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INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (of UNESCO)

REPORT ON IOCARIBE EVALUATION

This document has been prepared by the IOC Consultant Mr Rafael Steer-Ruiz, in consultation with the Officers of the Sub-Commission and after visits, responses to questionnaires and interviews with experts from Member States. It is provided to delegates to the Twenty-ninth session of the IOC Executive Council.

¹

Executive Summary also in Spanish.

TABLE OF CONTENTS

	<u>page</u>
EXECUTIVE SUMMARY	(iv)
RESUMEN EJECUTIVO	(x)
1. INTRODUCTION	1
2. THE STRUCTURE OF IOCARIBE	2
2.1 TERMS OF REFERENCE	2
2.2 ELEMENTS OF THE SUB-COMMISSION	3
2.2.1 Member States	3
2.2.2 Programmes and Groups of Experts	3
2.2.3 Regional Secretariat	4
2.3 THE GOVERNING BODIES OF THE SUB-COMMISSION	4
2.3.1 The Sessions	4
2.3.1 IOCARIBE Officers	5
2.4 INTERACTIONS WITH OTHER ORGANISATIONS IN THE REGION	5
2.4.1 Governmental organisations	5
2.4.2 Non-Governmental Organisations	6
2.4.3 End Users	6
3. MEMBER STATES	6
3.1 THE REGION	6
3.2 MEMBERSHIP	6
3.3 PARTICIPATION	7
3.4 EXTRA-REGIONAL STATES	8
3.5 NATIONAL FOCAL POINTS	9
3.6 CONCLUDING REMARKS	10
4. IOCARIBE PROGRAMMES AND SERVICES	11
4.1 PROGRAMMES FRAMEWORK	11
4.1.1 Global and regional programmes	11
4.1.2 IOCARIBE's Medium Term Plan (MTP)	11
4.2 OCEAN SCIENCES PROGRAMMES	12
4.2.1 Ocean Processes and Climate (OPC)	12
4.2.2 Ocean Sciences in Relation to Living Resources (OSLR)	12
4.2.3 Ocean Science in relation to Non-Living Resources (OSNLR)	13
4.2.4 Marine Pollution, Research and Monitoring (MPRM)	14
4.2.5 The International Bathymetric Chart of the Caribbean Sea and Gulf of Mexico (IBCCA)	14
4.2.6 Concluding remarks	15

IOC/INF-1043

page (ii)

	<u>page</u>
4.3 OCEAN SERVICES PROGRAMMES	16
4.3.1 Regional Components of GLOSS and IGOOS	16
4.3.2 Regional Components of GOOS	16
4.3.3 International Oceanographic Data Exchange - IODE	16
4.3.4 Marine Information Management - MIM	17
4.3.5 Concluding Remarks	18
4.4 TRAINING, EDUCATION AND MUTUAL ASSISTANCE (TEMA)	18
 5. REGIONAL SECRETARIAT	 19
5.1 HEADQUARTERS	20
5.2 BUDGET	20
5.2.1 Secretariat running expenses	21
5.2.2 Programmes operational costs	21
5.3 STAFF	21
5.4 DEVOLUTION AND CENTRALIZATION	21
5.5 CONCLUDING REMARKS	22
 6. DISCUSSION AND RECOMMENDATIONS	 22
6.1 MEMBER STATES	22
6.1.1 Improve representation of dependent territories	23
6.1.2 Commitment when accessing membership	23
6.1.3 National Focal Points (NFP) and National Oceanographic Commissions (NOC)	23
6.1.4 Assessment of States participation and benefits	23
6.1.5 Extra-regional States participation	24
6.1.6 The “grass-roots” level	24
6.1.7 Collaboration with industry and policy makers	24
6.1.8 Meet the needs of Member States: National Marine Policy	25
6.2 REGIONAL PROGRAMMES	25
6.2.1 Support to regional and national initiatives	26
6.2.2 Resource identification in the early states of programme formulation	26
6.2.3 Mechanism for effective programme leadership and management	26
6.2.4 Members of Groups of Experts and Project Steering Groups	26
6.2.5 Systematic and on-going procedures for programme accountability	27
6.2.6 The need for a TEMA strategy	27
6.3 REGIONAL SECRETARIAT AND RUNNING OF THE SUB-COMMISSION	27
6.3.1 Continuity and sufficient qualified staff	28
6.3.2 Officers as “Board of Directors”	28
6.3.3 Secretariat running expenses	28
6.3.4 Fund raising for programmes and projects	29
6.3.5 Effective regional management decentralization	29
6.3.6 Communication and information flow between the elements of the Sub-Commission and end users:	30
A Marine Information Management System	

7. CONCLUSIONS

31

ANNEXES

- I. Objectives, Purpose and Methodology of the Evaluation**
- II. List of States and Territories of the Caribbean and Adjacent Regions**
- III. List of States According to their membership and their Activity in IOCARIBE**
- IV. Participation of States to IOC-IOCARIBE Events, by Programmes and States**
- V. The Coastal Pollution of the Caribbean and Adjacent Regions**
- VI. IOCARIBE Secretariat Proposed Database**
- VII. Map of the Caribbean Sea and Adjacent Regions**

BIBLIOGRAPHY

IOC/INF-1043

page (iv)

EXECUTIVE SUMMARY

In 1993 the General Conference of UNESCO approved the Evaluation Plan for 1994-1995 and it included IOC and Marine-science Related Issues. The IOC Assembly requested the evaluation to: *“focus on the activities implemented in the Caribbean and adjacent regions (IOCARIBE) . . . More specifically the evaluation will address the issues of the relevance, the efficiency and the impact of the Organisation 's activities regarding the sustainable development of the Small Island Developing countries in the region .“*

This evaluation is carried out with the aim of providing an opportunity to make choices, learn from the experience and provide explanations, in light of the achievements made since the establishment of IOCARIBE in 1982 and taking into account the expectations of Member States and participating organisations. The efficiency of programme implementation by the IOC and IOCARIBE Secretariats is also considered in order to introduce managerial improvements, as well as to advise on any changes in programme design and implementation that may lead to an enhanced response to Member States' needs.

BACKGROUND,

IOCARIBE was first created as an experimental regional Association of IOC Member States in 1975, twenty years ago. After an evaluation in 1982, the IOC Assembly, upon request by regional Member States and in view of the successful results of the Association, approved the creation of a regional Sub-Commission, the first of its kind.

The terms of reference for regional Sub-Commissions state their basic functions as follows: *“Regional Sub-Commissions are intergovernmental subsidiary bodies of IOC, responsible for the promotion, development and coordination of the marine scientific research programmes, the ocean services, and related activities, including Training, Education and Mutual Assistance (TEMA) in their respective regions. In establishing their programmes they should take into account the specific interests and needs of the Member States in the region. In carrying out the above work, it is mandatory that regional Sub-commissions collaborate closely with IOC's subsidiary bodies concerned with global activities, within their fields of competence.”*

The main elements of the Sub-Commission's structure are: Member States, Programmes/Projects, and the regional Secretariat. Within them, there may be other actors such as National Focal Points, national institutions and experts, etc. There are also the Governing bodies and Officers of the Sub-Commission. Each element interacts with the others in certain ways, and the Sub-Commission in turn interacts with other organisations in the region.

MEMBER STATES,

Member States are the constituency and the most important element of the Sub-Commission, as they are also the beneficiaries of the programmes. The IOCARIBE region consists of twenty eight independent States, including France, The Netherlands and UK with their Territories and Departments (eighteen all together). There are great differences in size, wealth, ethnic makeup, language and political situation, among the countries in the region. But there are also many issues common to all of them. One of the most important is the shared use and relationship with the sea area of the Caribbean, Gulf of Mexico and adjacent regions.

For the purpose of this evaluation the definition of Small Island Developing States (SIDS), introduced in Agenda 21 of UNCED, was enlarged to comprise all the island States, Departments and Territories. Furthermore, it introduces for the first time the concept of Small Isthmus Developing States (SIDS) for the countries in the Central America isthmus with similar geographical (land to sea ratio) and socio-economic characteristics.

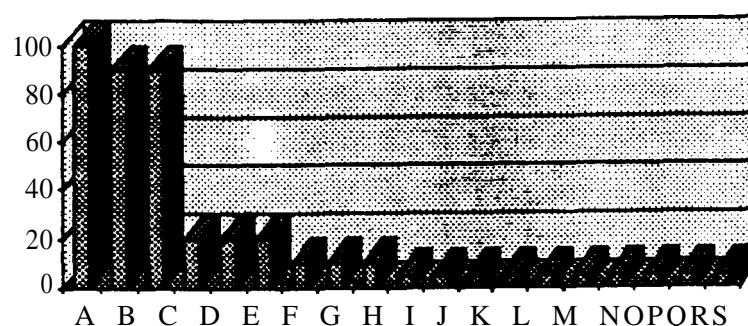
Twenty one (21) of the twenty eight (28) States in the region are Member States of IOCARIBE. But membership is not synonymous with participation. Only twelve of them are considered “active”, and not all to the same degree.

There are sixteen (16) either "inactive" Members or non-Members States in the region, equivalent to 57% of the 28 independent States. It is important to note for the objective of this evaluation, that over 90% of them are SIDS.

However, looking at IOCARIBE's activities in relation to population, active Member States comprise 84% of the region's population. This amounts to a good impact of the Sub-Commission's activities in the region as a whole.

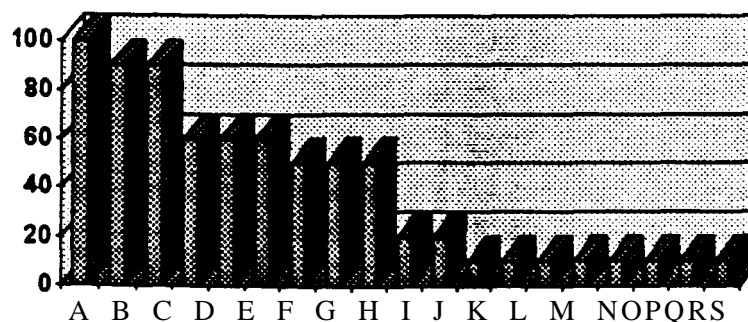
The general perception, based on data available, questionnaires and a number of interviews, was that large and medium sized States (Colombia, Cuba, Mexico, USA, Venezuela) which represent three quarters of the region's population had been actively involved and profited the most from IOCARIBE. Whereas the smaller States, who may have needed the organization more, have not participated and consequently have not benefited from the process.

The following graphs represent in a general way the situation of the IOCARIBE region at two different times: 1975 when IOCARIBE Association was initially established, and 1995 at the time of this evaluation. Values of marine science capacity are relative to the most developed country (100) in the region, and they are only indicative.



□ RELATIVE MARINE SCIENCES CAPACITY OF MEMBER STATES -1976

Initially only few developed countries (some with the capital out of the region) had a high capacity in marine sciences. Most of the States in the region had a very low level of expenditure in scientific research at that time.



■ RELATIVE MARINE SCIENCES CAPACITY OF MEMBER STATES -1995

After participating in IOCARIBE programmes, and because of the TEMA component in some of them, several States increased substantially their endogenous capacity and approached or reached levels of self sufficiency in marine sciences. IOCARIBE also increased the awareness in those countries on the importance of having a national policy for development of marine sciences. The general result is that there now exists in the region a group of countries which have become a "medium class" in relation to marine science capability. Some of them have even offered technical assistance and co-operation to less developed countries in the region.

Unfortunately, States in the right hand side of the Graphs are mostly SIDS which have not participated in IOCARIBE programmes.

IOC/INF-1043

page (vi)

The evaluation found some possible reasons for the lack of participation of some Member States. They are:

- a) Lack of participation of a single mother State eliminates in a sweep a number of dependent Territories/Departments.
- b) Membership only requires an intention letter; this generates Members but not enough commitment.
- c) Not all States formally appointed National Focal Points, at the appropriate level with capacity to mobilise national institutions and influence political decisions.
- d) Not all States have a National Oceanographic Commission to co-ordinate internal institutions and experts in activities related to IOC and IOCARIBE.
- e) There is not an information system in place to constantly assess Member States participation and generate feed-back to beneficiaries.
- f) Membership is open to all IOC Members, but in practice only regional States have participated.
- g) Traditionally IOCARIBE has not included NGOs in its working plans.
- h) Collaboration with end users, industry and policy makers, has not been carried out to a significant degree.

REGIONAL PROGRAMMES.

IOC Regional Sub-Commissions are responsible for the promotion, development and cooperation of the Commission's marine scientific research programmes, ocean services and related activities, including TEMA and capacity building. In doing so, they should take into account the specific interests and needs of Member States in the region.

IOCARIBE approved a Medium Term Plan (MTP) for the period 1990-1995, which was revised and updated in 1993. It had the same structure as the IOC programmes at the global level, though emphasis was placed on implementing the regional components of global programmes.

The major programmes included in the MTP are:

- | | |
|-----------------|--|
| Ocean Sciences: | Ocean Processes and Climate (OPC)
Ocean Sciences in relation to Living Resources (OSLR)
Ocean Sciences in relation to non-Living Resources (OSNLR)
Marine Pollution, Research and Monitoring (MPRM)
International Bathymetric Chart of the Caribbean (IBCCA) |
| Ocean Services: | Regional components of GLOSS and IGOSS.
Regional component of GOOS.
International Oceanographic Data Exchange. (IODE)
Marine Information Management. (MIM) |

The degree of success of these programmes is diverse and depends of many factors. While some achieved a high success and promoted the growth of knowledge and information, others never went beyond the formulation phase.

Some problems found in relation to programme implementation are:

- a) Although well intentioned, the MTP was found to be financially unrealistic, and it was not possible to obtain all the funds required for its successful implementation.
- b) Global components outweigh regional and national originated projects.
- c) Not all programmes have a Group of Experts nor a Steering Group and Project Leader for their guidance and control.
- d) Members in Groups of Experts not always met qualifications and continuity requirements.
- e) Lack of accountability for output and results; lack of measurable indicators and success criteria in the formulation phase of the programme.

TRAINING, EDUCATION AND MUTUAL ASSISTANCE.

