Cover Note

Project Name: Capacity Building for Observing Systems for Climate Change
Pims No. 2411
Date: 25 October 2001

	Work Program Inclusion	Reference/Note
1. Country Ownership		
• Country Eligibility		• Cover Sheet • Page 3, section A4 (para. 10)
• Country Drivenness	Clear description of project's fit within: • National reports/communications to Conventions • National or sector development plans	• Regional priorities for systematic observation pg. 2 (para 9). • National reports on systematic observation to the UNFCCC pg. 8 (immediate objective 1). • Regional action plans pg. 9 (output 1.2).
• Endorsement	• Endorsement by national operational focal point.	• EA Phase II endorsement letters previously submitted.
2. Program & Policy Conformity		
• Program Designation & Conformity	• Describe how project objectives are consistent with Operational Program objectives or operational criteria.	• Support EA for the preparation of National Communications.
• Project Design	Describe: • sector issues, root causes, threats, barriers, etc., affecting global environment. • Project logical framework, including a consistent strategy, goals, objectives, outputs, inputs/activities, measurable performance indicators, risks and assumptions. • Detailed description of goals, objectives, outputs, and related assumptions, risks and performance indicators. • Brief description of proposed project activities, including an explanation how the activities would result in project outputs • Global environmental benefits of the project. • Incremental Cost Estimation based on the project logical framework. • Describe project outputs (and related activities and costs) that result in *global* environmental benefits • Describe project outputs (and related activities	 • Problems to be addressed, pg. 3 –4 (para 15-19). • Table 9 Project Planning Matrix. • Development Objective pg. 8. Immediate objectives pg. 8-10. Outputs pg. 8-10. Risks pg. 10. Indicators pg. 13 (para. 51-52). • Activities pg. 8-10. • Global benefits in project justification, pg. 3 (para. 15-17). • EA based on fully agreed costs. • Output 2.1 and related activities, pg. 9-10. • Output 1.2 and related activities, pg. 9.

	Work Program Inclusion	Reference/Note
	and costs) that result in joint *global and national* environmental benefits. • Describe project outputs (and related activities and costs) that result in *national* environmental benefits. • Describe the process used to jointly estimate incremental cost with in-country project partner. • Present the incremental cost estimate. If presented as a range, then a brief explanation of challenges and constraints and how these would be addressed by the time of CEO endorsement.	• Output 1.1 and related activities, pg. 8-9. • EA based on fully agreed costs.
• Sustainability (including financial sustainability)	• Describe proposed approach to address factors influencing sustainability, within and/or outside the project to deal with these factors.	• Section F2, page 10-11 (para. 40-42).
• Replicability	• Describe the proposed approach to replication (for e.g., dissemination of lessons, training workshops, information exchange, national and regional forum, etc) (could be within project description).	• Section C Project strategy, pg. 5-7 describes the project approach, which includes issues on training, workshop, dissemination, etc.
• Stakeholder Involvement	• Describe how stakeholders have been involved in project development. • Describe the approach for stakeholder involvement in further project development and implementation.	• Annexes E, F, G, of the Supplemental Annexes provide a detailed description of stakeholder involvement. • Section G, pg. 12 (para. 46-49).

• Monitoring & Evaluation	• Describe how the project design has incorporated lessons from similar projects in the past.
	• Describe approach for project M&E system, based on the project logical framework, including the following elements:
	  • Specification of indicators for objectives and outputs, including intermediate benchmarks, and means of measurement.
	  • Outline organizational arrangement for implementing M&E.
	  • Indicative total cost of M&E.
		• Annex D, of the Supplemental Annexes, in section Lessons learned from the PDF phase, pg. A.6
		• Monitoring and evaluation is described in Section H, page 12-13.

3. Financing		
• Financing Plan	• Estimate total project cost. • Estimate contribution by financing partners. • Propose type of financing instrument.	• Table 6, pg. 17 • Table 4, pg. 15 • Section J, project financing, pg. 13-14.
• Implementing Agency Fees	• Propose IA fee.	•
• Cost-effectiveness	• Estimate cost effectiveness, if feasible. • Describe alternate project approaches considered and discarded.	

	Work Program Inclusion	Reference/Note
4. Institutional Coordination & Support		
IA Coordination and Support • Core commitments & Linkages	Describe how the proposed project is located within the IA's: • Country/regional/global/sector programs. • GEF activities with potential influence on the proposed project (design and implementation).	• Section G pg. 11 (para 44-45) describes the institutional arrangements.
• Consultation, Coordination and Collaboration between IAs, and IAs and EAs, if appropriate.	• Describe how the proposed project relates to activities of other IAs (and 4 RDBs) in the country/region. • Describe planned/agreed coordination, collaboration between IAs in project implementation.	• Section G, Figure 1 pg. 11 shows coordination mechanisms.
5. Response to Reviews		
Council	Respond to Council Comments at pipeline entry.	
Convention Secretariat	Respond to comments from Convention Secretariats.	
GEF Secretariat	Respond to comments from GEFSEC on draft project brief.	
Other IAs and 4 RDBs	Respond to comments from other IAs, 4RDBss on draft project brief.	
STAP	Respond to comments by STAP at work program inclusion	
Review by expert from STAP Roster	Respond to review by expert from STAP roster.	

PROJECT BRIEF

1. IDENTIFIERS:

PROJECT NUMBER	2411
PROJECT NAME	**Global: Capacity Building for Observation Systems for Climate Change**
DURATION	4 years
GEF IMPLEMENTING AGENCY	United Nations Development Programme
EXECUTING AGENCY	WMO
REQUESTING COUNTRY	Global
ELIGIBILITY	Non-Annex I Parties
GEF FOCAL AREA	Climate Change
GEF PROGRAMME FRAMEWORK	Enabling Activity

2. SUMMARY:

The objective of the project is to improve observing systems for climate in developing countries. The project will launch processes that will develop national capacity in a significant number of non-Annex I Parties to participate in systematic observation networks for meeting the multiple needs of the UNFCCC. This process will involve training and assessment, and will help to develop regional Action Plans for improving observing systems. To ensure that the project feeds into National Communications, the workshops will involve national climate change co-ordinators of enabling activities.

3. COSTS AND FINANCING: (Million US$)

GEF:	
Project	1.221
PDF	0.324
SUBTOTAL	**1.545**
CO-FINANCING FOR THE FULL PROJECT:	
WMO Members and Sponsors	0.570
WMO cash and in-kind contributions	0.245
CO-FINANCING FOR THE PDF PROJECT:	
GCOS	0.237
SUBTOTAL	**1.052**
TOTAL PROJECT COST:	**2.598**

4. OPERATIONAL FOCAL POINT ENDORSEMENTS:

5. IA CONTACTS:

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A. Project Context

A.1. Global context: United Nations Framework Convention on Climate Change

1. The importance of systematic observation for understanding climate change has been recognised by the United Nations Framework Convention on Climate Change (UNFCCC) since the beginning of international negotiations on the subject. Article 5 of the UNFCCC states that Parties shall support international efforts to strengthen systematic observation, taking into account the needs of developing countries for improving their capacities to participate in systematic observation.

