The Bahamas Chamber of Commerce & the Grand Bahama Chamber of Commerce.

Monitoring and Evaluation

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Forestry

Forestry is the most widespread use of land in the Bahamas. The Pine Forests are confined to four islands in the north-west Bahamas, consisting of a mono-culture of self-regenerating *Pinus caribaea* var. *bahamensis*. These forests have been logged extensively both by local and foreign companies since issuance of the first license in 1906. Logging ceased in the mid-seventies leaving behind pockets of mature timber and large areas regenerating from seed trees which had been left standing. The pine forests have not historically been regarded as a valuable resource. Firewood is of no importance as a domestic fuel source.

Institutional Framework and Previous Initiatives Related to Climate Change.

The Bahamas Environment, Science And Technology Commission (BEST)

In the Commonwealth of The Bahamas, a number of Government agencies are responsible for the management of the nation's environment and the conservation of its natural resources. A major constraint to development has been the absence of a mechanism to facilitate integrated planning and improved communication among these agencies. The Bahamas Government, recognizing the necessity for the creation of a single agency to respond to this need, has established The Bahamas Environment, Science and Technology Commission (BEST) in the Office of the Prime Minister. The Government has appointed a Bahamian national, who is highly respected and widely recognized as one of the nation's leading environmentalists, to serve as chairman of the Commission and Ambassador for the Environment.

The BEST Commission has evolved from an informal inter-Ministry coordinating body responsible for The Bahamas' participation in the Earth Summit held in Brazil in 1992 and in the Conference on Sustainable Development for Small Island Developing States held in The Bahamas in 1994. The BEST Commission's responsibilities include coordinating matters related to international conventions, treaties and other agreements; coordinating national efforts to protect, conserve and manage the country's natural resources; propose environmental legislation; and representing the Government of The Bahamas in international fora and negotiations related to the environment.

The Commission has created several functional Committees responsible for matters such as Biodiversity and Climate Change among other environmental concerns. The Climate Change Committee will be responsible for the Implementation of the GEF funded project on Enabling Activities for the Preparation of the Initial National Communication as well as the OAS: CPACC project, described below. The Committee is comprised of Government agencies, private sector and NGO representatives who report to the Board of Directors of the Commission. The National Implementing and Coordinating Unit - established by BEST to facilitate the implementation of the

fulfil their commitments to the UNFCCC. The project responds to such objectives by implementing an activity needed to enable The Bahamas to prepare its first national communication to the CoP.

The entire UNCED process and the Conventions Agreements and Protocols spawned as a result have elements that relate to Climate Change. Regional efforts such as the Summit Of The Americas are also relevant instruments. The following list are directly applicable:

Montreal Protocol on Substances that Deplete the Ozone Layer 1987, as adjusted and amended on 29 June 1990.
Convention on Biological Diversity.
Vienna Convention for the Protection of the Ozone Layer 1985.

This proposal covers activities required in the initial communication. This includes: the inventory, mitigation analysis, policy issues related to climate change and the production of the initial communication itself. This proposal undertakes tasks not included in the regional GEF funded, *Caribbean: Planning for Adaptation to Global Climate Change (CPACC)*, which emphasizes vulnerability and adaptation issues and has a four-year time frame. The CPACC project is scheduled to start in the first quarter of 1997. Early results from policy issues derived from the CPACC project will be included into the national communication to the UNFCCC.

Sustainability and Participation.

The Government of the Bahamas is fully committed to the objectives of this project. Further, this project is seen as an integral part of the efforts by The Bahamas government to meet its obligations to the Framework Convention on Climate Change.

Project Financing and Budget

The Commonwealth of The Bahamas requests US$185,300 for the production of the Initial National Communication on Climate Change. The Government will match this allocation with by appointing a Project Manager, technicians, providing office space and other in kind support.

Annex I *Coverage of Activities* provides an itemized list of the elements that will be undertaken in this project. Annex II provides an itemized budget. Please note that the bulk of the request will go towards the production of the inventory, the formulation of national climate change strategies, and the production of the national communication itself.

Issues, Actions and Risks

The time frame for the execution of the project is 18 months. It is expected that by December 1997 an initial preliminary report of results relative to the production a national inventory of

OAS: CPACC project - will serve as the executing unit of the GEF Enabling Activity Project.

Caribbean: Planning for Adaptation to Global Climate Change (CPACC)

The Organization of American States (OAS) ***Caribbean: Planning for Adaptation to Global Climate Change (CPACC)*** is a recently initiated GEF-funded regional project being implemented by the World Bank, and executed by the Organization of American States (OAS). This project will support CARICOM countries which are Parties to the United Nations Framework Convention on Climate Change (UNFCCC). It is designed to increase national and regional planning resources and skills for adapting to the effects of global climate change on coastal and marine resources.