TEMA is required to be an integral part of all IOC and IOCARIBE programmes, and is a key element for their success. Assistance provided to active Member States in this context has been important for improving their national capabilities in marine sciences. For those developing countries in the region eager to build up their capacity, such cooperation proved to be a significant source of self development. Regional programmes provided excellent opportunities to foster transfer of science and technology.

Programmes such as CARIPOL owe their success to a large number of training activities in their support. However, the lack of funding has prevented some other programmes of being so successful, and no broad strategy has been defined, so TEMA is only occasionally implemented.

REGIONAL SECRETARIAT AND RUNNING OF THE SUB-COMMISSION.

The regional Secretariat is located in Cartagena de Indias, Colombia, by means of a headquarters agreement between UNESCO and the Colombian Government duly signed and ratified by Congress. The stability of the Secretariat is a positive factor, and the facilities provided are acceptable and enjoy reasonable good conditions for the functioning of the office. The budget for running the office is provided by both the host Government and IOC-UNESCO.

When the regional Secretariat was established, IOC-UNESCO provided a P-5 Senior Assistant Secretary for IOCARIBE, through the temporary relocation of one existing post from IOC, Paris. The post was transferred back to Paris in 1994 and has not been replaced in the region. The duties of Secretary for IOCARIBE are currently covered by a consultant on short time contract paid by IOC.

Some donor countries have supported seconded experts to the regional Secretariat, but currently there is no expert to assist in the implementation and management of regional programmes. Part time support is provided from NOAA-SEFC (Miami), and from IOC by one part-time consultant.

In addition to the lack of a post for the regional Secretary and staff shortage, some of the most noticeable problems faced by the regional Secretariat are:

- a) The lack of an intercessional "Board of Directors" for guidance and advice.
- b) Imbalance between devolution and centralisation.
- c) Lack of administrative autonomy to manage funds and contributions for the Sub-Commission.
- d) Irregular flows of funds from IOC-UNESCO for the running expenses.
- e) Lack of a regional system for processing and retrieval of information, both managerial and scientific.

RECOMMENDATIONS.

This evaluation is to focus on the activities implemented by IOCARIBE, and address the issues of the relevance, the efficiency and the impact of the Organisation. Its purpose is to improve programme implementation as well as design. Evaluation is an integral part of the programme management cycle, and should not only judge the past but lead to action and seek remedies for the future.

Evaluating the impact means establishing to what extent programmes' results are having positive or negative effects on the needs they were designed to satisfy. Despite the shortcomings, the impact of IOCARIBE in the region as a whole has been clearly positive over its existence, as was shown before, but only those Member States which participated benefited from that impact.

Most of the SIDS unfortunately did not participate and therefore did not profit as much, But the good experience of those States who took advantage of the Sub-Commission and its activities can be reproduced for those which

IOC/INF-1043

page (viii)

Most of the SIDS unfortunately did not participate and therefore did not profit as much. But the good experience of those States who took advantage of the Sub-Commission and its activities can be reproduced for those which still have not received these benefits.

This evaluation provides a set of short-term recommendations and mid-term strategies which, if applied, should bring the Sub-Commission to a streamlined operational level to fulfil its original goals and fill the gap left by the lack of participation. It is important to note that all of the problems identified are related only to the way existing mechanisms and processes are implemented, and the actions recommended are all viable within the current terms of reference of IOC and IOCARIBE.

Beyond those actions, the current situation may require the Sub-Commission to review its strategies and goals, and adapt them to suit the needs of Member States, for today and for the future. The long-term regional priorities and policies, which should evolve to adapt to time and circumstances, must be established by participating Member States.

RECOMMENDED SHORT TERM ACTIONS

On Member States and other organizations:

- a) ***Membership in IOCARIBE should include a commitment to carry out activities and make financial and/or other voluntary contributions to the Sub-Commission's programmes.***
- b) ***NFPs should be formally appointed by a high government authority of Member States. The most appropriate NFP is the Chairman or Head of a National Oceanographic Commission.***
- c) ***A network of NFPs should be established in the region.***
- d) ***Member States should appoint a Local Focal Point for each dependent Territory in the region, and each Territory should have the opportunity to be involved regardless of the participation of the mother State.***
- e) ***A system which assesses Member States participation, based on activities and capacity building is needed in IOCARIBE.***
- f) ***IOCARIBE should encourage the participation of developed extra-regional Member States of IOC in the activities and programmes of the Sub-Commission.***
- g) ***IOCARIBE should identify relevant NGOs and increase collaboration with them in the region.***
- h) ***IOCARIBE should increase dialogue, share information and cooperate with end users, industry and policy makers.***

On Regional Programmes and Groups of Experts:

- a) ***While continuing to pursue implementation of regional components of IOC global programmes, IOCARIBE should give greater attention to regional initiatives. Relevant national projects should be strengthened and connected to regional programmes.***

- b) *Available sources offunds should be identified before the approval of programmes. Sourcing and raising funds should be the responsibility of the Project Leader with the assistance of the Secretariat.*
- c) *IOCARIBE should make use of the structure of Project Steering Groups with a designated Project Leader for implementation and coordination of programmes.*
- d) *There needs to be a defined set of criteria for qualifications, recruitment and participation of experts to the*

On The Regional Secretariat and the Board of Officers:

- a) *The IOCARIBE Secretariat requires a core of a single senior UNESCO-IOC staff member as regional Secretary; and a number of seconded experts to assist in the running of IOCARIBE programmes.*
- b) *A description of the functions and responsibilities of the Officers of the Sub-Commission is needed The Officers should be organised as a Board of Directors for the Sub-Commission. Officers should meet at least once a year in the intercessional period*
- c) *A timely allocation offunds for running the Secretariat is essential to keeping smooth operations at the regional office.*
- d) *To meet the needs of IOCARIBE programmes and to foster contributions from Member States and funding agencies, IOC should consider two options: (i) region specific funds in IOC Trust Fund, or (ii) a regional Trust Fund and greater decentralisation.*
- e) *IOCARIBE regional Secretariat should have the appropriate flexibility and autonomy, as a regional component of the organisation, to stimulate and respond to regional initiatives and better fulfil the expectations of Member States, within the general policy of IOC*

RECOMMENDED MEDIUM TERM STRATEGIC PROGRAMMES

- a) *IOCARIBE should assist Member States to develop their capacity to formulate national policies and plans, to meet their needs in marine science and technology.*
- b) *Capacity building should be present in and above all activities of the Sub-Commission. Each regional programme must meet specific TEMA requirements defined by a comprehensive regional TEMA strategy and action plan.*
- c) *IOCARIBE must improve networking and information flow, establishing a regional Marine Information Management system which should also provide indicators of performance IOCARIBE Secretariat should act as the central node and information broker in the region.*

IOC/INF-1043

page (x)

RESUMEN EJECUTIVO

En 1993 la Conferencia General de UNESCO aprobó el Plan de evaluación para 1994-1995 e incluyó a la COI y los Asuntos Relacionados con las Ciencias Marinas. La Asamblea de la COI solicitó que la evaluación” se enfocara en las actividades implementadas en el Caribe y en las regiones adyacentes (IOCARIBE) ... Específicamente la evaluación abarcará los temas de relevancia, la eficiencia y el impacto de las actividades de la organización, con relación al desarrollo sostenible de los Pequeños Estados Insulares en Desarrollo de la región”.

Esta evaluación se lleva a cabo con el fin de dar la oportunidad de tomar decisiones, aprender de la experiencia y suministrar explicaciones, a la luz de los logros alcanzados desde el establecimiento de IOCARIBE en 1982 y teniendo en cuenta las expectativas de los Estados Miembros y de las organizaciones que participan. La eficiencia de la implementación del programa por parte de los Secretariados de la COI e IOCARIBE también se ha considerado, con el fin de introducir mejoras administrativas, así como asesorar sobre cualquier cambio en el diseño de los programas y en la implementación de los mismos que puedan conducir a una respuesta a las necesidades de los Estados Miembros.

ANTECEDENTES

IOCARIBE fue inicialmente creada como una Asociación regional experimental de los Estados Miembros de la COI en 1975, hace veinte años. Después de una evaluación en 1982, la Asamblea de la COI, por solicitud de los Estados Miembros regionales y en vista de los buenos resultados de la asociación, aprobaron la creación de una Subcomisión regional, la primera en su clase.

Los términos de referencia para las Subcomisiones regionales expresan sus funciones básicas así :

“Las Subcomisiones Regionales son órganos intergubernamentales subsidiarios de la COI, responsables por el desarrollo de la promoción y coordinación de los programas de investigación científica marina, los servicios oceánicos, y otras actividades relacionadas incluyendo Entrenamiento, Educación y Asistencia Mutua (TEMA) en sus respectivas regiones. Al establecer sus programas, deben tener en cuenta los intereses específicos y necesidades de los Estados Miembros de la región. Al llevar a cabo el trabajo mencionado anteriormente, es necesario que las Subcomisiones regionales colaboren de cerca con los órganos subsidiarios de la COI, que tengan que ver con actividades globales, dentro de sus campos de competencia”.

Los principales elementos de la estructura de las subcomisiones son: los Estados Miembros, los Programas o Proyectos y el Secretariado regional. Dentro de ellos, se pueden encontrar otros actores tales como los Puntos Focales Nacionales, instituciones nacionales y expertos, etc. Además existen los órganos directivos y la Mesa de las Subcomisiones. Cada elemento interactúa con los otros de cierta manera, y la Subcomisión a su vez interactúa con otras organizaciones de la región.

ESTADOS MIEMBROS

Los Estados Miembros son los constituyentes y a la vez son el elemento más importante de la Subcomisión, ya que ellos son además los beneficiarios de los programas. La región de IOCARIBE consiste de 28 Estados independientes, incluyendo a Francia, Países Bajos y el Reino Unido, con sus territorios dependientes y departamentos (18 en total). Existen grandes diferencias en el tamaño, riqueza, composición étnica, lenguaje y situación política, entre los países de la región. Pero existen también muchos asuntos en común a todos ellos. Uno de los más importantes es el uso compartido y la relación con el área marina, en el Caribe, Golfo de México y las regiones adyacentes.

En esta evaluación la definición de los Pequeños Estados Insulares en Desarrollo (SIDS), introducida en la Agenda 21 de la CNUMAD, se extendió para incluir a todos los Estados insulares, los departamentos y

territorios. Además se introduce por primera vez el concepto de Pequeños Estados Istmicos en Desarrollo (SIDS) para los países del istmo de Centro América con características geográficas (proporción tierra/mar) y socioeconómicas similares.

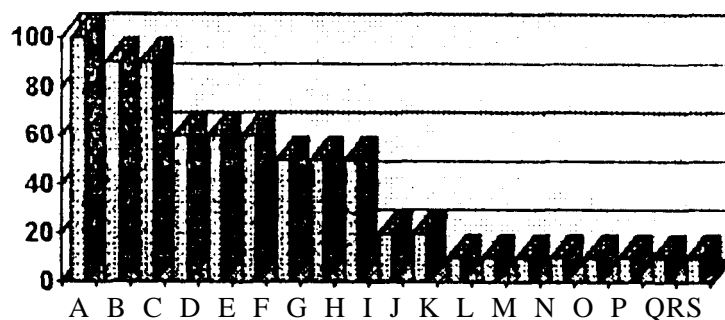
Veintiuno de los veintiocho Estados independientes de la región son Estados Miembros de IOCARIBE. Pero la condición de miembro no es sinónimo de participación. Solamente 12 de ellos son considerados "activos" y no todos ellos al mismo nivel.

Existen 16 Estados que son Miembros "inactivos" o Estados No-Miembros, que equivalen al 57% de los 28 Estados independientes. Es importante anotar para los fines de esta evaluación, que más del 90% de ellos son SIDS.

Sin embargo, al mirar a las actividades de IOCARIBE con relación a la población, los Estados Miembros activos contienen el 84% de la población de la región. Esto significa un gran impacto de las actividades de la Subcomisión en la región como un todo.

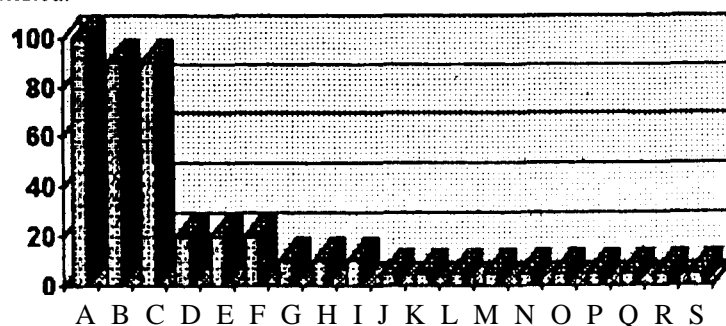
La percepción general, basada en la información disponible, cuestionarios y un número de entrevistas, fue que Estados grandes y medianos (Ej: Colombia, Cuba, EE.UU, Mexico, Venezuela) que representan tres cuartas partes de la población de la región han estado activamente involucrados y se han beneficiado de IOCARIBE. En cambio los Estados más pequeños, quienes pueden haber necesitado más de la organización, no han participado y consecuentemente no se han beneficiado del proceso.

Los siguientes gráficos representan en forma figurada la situation de la región de IOCARIBE en dos tiempos específicos diferentes: 1975 cuando la Asociación IOCARIBE fue inicialmente establecida, y 1995 en el momento de la presente evaluación. Los valores de la capacidad científica marina están referidos al país de mayor desarrollo (100) en la región, y son solamente indicativos.



CAPACIDADES RELATIVAS EN CIENCIAS MARINAS DE LOS ESTADOS MIEMBROS -1995

Inicialmente solo pocos países desarrollados (algunos con la capital fuera de la región) tenían una alta capacidad en ciencias marinas. La mayoría de los Estados en la región tenían muy bajo nivel de gasto en investigación científica.



CAPACIDADES RELATIVAS EN CIENCIAS MARINAS DE LOS ESTADOS MIEMBROS- 1975

Después de la participación en los programas de IOCARIBE y debido al componente TEMA en algunos de ellos, muchos Estados incrementaron substancialmente su capacidad endógena y se aproximaron o alcanzaron niveles de autosuficiencia en ciencias marinas. IOCARIBE también incrementó la conciencia en estos países sobre la importancia de tener una política nacional para el desarrollo de las ciencias marinas. El resultado general es que ahora existe en la región un grupo de países que se han convertido en la "clase media" con relación a su capacidad en ciencias marinas. Algunos de ellos inclusive han ofrecido asistencia técnica y cooperación a países menos desarrollados de la región.