2. The inadequate state of observing systems has been noted repeatedly by the Conference of the Parties (COP) to the UNFCCC. In 1998, for example, an assessment on the adequacy of observing systems was introduced at COP4.[1] This report notes that it is commonly assumed that there are more than enough observations being collected to meet scientific needs related to the evolution of the climate and to guide mitigation and adaptation strategies to address the potential impacts of climate change. In practice, however, "available observations often have major deficiencies with respect to climate needs." The report therefore concludes that observations in many parts of the world are inadequate to meet the needs of the Convention. In 2001, the journal Nature noted in a lead editorial that "there are large gaps in global and regional coverage which seriously affect climate assessment and modelling efforts."[2] These deficiencies have the potential to seriously undermine any decision made concerning the mitigation of, and adaptation to, climate change.

3. Recognising the inadequacy of climate observations in many parts of the world, the COP in 1998 urged nations to undertake programmes of systematic observation and requested them to submit information on national plans and programmes related to observations (Decision 14/CP.4). The issue was addressed again in 1999 when COP urged Parties to address deficiencies in climate observing networks and invited them, in consultation with the Global Climate Observing System (GCOS) Secretariat, to identify the capacity-building needs and funding required in developing countries to enable them to collect, exchange, and utilise data in pursuance of the Convention (Decision 5/CP.5). This decision also invited GCOS, in consultation with relevant regional and international bodies, including the Global Environment Facility (GEF), to organise regional workshops on observing system issues and urged Parties to actively support and participate in these workshops.

4. Additional guidance to the Global Environment Facility (GEF) (FCCC/CP/2001/L.4/Rev.1) identifies funding needs of developed countries. These needs include: 'supporting the continuation of the "country-team" approach, which enhances the collection, management, archiving, analysis, interpretation and dissemination of data on climate change...'(paragraph c); and 'enhancing the capacity of their subregional and/or regional information networks to enable such networks to serve as repositories of climate change related information vulnerability and adaptation assessments…'(paragraph d). Both of these requests to the GEF are addressed specifically in this project.

5. Capacity building in the context of the UNFCCC is also addressed here. For instance, the scope of capacity building includes 'research and systematic observation, including meteorological, hydrological and climatological services (paragraph 16.i, FCCC/CP/2001/L.2). This project responds to this capacity building need.

1 Global Climate Observing System, *Report on the Adequacy of the Global Climate Observing Systems*, GCOS-48, October 1998, submitted to the 4th COP in Buenos Aires in November 1998.

2 "Better Climate Data Required," *Nature*, 15 March 2001, Volume 410, Issue No. 6826, p. 287.

A2. Institutional framework

6. At the national level, the institutional framework for climate change studies varies widely among countries. In some cases, the national focal points for preparing the National Communications are within the meteorological services. In other countries, the focal points are situated in other institutions and hence the linkages between the relevant ministries and agencies can be weaker. At some of the workshops convened by the National Communications Support Programme (NCSP), this lack of co-ordination was cited as a constraint to effective implementation of the National Communication.

7. At the global level, GCOS was established in 1992 to promote improved observing systems and to ensure that information is available to address climate-related issues. It provides an operational framework for enhancing observational systems of participating countries. Given its mandate, GCOS (Annex E) is well placed to assist countries in the process of preparing their National Communications.

A3. Regional priorities

8. Collecting climate data can be an expensive task and a low priority in developing countries, especially where there are many pressing non-climate-related problems. However, it is generally accepted that that climate change is happening now and that changes in climate will perturb climate variability. Since many societies are adapted to cope under current climate, any changes in climate variability can lead to potentially important socio-economic consequences in the future. Provided a careful assessment of which climate data are needed, investments in improved observations can lead to significant development gains.

9. Regional priorities for systematic observations are summarised below in Table 1. The highest priority in most regions is improving data for assessing the impacts of seasonal-to-interannual variability. Other climate-related concerns include sea level rise, hurricanes, storm surges, monsoons, droughts, and floods. As the project gets underway, these priorities will be re-examined together with stakeholders concerned with climate change.

Table 1. Summary of Systematic Observation Issues by Region

Region	Special Systematic Observation Issues	Region	Special Systematic Observation Issues
Pacific Islands (Completed)	Sea level rise Fresh water sources Tropical cyclones	Central and Eastern Europe	Seasonal-to-Interannual
Eastern and Southern Africa (Completed)	Drought, Floods, Historical data, Adaptation	West Africa	Drought, Floods
Caribbean and Central America	Hurricanes, Floods, Sea level rise, Storm surges, Coral Reefs	Mediterranean Basin	Droughts, Seasonal-to-Interannual
South Asia-Indian Ocean	Sea level rise Drought, Cyclones, Monsoons, Seasonal-to-Interannual	South America	Seasonal-to-Interannual Floods, Drought
Southeast Asia	Biomass burning, Seasonal-to-Interannual	Central and East Asia	Drought, Seasonal-to Internannual, mountain/glaciers

A4. Country ownership

10. Country eligibility and driven-ness. Countries that have ratified the UNFCCC, as non-Annex I Parties, are eligible for GEF funding through the financial mechanism of the convention. Potentially all non-Annex I Parties may participate in the workshops of this project. A large number of countries (41 of 64 countries, 64% of total) have included systematic observations in their Phase II enabling activities, reflecting the high priority placed on this topic.

A5. Prior and on-going assistance

11. *GEF assistance.* Support was provided to:
- WMO's Global Atmosphere Watch. This GCOS network is comprised of stations that measure greenhouse gas concentrations, ozone levels, and solar radiation. The new stations added to the global network are in Algeria, Argentina, Brazil, China, Kenya, and Indonesia.
- Caribbean Planning for Adaptation to Global Climate Change Project, which is strengthening the Caribbean region's capability to monitor and analyse climate and sea-level dynamics.
- Phase II enabling activities, including the National Communications Support Programme.

12. *WMO assistance.* The Technical Co-operation Programme provides assistance to many developing countries using funds provided by UNDP, individual donors, and the Voluntary Co-operation Programme. The projects generally help upgrade and modernise meteorological and hydrological services and hence indirectly lead to improvements in observing systems.

13. *GCOS assis*tance. GCOS itself has no funds to support developing countries directly. However, many existing assistance programmes recognise the importance of maintaining and, where possible, improving the GCOS-designated observing stations.

14. *Other assistance*. The European Commission is funding the 'Preparation for Use of Meteosat Second Generation in Africa' programme, which is designed to help strengthen the capabilities of African countries to use meteorological satellite data. The Finnish government funds a project to help small island developing countries prepare for climate variability and change, part of which is directed toward improving observing system networks. Most developed countries provide bilateral assistance to developing countries with which they have special relations (e.g., the U.S. and Canada in the Western Hemisphere, France and the U.K. in Africa).

B. Project Justification

B1. Problems to be addressed and the present situation

15. Improved observational networks are critically important for monitoring the climate system, for improving detection and attribution of climate change, for assessing the impacts of climate variability and change, for improving seasonal forecasts, and for supporting research toward improved understanding, modelling and prediction of climate.