The Bahamas forms part of this regional initiative and has been selected for a pilot project to monitor the effects of climate change on coral reef systems and will benefit from the regional components of the project in the following areas:

- *Design and Establishment of Sea Level/Climate Monitoring Network (Regional)*
- *Establishment of Data Bases and Information Systems (Regional)*
- *Inventory of Coastal Resources and Use(Regional).*
- *Coral Reef Monitoring Network (Pilot)*
- *Coastal Vulnerability and Risk Assessment (Pilot)*
- *Formulation of Policy Framework for Coastal and Marine Management (Regional)*
- *Economic Valuation of Coastal and Marine Resources (Pilot)*

Project Objective.

The immediate objective of the project is to facilitate the preparation of the first national communication of The Bahamas to the Conference of the Parties (CoP) in accordance with the Article 12 of the UN Framework Convention on Climate Change.

Besides meeting the communication obligations, the project can be seen as an essential exercise to enhance general awareness and knowledge of climate change related issues in The Bahamas, thus enabling The Bahamas to take those issues into account in general planning and strategy formulation for different economic sectors. The project will also strengthen the role of The Bahamas in the international scientific forums and negotiation processes related to climate change. A part of this task is to facilitate dialogue, information exchange and cooperation among all the relevant players in the field including governmental, non-governmental, academic, private and "grassroots" sectors.

The project will strengthen The Bahamas' institutional framework and build endogenous capacity, thereby preparing the groundwork for fulfilment of eventual additional communication

will be executed under the direction of an expert. The first workshop will concentrate on methodological aspects so local technicians may undertake the calculations. A second workshop will review, correct and improve results, as well as discuss policy implications. The expert(s) will oversee the production of the national GHG Inventory.

5. Organize and undertake a mitigation analysis following the internationally recognized guidelines and methodologies.

6. Integrate and coordinate the production of the Initial Communication with the CPACC project. Both efforts respond to national priorities, and will be carried out by similar institutions and technicians. These will organize and undertake a study of the impacts of climate change and adaptation to it with respect to the specific geographical and climatological characteristics of The Bahamas. This study will build on ongoing or finalized national and international studies, and will use, as appropriate, existing methodologies and "tools ", and results of other ongoing studies. The Bahamas is not requesting monies from GEF through UNDP for vulnerability and adaptation issues.

7. Prepare a national strategy for effective response measures to climate change.

8. Organize a workshop (with wide local participation and relevant international partners) to present the results of this project, together with results or status of other ongoing national projects relevant to the issue, and to discuss the results with the objective of formulating a national action plan for effective response measures to climate change (focusing on a win-win mitigation and adaptation measures).

9. Use the outputs of this project as well as information and products of other ongoing projects, to prepare the first national communication of The Bahamas to the Conference of the Parties.

The activities will be carried out in sequence so that tasks building on the results of prior activities are only undertaken if these prior steps have been taken. For instance, the mitigation analysis will build on the results of the inventory. Any mitigation plan will build on the results of the mitigation analysis. Adaptation considerations will build on early results of the vulnerability assessments from the CPACC project. Delays in the CPACC project will not undermine the timely completion of the Initial National Communication.

With the outlined activities the project is expected to cover all the steps needed to prepare the first national communication of The Bahamas to the CoP.

Rationale for GEF Support

This project is consistent with the GEF Operational Strategy and the revised GEF Operational Guidelines for Enabling Activities to provide coordinated and timely assistance to countries to

obligations, and for further development and implementation of identified response measures addressing climate change and its adverse impacts.

PROJECT DESCRIPTION

During project preparation, the following components have been identified to respond to the objectives of the project and to implement the project successfully:

1. Organize the work by consolidating the Project Steering Committee, and by organizing a project initiation workshop with participants from all the relevant sectors to present the objectives of the project, to clarify links to other relevant ongoing national and international activities, and to clarify information requirements, institutional coordination and other practical arrangements to facilitate successful implementation of the project. The Steering Committee will identify and assign a competent project manager from the top technicians in The Government of The Bahamas.

2. Generate a project time-line describing all steps in the project in full detail, integrating the components described in this proposal with the ***Caribbean: Planning for Adaptation to Global Climate Change (CPACC)*** project and any other Bahamian Climate Change efforts in the country or abroad.

3. Strengthen the links to both national and international sources of information, and eventually establish an information center/network with adequate equipment and personnel to facilitate an effective exchange of information between the participating institutions at the national level, as well as to assist them in gaining internationally available information on climate change related issues (e.g., from the United States Country Studies Program and other bilateral programs, UNEP, IPCC, CC: TRAIN, international research institutes, ongoing enabling activities in other countries etc.). The potential to use Internet/World Wide Web has been evaluated and, to the extent feasible, will be used to save travel costs and enhance the geographical coverage of available information. It is foreseen that the network will continue to operate after the project, thus facilitating interested parties in The Bahamas to learn about other national or international activities. It will also enable interested individuals and institutions outside The Bahamas to get information on ongoing, planned or finalized climate change related activities in The Bahamas. In this context, the project will cooperate, the the extent possible, with the UNFCCC Secretariat's CC: INFO/Web initiative.

4. Organize and undertake a national inventory of greenhouse gases following the guidelines adopted by CoP2. The atmospheric gases to be addressed in the study will include carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O). Other greenhouse gases included in the IPCC methodology will be addressed as deemed appropriate. A two part workshop