Desafortunadamente, los Estados de la parte derecha de los gráficos son en su mayoría SIDS, los cuales no han participado en los programas de IOCARIBE.

La evaluación encontró algunas posibles razones para la falta de participación de algunos de los Estados Miembros. Estas son:

- a) Ser Estado Miembro solo requiere una carta de intención; lo cual genera Miembros pero no suficiente compromiso.
- b) La falta de participación del Estado materno elimina de un solo golpe un número de territorios o departamentos dependientes.
- c) No todos los Estados Miembros nombran formalmente sus Puntos Focales Nacionales (PFN) en el nivel apropiado con la capacidad de movilizar instituciones nacionales y influenciar en las decisiones políticas.
- d) No todos los Estados Miembros tiene una Comisión Nacional de Oceanografía (CNO) para coordinar las instituciones internas y los expertos en las actividades relacionadas con la COI y con IOCARIBE.
- e) No hay un sistema de información establecido para la evaluación constante de la participación de los Estados Miembros y para generar retroalimentación a los beneficiarios.
- f) La condición de miembro está abierta a todos los miembros de la COI, pero en la práctica solo los Estados regionales han participado.
- g) Tradicionalmente IOCARIBE no ha incluido en sus planes de trabajo a Organizaciones No-Gubernamentales (ONG).
- h) La colaboración con los usuarios finales, la industria y los niveles de decisión políticos, no ha sido llevada a cabo en un grado significativo.

PROGRAMAS REGIONALES

Las Subcomisiones regionales de la COI son las responsables de la promoción, desarrollo y cooperación de los programas de la Comisión en investigación marina, servicios oceánicos y las actividades relacionadas, incluyendo TEMA y desarrollo de capacidad. Al hacer esto ellas deben tomar en cuenta los intereses específicos y las necesidades de los Estados Miembros de la región.

IOCARIBE aprobó un Plan a Mediano Plazo (MTP) para el período de 1990-1995, el cual fue revisado y actualizado en 1993. Este tiene la misma estructura de los programas de la COI a nivel global, pero se ha hecho énfasis sobre la implementación de los componentes regionales de los programas globales.

Los programas mas importantes incluidos en el MTP son:

Ciencias Oceánicas:	Procesos Oceánicos y Clima	OPC
	Ciencias Oceánicas en relación con los Recursos Biológicos	OSLR
	Ciencia Oceánicas en relación con Recursos No Biológicos	OSNLR
	Contaminación Marina, Investigación y Monitoreo	MPRM
	Mapa Batimétrico Internacional del Caribe y Golfo de Mexico	IBCCA
Servicios Oceánicos:	Componente Regional del GLOSS e IGOSS	

Component Regional del GOOS.
Intercambio Internacional de Datos Oceanográficos
Gestión de la Información Marina

IODE
MIM

El grado de éxito de estos programas es diverso y depende de muchos factores. Mientras algunos han alcanzado un alto éxito y han promovido el crecimiento del conocimiento y la información, otros nunca fueron más allá de la fase de formulación.

Algunos de los problemas encontrados en relación a la implementación de los programas son:

- a) A pesar de lo bien intencionado, el MTP no fue financieramente realista, y no fue posible obtener todos los fondos necesarios para su exitosa implementación.
- b) Los componentes globales dominaron sobre los proyectos regionales y nacionales.
- c) No todos los programas tenían un Grupo de Expertos, ni un grupo directivo, o un Líder de proyecto para su guía y control.
- d) Los miembros de los grupos de expertos no siempre tenían las condiciones y la continuidad requerida,
- e) Falta de auditoría sobre los resultados, falta de indicadores y criterios de éxito en la formulación de los programas.

ENTRENAMIENTO, EDUCACION Y ASISTENCIA MUTUA (TEMA)

En todos los programas de la COI e IOCARIIBE se requiere que el componente TEMA sea parte integral y es el elemento clave para su éxito. La asistencia proporcionada a los Estados Miembros activos en este contexto ha sido importante para el mejoramiento de su capacidad nacional en ciencias marinas. Para aquellos países en vía de desarrollo en la región ansiosos de mejorar su capacidad, esta clase de cooperación demostró ser una fuente importante de desarrollo endógeno. Los programas Regionales proporcionaron excelentes oportunidades para aumentar la transferencia de ciencia y tecnología.

Programas tales como CARIPOL deben su éxito al gran número de actividades de entrenamiento desarrolladas en su respaldo. A pesar de esto, la falta de fondos no ha permitido a algunos otros programas ser tan exitosos y no se ha definido una amplia estrategia, y es por eso que TEMA ha sido solo ocasionalmente implementado.

SECRETARIADO REGIONAL Y OPERACION DE LA SUBCOMISION

El secretariado regional está localizado en Cartagena de Indias, Colombia, por medio de un acuerdo de sede entre UNESCO y el Gobierno Colombiano debidamente firmado y ratificado por el Congreso. La estabilidad del Secretariado es un factor positivo y las facilidades provistas son aceptables y disfrutan de razonables buenas condiciones para el funcionamiento de la oficina. El presupuesto para operar la oficina es provisto por el Gobierno anfitrión y la COI-UNESCO.

Cuando el Secretariado regional fue establecido, COI-UNESCO proporcionó un Secretario Asistente P-5 para IOCARIIBE, por medio de la relocalización temporal de una plaza existente en la COI, París. La plaza fue retransferida a París en 1994 y no ha sido reemplazada en la región. Las funciones del Secretario para IOCARIIBE son actualmente cubiertas por un consultor bajo un contrato de corta duración pagado por COI.

Algunos países donantes han respaldado expertos de apoyo para el Secretariado regional, pero actualmente no hay ninguno para ayudar en la implementación y manejo de los programas regionales. Apoyo de tiempo parcial se recibe de la NOAA-SEFC (Miami), y de un consultor de medio tiempo pagado por COI.

En adición a la falta de la plaza del Secretario regional y a la escasez de personal, algunos de los más notables problemas encarados por el Secretariado regional son:

IOC/INF-1043

page (xiv)

- a) Falta de una “Junta Directiva” entre sesiones para proporcionar guía y dirección.
- b) Falta de mayor balance entre descentralización y centralización de funciones.
- c) Falta de autonomía administrativa para el manejo de fondos y contribuciones a la Subcomisión,
- d) Flujo irregular de fondos de la COI-UNESCO para los gastos de operación.
- e) Falta de un sistema regional para el procesamiento y recuperación de información, tanto gerencial como científica.

RECOMENDACIONES

Esta evaluación se concentra en las actividades implementadas por IOCARIBE, y se enfoca en la relevancia, la eficiencia y el impacto de la Organización. Su propósito es mejorar la implementación así como también el diseño de los programas. La evaluación es parte integral del ciclo de manejo de un programa y no solo debe juzgar el pasado sino conducir a la acción y buscar remedios para el futuro.

Evaluar el impacto significa establecer hasta donde los resultados de los programas han tenido efectos positivos o negativos sobre las necesidades que ellos deberían satisfacer. A pesar de las limitaciones, el impacto de IOCARIBE en la región en general ha sido claramente positivo, como se ha mostrado antes, pero solamente los Estados Miembros que han participado se han beneficiado de este impacto.

La mayoría de los SIDS desafortunadamente no participaron y debido a eso no obtuvieron mucho beneficio. Pero la buena experiencia de aquellos Estados quienes aprovecharon la Subcomisión y sus actividades puede ser reproducida para aquellos que aún no han recibido estos beneficios.

Esta evaluación proporciona una serie de recomendaciones a corto plazo y estrategias a mediano plazo las cuales, si son aplicadas, podrían llevar a la Subcomisión a un nivel operacional efectivo y fluido para alcanzar las metas originales y llenar los vacíos dejados por la falta de participación. Es importante darse cuenta que todos los problemas identificados están relacionados solamente con la forma como los mecanismos y los procesos existentes son implementados, y que las acciones recomendadas son todas viables en los actuales términos de referencia de la COI e IOCARIBE.

Más allá de estas acciones, la situación existente puede requerir que la Subcomisión revise sus estrategias y metas, y adapte estas para que cubran las necesidades de los Estados Miembros, para ahora y para el futuro. Las prioridades regionales a largo plazo y las políticas, las cuales deberían evolucionar para adaptarse al tiempo y las circunstancias, deberán ser establecidas por los Estados Miembros participantes.

ACCIONES A CORTO PLAZO RECOMENDADAS

Sobre los Estados Miembros y otras organizaciones:

- a) *La condición de Miembro de IOCARIBE deberá incluir un compromiso para llevar a cabo actividades y hacer contribuciones voluntarias, financieras o de otro tipo, para los programas de la Subcomisión.*
- b) *Los Puntos Focales Nacionales (PFN) deberán ser formalmente nombrados por una autoridad de alto rango de los Estados Miembros. El PFN más apropiado es el Presidente o Director de la Comisión Nacional de Oceanografía. Deberá establecerse una red de Puntos Focales Nacionales en la región.*

- c) *Los Estados Miembro deberán nombrar un Punto Focal Local (PFL) para cada Territorio dependiente en la región, y cada Territorio debería tener la oportunidad de involucrarse sin importar la participación del Estado materno.*
- d) *Un sistema que evalúe la participación de los Estados Miembros basado en sus actividades y desarrollo de sus capacidades nacionales es necesario en IOCARIBE.*
- e) *IOCARIBE deberá estimular la participación de Estados desarrollados extra regionales, Miembros de la COI, en las actividades y programas de la Subcomisión.*
- f) *IOCARIBE deberá identificar Organizaciones No Gubernamentales (ONG) relevantes e incrementar la colaboración con ellas en la región.*
- g) *IOCARIBE deberá incrementar el diálogo, el intercambio de información y la cooperación con los usuarios, la industria y los niveles de decisión política.*

Sobre los Programas Regionales y Grupos de Expertos:

- a) *Simultáneamente con la implementación de los componentes regionales de los programas globales de la COI, IOCARIBE deberá prestar mayor atención a las iniciativas regionales. Los proyectos nacionales de importancia deberán ser fortalecidos y conectados con los programas regionales.*
- b) *Antes de aprobar los programas, las fuentes de financiamiento disponibles deben ser identificadas. Encontrar y conseguir fondos deberá ser responsabilidad de los Líderes de Proyectos con la asistencia del Secretariado.*
- c) *IOCARIBE deberá hacer uso de la estructura de los Grupos Directivos de Proyectos con un Líder de Proyecto designado para la implementación y coordinación de sus Programas.*
- d) *Se necesita definir los criterios para la calificaciones, reclutamiento y participación de expertos en los Grupos de Expertos y los Grupos Directivos de Proyectos.*
- e) *Procedimientos continuos de evaluación sobre la marcha deberán ser parte integral de la formulación de los programas regionales.*

Sobre El Secretariado Regional y la Mesa Directiva:

- a) *El Secretariado de IOCARIBE requiere un núcleo mínimo de un funcionario de UNESCO-COI como Secretario Regional; y un numero de expertos asistentes para dar apoyo en el manejo de los programas de IOCARIBE*
- b) *Una descripción de las funciones y responsabilidades de la Mesa de la Subcomisión es necesaria. La Mesa debería ser organizada como una Junta Directiva de la Subcomisión. La Mesa deberá reunirse al menos una vez al año entre Sesiones.*
- c) *Una oportuna colocación de los fondos de funcionamiento del Secretariado es indispensable para el fluido mantenimiento de las operaciones en la oficina regional.*
- d) *Para satisfacer las necesidades de los programas de IOCARIBE y fomentar las contribuciones de los Estados Miembro y las agencias financiadoras, la COI podrá considerar dos opciones:*
 - (i) *Fondos de dedicación exclusiva para la región en el Fondo Fiduciario de la COI; o*
 - (ii) *Un Fondo Fiduciario regional y una mayor descentralización.*

- e) *El Secretariado regional de IOCARIBE deberá tener apropiada flexibilidad y autonomía como un componente regional de la Organización, para estimular y dar respuestas a las iniciativas regionales y poder cumplir de una mejor manera las expectativas de los Estados Miembros, dentro de la política general de la COI.*

PROGRAMAS ESTRATEGICOS A MEDIANO PLAZO RECOMENDADOS

- a) *IOCARIBE deberá dar asistencia a los Estados Miembros para desarrollar la capacidad de estos en la formulación de sus políticas y planes nacionales, para satisfacer sus necesidades reales en ciencias y tecnología marinas.*
- b) *El desarrollo de las capacidades nacionales debe estar presente y por sobre todas las actividades de la Subcomisión. Cada programa regional deberá satisfacer requerimientos específicos del componente TEMA los cuales deben ser definidos por una amplia estrategia y un plan de acción TEMA regional.*
- c) *IOCARIBE debe mejorar la interconexión y el flujo de información estableciendo un Sistema regional de Información Marina el cual proporcionaría también indicadores de desempeño. El Secretariado de IOCARIBE deberá actuar como el nodo central para este sistema y como un corredor de bolsa sobre información en la región.*

1. INTRODUCTION

Cooperative marine science activities of IOC in the Caribbean and adjacent regions have existed for nearly thirty years. Over this period there have been three distinct stages in the activities's evolution.

CICAR - 1968: The first regional effort in marine sciences in the Caribbean was a cooperative regional investigative operation coordinated by IOC (CICSR), modeled on the Indian Ocean International Expedition. Its aim was the understanding of the oceans and related processes in the Greater Caribbean region. To achieve its research goals, CICAR had first to concentrate on developing the capabilities of the participating countries to carry out marine scientific research. This became its major activity and the most significant impact of CICAR in the region.

IOCARIBE Association - 1975: The Member States recognized the benefits of CICAR and expressed their interest to create a successor organization. For an experimental period of six years the "Association of IOC for the Caribbean and Adjacent region", using the acronym "IOCARIBE" for the first time, was approved by the Ninth Assembly of IOC in November 1975. It was twenty years ago.

After the experimental phase and by request of Member States, the output of the Association was evaluated and presented to the IOC Assembly in 1982. Despite some shortcomings, the development of national capabilities reached during CICAR and later the IOCARIBE Association was described as "impressive and satisfactory". The Association's most significant achievement was to provide a mechanism for regular contact and an international regional forum for dialogue and exchange of experiences and ideas among Member States.