16. At the global scale, accurate observational data are important for a broad range of sustainable development goals. Improved observational data will lead to better knowledge of climate change, which in turn will help countries develop national strategies to mitigate and adapt to its potentially harmful effects. Improved observing systems for climate are required by scientists to improve their ability to understand, detect, and predict climate change.

17. At the regional scale, countries need improved observational data to better monitor the current climate and assess future climate conditions; to provide early warning systems for detecting severe

weather, floods, and droughts; to produce information vital for conducting vulnerability analyses and preparing adaptation strategies; and to monitor sea level rise. However, observational networks have rapidly deteriorated in recent years and are inadequate for their intended purposes.

18. Table 2 shows that atmospheric monitoring networks are performing well below quality standards. For instance:

- For the GCOS Surface Network (GSN), less than one third of stations are deemed adequate, i.e. provide more that 90 percent of expected data, in Africa, South America, and the South-west Pacific. Over one-third of GSN stations in these regions are "silent."
- In Africa, only 26 percent of the 155 GSN stations provided greater than 50 percent of required reports during 2000.
- For the GCOS Upper Air Network (GUAN), 30 to 40 percent of stations are "silent" in Central and South America.

These data illustrate that serious problems in observing systems exist. If these problems are not adequately addressed, they will undermine the value of climate monitoring.

19. There are several reasons for the low reception rates. Some developing countries have problems maintaining stations because funds are inadequate for equipment, consumables, and ongoing operations. Other problems are caused by inadequate communications systems and lack of qualified staff. Some of these may be overcome as feedback from the monitoring centres is provided to the stations concerned. In addition to the need to improve transmission of current climate data, much useful historical data exist but have not yet been forwarded to the relevant archiving centres. Again, lack of funds for retrieving these data is a major concern.

Table 2. Status of GCOS Surface and Upper Air Networks (GSN & GUAN) by WMO Region

	WMO Region	**No of stations**	**Percentage providing at least 90% of reports**	**Percentage providing from 50- 89% of reports**	**Percentage providing from 1-49% of reports**	**Percentage of "silent" stations**
GSN Monitoring period: 2000	I. Africa	155	8	18	31	43
	II. Asia	262	25	22	19	33
	III. South America	120	28	20	9	43
	IV. North & Central America*	157	76	12	3	9
	V. South-West Pacific	155	31	30	17	22
	VI. Europe	120	53	9	6	33
	Antarctica	20	35	35	5	25
	Global	989	35	20	15	30
GUAN Monitoring period: 2000	I. Africa	23	9	48	30	13
	II. Asia	26	38	23	19	19
	III. South America	17	18	41	12	29
	IV. North & Central America*	20	35	20	5	40
	V. South-West Pacific	37	70	8	0	22
	VI. Europe	15	67	13	13	7
	Antarctica	12	75	0	0	25
	Global	**150**	**45**	**22**	**11**	**22**

* The majority of problems in RA-IV are in Central (not North) America

B2. Expected end-of-project situation

20. This project will help to strengthen capacities of non-Annex I Parties to participate in systematic observation. At the end of the project, consistent with outputs, workshop participants:
- will have a better understanding of the status of observing systems in the region, including gaps and deficiencies in networks and the importance of rescuing historical data;
- will be prepared to undertake reports on systematic observation for the UNFCCC;
- will have agreed on priority observing system needs for the regions, a key element of regional Action Plans, and
- will have improved communication among meteorological service directors and other stakeholders.

21. At the end of the project, most participating countries will have completed national reports, and regional Action Plans may have been completed or initiated.

B3. Stakeholder participation

22. Stakeholders fall into three categories: workshop participants, regional partners, and donor countries.

23. *Workshop participants* are the national climate change co-ordinators and the directors (or their nominees) of national meteorological and hydrological services (NMHSs). Meteorological service directors are the principal focal points concerned with observing system issues in their countries. National climate change co-ordinators are responsible for the national reports. One goal of this project is to help forge a stronger link between NMHSs and the concerns of the UNFCCC.

24. *Regional partner organisations* are crucial to the success of the project. The South Pacific Regional Environment Programme and the Drought Monitoring Centre-Nairobi were regional partners in the PDF phase of this project. Their involvement in the project will also strengthen regional institutions and the stakeholder process.

25. *Donor countries* are critical stakeholders. For donors, improved global observing networks will lead to the scientific advances needed to detect, attribute, and predict climate change - important concerns of developed as well as developing countries. For example, the US is a key stakeholder in the Pacific and Caribbean regions.

26. *Stakeholder consultations*. GCOS has consulted with these stakeholder groups in three principal ways during the development of this proposal: 1) through consultation with stakeholders involved in COP and SBSTA meetings, 2) through consultation with stakeholders (mainly NMHS and ocean system directors) involved in annual WMO and IOC Executive Council meetings, and 3) through the mechanism of the Regional Workshop Advisory Committee (see Annex F). GCOS will continue to consult with stakeholders in these fora during the implementation phase of the project. Also, the RWAC will be expanded to include additional national climate change co-ordinators. Countries are also beginning to designate national GCOS co-ordinators, which will constitute another consultative mechanism for the project.

C. Project Strategy

27. *Phases of the Project*. Under the guidance of the GCOS secretariat, this project will design and implement a series of regional workshops, and follow-up activities. The project will facilitate both medium to long-term improvements in observing systems for climate. There are four phases involved in the implementation of the project, the first three of which are covered by this project.

- For each region, the ***first*** phase is to prepare for the workshops. This phase involves acquiring a basic understanding of the needs of observing systems in each region and identifying a regional partner.

- The ***second*** phase is the regional workshops. Workshops, typically of three-day duration, will serve both to build consensus on what needs to be done and to lay the groundwork for the development of regional Action Plans.

- After the workshops, Action Plans will be developed in the ***third*** phase to define a strategy for addressing the priority observing system needs for the region. The development of Action Plans will be undertaken by regional partners, with active support from GCOS. Action Plans will vary from region to region, but are likely to cover the following:

    - Training for filling observing system gaps, analysis, retrieval and archiving of historical data;
    - Procurement of hardware for observing systems according to the national infrastructure;
    - Longer-term operational programmes to maintain observing systems.

- The ***fourth*** phase, implementation of Action Plans, is beyond the scope of the Full Project Proposal. It involves resource mobilisation to address the priority needs identified in Action Plans, recognising that no single source of funding exists to meet all needs. Critical to the success of this phase will be the engagement of national stakeholders and regional partners, and the continued support of donor countries. (See Section on Risks and Sustainability.)

28. *Regional workshops and their sequencing*. Ten regions are defined where improvements in observing systems are needed and where internal resources are insufficient to implement improvements. Three criteria were then used to select the order of regional workshops:

- Availability of financial support from donor countries
- Availability of a recognised regional partner/entity experienced in providing climate services
- Opportunity for cost savings by organising a GCOS workshop back-to-back with a related meeting.

29. Based on these considerations, the schedule of workshops is as follows:

Table 3: Workshop Schedule

Region	**Dates**
Pacific Islands	Complete
Eastern and Southern Africa*	3-5 October 2001
Caribbean and Central America	Spring 2002
South Asia-Indian Ocean	Fall 2002
Southeast Asia	Spring 2003
Eastern and Central Europe	Fall 2003
West Africa	Spring 2004
Mediterranean Basin	Fall 2004
South America	Spring 2005
Central and East Asia	Fall 2005

*Based on the success of the Pacific Islands, the workshop for Eastern and Southern Africa is not expected to change the basic approach of this Project. Only the generic workshop materials will be improved.

30. *Number of workshops.* The number of workshops planned per year is reduced (2 instead of 3 per year) compared to that planned in the PDF project at the recommendation of the Regional Workshop Advisory Committee. This slower pace is advised due to 1) the complexity of organising regional workshops and hence substantial lead time required (at least 8 months), and 2) the additional work involved in initiating multiple follow-up activities. Section K shows the approximate schedule for workshops and follow-up activities.

31. The highest priority will be to assist countries to report on systematic observation using the UNFCCC guidelines on a voluntary basis. During the initial phase of the project, the workshop schedule will be accelerated in regions where they can be organised quickly. During the final stage of the project, focus will be given to the development and implementation of the Action Plans.

32. *Workshop topics*. Topics for regional workshops fall into two categories, core and special. (A sample workshop agenda is included in Annex H).

33. *Core topics*: These topics fall into three categories:

- A background presentation on GCOS and its mission.
- A training session to explain UNFCCC guidelines for national reporting on systematic observations.
- Regionally tailored presentations will be given for each of the three GCOS domains—atmospheric, oceanic, and terrestrial. In the atmospheric domain, regional experts will present the regional assessment of the GCOS Surface Network (which provides monthly data on averages and extreme values for several meteorological parameters, including temperature and precipitation) and the GCOS Upper Air Network (which contributes upper air measurements at various heights of pressure, wind velocity, temperature, and humidity). In the terrestrial domain, hydrological observations (including surface water discharge, surface and ground water storage fluxes, precipitation, evapotranspiration, soil moisture, etc.) and terrestrial carbon observations will be addressed. In the oceanic domain, experts will present observing systems needs for sea surface temperature, sea level, temperature and salinity profiles, winds, waves, sea ice (if relevant), and energy and carbon flux.

34. *Special topics*: Because each region is unique, some non-core topics will be developed with regional partner(s) when developing the agenda for a given workshop. Special topics, for example, include data needs to address vulnerability and adaptation to climate change, extreme events, voluntary observing systems, and the recovery of historical data. Topics will be considered for inclusion in any given workshop on the basis of need and interest, as expressed by GCOS's regional partners and through the stakeholder consultative process, involving the national climate change teams.

35. *Prioritisation of needs.* The workshops are geared to facilitate interaction among stakeholders. Participants will try to reach consensus on the priority observing system needs for the region. These may include 1) getting silent or partially working stations fully working, 2) ensuring that observations that are made will be available, e.g., by improving the communication system, 3) providing funding for consumables, 4) improving data management, 5) upgrading training and staffing, 6) strengthening an existing regional climate centre, and/or 7) acquiring new hardware or station infrastructure.

36. *Regional Action Plans*. The goal will be to agree on a strategy for developing regional Action Plans to address priority needs, including a schedule for follow-up activities. It is anticipated that a small group (e.g., 12-15) of people would meet with the regional partner to develop the Action Plans.

D. Development Objective

37. This project aims to improve observing systems for climate change in each region. It will do so by launching a process that will develop national capacity in a significant number of non-Annex I Parties to participate in systematic observation networks for meeting the multiple needs of the UNFCCC.

E. Immediate Objectives, Outputs And Activities, Expected Results

Immediate Objective 1: Build national capacity, through training workshops, to report on systematic observation in accordance with UNFCCC guidelines.

Workshop participants will be shown how to compile national reports on systematic observation to the UNFCCC, consistent with Decision 5 of COP-5. These (voluntary) reports will serve to focus attention on where gaps, and hence needs, are greatest. The UNFCCC reporting guidelines will be introduced and explained in regional workshops. In addition, GCOS has prepared a document entitled "Notes on the Guidelines for Reporting to the UNFCCC on the Status of Global Climate Observing Systems." These notes will be used as training material. GCOS will also facilitate the compilation of information on systematic observation by inviting recognised experts on regional components of observation networks to make presentations at the workshops on the status and needs of these networks. The specific networks addressed may vary by region, depending on their relevance within the region, but would include at least one presentation each in meteorological, oceanographic, and terrestrial domains.

Another element of building national capacity deals with improving communications between national climate change co-ordinators (those who often have the closest contact with both UNFCCC processes and/or users of climate data) and the national meteorological and hydrological services (NMHSs) and other agencies (those most closely concerned with producing observations). The aim is to link data producers more closely to data users at the regional level and thus to promote understanding of respective needs. Improving communications can also help involve the national operational agencies (e.g., NMHSs) in national climate change planning.

Output 1.1: Workshop organisation and materials completed

This output corresponds to the ***first*** phase of the project strategy described in section C.

Activities

1.1.1 Co-ordinate with regional partner(s) to organise workshop. Identify and work with regional partner(s) to organise workshop. This activity encompasses a whole range of actions, including: 1) learning from stakeholders about observing system issues in the region and about regional political sensitivities, 2) finding a suitable principal regional partner, 3) identifying secondary regional partners, 4) establishing an organising committee that includes representatives of all stakeholder groups, 5) selecting workshop topics, 6) selecting observing system experts to prepare regionally-tailored presentations, 7) organising logistics.

1.1.2 Prepare workshop materials. Experts will prepare regionally focused presentations on observing systems. Materials will be distributed to participants in workshop proceedings, including generic materials prepared by GCOS (see annexes J and L.) These generic materials will be improved, and additional materials may be added, as the project evolves.

1.1.3 Facilitate compilation of information on systematic observation for inclusion in National Communications, consistent with UNFCCC reporting guidelines. A questionnaire will be developed for participants to complete before the workshop to prepare them to actively participate

and to help them to focus on critical information needs and the purpose of those needs. This information will be used for the regional summary reports.

Output 1.2: Participants able to prepare national reports on systematic observations as the basis for developing a strategy for regional Action Plans.

This output corresponds to the ***second*** phase of the project strategy described in section C.

Activities

1.2.1 Provide training for the preparation of national reports on systematic observations. The UNFCCC Reporting Guidelines on Global Climate Change Observing Systems will be discussed at the workshop, and participants will receive additional notes GCOS has prepared to help participants prepare the national reports.

1.2.2 Provide training for assessing the status of national and regional observing systems. Expert presentations will focus on key issues and observing system needs. Discussion and exchange among participants will be an important element of each workshop.

1.2.3 Facilitate interaction among stakeholders. Climate Change Co-ordinators will be brought together with the representatives from National Meteorological and Hydrological Services (NMHSs) and others interested in climate observations and services

1.2.4 Provide workshop participants with a better understanding of opportunities and constraints for improving observing systems. The workshop will help participants define observing systems needs. Through guided discussion, participants will identify the principal regional observing system needs for the Action Plans. Interested potential donors will be invited to regional workshops to discuss both opportunities and constraints related to acquiring the resources to improve observing systems.