IOCARIBE Sub-Commission - 1982: To replace the experimental Association, a Sub-Commission was created by the IOC Assembly in 1982. It was the first regional subsidiary body of its kind within IOC. Its First Session (IOCARIBE I) was held in Curaçao in August 1984. In 1985, Cartagena de Indias, Colombia, was selected as the site for the permanent regional Secretariat through an IOC Resolution, and later a headquarters agreement was signed by UNESCO and the Colombian Government.

The Second IOCARIBE Session (IOCARIBE II) was held in La Havana, Cuba (1986), the Third (IOCARIBE III) in Caracas, Venezuela (1989) and the Fourth (IOCARIBE IV) in Veracruz, Mexico (1992). The Fifth Session (IOCARIBE V) of the Sub-Commission took place in December 1995, in Bridgetown, Barbados.

The objectives and strategies of the successive organisations, CICAR, IOCARIBE Association and Sub-Commission have evolved over the thirty years. Three phases of activities have shown the organisations' response to changing times and circumstances. Initially, the organization focused on cooperative oceanographic investigation, mostly by vessels from out of the region; then the emphasis was on the development of local capacities of Coastal States to do their own marine scientific research; and currently the focus is on the needs of Small Island Developing States (SIDS) for their sustainable development and coastal zone management.

As a regional Sub-Commission, IOCARIBE's primary responsibility is to solve regional problems through the promotion, development and coordination of marine scientific research programmes. In addition, the Sub-Commission is to implement and coordinate regional aspects of IOC's global programmes.

Since 1982 when IOCARIBE Sub-Commission was formed, no evaluation of the impact of the organization's activities in its current form has been carried out. In 1993 the General Conference of UNESCO approved the Evaluation Plan for 1994-1995 and it included IOC and Marine-Science Related Issues. Annex I describes the objectives, purpose, and methodology of the evaluation.

The IOC Assembly requested the evaluation to: *'focus on the activities implemented in the Caribbean and adjacent regions (IOCARIBE)... More specifically the evaluation will address the issues of the relevance, the*

efficiency and the impact of the Organization's activities regarding the sustainable development of the Small Island Developing countries in the region ".²

To carry out the evaluation this report begins with the presentation of the structure of the Sub-Commission. The main parts of the Sub-Commission's structure as identified in Chapter 2 are: the Elements of the Sub-Commission consisting of Member States, Programmes and Projects, and Regional Secretariat, the Governing Bodies, the IOCARIBE interaction with other organisations in the region.

In order to focus on the activities implemented in the region, each element of the Sub-Commission has been described in a separate chapter (Chapters 3 to 5). Facts and results about IOCARIBE's activities are presented and some problems have been identified in each of these chapters. Finally, in the last chapters (Chapters 6 and 7) the identified problems are discussed and some actions/recommendations are proposed.

2. THE STRUCTURE OF IOCARIBE

The combination of the Sub-Commission's Elements, Governing Bodies and Interactions with other organisations, governmental or not, form IOCARIBE's structure. The terms of reference set the scene for the creation of this structure.

2.1 TERMS OF REFERENCE

IOCARIBE is a regional subsidiary body of IOC and therefore should perform its functions within the general mandate, statutes and policy of Commission as well as within the budgetary guidelines established by the Assembly. The basic Terms of Reference for IOCARIBE and other Sub-Commissions were approved by the Twelfth session of the IOC Assembly in: "GUDELINES FOR THE STRUCTURE AND RESPONSIBILITIES OF IOC SUB-COMMISSIONS".

Those Guidelines state the basic functions: "*Regional Sub-Commissions are intergovernmental subsidiary bodies of IOC, responsible for the promotion, development and coordination of the marine scientific research programmes, the ocean services, and related activities, including Training, Education and Mutual Assistance (TEMA) in their respective regions. In establishing their programmes they should take into account the specific interests and needs of the Member States in the region. In carrying out the above work, it is mandatory that regional Sub-Commissions collaborate closely with IOC's subsidiary bodies concerned with global activities, within their fields of competence*".³

To meet regional problems the Sub-commission's role was to facilitate information exchange and transfer of knowledge; identify training, education and mutual assistance needs and promote the required activities to meet those needs. The Sub-Commission was to make recommendations and proposals to the Commission and was to serve as a mechanism for the formulation, evaluation and follow-up of projects aimed at strengthening national capabilities in marine scientific research. Common institutions, services and facilities were to be established and there was to be collaboration with other UN and regional bodies. In the process of carrying out these activities, the Sub-Commission could form task teams and groups of experts and carry out technical meetings.⁴

² IOC/EC-XXVII/8 Annexe 2- Proposed methodology for an evaluation of programme implementation in selected region(s) - June 1994.

³ Annex V to the Summary Report, Doc SC/MD/73 of the Twelfth Assembly of IOC.

⁴ Annex V to the Summary Report. Doc SC/MD/73 of the Twelfth Assembly of IOC.

The mandate and terms of reference given to the Sub-Commission were a logical evolution of the objectives and terms of reference given to the IOCARIBE Association when first created in 1975. But they reflected a more conscious approach by the States in their region to the understanding of their problems and needs for developing marine science and technology.

2.2 ELEMENTS OF THE SUB-COMMISSION

IOCARIBE is the aggregation of several “elements”, all of them operating together constitute the Sub-Commission. The interactions between the different elements and the Sub-Commission are critical to the efficiency of IOCARIBE as a whole.

The main elements of the Sub-Commission are defined briefly in the following paragraphs, and analyzed separately in detail in the subsequent Chapters.

2.2.1 Member States

Member States are represented by their Governments usually through the Foreign Affairs Ministry or Secretary. They are the constituency and the most important element in the existence and the running of the Sub-Commission. Within Member States the following important actors can be identified:

2.2.1.1 National Focal Point (NFP)

A NFP is a person within a national institution, appointed by a proper authority (usually Foreign Affairs Ministry or equivalent) to represent the Government in IOCARIBE's activities and carry out the day-to-day communications. The NFP should act as a channel between the IOCARIBE Secretariat and his (her) national Government, institutions and experts.

2.2.1.2 National institutions

National institutions are the scientific organizations and institutes, universities, agencies or industries, which carry out the science and services programmes and projects of the Sub-Commission within the Member States.

2.2.1.3 National experts

National experts are scientists, technicians, researchers, educators and administrators, who are normally related to the national institutions. They are the available working force in the region and, at the same time, the primary recipients of the development in marine sciences and technologies achieved through IOCARIBE's activities. They must be multipliers within their countries to other local scientists, students, managers, industries and government officials.

2.2.2 Programmes and Groups of Experts

2.2.2.1 Programme oriented Sub-Commission

To fulfil its functions in the region the Sub-Commission is programme-oriented. Programmes generate “the product” that IOCARIBE is marketing to Member States. They are the vehicle by which Member States participate and collaborate in the Sub-Commission. Programmes may consist of sub-programmes or projects.

Programmes and projects can be of two types:

- a) generated by a regional problem the solution of which calls for international cooperation
- b) the regional component of a global marine science or service programme of the IOC.

The methodology used since the early times of IOCARIBE for identifying regional programmes is based on recommendations made by Groups of Experts, Workshops and Seminars, approved by IOCARIBE Sessions and endorsed by IOC Assembly.

The IOCARIBE Medium Term Plan in 1989 and its revised version in 1993 were the first attempts to collect and organize most of those approved programmes under a unified planning instrument. It was designed to help IOCARIBE and IOC to raise funds, follow and control the progress of the programmes, and to evaluate their performance.

2.2.2.2 Groups of Experts and Project Steering Groups

Groups of Experts are small subsidiary bodies of IOC composed of specialists selected for their scientific or technical expertise. They undertake detailed scientific and technical studies and/or coordination task, and must provide advice to the Secretariat in relation to the scientific content of programmes and products.

They can be created by the Sub-Commission as long as no costs fall on IOC for the work of the Group. If budgetary support is required, they must be proposed by the Sub-Commission and approved by the IOC Assembly,

For the implementation of regional projects, the group of institutions/scientists directly involved may constitute a Cooperative Implementing Network. To ensure effective coordination of project implementation, a small number of scientists from such a Network constitutes a Project Steering Group (a de facto Guiding Group of Experts). One of them is designated as the project Coordinator and he/she should work closely with the Steering Group and the participants in the Network, as should the regional Secretariat.

These two mechanisms are available within the statutes and the rules of IOC. Although Project Steering Groups are not formal subsidiary bodies of IOC, they are considered to be, in principle, effective "Group of Experts" in the Sub-Commission scheme, but their modus operandi should stress the active project implementation role rather than just the scientific advisory role.

2.2.3 Regional Secretariat

Secretarial support for the Sub-Commission must be provided by the IOC Secretariat (Headquarters staff and staff out-posted in the region), and by Member States. The Secretariat staff could be located in a UNESCO or UN office in the region, or in Member State of the region provided that this State offers facilities considered adequate and approved by a governing body (the Assembly) of the Commission.

The regional Secretariat is a field UNESCO/IOC office in charge of executing and following up activities of the Sub-Commission, fulfilling the IOC functions in the region and carrying out any other duties assigned by the IOC secretariat. The regional Secretariat becomes the physical presence of IOC in the region, and the center for the Sub-Commission's communication system.

2.3. BY THE GOVERNING BODIES OF BY THE SUB-COMMISSION

2.3.1 The Sessions

The Sub-Commission should meet once during each budgetary biennium unless otherwise approved by a governing body of IOC. These are inter-governmental meetings or Session, attended by official governmental delegates of Member States. The Sub-Commission should preferably meet immediately before the IOC Assembly in order to report on its progress and to obtain feedback and endorsement especially for actions requiring budget allocations.

The IOCARIBE Sub-Commission is not in phase with the IOC Assembly and has not met biannually, as is shown in Table 1 below.

TABLE 1: IOCARIBE INTERGOVERNMENTAL SESSION

Session	Place	Year	Intersession period
IOCARIBE I	Willemstad, Curaçao	1984	
IOCARIBE II	Havana, Cuba	1986	2 years
IOCARIBE III	Caracas, Venezuela	1989	3 years
IOCARIBE IV	Veracruz, Mexico	1992	3 years
IOCARIBE V	Bridgetown, Barbados	1995	3 years

Member States meeting in Caracas 1989 approved the recommendation SC-IOCARIBE-III.8 on Scheduling of Sessions of IOCARIBE. They recommended that the Sub-Commission should meet every two years instead of every three years, from IOCARIBE IV in 1992.

2.3.2 IOCARIBE Officers

IOCARIBE Officers (Chairman and Vice-Chairmen) are elected by delegates at each inter-governmental Session. They must be from Member States in the region and serve for one Session and one intersessional period and may be re-elected for one additional term of office. Their responsibilities are assimilated to those of the Officers of IOC, but there is no clear description of their role, nor clear method to assess their contribution and participation in the activities of the Sub-Commission. They are charged individually with reviewing one or more regional programme leaders, unless they are the same person.

IOCARIBE III (1989) decided that the elected Officers and the Secretariat should meet at least once a year in the intersessional period at the IOCARIBE Secretariat, to assess the progress of programmes and business of the Sub-Commission, foster an exchange of information and improve coordination with NFPs. The following meeting of Officers was held in February 1992, before IOCARIBE IV. In the current intersessional period the Officers have not met. A review consultation of the Secretariat with the Chairman of the Sub-Commission was held in April 1995.

According to the IOC Manual, subsidiary bodies may have one Chairman and one vice-Chairman. Until 1988 that was the case in IOCARIBE, but in IOCARIBE III two Vice-Chairmen were elected, In the following Session (Veracruz 1992) three Vice-Chairmen were elected, resulting in four Officers. The number of Officers had increased substantially, but the benefits have not been so evident. Furthermore, the Officers are from Venezuela, Mexico, Cuba and the USA which does not give a fair representation of the geographic sub-regions, such as the small and isthmus States.

2.4 INTERACTIONS WITH OTHER ORGANIZATIONS IN THE REGION

2.4.1 Governmental Organizations

Intergovernmental organizations from the United Nations system, such as UNEP, FAO, ECLAC, and IMO carry out programmes in the region which are complementary to IOCARIBE's activities. There has been coordination between the Sub-Commission and these organizations. Good coordination is paramount because overlapping occurs easily and could be a waste of resources.

IOC/INF-1043

page 6

There are also a number of intergovernmental regional organisations, such as CARICOM, OECS, OAS, ACS, and others. These regional organizations have been invited to attend IOCARIBE meetings and participate in IOCARIBE activities. In some cases coordination in activities of common interest have been achieved.

Where cooperation exists, the role of IOCARIBE has been mainly to provide scientific and technical advice and information. The most significant cooperation is the joint IOC/UNEP-CEP Marine Pollution, Research and Monitoring programme. Coordinated initially by IOCARIBE as the CARIPOL programme, its success led to joint efforts with UNEP's Regional Coordinating Unit in Jamaica, resulting in the establishment of the CEPPOL project.

2.4.2 Non Governmental Organizations

Traditionally IOCARIBE has had few relations with NGOs in the region. This may be caused by the governmental nature of its membership. One of them is an agreement with ARPREL (Association of State Oil Corporations for Latin America and the Caribbean) for cooperation in oil spills emergencies. Other contacts with organisations such as the Inter-American Institute for Climatic Change (IAI), the Centre for Marine Conservation, Island Resources and others, have been established recently but no joint activities are identified yet.

2.4.3 End Users

Collaboration with end users, such as industry and policy makers, has not been carried out to a great extent in practice. Few IOCARIBE events have actively involved industry expertise and personnel from outside academic and government research realms. One of them was the 1992 IOC/UNEP/NOAA/EPA/SEA GRANT/IMO Second marine debris workshop, and the IOC/UNEP/ARPEC/IMO CEPPOL oil and marine debris evaluation meeting. Only one recent event has involved policy makers, the 1995 workshop on Fishery Oceanography of Highly Migratory and Straddling Species (Annex IV).

The elements identified in the previous paragraphs are detailed separately in the following chapters.

3. MEMBER STATES

Member States are, as already stated, the most important element of IOCARIBE. In this section, the IOCARIBE region is described in order to understand the interest of the Member States in the Sub-Commission. The requirements for membership and participation in IOCARIBE are presented in order to assess the level of activity of Member States. The most influencing element in Member States' participation is the NFP which is also presented in this Chapter.

3.1 BY THE REGION

The region (geographical area of each Sub-Commission) is defined by the Commission. giving due regard to the views of the Member States in the region concerned

The IOCARIBE region (Caribbean Sea, Gulf of Mexico and adjacent areas) consists of twenty eight heterogeneous States (Annex 11). There are great differences in size wealth, ethnic make up, language and political situation and status.

The region includes countries as large as the USA, Mexico, Colombia and Venezuela and as small as St. Kitts and Nevis which is one thousand times smaller than Mexico in area. There are great differences in national wealth, some of the world's lowest GNP per capita are in the region, such as Guyana and Haiti and some of the richest countries in the world are represented, such as the USA, France, United Kingdom and the Netherlands. Three major ethnic groups can be identified; Black, White and Amerindian, and there is a high degree of mixing between these groups. Many languages are spoken, but the predominant ones are Spanish, English, French, and

the local dialects such as Creole or Papiamentu.

The most influential difference in relation to regional organisations is, however, the political situation and status of the many States. The region is made up of independent States, dependent Territories with different degrees and forms of liaison (such as Turks and Caicos, Aruba and Puerto Rico), and Departments (Guadeloupe, Martinique). Nineteen (19) Territories and Departments are represented by four (4) independent states, three (3) of which have their capital located out of the region.

Despite the differences in the region, there are some common issues faced by the States. Ethnic and cultural backgrounds act as important links within sub-regions. All of the Member States and Territories/Departments of the region share a emu-non area of the world's oceans which is classified as two "Large Marine Ecosystems" and in some cases, regarded as the "Mediterranean Sea" of America. Natural and environmental factors affect many countries in the same way, and problems associated with coastal and sea resources are shared by neighboring States in the region. The level of importance of the coastal zone is a common concern.

In relation to coastal zone and marine issues two groups of countries can be identified according to their needs and abilities: Small Island Developing States (SIDS) and Non-SIDS (distinction based on the special concern brought up in the Agenda 21, Chapter 17, UNCED).

For the purpose of this study the definition of SIDS has been enlarged to comprise all the island States and island Departments/Territories of developed States. Belize and French Guyana are included even though they are respectively a continental State and a Department. Furthermore, it includes for the first time, the concept of Small Isthmus Developing States (SIDS). These are the smaller Central American isthmus States bordering the Caribbean sea which are not exactly islands but have similar geographical characteristics (land/ocean areas ratio) and equal needs with regard to: the way they relate to the sea., their national marine capabilities and their state of economic development.

This definition is consistent with the way States are represented in IOCARIBE and because of the similar needs and problems faced by many of the island and isthmus States. However, its weakness is that nineteen (19) individual and unique dependent territories or Departments are represented by four (4) developed States. This makes it difficult to identify the involvement and the needs of these "dependent islands".

Thus the Caribbean and adjacent regions are made up of the following coastal States, Territories and Departments:

SIDS - Antigua & Barbuda, Bahamas, Belize, Costa Rica, Cuba, Dominica, Dominican Republic, France (Guadeloupe, Martinique, Saint Barthelmey, Saint Martin, French Guyana⁵), Grenada. Guatemala, Haiti, Honduras, Jamaica, Netherlands (Aruba, Bonaire, Curaçao, Saba, Saint Eustasius, Saint Maartin), Nicaragua, Panama, Saint Kitts and Nevis, Saint Lucia, Saint Vincent & Grenadines, Trinidad & Tobago, United Kingdom (Anguilla, Bermuda. British Virgin Is, Cayman Is, Montserrat, Turks & Caicos), USA (Puerto Rico, US Virgin Is).

Non SIDS - Colombia, Guyana, Mexico, Venezuela, Suriname, USA.

3.2 MEMBERSHIP

Twenty one (21) of the twenty eight (28) States in the region are considered Members of IOCARIBE (Annex III). Membership in IOCARIBE is open to all interested IOC Member States willing to participate actively in the work of the regional Sub-Commission. However, membership in the regional Sub-Commission is not

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French Guyana cannot be separated because it is part of French territory

automatically assumed. States shall acquire membership by notifying their intention to the Secretariat of IOC and by making a formal declaration of wish to IOCARIBE. This declaration should be made by the highest possible governmental level i.e.: Foreign Affairs Minister or equivalent. It should be confirmed in practice by the appointment of a specific National Focal Point. At each ordinary session of the Assembly, the declaration of wish and the appointment of the NFP should be renewed.

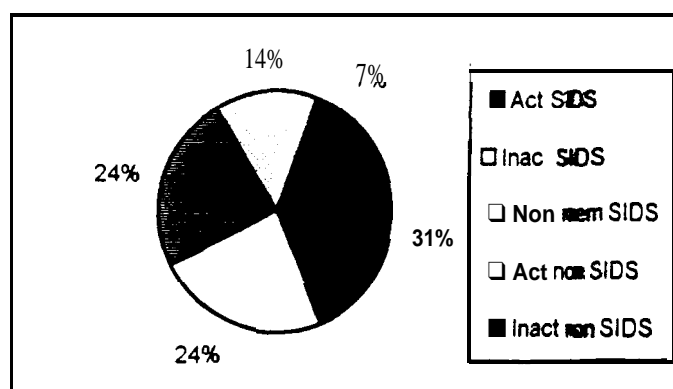
Membership does not represent any mandatory financial burden for the State, only the commitment to participate in IOCARIBE activities. After becoming a Member, the State is expected to participate in the regular inter-governmental Sessions of the Sub-Commission and in the regional programmes through its national institutions and experts.

A survey made through the archives of the Sub-Commission indicated that not all the States accounted as Members have issued official communications or documents declaring their intentions or willingness to continue their membership, as required by IOC regulations. However, membership and intentions to continue have been assumed for all Member States whether they have participated in the IOCARIBE Sessions or not. This assumption and the lack of formal declarations has resulted in a loose commitment by Member State.

3.3 PARTICIPATION

Being a Member State is not synonymous with participation. The present situation is that while some Member States are very dynamic in IOCARIBE's regional activities and programmes, some others are not. A list of IOCARIBE events and participating States is given in Annex IV.

Figure 1. Level of States' activity in relation to IOCARIBE⁶



Of the currently declared Member States of IOCARIBE, twelve (12) have been "active" which means: "having participated in at least one of the four IOCARIBE Sessions". They represent 45% of the States in the Region or 57% of the Member States (Figure I). It must be borne in mind that attendance to regular meetings is the first step towards involvement in the Sub-Commissions activities. However, even though it indicates an interest of the participating governments it does not represent a high achievement in itself.

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Activity is determined from the record of attendance to sessions by members of IOCARIBE. The groups are therefore: Active SIDS, Inactive SIDS, Active non SIDS and Inactive non SIDS.

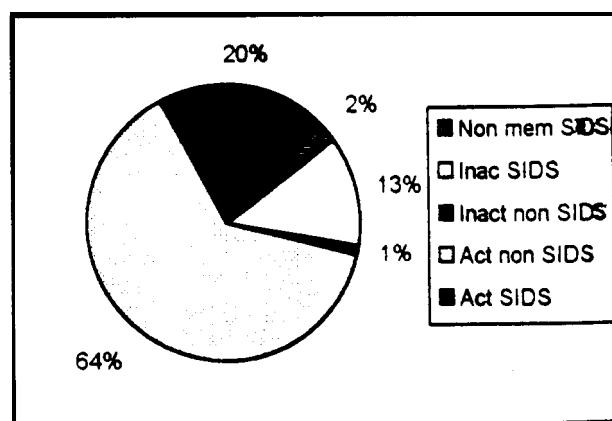
Nine (9) Member States have not attended a session and are therefore considered “inactive”, even if their take up of membership indicated an intention to be active. It is important to note that 77% of these inactive Member States are SIDS.

Seven (7) independent States in the region are Member States of UNESCO but not Members of IOC or IOCARIBE. It is interesting to point out that all non Member States are SIDS which are the ones which could benefit the most from IOCARIBE’s activities. (Annex III)

To Summarize, there are sixteen (16)” inactive” Members and non-Member States, or 57% of the twenty eight (28) States in the region.

Looking at IOCARIBE’s activities in relation to the population (Annex V), active Members are 81% of the region’s population as shown in Figure 2.

Figure 2. Percentages of the region’s population according to the activity of States



This could suggest that IOCARIBE has had a wider impact than Figure I indicates. The active non SIDS by themselves represent 64% of the population. 43% of the SIDS population is inactive or not a Member.

The evaluation findings based on data available and a number of interviews, were that large and medium sized States which represent three quarters of the region’s population (Colombia, Cuba, Mexico, USA, Venezuela) had been involved and profited the most from IOCARIBE. Whereas the smaller States, who may have needed the organization more, have not been part of the process,

3.4 EXTRA-REGIONAL STATES

As was explained before, membership in IOCARIBE is open to all interested IOC Member States, even if they are not geographically located in the region. Brazil and Russia are considered as “Members” because of their participation in the early years of CICAR and IOCARIBE Association, even though they have not actively participated to the Sub-Commission’s work since its creation.

Some important IOC Member States from outside the Caribbean region, such as Canada, Germany, India, Japan, Norway, Spain, Sweden and others, have expressed their interest in IOCARIBE. They include many so called "donor" countries, whose active involvement would be beneficial for the Sub-Commission's financial health. Some of these countries i.e.: Canada, Sweden, have provided financial and human resources support to IOCARIBE.

3.5 NATIONAL FOCAL POINTS

The original idea of National Focal Points (NFP) was to have a unique liaison person or office in each Member State, able to coordinate and officially promote IOCARIBE activities and programmes within the country. The appointment of a NFP is a requirement for States who have expressed their intention to become members of the Sub-Commission.

The evaluation found that Member States were not regularly appointing their NFP, the same as they were not renewing their declaration of membership. Once appointed NFPs continued to be considered as such, regardless of changes or lack of participation. Self-appointment also occurred, which means that the appropriate level in Government was not officially aware of the NFP's nomination. In many instance, and in order to keep programmes running, the regional Secretariat took the short-cut of establishing direct contacts with national experts and institutions.

From the beginning, IOC and IOCARIBE have encouraged Member States to create National Oceanographic Commissions (NOC) as unique interlocutors. They are inter-ministerial and multi agency coordinating offices or committees, with a national Secretariat and Chairman. NOCs should also coordinate marine research, services and related activities at the national level, and communicate between producers and users of marine knowledge and data. Some countries have created their NOC, but many have not. Where it exists the NOC should be the institution for the NFP.

Often the NFP is not in the NOC, but in a different type of office or even an individual acting independently. In the group of the active countries in IOCARIBE, three types of NFP were found:

- a) Within a formally established National Oceanographic Commission (NOC), following IOC's criteria;
- b) Within a leader institution, which took over the coordination role without the establishment of a NOC;
- c) A leader person, who acted as NFP outside any national institution but carried out the coordinating duty on his/her personal prestige and working capacity.

Obviously the results and efficiency in communication is extremely different for each case, as is the convocation capacity of the NFP within each Member State. For example, looking at the IOCARIBE archives for the last four years, over 50% of "active" Member States had very few mail communications with the Secretariat, and in some cases only one or two letters per year.

The degree of participation of Member States in IOCARIBE relies almost entirely on the performance, actions and efficiency of the National Focal Points. Although there is room for standardization and improvement, the fact remains that Member States which have one well defined NFP are considered as the most active Members of IOCARIBE and thus have benefited the most.

3.6 CONCLUDING REMARKS

Despite the fact that there is diversity amongst the States of the IOCARIBE region., problems associated with coastal and sea resources are shared by Member States. There should therefore be a common interest in IOCARIBE's activities.

This common interest is reflected by the fact that most of the States from the region are Members of the Sub-Commission. The high up take of membership was due to the simple process of becoming a Member.

However, membership has not lead to active participation and commitment from all the States. Relatively few SIDS are active but the non SIDS have shown a higher level of commitment, to their benefit and that of the region. It is worth noting that the few States which chose not to become Members are SIDS.

NFPs are the key to the active participation of Member States. But in order to effectively fulfil their role they must be formally appointed and clearly identifiable. It was found that the most active Members of IOCARIBE are the States which have one well defined NFP.

4. IOCARIBE PROGRAMMES AND SERVICES

To carry out its functions in the region, IOCARIBE is programme oriented. The activities, results and status of the major Programmes are presented in this Chapter.

4.1 PROGRAMMES FRAMEWORK

4.1.1 Global and regional programmes

IOC Regional Sub-Commissions are responsible for the promotion, development and coordination of the Commission's marine scientific research programmes, ocean services and related activities, including TEMA in their respective region. In establishing their programmes they should take into account of the specific interests and needs of Member States in their region,⁷

However, during all the stages of IOCARIBE science and services programmes the Sub-Commission has followed almost exclusively the Commission's global programmes priorities and structure. Thus, the expected balance between globally and regionally generated programmes has not occurred.

The case of Ocean Sciences and Living Resources (OSLR) is a good example: subjects such as turtle biology research, relatively important to the region's economy, have not got much attention when compared to globally approved programmes such as tropical demersal recruitment. Problems such as harmful algae blooms and coral reef studies, though needed in the region many years ago, have only received appropriate attention recently as they also become global priorities.

4.1.2 IOCARIBE's Medium Term Plan (MTP)

The MTP 1990-1995 was first prepared by the IOCARIBE Secretariat and submitted to IOCARIBE III, in accordance with a previous recommendation made by some Member States and by the XV Assembly of IOC (July/89). The MTP was approved by Member States participating in IOCARIBE III.⁸ However, shortly after its approval, this Plan was found to be financially unrealistic; it was not possible to obtain the amount of funds originally envisaged.

Thus, on the basis of experiences during the 1990-1992 period and taking into account the outputs of UNCED 1992, (particularly Agenda 21, Chapter 17 and the Framework Convention on Climate Change, and the Convention on Biodiversity), a Revised Medium-Term Plan (RMTP) was developed and published in February 1993, in accordance with a recommendation made by IOCARIBE IV. However, the RMTP for the period 1993-1995 also ran into financial problems which hampered its successful implementation.