1.2.5 Develop workshop resolution. Workshop participants will be urged to formally agree to carry out actions leading to development of Action Plans to address priority observing system needs. The workshops will seek to have participants reach consensus on priorities to be addressed in regional Action Plans. Formal agreement, if attained, will generally be expressed in a workshop resolution. A draft resolution will be prepared and will be discussed and revised on the third day of the workshop.

Immediate Objective 2: Develop regional Action Plans for improving observing systems.

Development of regional Action Plans is the most important part of this project for improving observing systems. The regional partners will take the lead in developing the Action Plan for each region. The Action Plans will be developed at follow up meetings after each workshop is completed.

Output 2.1 Regional Action Plans prepared

This output corresponds to the ***third*** phase of the project strategy described in section C.

Activities

2.1.1 Initiate the development of regional Action Plans. Regional partners will take lead in the development of draft regional Action Plans. A small working group of about 12 people, selected to represent regional stakeholder interests, will meet twice to prepare the draft Action Plans. GCOS will encourage these meetings to take place as soon after the workshops as possible.

2.1.2 Finalise regional Action Plans. Draft regional Action Plans will be reviewed at the national level by workshop participants (stakeholders) and revised by regional partner if necessary. The draft

regional Action Plans will be circulated to give stakeholders an opportunity to comment on it and to improve the chances that it will eventually be implemented at the regional level. This process is expected to take 6 or more months. The risks and the longer-term sustainability of the project are further discussed in section F below.

2.1.3 Implementation of a regional Action Plan as a pilot. While the implementation of Action Plans is beyond the scope of this project, it is the ultimate goal. Therefore one Action Plan will be selected for implementation providing the funding sources can be identified. This step will ensure that the project is orientated towards Phase Four of the strategy.

F. Risks, Sustainability and Replicability

F1. Risks

38. A workshop alone will not be sufficient to improve observing systems. Action Plans need to be developed and actually implemented. The risk is that the process, once launched, could stall and the momentum to develop Action Plans may tail off once the workshop is over. This project is designed with activities to facilitate the development of Action Plans. The risk can be reduced, by engaging regional partners strongly motivated to take the lead in developing the Action Plans. Based on the experience of its first (PDF) workshops, GCOS has found that regions are eager to improve their observing systems for climate. The risk that Action Plans will not be developed is minimal if the requested resources are made available and suitable partner(s) have been selected.

39. Once the Action Plans have been developed, the key risk is that donors will not provide sufficient funds to implement the priority actions identified. However, this phase is beyond the scope of this project. Nonetheless, many developing countries will have significant difficulty coming up with the considerable resources required to purchase modern equipment, to train qualified personnel, to carry out day-to-day operations, and/or to improve infrastructure. Furthermore, there is no international mechanism at present to assist the poorest developing countries to meet their continuing operational costs. Here the GCOS mandate will assist countries for improving observing systems for climate. GCOS will appeal to developed countries to assist developing countries in undertaking necessary observing system improvements.

F2. Sustainability

40. *Capacity building*. The regional workshops will address sustainable activities by building capacity within national teams to identify and report on gaps and deficiencies in observing systems and to carry out further work on the national Action Plans. Parties will also be provided with updates of deficiencies by GCOS at least every two years. These analyses, including performance monitoring and feedback, are a key element of the design and implementation of GCOS.

41. *Consultative mechanisms*. In order to facilitate sustainability, existing consultative mechanisms will be used to follow up on the longer-term goals of the project. Among those available are: 1) the WMO Regional Association (RA) meetings held every four years. Many workshop participants will be members of RAs, and climate and observing system issues are always on the agendas of these meetings; 2) scheduled regional meetings that bring stakeholders together. In some regions annual meetings of subsets of stakeholders occur. For example, in the Pacific, an annual meeting of regional meteorological service directors is held. Observing system issues have been discussed at these meetings in recent years. GCOS will encourage the expansion of this concept at each regional workshop and in other fora; and 3) meetings of national GCOS co-ordinators. GCOS is currently developing a global network of national GCOS co-ordinators. Currently, the network is small but it will be expanded. Co-ordinators from developed countries can help identify resources for implementing Action Plans. A global network of co-ordinators can provide mutual support and help to focus attention on key global, regional, and national observing system needs.

42. *Funding.* In addition to the above, as part of developing Action Plans, attention will be paid to mobilising a consortium of funding organisations and donor countries that could contribute to implementation of the priorities identified in the Plans. A consortium member would generally fund that portion of the proposal that relates to its mandate.

F3. Replicability

43. Selected components of the PDF project will be replicated in other regions under the full project. These components are:

- *Workshop modules*: the core topics that have been identified and which remain relevant in all regions, for instance, the background presentation on GCOS and its mission, the training session to explain UNFCCC guidelines for national reporting on systematic observations.
- *Action Plans:* An approach to developing the Action Plans through a) analysis of the current state of observing systems in a region and b) prioritisation of needs that evolve from the need for data in impact, vulnerability, and adaptation analyses.

G. Institutional Arrangements

44. UNDP will serve as the GEF implementing agency to strengthen and develop linkages with other relevant projects. Active linkages will be possible between several UNDP-GEF projects, including enabling activities in all regions and the Regional Stage II Adaptation project for Central America, Mexico and Cuba. The National Communications Support Programme will actively work with WMO/GCOS to ensure that the synergies between climate change and WMO co-ordinators are strengthened.

45. The institutional structure consists of a Project Steering Committee, a Regional Workshop Advisory Committee, and Steering Committees (renamed Organising Committees) for each regional workshop. Advice will be sought from the GCOS Science Panels (i.e., the Atmospheric Observation Panel for Climate, the Ocean Observation Panel for Climate, and the Terrestrial Observation Panel for Climate).

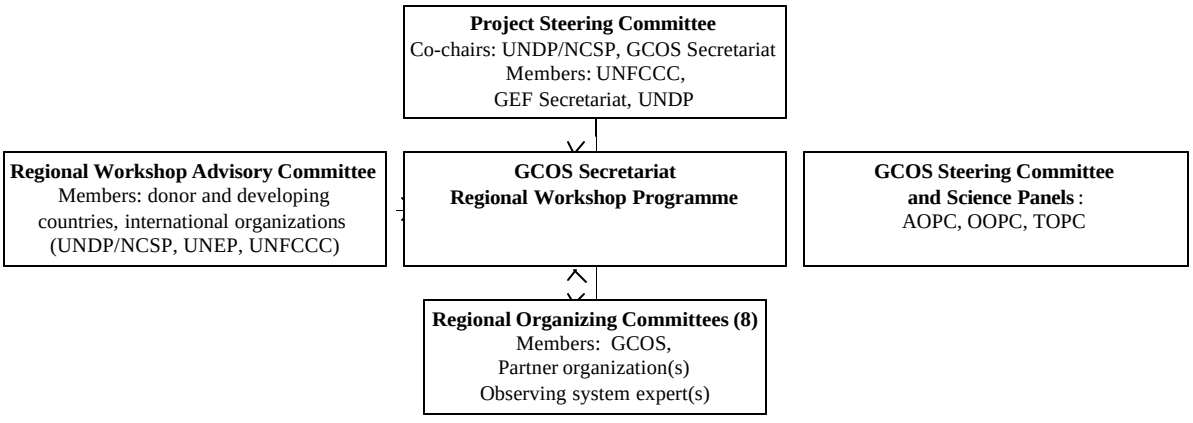

Figure 1 – Institutional Structure

G1. Project Steering Committee

46. The project will be carried out by the GCOS Secretariat under the guidance of a Project Steering Committee co-chaired by the UNDP/NCSP and GCOS Secretariat. The Project Steering Committee will be composed of representatives from the UNFCCC, the GEF Secretariat, the UNDP, and GCOS. This committee is the oversight body for the project. This group will conduct its business through email and by teleconference.

G2. Regional Workshop Advisory Committee

47. The Regional Workshop Advisory Committee (RWAC) will provide guidance on the project implementation. The committee was formed during the PDF Phase of the project and will continue to serve during the project. The RWAC met once during the PDF phase and will meet at least once during the Full Project Phase. In addition to face-to-face meetings, Committee work will be accomplished mainly by email. The RWAC will advise GCOS and the Project Steering Committee on strategic issues, including maximising the usefulness of workshops, improving planning efficiency, raising additional funds, and selecting appropriate partners. Current members are listed in Annex F, and the report of the meeting held during the PDF phase is contained in Annex G. Representative of the World Bank project, 'Mainstreaming Adaptation to Climate Change" in the Caribbean will participate in the organization of the project in this region. For the project, UNDP will invite several climate change co-ordinators to serve on the RWAC.

G3. Regional Organising Committees

48. A Regional Organising Committee will also be established for each of the 8 regional workshops in the full project. Committees will typically consist of GCOS staff, representatives from partner organisations, and one to three regional observing system experts. These committees would have the first-order responsibility for organising and implementing the regional workshops, including such activities as establishing the agenda, selecting participants and experts, issuing invitations, arranging travel, reserving meeting facilities, etc. UNDP will solicit nominations from climate change co-ordinators in each region to serve on regional organising committees.

G4. GCOS Steering Committee and Science Panels

49. GCOS obtains its guidance from a Steering Committee of individuals with strong scientific credentials and operational experience. In addition, the three GCOS Science Panels meet once each year. GCOS will review the status of the project at Steering Committee and Science Panel meetings and seek advice from panel members. Between meetings, GCOS will have access to the chairmen and/or individual members as necessary.

H. Monitoring, Evaluation and Dissemination

50. The Project Steering Committee (PSC) will be responsible for monitoring and supervising the implementation of the project as a whole. The Project Co-ordinator will prepare progress reports after each workshop in addition to the official progress report. These reports will be available no later than three months after the completion of each workshop. At least one non-GCOS member of the PSC will be encouraged to attend each regional workshop in order to acquire first-hand, independent knowledge of the conduct and utility of the workshops. The Regional Workshop Advisory Committee (RWAC) will also receive copies of progress reports and workshop reports and will be asked to consider these when advising the Project Co-ordinator on future workshops. A mid-term review will be conducted after the fourth workshop.

51. Some indicators of progress/success (also see Table 9) are the following:

- Have workshop participants formally agreed to develop Action Plans and prepare regional summary reports on observations?
- How many countries have submitted national reports to the UNFCCC?
- How many Action Plans have been prepared and approved?

With reference to the implementation of a pilot Action Plan, additional indicators are:

- Have the Action Plans been implemented?
- Has the decline of observing systems been arrested?

52. A longer-term indicator of success is the degree to which potential donor countries and organisations have made commitments to support improvements in observing systems in the region, and the actual improvements made by the regions with these funds. By the end of the project, it is expected that the first few regions in which workshops have been held will be implementing some priority projects. By mid-2004, the GCOS Secretariat expects to complete a second assessment of the adequacy of global climate observing systems as requested by the COP. This report will provide an indication of the progress developing countries are making in systematic observation, as the regional workshop and follow-up process is intended to feed into the development of this new assessment. With the completion of the 10th workshop, a Final Project Report will be prepared and submitted to the Project Steering Committee.

I Legal Context

53. The following types of revisions may be made to this project document with the signature of the UNDP/GEF Executive Co-ordinator only, provided he is assured that the other signatories of the project document have no objections to the proposed changes.

(a) Revisions in, or addition of, any of the annexes of the project document (with the exception of the Standard Legal Text for non-SBAA countries which may not be altered and the agreement to which is a precondition for UNDP assistance);

(b) Revisions which do not involve significant changes in the immediate objectives, outputs or activities of a project, but are caused by rearrangement of inputs agreed to or by cost increases due to inflation; and

(c) Mandatory annual revisions, which re-phase the delivery of agreed, project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility.

J. Project Financing

54. The cost of this project has been estimated at US$ 2,598,064 in total, of which the GEF is asked to contribute costs of US$ 1,545,264 (including PDF costs of US$ 324,000). These funds will be used to target the participation of developing countries and for capacity building to ensure that concrete outputs are produced. This proposal requests approximately 56 percent support for the regional workshops and for post-workshop follow-up activities. The regional partners are expected to seek funding to implement the Action Plans as these activities are beyond the project.

55. Being global, the project requires a complex fundraising strategy. GCOS is raising funds from three types of sources, in addition to requested GEF financing. These include support from national agencies of UNFCCC Parties, GCOS sponsors and other international agencies, and in kind support from national and international agencies and GCOS regional partners.

56. The major source of non-GEF funding will be from donor countries. In general, donors require that proposals be prepared for each specific workshop rather than an omnibus proposal for the project as a whole. Such donors work on an annual budget and often specify that funds be used in the year they are contributed. The United States expects to provide about $25,000 for each workshop in the project. Other donors include Japan (for a workshop in Southeast Asia), Canada (for the Caribbean/Central America workshop), Belgium (for a West Africa workshop), and the Netherlands (for a South America workshop). Both the United States and Australia recently contributed an additional $50,000 for follow-up activities in the Pacific Island region.

57. The GCOS sponsors are WMO and UNEP. WMO, as the host of the GCOS Secretariat, is contributing direct support to the project. UNEP has contributed resources to the PDF project and will continue to provide support for the project. Other international agencies have pledged support include EUMETSAT for a West Africa workshop.

58. In kind contributions are significant. WMO is providing staffing, management and administrative support to the project through the GCOS Secretariat. Within each region the regional partners will be contributing staff time, use of facilities, etc. In some regions (e.g., Canada for the Caribbean/Central America region), donor countries will also be providing similar in kind support.

59. Table 4 shows available funding and expected contributions to the project from donor countries and organisations. Over the lifetime of the project, GCOS expects to reach the matching-fund requirements of $815,000. This assessment is based on a conservative evaluation of likely contributions and of our ability to raise contributions to date. Table 5 shows some of the potential donors for each region.