The MTP has the same structure as the IOC programmes at the global level, that is: Ocean Sciences

⁷ IOC MANUAL, Part 1, Constitutional and other formal texts. March 1989

⁸ Document IOC/Inf-809, 28 Feb. 1990

Programmes, Ocean Services Programmes, and TEMA activities. In each of these programmes, emphasis was placed on implementing the regional components of the IOC global programmes.

4.2 OCEAN SCIENCES PROGRAMMES

4.2.1 Ocean Processes and Climate (OPC)

A Workshop on physical oceanography and climate (Cartagena, August 1986) initiated the regional programme on Ocean Dynamics and Climate which had been proposed at the IOCARIBE I (Curaçao, 1984).

Infrastructure and facilities existing in the nine (9) participating countries were identified. A regional project proposal, determining the number and the location of sea-level measuring stations in order to create a regional network was prepared. Ocean processes and climate studies, involving sea-level observations, circulation modeling, impact assessments and other systematic measurements at sea, were carried out in the major parts of the Wider Caribbean through national coordinated programmes. An English-Spanish Bibliography on Physical Oceanography and Ocean Climate for the Caribbean Sea was published in 1989, following a recommendation from the Workshop.

An IOCARIBE Group of Experts on Ocean Processes and Climate was appointed. It held its first meeting in Cartagena, August 1992. Its second meeting was held in 1995 in conjunction with the Chapman Conference on the circulation of the Intra-American Sea (Caribbean Sea and Adjacent regions).

Cooperation with WMO and UNEP at the regional level is increasing in this activity. The programme also relates to the UN Framework Convention on Climate Change. Small island oceanography was included as a special project in the preparation for the Small Island Developing States Conference and its follow-up, with a special workshop on the subject organized in late 1993. This was supported by small donors and strongly endorsed by Member States.

4.2.2 Ocean Sciences in relation to Living Resources (OSLR)

OSLR is the regional component of the IOC-FAO global programme on Ocean Science in relation to Living Resources. This programme has focused on recruitment problems following up the Workshop on Recruitment in Coastal Demersal Communities (TRODERP) held in Ciudad del Carmen (Mexico, April 1986). The recommendations of which were approved during IOCARIBE II.

An IOCARIBE Group of Experts for TRODERP was appointed and held its first meeting in May 1987, when projects on Coral Reef Demersal Recruitment (CORDERP), Fish Estuarine Deltaic Recruitment (FEDERP) and Penaeids Recruitment (PREP) were developed. All these projects were taking into consideration priorities for regional demersal resources, potential interests of Member States and relevant knowledge and research capabilities.

Another Workshop was held (Caracas, September 1989) to finalize the above three project proposals. A project on Satellite Ocean Analysis for Recruitment (SOAR) was added. The workplan for each project included the establishment of a database and the adoption of a standard methodology for data collection, analysis and integration of results.

However, after several years, the results have not met the Member States' expectations. Attempts were made by the Secretariat of IOC and IOCARIBE to obtain extra-budgetary funds from various donors, but there were difficulties and the projects never went beyond the formulating phase.

In its Fourth Session (1992) the Sub-Commission emphasized the need to link the programme to users, as in the case of the Marine Pollution programme. Priority has recently been placed on subjects which are most important

in relation to the social and economic activities of the region. An investigation was made by the Secretariat in 1994-1995 to identify specific OSLR research projects which IOCARIBE could practically carry out and which would be better adapted to the Member States' wants and needs. The projects which were selected are research projects on:

- a) Highly Migratory and Straddling Species
- b) Ecotourism research
- c) Coral reef research
- d) Marine biodiversity
- e) TRODERP
- f) Algae bloom and ciguatera
- g) Eutrophication
- h) Sea Turtle research

Thus, the emphasis is now being put on subjects such as Highly Migratory and Straddling Species, where a series of recommendations were produced in a regional workshop supported by USA (Miami, March 1995). Coral reefs, one of the most important ecosystems for the economic and social activities of the countries in the region is also becoming a high priority within the OSLR Programme.

4.2.3 Ocean Science in relation to Non-Living Resources (OSNLR)

OSNLR is the regional component of the IOC- UNDOALOS programme. OSNLR was established after the agreement reached in the IOCARIBE Mini-Symposium for the Regional Development of the IOC/UN/DOALOS Programme (Havan, December 1986). At IOCARIBE II several recommendations were made by Member States, including consideration of beach dynamics as a priority area. As a follow up, a three-week training course (Cartagena, June 1988) took place and emphasized coastal geophysical and ecological processes.

This area is of global importance as was stressed by the IOC Guiding Group of Experts on OSNLR, at its Third Session in Bordeaux (February 1989) where projects on coastal areas were endorsed, including in the Caribbean, The main focus should be on:

- Coastal zone management related to coastal land loss;
- Shallow water mineral resources (gravel. sand. carbonates).

This was followed by an Interdisciplinary Seminar on Research Problems in the IOCARIBE Region, organized with IOCARIBE III (1989). In order to strengthen the regional component of the programme, a project proposal was developed during the seminar, and was further elaborated at an ad hoc Regional Group of Experts meeting for OSNLR held in Havana (June 1990). The proposal was entitled: "Global Change and Coastal Land Loss: Management and Decision Making in support of a Sustainable Development within the Caribbean and Adjacent Regions". It received strong support from the Member States (IOCARIBE IV, 1992). The document was submitted to ICED (Canada) which agreed to provide financial support to further elaborate the project by preparing a detailed workplan. It has also been submitted to the European Commission through the African, Caribbean. Pacific (ACP) group, which has recommended the project for funding.

In May 1994, an OSNLR ad hoc Group of Experts meeting on cartographic methodology for coastal changes in Caribbean critical areas, took place in Isla Margarita (Venezuela). It was supported by IOC and UNEP/CEP. The meeting decided to convene a workshop on cartography and modeling to develop a technique for coastal mapping on critical areas.

The OSNLR programme also has not sufficiently met the expectations of Member States, most of the activities have been related to drafting proposals and few of the proposals have actually been implemented.

4.2.4 Marine Pollution, Research and Monitoring (MPRM)

The IOC/UNEP/FAO International Workshop on Marine Pollution in the Caribbean and Adjacent Regions (Port-of-Spain December 1976) was an important milestone in identifying the major marine pollution problems in the region. The Workshop considered petroleum pollution as the highest priority in the region. In 1979, IOCARIBE, started a Regional Petroleum Pollution Monitoring Programme called CARIPOL, within the framework of the GIPME-MARPOLMON Programme.

In 1987 the IOC Assembly established the IOCARIBE Group of Experts on Marine Pollution. Research and Monitoring in the Caribbean. The CARIPOL Monitoring Programme was supplemented by extensive training and intercalibration exercises, scientific symposia, etc. Analytical and technical training was provided for individual experts and groups of trainees at selected host laboratories. Through donations, analytical equipment was provided to participating laboratories. Within the Programme, an efficient data handling system was developed on beach tar, floating tar and dissolved/dispersed petroleum hydrocarbons. It provided the participating scientists with continuous feedback of computerized data and information about petroleum pollution through the region. Through standardized methodology, use of specialized manuals and intercalibration exercises, high quality data was produced. The CARIPOL Phase II programme was extended to include monitoring of petroleum hydrocarbons in marine sediments and organisms.

Considering the original objectives for petroleum pollution research and minuting. The CARIPOL Programme was one of the most successful of the IOCARIBE programmes. Based an its success, IOCARIBE III (1989) and the 5th Intergovernmental Meeting for the Action Plan for the Caribbean Environmental Programme (Kingston, Jamaica, January 1990) approved the creation of the Joint IOC-UNEP Marine Pollution Assessment and Control Programme for the Wider Caribbean Region - CEPPOL. This joint programme addressed nine (9) pollution concerns of regional interest, of which IOCARIBE is responsible for two (2): pollution by oil and pollution by marine debris. In addition, IOCARIBE is participating in the Pesticide Contamination Baseline and the Eutrophication and Turbidity components

Within the CEPPOL Programme under the responsibility of IOCARIBE, some activities have developed significantly. An agreement on technical cooperation between IOCARIBE and the Association of State Oil Corporations in Latin America and the Caribbean (ARPEL) was signed in July 1991. Contributions from SAREC/SIDA of Sweden and NOAA, EPA and USA Coast Guad have been received. Joint workshops with UNEP, EPA, NOAA, NMFS, ARPEL, IMO were convened. The Marine Debris Action Plan for the Caribbean was produced and five workshops on marine debris have taken place.

However, it has been noted that data submission to the CARIPOL database has decreased since the initiation of the joint CEPPOL programme.

The Member States in IOCARIBE IV (1992) strongly supported this programme and the cooperation with UNEP. They recommended to maintain the IOCARIBE Group of Experts on MPRM as a scientific and technical advisory body to the CEPPOL Group of Experts, operating continuously mainly by correspondence. Nevertheless, this Group is not working and the post of the IOC coordinator for CEPPOL has been vacant since the last person left the job, causing the participation of IOCARIBE in CEPPOL to decrease.

Several on-going activities of the Joint IOC-UNEP CEPPOL Programme contribute to activities proposed in Agenda 21, Chapter 17 of UNCED, through scientific background data and direct input. They also relate to the Convention on Biological Diversity.

4.2.5 The International Bathymetric Chart of the Caribbean Sea and Gulf of Mexico (IBCCA)

IBCCA is the regional component of the General Bathymetric Chart of the Ocean (GEBCO) a joint IOC-IHO global programme. The Editorial Committee for IBCCA was created by the Resolution XIII-3 (1985) of the

IOC Assembly and met for the first time in Aguascalientes (Mexico, October 1986). In this meeting the specifications for the regional chart were set. Later, in Boulder (Colorado, USA), a Workshop on data sources and Map Compilation was convened and immediately followed by the Second session of the Editorial Board (July 1988). These meetings reviewed the general history of the cartography in the Caribbean region, identified the potential Member States infrastructure which could be used in the project and defined the areas to be covered by each participating State.

The Editorial Committee for IBCCA has met regularly and constantly, keeping a good continuity in its members either by the experts and/or the national institutions they represent. The Third meeting was held in Caracas, January 1990; the Fourth in Havana, March 1992; and the Fifth in San Jose, November 1994.

The programme has published its first Bathymetric sheet and established a primary source data bank with digital information. Other sections of the chart are in progress and some are ready for publication soon. Digitalization of the existing data is being emphasized. Member States commended this work as an example of useful regional cooperation aimed at sending different scientific and practical purposes.

4.2.6 Concluding remarks

Having described the activities and results of the regional ocean sciences programmes, an analysis is needed to understand the degree of success or failure of each programme.

The most important common problem for the implementation of science programmes was the lack of financial resources. The problem arises when Member States approve or recommend a programme without identifying sources of funding.

Another significant finding in most programmes was the lack of accountability, both in results and in budget and resources. There has been no assessment systems for the Secretariat or the Member States to regularly follow-up the degree of achievement of programme's goals. Neither has there been an accounting system to keep records of resources and contributions from IOC/IOCARIBE budget or from other sources, in cash or in kind.

The lack of such systems, which are considered necessary management tools for proper implementation and control of programmes, created difficulties for the evaluation team because important information was not easily accessible and some was not available at all. For example, the descriptions of programmes made in the previous sections include mostly the execution of meetings, courses and workshops and each one is accounted as an achievement in itself without following up its impact on the beneficiaries. In some other cases the bare formulation of a project proposal is accounted as an achievement, thus some programmes never went beyond the formulation stage.

Three Groups of Experts were created by the Sub-Commission (OPC, OSLR and MPRM) and one Editorial Board for IBCCA created by GEBCO which operates just like another Group of Experts. It is worth noting that Project Steering Groups and Project Leader, structures existing in IOC Manual to facilitate efficient implementation of regional programmes, have not been used in IOCARIBE.

When Groups of Experts are initially appointed, they include indeed the most valuable scientists available who do their best to cooperate with the Sub-Commission activities usually voluntary and in their own personal capacity. Programmes where this happened are the most successful ones, such as IBCCA and CARIPOL. In these cases the continuity in membership and regularity in their meetings can be considered as the major cause for success.

On the other hand, the programmes in which participants to the Groups of Experts changed from meeting to meeting; or were not really qualified experts but deputies or available officials, and where meetings have been

infrequent (some Groups of Experts met only once or twice in eight years), are the less successful.

4.3 OCEAN SERVICES PROGRAMMES

Since the beginning of the Sub-Commission the development of ocean services has been a permanent objective. Efforts have been made in Member States to increase local implementation and association to regional and global networks. These are related to the Global Sea-Level Observing System (GLOSS), the Integrated Global Ocean Services System (IGOSS), the Global Ocean Observing System (GOOS) and the International Oceanographic Data Exchange (IODE).

4.3.1 Regional Components of GLOSS and IGOSS

Due to the commitment of a number of Member States and their institutions and due to the cooperation at the regional level, the regional component of The Global Sea-Level Observing System (GLOSS) is one of the relatively successful IOCARIBE service programmes. At least 35 sea-level / neither observing sites have been identified 28 of which were operational in 1993. Several more stations have been created since 1992, some of them unilaterally by Member States and some by IOCARIBE with support from UNEP-Caribbean Action Plan.

A primary task would be to replace old sea-level stations with new equipment based on satellite telemetering digital acoustic instruments, so as to obtain a regional coverage. On-going activities include providing periodical mean sea-level data to the Permanent Semite for Mean Sea-Level (PMSL), and training regional experts in observing sea-level.

The Sub-Commission strongly endorsed this programme and encouraged Member States which have not done so to participate and to place the highest priority on sea-level observations for scientific and socio-economic applications.

The situation of the regional component of the Integrated Global Ocean Services System (IGOSS) is similar to that of GLOSS but there has only been partial implementation. Some of the constraints are: the general opinion of Member States that there are no present possibilities for them to use the real or quasi real time data provided through the IGOSS system, the lack of equipment and the training limitations.

4.3.2 Regional Component of GOOS

The development of GOOS is recent. It is a joint IOC-WMO-UNEP-ICSU programme to observe the oceans as modulators of global climate. It encompasses programmes as GLOSS and IGOSS as well as the Drifting Buoy Cooperation Panel (DBCP), the Ocean Data Acquisition System (ODAS), current measurements international mussel watch, etc.