Table 4. Available Funding and Likely Contributions ($US)

Workshop	Cash contribution	Likely cash contribution	In Kind** assistance	Total
General	WMO – 25,000 UNEP – 45,000 GCOS -- 35,000	CIDA –for oceanographers	WMO Regional partners	105,000+
Caribbean & Central America	US – 25,000	Canada Finland	Canada	25,000+
South Asia – Indian Ocean		US – 25,000 Australia	India	25,000+
Southeast Asia	Japan – 10,000	US – 25,000		35,000+
Central & Eastern Europe		US – 25,000 Germany UK	Germany	25,000+
West Africa		US – 25,000 Belgium EUMETSAT France		25,000+
Mediterranean Basin		US – 25,000		25,000+
South America		US – 25,000 Netherlands		25,000+
Central & Eastern Asia		US – 25,000		25,000+
Total	**140,000**	**>175,000 ***		**>315,000 *****

* If all countries and organisations that have made pledges were to give an average of $25,000, that would add an extra $250,000.
** In Kind assistance is difficult to estimate. GCOS has estimated an average of $10,000 for each regional partner and country that has made a promise plus $80,000 for WMO. This would add $190,000.
**Adding the aforementioned categories ($315,000 + $250,000 + $190,000) brings the total to $755,000. The balance of about $60,000 needed in addition to GEF funding to reach the total budget required ($2 million) would be sought from additional donors over the course of the project.

Table 5. Potential Donor Countries and Regional Partners

Region	Potential Donor Countries, Organisations *	Potential Regional Partners
Pacific Islands (Completed)	Australia, New Zealand, US	SPREP, SOPAC, WMO Sub-regional Office
Eastern and Southern Africa (Completed)	GEF, UNEP, WMO	DMC(N), DMC(H), WMO Sub-regional Office
Caribbean and Central America	GEF, Canada, US, Finland, IADB	CMO (CARICOM), WMO, OAS, PAHO, CRRH, IAI
South Asia-Indian Ocean	GEF, Japan, UK, ADB, IDB, US,	TMRC, ESCAP, Indian Met Dept
Southeast Asia	GEF, Japan, Australia, US, France, ADB	ASEAN, ASMC
Central and Eastern Europe	GEF, Germany, France, UK, European Union	DWD
West Africa	GEF, France, Belgium, European Union, EUMETSAT	ACMAD
Mediterranean Basin	GEF, France, Italy, European Commission	
South America	GEF, US, UK, Canada, Spain, IAI, IADB	ERFEN (CPPS), IAI
Central and East Asia	GEF, US, European Union	

*Cash and/or in-kind contribution

K. Budget

60. The following tables present the full project budget by output category and on a per workshop basis.

Table 6. Budget: Workshop and Project Management Costs

Description	GEF	WMO Members & GCOS Sponsors	WMO	Total
Direct Workshop Costs				
1. Caribbean and Central America	135,400	36,400	25,000	196,800
2. South Asia—Indian Ocean	106,900	47,100	0	154,000
3. Southeast Asia	102,300	44,900	0	147,200
4. Central and Eastern Europe	109,100	48,300	0	157,400
5. West Africa	124,800	31,100	25,000	180,900
6. Mediterranean Basin	120,200	53,900	0	174,100
7. South America	104,400	46,000	0	150,400
8. Central and Eastern Asia	97,700	42,600	0	140,300
Total Workshop Direct Costs	**900,800**	**350,300**	**50,000**	**1,301,100**
Project Management Costs				
Workshop Co-ordinator	100,000	200,000	100,000	400,000
GCOS Director and Admin Support	0	0	80,000	80,000
Reporting	0	10,000	10,000	20,000
Supervision and Monitoring	120,000	0	0	120,000
Regional Workshop Advisory Committee	10,000	10,000	0	20,000
Final Report	0	0	5,000	5,000
Total Management Costs	**230,000**	**220,000**	**195,000**	**645,000**
Subtotal Project Costs	**1,130,800**	**570,300**	**245,000**	**1,946,100**
WMO Admin Costs (8%) for GEF grant	90,464	0	0	90,464
PDF (GEF)	324,000			324,000
PDF (GCOS)	237,500			237,500
Total Proje ct Costs	**1,782,764**	**570,300**	**245,000**	**2,598,064**

Table 7. Workshop Budget by Output Category

	Caribbean & Central America	South Asia – Indian Ocean	Southeast Asia	Central & Eastern Europe	West Africa	Mediterranean Basin	South America	Central & Eastern Asia	Total
1. Preparation of Workshop and Training Materials (Output 1.1)									
Materials preparation	17500	17500	17500	17500	17500	17500	17500	17500	140000
Local organisation support	12500	12500	12500	12500	12500	12500	12500	12500	100000
Translation	6900	0	0	0	4000	4000	4000	0	18900
RW Advisory Committee	0	10000	0	0	10000	0	0	0	20000
2. Workshops (Output 1.2)									
Participant costs	112200	85000	78200	88400	102000	95200	71400	71400	703800
Interpretation	8700	0	0	0	5900	5900	5900	0	26400
3. Follow-up Activities (Output 2.1)									
Follow-up meeting costs	34000	34000	34000	34000	34000	34000	34000	34000	272000
Materials Preparation	5000	5000	5000	5000	5000	5000	5000	5000	40000
4. Project Closure									
Final Report	0	0	0	0	0	0	0	5000	5000
Subtotal Workshops	**196800**	**164000**	**147,200**	**157400**	**190900**	**174100**	**150300**	**145400**	**1326100**

Table 8. Workplan for workshop preparatory and follow-up activities (workshops come at the end of each planning period.)

Region	2001	2002	2003	2004	2005
Pacific Islands – Complete					
Follow-up					
Eastern & Southern Africa					
Follow-up					
Caribbean & Cent. America					
Follow-up					
South Asia-Indian Ocean					
Follow-up					
Southeast Asia					
Follow-up					
Eastern and Central Europe					
Follow-up					
West Africa					
Follow-up					
Mediterranean Basin					
Follow-up					
South America					
Follow-up					
Central and East Asia					
Follow-up					

Table 9. Project Planning Matrix

Project Strategy	Verifiable Indicators	Means of Verification	Assumptions and Risks
Project Development Goal: Improve observing systems for climate change in eight regions.		.	Adequate funding from donors will be available
Immediate objectives (Project outcomes) 1. Build national capacity, through training workshops, to report on systematic observation in accordance with UNFCCC guidelines. 2. Develop regional Action Plans for improving observing systems.	National reporting on observing systems enhanced and improved in X years time. This improvement can be measured by comparing the number and quality of reports presented with the base year (e.g. before and after the project.)	Survey amongst national monitoring centres and institutions involved. National reports. Regional summary report prepared as input to Action Plans. Monitoring data from GCOS and other monitoring centres	National governments will support the development of regional Action Plans. Regional partners will commit to prepare regional Action Plans
Outputs: 1.1 Workshop organisation and materials completed. 1.2 Climate change teams able to prepare national reports on systematic observation as the basis for developing a strategy for regional Action Plans	10 regional workshop held. Number of national experts trained and familiar with climate reporting increased by X% at the end of the project.	Number of workshops organised and count of participants. Number and quality of training material developed and disseminated. Survey amongst trained experts. National reports submitted to UNFCCC.	National experts are fully involved and supported by their national governments.
2.1 Regional Action Plans prepared.	Regional priorities identified and agreed in workshop Resolution. Number or regional Action Plans completed	Copies of Action Plans submitted to GCOS.	

Annex 1. STAP Review

CAPACITY BUILDING FOR OBSERVING SYSTEMS FOR CLIMATE CHANGE

Review of Project Brief
By W. J. Maunder

A. KEY ISSUES

1. SCIENTIFIC AND TECHNICAL SOUNDNESS OF THE PROJECT

Overall, it is an excellent proposal. In particular, my main concern that special heed must be taken of the significant inadequacies of the current climate observing systems in most parts of the world is highlighted. For example, the data given in Table 2 that only 26% of the current 155 climate observing stations in Africa provide more than 50% of the reports that they should is emphasized.

2. IDENTIFICATION OF THE GLOBAL ENVIRONMENTAL BENEFITS OF THE PROJECT.

The global environmental benefits of the project are substantial in that the enhanced climate observing systems that would be developed would provide, for the first time, both real-time and relatively comprehensive climate observations from most parts of the world. The availability of such observations will allow the governments of the world, and the policy makers within each country, both government and non-government, to adapt more readily and with more credibility to the adverse climatic variations and climatic change that will inevitably take place during the next century. Essentially, it is imperative to understand that if we do not know what has happened, is happening, and will happen to the climate, planning for the impacts of any significant climate variation and climate change is very difficult. The proposed project will undoubtedly have a high benefit to cost ratio.

3. HOW DOES THE PROJECT FIT WITHIN THE CONTEXT OF THE GOALS OF GEF, AS WELL AS ITS OPERATIONAL STRATEGY AND THEPROVIDSIONS OF THE RELEVANT CONVENTIONS

In terms of the relevant conventions, it is clear that various conferences have made a strong call for an improved climate observing system. For example, as noted in paragraph 3 of the Project Brief, it is stated that the issue of the inadequacy of the state of the climate observing systems was "… addressed again in 1999 when COP urged Parties to address deficiencies in climate observing networks and invited them, in consultation with the Global Climate Observing System (GCOS) Secretariat, to identify the capacity-building needs and funding required in developing countries to enable them to collect, exchange, and utilize data in pursuance of the Convention (Decision 5/CP.5). This decision also invited GCOS, in consultation with relevant regional and international bodies, including the Global Environment Facility (GEF), to organise regional workshops on observing system issues and urged Parties to actively support and participate in these workshops".

The goals of the GEF – as described in the Annex on page A-53 under the heading "The Global Environmental Facility and Systematic Observations" is that "The GEF is the designated 'financial mechanism' for the UNFCCC and receives guidance form the COP on programmes and projects eligible for funding. Funds provided through the GEF for climate change purposes have mainly been in the areas of energy conservation, renewable energy, and low greenhouse gas emitting technologies. However, through its Decision 2 in November 1998, COP4 decided that the GEF should provide funding to developing country Parties to, inter alia:

- Build capacity for participation in systematic observation networks to reduce scientific uncertainties relating to the causes, effects, magnitudes and timing of climate change (1c); and

- Support capacity building for facilitating national/regional access to the information provided by international centers and networks, and for working with those centers for the dissemination of information, information services, and transfer of environmentally sound technologies and know-how in support of the Conventions (1g (iv)).”

Clearly, the GEF has both the authority and power to support the project. Accordingly, it is considered that the use of GEF funds would be highly appropriate for the proposed project.

4. REGIONAL CONTEXT

All developing regions of the world are included in the objectives of the project in a time frame which allows adequate feedback and experiences to be gained. An important feature of the project is that the first workshop for the Pacific Islands has already been completed through the financial support of WMO, UNEP, USA, and Australia. Experience gained from this workshop provides an excellent basis for the projects that are planned in the other regions of the world. Annex K provided details of this Pacific Islands workshop. A second workshop, for Eastern and Southern Africa, is planned for October 2001. Several other activities have been completed in the PDF phase of the project – see Annex D.

5. REPLICABILITY OF THE PROJECT (i.e. THE ADDED VALUE FOR THE GLOBAL ENVIRONMENT BEYOND THE PROJECT ITSELF)

The outputs of the proposed project, provided they are adequately funded, will provide added value to understanding the global climate system in a way which is not possible at the moment. Currently, although there are reasonably good climate observing systems in many parts of the developed world, there is a clear lack of such systems in large parts of the developing world. The project outputs would undoubtedly provide a much better basis for hemispheric and global climate predictions and understanding of the climate systems throughout the world, whether these related to geographical regions or the more political regions of the world.

An additional substantial benefit of the project would be the improved recovery of historical climate data. Regrettably, much of the historical climate data has already been lost or destroyed or deteriorated to such an extent – through the lack of good storage and archiving facilities – that it is almost impossible to use.

B. CONCLUSIONS AND RECOMMENDATIONS

In an invited Scientific Lecture on “Representativeness, Data Gaps and Uncertainties in Climate Observations” to the 13th WMO Congress held in Geneva in 1999 (see WMO Publication WCDMP – No. 44), Chris Folland in discussing key climate networks states that “The overall impression is of a steady increase in the spatial coverage of available data …until the last 20 years or so, when most networks sadly show a decline. This is particularly evident for the radiosonde network. The recent decline in data coverage … is at variance with articles 4 and 5 of the 1992 UN Framework Convention on Climate Change (UNEP, 1998). Article 5b (of this Convention) on “Research and Systematic Observation” states “In carrying out their commitments … the Parties shall support international intergovernmental efforts to strengthen systematic observation and national scientific and technical research capacities and capabilities, particularly in developing countries, and to promote access to, and the exchange of, data and analyses thereof obtained from areas beyond national jurisdiction.”

Folland comments further that “The extent to which we succeed with this requirement directly affects the capability of the IPCC to provide advice to governments, particularly for monitoring, detecting and attributing climate change and evaluating models that predict future climate.”

I fully endorse these comments by Folland, and they highlight the very considerable concern among the climate community that it is imperative to first stabilize, and second enhance, the climate observing systems -- particularly in developing countries – in order that the climate variations, and in particular the climate change that will inevitably occur during our lifetime, and the lifetime of our children, will be better understood and acted upon from both scientific and economic frameworks, as well as the social, health and political frameworks. The outputs of the Project clearly address this issue, and it is my firm recommendation that funding from the GEF be provided in order that the outputs of the Project can be realized.

W. John Maunder
21 Manuwai Drive
Matna, Tauranga,
New Zealand

20 September 2001

Annex 2. Response to STAP Review

The reviewer highlighted some of the most relevant global benefits of the project. In order to enhance the global significance of the project, the Advisory Committee will:

- Emphasise the recovery of historical climate data in developing countries as a means to improve hemispheric and global climate predictions.
- Stabilise climate-observing systems as a first step to improve climate data in developing countries.
- Strengthen information and experience exchange among the different sub-regions.
- Involve key researchers in developed and developing countries.
- Facilitate access to and exchange of data to strengthen national capacities to monitor climate change.