The regional component of GOOS is gradually developing on the basis of the existing observation networks, such as regional GLOSS and IGOSS. The Sub-Commission encouraged this development.

The implementation of GOOS in the IOCARIBE region is therefore linked to and measured by the implementation of the GLOSS and IGOSS. The creation of a national component of GOOS within each Member State was proposed as well as coordinating mechanism and nomination of GOOS National Focal Points.

4.3.3 International Oceanographic Data Exchange - IODE

IODE is an IOC programme aiming to foster the exchange of marine environmental data between National Oceanographic Data Centres.

Some Member States in the region are strengthening or creating national oceanographic data centres. However,

the process in IOCARIBE as a whole is weak. Technical assistance to provide equipment and training to the less developed countries has only been possible in some cases and more as a way of supporting specific needs of national projects than supposing regional programmes. Exceptions to this are the CARIPOL regional data base and the IBCCA bathymetric information exchange.

Implementing IODE to meet regional needs means concentrating on providing necessary training and establishing capable national oceanographic data centres. Efforts to improve data exchange networks are also helped by the fact that electronic communications and computer technologies are becoming available in less developed countries.

4.3.4 Marine Information Management - MIM

4.3.4.1 Communications infrastructure

Efficient communications and information management are essential for the functioning of an international coordinating body such as IOCARIBE.

In the IOCARIBE region communication capacities vary substantially from one Member State to another. This diversity has impeded the development of a communication network based on electronic mail. For example, while the OMNET/Sciencenet E-Mail service was operating (until December 1994) only five countries outside the USA had electronic mail-boxes connected to the network. Today INTERNET is replacing the Sciencenet facilities but, apart from USA and a few other countries, institutions and experts do not have easy access to it yet.

However, nearly all the institutions, agencies and experts in the region can communicate by telephone and facsimile. Telecommunications are reasonably good and reliable. Thus, the current easiest, fastest and most reliable region wide system to interconnect IOCARIBE and its elements (Secretariat, Officers, NFPs, regional experts, etc.) is a system based on facsimile.

4.3.4.2 Management and referential information

This type of information flows constantly through the Secretariat, NFPs, and other elements of the Sub-Commission, and is the most useful tool for the efficient administration of IOCARIBE. Information normally handled by the Secretariat is:

- Member States information, inventories, statistics;
- Programmes and projects information, resources, activities;
- Lists of experts, institutes and facilities, with related data;
- Budgets and operational expenses, programmes, extra-budgetary projects;
- Scientific events, publications, scholarships opportunities;
- Regular mail and communications.

Nevertheless this information is not processed in a sufficiently organized way to provide quick answers to users' inquiries. As a result, most of the current referential information is not being used to the full extent of its value. The best example of this is the difficulties met by the evaluation team to find appropriate data and information for the purposes of the evaluation.

4.3.4.3 Scientific information and bibliography

Scientific information and bibliography are the "product" IOCARIBE has to market to final users. This could probably be the best indicator to measure the impact and results of the Sub-Commission's regional programmes.

The Medium Term Plan (1990-1995) planned the creation of general scientific and academic data-bases and the creation of communication channels enabling fast and simple flows of information. But the integration of a comprehensive regional marine information network has been delayed partly due to the lack of a regional

IOCARIBE project proposal and to the regional tendency to develop parallel duplicative networks. The Revised Medium Term Plan (1993- 1995) did not follow that programme up.

The Recommendation SC-IOCARIBE-I/6, endorsed by the IOC Assembly, proposed the establishment of a "Regional Network of Education and Research Institutions". This network, in addition to the development of TEMA activities in the region, would strengthen the exchange of data and information between regional institutions and experts. Furthermore, the Recommendations SC-IOCARIBE-II/7(1986) and SC-IOCARIBE-III/6 (1989) requested the organization of a Regional System for Marine Information Management (with the support of UNESCO Regional Participation Programme). Although some efforts have been made to initiate the establishment of such networks, these recommendations are still not implemented.

There is a tendency in the region to strengthening the existing marine information systems such as the ASFA/ASFIS of UN/FAO/IOC. Some countries, such as Mexico, have the experience to manage this bibliographic information, but the information on how to access and contribute to the system is not available for potential users. Moreover, many Member States have a significant amount of gray literature" which does not enter the regional or global information system for that reason. Some countries in the region are developing internal programmes to store and process bibliographic information. Informal cooperation exists in many cases, via personal contacts among experts and libraries, but still no formal mechanism exists for regional exchange or interconnection.

4.3.5 Concluding Remarks

In the case of Ocean Services, programmes in the region have had no formal Groups of Experts nor Steering Committees. This may have influenced their relatively low degree of accomplishment. The most successful programmes are those which have the most enthusiastic scientists involved, in many instances based on a personal interest.

Activities have been carried out by some Member States, and actual participation in these services has been associated with the dynamics of certain science programme, such as the relation between GLOSS and OPC. For this reason the overall implementation of ocean services has been rather weak. Whereas a number of countries are actively participating, others, although supporting the corresponding recommendations have not demonstrated the same degree of activity.

Just as in the science programmes, the degree of participation and commitment has determined the development of the marine services capacity in the participating Member States.

4.4 TRAINING, EDUCATION AND MUTUAL ASSISTANCE (TEMA)

In order to promote the development of human resources and infrastructure, IOCARIBE Member States have always insisted on the need to integrate the Training, Education and Mutual Assistance (TEMA) component in all of the Sub-Commission's research and services activities.

This position is congruent with actions adopted by IOC, specialized agencies within the UN system and international funding agencies, which assign high priority to assist developing countries to strengthen their capabilities in marine sciences, technologies and ocean services. The aim of the UNESCO/IOC Comprehensive Plan for a Major Assistance Programme to Enhance Marine Science Capabilities of Developing Countries (UNESCO 1985) was to respond to the needs of less developed countries. This policy is also promoted in the Agenda 21 of the UNCED and in the UNCLOS.

Assistance provided to active Member States in this context has been important for improving their national capabilities in ocean sciences and technologies. For those developing countries in the region eager to expand their capacity, such assistance and cooperation proved to be a significant source of self development. Regional

programmes provided excellent opportunities for participating developing countries to foster the transfer of science and technology. ,

As a result of TEMA a number of developing countries in the region, confident in their achievements in certain areas of marine scientific disciplines, have offered training opportunities to other less developed countries, it is the case of Brazil, Colombia, Costa Rica, Cuba, Mexico, Trinidad and Tobago. Venezuela and others. These Member States happen to be the most active and participating in IOCARIBE regional programmes (See Annex IV).

Among the various regional IOCARIBE programmes, CARIPOL/CEPPOL owes its success not only to active participation of a number of countries but also to the large number of training activities in support of the programme. The available records of the past ten years show that out of more than 151 scientist training in the region, 92 were in the programme areas of CEPPOL.

On the other hand, because of the lack of financial support for TEMA activities, other programmes such as TRODERP, once a high priority project, tended to remain neglected. It is also difficult to keep records and statistics on TEMA, because of its nature and the difficulties involved in evaluating its impact.

During the past decade the regional Sub-Commission organized more than 6 scientific symposia, in the hundred of scientists took part, and a number of workshops in support of regional programmes. However, the support provided through specific programmes has mainly been discipline oriented. The exceptions to the disciplinary oriented support are perhaps the cases of the Member States which have received assistance through multilateral or bilateral cooperation when formulating their national plans to develop marine science and technology.

The Recommendation SC-IOCARIBE-I/6, (1984) proposed the creation of a "Regional Network of Educational and Research Institutions", to benefit from and strengthen the existing capacities in marine sciences in the region. A special focus was put on the formation of human resources at the postgraduate level and on high quality research. The Recommendation still needs to be implemented.

Member States approved the Recommendation SC-IOCARIBE-IV/7 on "Strengthening of TEMA and Action Plan for TEMA in IOCARIBE". It approves the establishment of a TEMA Action Plan and Strategy for the region, and recommends that it includes the following pilot projects:

- a) Development of national marine sciences country profiles, which should provide information on the needs for an appropriate development of marine sciences, services and management;
- b) Development of structures for IOC national contacts (NFP), for an effective coordination of the marine research and services at the national level, for interaction with IOC, and to provide assistance to the Government in the formulation of marine science policy;
- c) Identification and use of already existing cooperative mechanisms in the region.

Like the previous one, this recommendation has not yet been fully implemented, The lack of country profiles, diagnosis and a national policies for development of marine sciences and technologies has proven to be a major set back for identifying the goals and real needs of Member States. Many countries in the region still need assistance, based on the experience of other Member States, for the establishment of national plans for the development of their marine sciences capabilities.

5. REGIONAL SECRETARIAT

The Secretariat is the administrative body of the Sub-Commission. It is the nodal point where all the elements can link to each other. Its headquarters, budget, staff and its relation with its mother organization (the IOC) form a structure which enables it to achieve its functions. The current status of this structure is presented in the following sections,

IOC/INF-1043

page 20

5.1 HEADQUARTERS

The regional Secretariat was formally established in Cartagena de Indias, Colombia, in 1988 when the headquarters Agreement between UNESCO and the Government of Colombia was signed and ratified by the Congress. However, cooperation began some time earlier, in 1986, when the Senior Assistant Secretary for IOCARIBE was transferred to Cartagena. Since then, it has been operating regularly with reasonably good conditions.

The stability of the Secretariat in one fixed place became a very favorable working condition, once settled down as compared to the previous inconvenience caused by transferring the Secretariat to the home country of the Chairman, during the experimental IOCARIBE Association period (Trinidad & Tobago and Costa Rica).

Cartagena is a city with most facilities and infrastructure required to operate and office with the characteristics of the IOCARIBE Secretariat. A number of local marine academic and scientific institutions provide support and foster the activities of the Secretariat. The space and facilities provided by the host government have been sufficient, and expansion in the same building is possible to some degree if required.

5.2 BUDGET

The programme and activities of a regional Sub-Commission shall be carried out within the budgetary allocations established by the Commission, or from such additional sources and support in kind as may be made available by UNESCO or by any other UN or international organisations cooperating with IOC, or by Member States of the Commission, or from any other sources in accordance with the financial rules of the Commission.

Voluntary contributions earmarked specifically for the programmes and activities of a regional Sub-Commission may be accepted and established under the IOC Trust Fund in accordance with the financial regulations of UNESCO and IOC, and administered by the Secretary of the Commission. This funding mechanism could be the most effective for IOCARIBE but, due to current restrictions in IOC, the use of this mechanism has been limited.

The total budget for the Sub-Commission is formed by:

- a) running expenses of the regional Secretariat
- b) variable operational expenses for programmes and projects

5.2.1 Secretariat running expenses

In 1994 the total running expenses of the IOCARIBE Secretariat were approximately US\$48,000 which is representative of the last five years (1991-1995) with a slight annual increase. The budget was provided as follows:

IOC/UNESCO	80%
Colombian contribution	20%

This amount does not include:

- a) The cost of the office space, estimated in US\$12,000/year (1995) including local services, which is on top of the host government's contribution.
- b) the costs of professional staff and bilingual secretary, paid directly by UNESCO, IOC and donors. This amount has been variable through the years as staff number changed.
- c) The budget for implementing specific programmes and activities, (See 5.2.2 programmes operational costs).

A new provisional arrangement with UNDP-Bogota has recently been established to manage the UNESCO contribution for running expenses. This procedure has been helpful to solve the problem of irregular flows of funds and release the regional Secretariat from the administrative burden, particularly considering the shortage in staff.

The host country's financial contribution for the operation the Secretariat has been paid regularly in the amount and increments established in the Agreement.. Negotiations to increase it both in kind and cash are underway. This contribution has been kept approximately equivalent to US\$ 10,000 a year, in Colombian pesos, since the establishment of the Secretariat in Cartagena. About 90% of this money is used to pay two local clerical staff.

5.2.2. Programmes operational costs

Programmes operational costs should be kept apart from secretarial running expenses, for accounting and evaluation purposes. They are variable amount depending on: the number of programmes and projects, the level of activities being carried out and the approved budget for each programme. It includes resources for activities such as meetings, workshops, seminars, travel expenses, equipment, training and others. These expenses are included in the budget of each particular programme, and are provided by various funding sources.

5.3 STAFF

The situation in relation to professional staff has been extremely variable between 1990-1994 ranging from one (1) to four (4) professionals at any one time.

Since the establishment of the regional Secretariat, IOC-UNESCO provided a professional (level P-5) to work as the IOC Senior Assistance Secretary for IOCARIBE through temporary relocation of one existing post from IOC Secretariat in Paris to Cartagena, but this post was not compensated in Paris. Following his request the incumbent was transferred back to Paris in 1994. The post was also transferred back and has not been replaced.

At IOCARIBE IV (1992) the Recommendation SC-IOCARIBE-IV.8, endorsed by IOC Assembly, urged the retention of the IOCARIBE Secretary position in Cartagena, and considered transforming the current P-5 post into two posts at the P-4 and P-3 levels.

Some donor countries such as Sweden and France supported seconded experts to the regional Secretariat from 1986 to 1992. In 1994 the Acting Secretary for IOCARIBE was seconded by USA. These were important contributions to IOCARIBE, but discontinuation of support, added to the transfer of the Senior Assistance Secretary to Paris, makes the present situation in the regional Secretariat a difficult one.

At the time of this evaluation the post of acting Secretary for IOCARIBE is covered by a consultant on short term contract paid by IOC. No seconded experts are working in the regional Secretariat. Part time support is provided from Miami by the Assistant Acting Secretary seconded by USA, and from IOC by one IOC part-time consultant.

The IOC is paying, since early, 1994, the salary of the bilingual secretary of the Sub-Commission in Cartagena. This is currently the only permanent post in the regional office.

The current staff limitations could be just a reflection of the staff situation of Paris headquarters. Except that any change represents a much greater impact on the regional office, due to the small number of staff.

5.4 DEVOLUTION AND CENTRALIZATION

As stated in the IOC Manual, regional Sub-Commissions shall operate within the framework of the general policy

of the Commission and the budgetary guidelines and allocations established by the Assembly as well as the Executive Board and the General Conference of UNESCO. They are extensions of the mother organization in the regions and their aim is to provide services to the Member States in order to maximize their input to, and benefit from, IOC presence and programmes.

To reasonably fulfil its role as "IOC in the region", a clear delegation of functions from Paris and an efficient management response from Cartagena are essential in IOCARIBE. So far it has worked reasonably but on occasions the share of responsibilities has not been clear.

One aspect where this is most evident is in the management of funds and budget. The regional Secretariat does not have sufficient delegated authority nor the staff capacity to manage funds for the regional programmes under its control. Lack of accounting training has been an argument but it is easy to solve and can be done with simple computer programmes as in similar small UNESCO offices. Currently funds are administered from Paris for activities taking place in the region. This is not efficient and contradicts one of the main rationale for the existence of regional Sub-Commissions and Secretariats.

5.5 CONCLUDING REMARKS

The regional Secretariat for IOCARIBE has a reasonably good infrastructure with optimal conditions to perform its coordination duties and implement regional programmes. Under appropriate functional conditions the regional Secretariat, subordinated to IOC'S general framework policy, must contribute to enhance the visibility of IOC in the region and alleviate the work load from the Secretariat in Paris.

However, because of the lack of delegated management capacity to the regional Secretariat, and because there is no mechanism in place to receive contributions, Member States and/or funding organisations are reluctant to contribute to regional programmes.

Without these additional funds and sufficient staff, the Secretariat is unable to respond properly to its responsibilities and to the needs of Member States. Unless the circle is broken at some point, the Secretariat will remain trapped in this situation.

6. DISCUSSION AND RECOMMENDATIONS

In the previous sections of this report, facts and results have been described. Based on available information through literature and interviews with scientists and experts, the general perception is that IOCARIBE has had a positive impact on the region. Nevertheless, some functional and managerial problems have been identified during the evaluation and these are discussed in this section. For each identified problem a proposal of action is made in order to improve the impact and functioning of IOCARIBE in the region.

It is important to note that almost all of the problems identified, and the actions recommended, are related to the way existing mechanisms and processes are implemented. Very few of them relate to possible structural changes in the Sub-Commission. The implementation of these recommendations aims to bring the Sub-Commission to an efficient operational state, within its goals and terms of reference originally established.

6.1 MEMBER STATES

At its creation the IOCARIBE Association took for granted that all IOC Member States in the region would be interested in joining and participating. Although it was a reasonable assumption, that assumption did not materialize and some States "chose" not to join IOCARIBE and others joined but have not participated. This is the case for 57% of the States in the region. Consequently the lack of interest raises questions about what is required of its Members and about IOCARIBE's aims, the way the "product" has been presented and whether it meets Member States' needs.

6.1.1 Improve representation of dependent Territories

France, The Netherlands, United Kingdom and USA represent nineteen (19) individual and unique Territories in the IOCARIBE region. Within the IOCARIBE system this grouping fails to consider the specific needs of each Territory. The lack of participation of a single mother State eliminates in a sweep a number of territories in the region. Assessing participation is also hindered by having a single representative for number of Territories.

Member States should appoint a Local Focal Point for each dependent Territory in the region, and each Territory should have an opportunity to be involved regardless of the participation of the mother State

6.1.2 Commitment when accessing membership

IOCARIBE is what Member States want it to be. Membership however, only requires an intention to participate. This generates members, but it may not be a sufficient commitment to ensure activity. The financial position of finding agencies and intergovernmental organisations has changed since the creation of IOCARIBE and the need for a greater degree of national initiative and accountability now exists. In many ways it is the responsibility of the regional Member States to ensure that there are resources made available for the Sub-Commission.

Membership in IOCARIBE should include a commitment to carry out activities and make financial and/or other contributions to the Sub-Commission.

6.1.3 National Focal Points (NFP) and National Oceanographic Commission (NOC)

NFPs are the essential key to IOCARIBE's efficiency in the region. Different kinds of NFP have been identified in the course of the evaluation, each with its own advantages and disadvantages.

NFPs within formally established National Oceanographic Commissions guarantee the broad participation of all national scientific and technical institutions, universities, industry, governments, private sector, etc. The disadvantage is that as NOCs grow bigger they tend to lose flexibility.

Individual institution acting as NFPs are usually faster but tend to concentrate power and thus create antagonism with other national institutions. Individuals acting independently also get things done, but they lack coordinating power and there is only continuity as long as they keep their job. In both cases, broad participation of industry and the national science and technology community is inhibited.

Experience has shown that what is gained in the broader participation outweighs and probable loss in flexibility. Thus, it is convenient for member States to have NFP within a NOC or equivalent system. In addition, to be effective, NFPs should be appointed and supported at a ministerial level. This ensures a wider knowledge of IOCARIBE's existence and places greater responsibilities on the NFP.

For a better functioning of the NFPs, a network should be established by the regional Secretariat, interconnecting them to foster the share of experiences and enhance the harmonization of operations.

NFPs should be formally appointed by high government authority of Member States. The most appropriate NFP is the Chairman or Head of a National Oceanographic Commission. A network of NFPs should be established in the region.

6.1.4 Assessment of States participation and benefits

A first glance method to indicate the degree of national participation was to consider the attendance to

IOCARIBE Sessions (Annex II). This, of course, gives no indication of the activities carried out by each State. To get a better idea, national attendance to IOCARIBE associated events was analyzed (Annex IV). This identified some consistently active Members over the range of programmes, but again it failed to identify the specific actions carried out by Member States.

Information on national activities is a key part of the Sub-Commission's functioning as a regional organization and is essential as feed-back for maintaining Member States' enthusiasm and as a self-evaluation tool. This information could be related to the national marine sciences country profile. An accurate measure of participation will help to orientate the Sub-Commission's broad objectives towards Member States' needs.

A system which assesses participation, based on activities and capacity building of Member States is needed in IOCARIBE.

6.1.5 Extra -regional States participation

Membership in IOCARIBE is open to all Member States of IOC, but in practice IOCARIBE consists of States from the region. This condition has probably created a closed environment resulting in the lack of extra-regional inputs. Only Brazil and the Russian Federation were, some time ago, extra-regional members, but have not been active lately. Some developed States have recently expressed an interest in the IOCARIBE region. Their participation could be beneficial for the objectives of IOCARIBE.

The Sub-Commission could benefit from some strategic alliances with extra-regional States and even regional organizations such as WESTPAC, the other IOC regional Sub-Commission. An open regionalism would introduce new blood into the veins of IOCARIBE.

IOCARIBE should encourage the participation of developed extra-regional Member States of IOC in the activities and programmes of the Sub-Commission.

6.1.6 The "grass-roots" level

Traditionally IOCARIBE has not included NGOs from the region in its working plans and programmes. In the future it maybe necessary to consider an increase in the involvement of these regional institutions as a new, potentially important "element" in the Sub-Commission's system.

The issues and problems faced in tropical coastal zones require solutions and approaches which involve local communities, or require expertise in the field. NGOs have the advantage of being able to carry out work at this "grass roots" level, whereas Governmental Organizations have less flexibility to do so. IOCARIBE is well placed to act as an umbrella organization for NGOs with particular expertise and thus could achieve greater success by cooperating with local and international NGOs in specific activities.

IOCARIBE should identify relevant NGOs and increase collaboration with them in the region.

6.1.7 Collaboration with industry and policy makers

Collaboration with end users, such as industry and policy makers, is also an important aspect of many of the programmes of IOCARIBE, but it has not been carried out to a significant degree. Many of IOCARIBE's products have direct benefit to policy makers and industry, particularly in the fields of offshore exploration for minerals, shipping, coastal development port development, fisheries and tourism. Certainly these industries are affected by policy decisions based on information generated y or sources from organizations such as IOCARIBE. Collaboration would lead to greater success in planning, enforcement, regulation, capacity building, project funding etc.

IOCARIBE should increase dialogue, share information and cooperate with end users, such as industry and policy makers.

A MEDIUM TERM STRATEGY

In relation to the Member States, IOCARIBE must integrate and go beyond the above points, which are managerial adjustments and reforms, and go into a new strategy to improve its role in the region. IOCARIBE must become the link between applied “usable” science in marine disciplines and socio-economic and environmental problems in the region.

IOCARIBE must tailor its products to meet the needs of the Member States, end-users, industry and policy makers. Before they demand the products of IOCARIBE, they must first know what they want and need. Identifying Member States’ needs must be the basis for a medium-term strategy for IOCARIBE.

6.1.8 Meet the needs of Member States: National Marine Policy

Some States in the region may have failed to actively participate because IOCARIBE’s products are not adapted to their situation. They cannot be expected to demand IOCARIBE’s products if they do not know what can be gained from international cooperation in marine sciences as a support to economic development; and if they do not have an anticipation of where they want to be in the future in relation to their marine resources and environment. Until now, IOCARIBE has mainly catered for those Member States with relatively advanced national marine policies.

The results of the evaluation show that most Member States in the region do not have a national plan or policy for the development of marine science and technology. Member States must first know what they want and need, before they seek a solution. IOCARIBE in turn must provide assistance to those States to make their diagnosis and planning, particularly in the light of the global situation and recent developments such as Agenda 21 of UNCED, and UNCLOS.

If Member States have clear policy for marine and coastal resources exploitation and development, the need for marine sciences and technology could be inferred as essential, and therefore the need for the countries to participate and benefit from IOCARIBE’s products will come naturally.

IOCARIBE should assist its Member States to develop their capacity to formulate national plans and policies to meet their need in marine science and technology.

6.2 REGIONAL PROGRAMMES

On the whole projects or programmes have generated a positive impact in the region, and some such as GLOSS, CARIPOL, OPC, IBCCA and CEPOL have successfully evolved as a result of Member States’ activities and strong involvement. However, from the planning state to the control of results, several managerial drawbacks have been identified in the implementation of regional programmes. They are described in the following sections and short term actions are proposed for each one.

The most noticeable underlying insufficiency of the scientific and services programmes is TEMA. Even though much progress has been made, and marine science capacity has noticeably built up in participating countries,

TEMA as a priority component of IOC programmes still needs to be a more defined regional strategy.

6.2.1 Support to regional and national initiatives

Regional components of IOC Global programmes have outweighed the number of regionally generated programmes. In order to meet IOC mandates, IOCARIBE Secretariat has focussed on implementing the regional components of global programmes and has not been equally receptive to regionally generated projects. This may explain a certain amount of the disinterest of Member States in IOCARIBE's activities.

On-going research activities carried out in national institutions have been neglected as additional sources of knowledge. They represent the spontaneous selection by local scientists of problems which in many cases have a regional nature. The funds and the human resources being used by Member States could be strengthened by incorporating them in IOCARIBE regional programmes in order to produce a synergism which would be beneficial for both regional and national end users.

While continuing to pursue implementation of regional components of IOC global programmes, IOCARIBE should give greater attention to regional activities. Relevant national projects should be strengthened and connected to regional programmes.

6.2.2. Resource identification in the early stages of programme formulation

A common problem observed in IOCARIBE programmes has been a failure to identify sources of funding and to appreciate realistic availability of funds. All the responsibility to source funds for many projects has been placed on the Secretariat. Almost all the recommendations include the mandate to the Secretariat: "...to identify financial resources". This process has led to unrealistic budgets and to the overloading of the Secretariat considering its operational staff limitations. As a result, projects have had to be re-worked and many have not gone beyond the formulation stage.

Available sources of funds should be identified before the approval of programmes. Sourcing and raising funds should be the responsibility of the Programme Leader with the assistance of the Secretariat.

6.2.3 Mechanism for an effective programme leadership and management

Within the IOC, there is a structure for the coordination and implementation of regional programmes and projects. This structure is the project Steering Group, which consists of active scientists in the region, and has the higher level of flexibility, informality and communication needed to manage and implement projects. The Project Steering Groups have generic terms of reference for a designated Projector Programme Coordinator, whereas the Chairman of the Group of Experts has no defined functions as a programme leader.

IOCARIBE should make use of the structure of Project Steering Groups with a designated Programme Leader for implementation and coordination of programmes.

6.2.4 Members of Groups of Experts and project Steering Groups

Groups of Experts are formal subsidiary bodies of IOC designed to carry out specific and detailed scientific and technical studies and/or coordination tasks. The Group is supposed to act as a scientific advisory body to the Secretary.

To carry out their task the Groups must be composed of specialists selected for their scientific or technical expertise. In most cases IOCARIBE Groups of Experts are working at their best capacity, and it is a fact that extremely valuable scientists are contributing to the progress made in current programmes. However in some Groups there has been a tendency to recruit experts on the basis of availability rather than on qualifications and

it is not always the experts who show up at meetings, but often a delegate.

A system of ranking individuals experts according to scientific and technical expertise would ensure a minimum level of knowledge and continuity in meetings.

The same criteria should be applied to members of project Steering Groups when used to implement a project or programme.

There needs to be a defined set of criteria for qualifications, recruitment and participation of experts to the Groups of Experts and Project Steering Groups.

6.2.5 Systematic and on-going procedures for programme accountability

During the current evaluation, the retrieval of information was found especially difficult. The lack of a permanent system for processing management information was noticeable. Without a constant evaluation procedure and appropriate indicators it is not possible to effectively follow-up projects. At each stage of each programme specific questions must be asked so that signals are raised in order to direct, continue, modify or discontinue activities. Achievable goals and measurable success criteria should be defined in terms of accountability as well as measurable impacts on the end users.

On-going evaluation procedures must be an integral part of programmes.

A MEDIUM TERM STRATEGY:

The Managerial adjustments mentioned above are aimed at improving the impact and successes of the programmes in the region. Relative priorities of programmes are to be decided by Member States according to their changing needs and situations, and are not questioned in this evaluation. However, ultimately the programmes must aim to raise the research capabilities of Member States and solve regional problems. The constant basis for this capacity building is Training, Education and Mutual Assistance, through a comprehensive regional TEMA strategy embracing all programmes.

6.2.6 The need for a TEMA strategy

TEMA is required to be an integral part of all IOC and IOCARIBE programmes and is a key element for their success. However, no strategy has been defined to achieve that, which makes TEMA a floating concept occasionally implemented.

The Sub-Commission has frequently stressed the importance of TEMA, but without raising its importance to be a cross-division programme. TEMA has not attracted sufficient funds to be effectively implemented. To be of real benefit to the region, IOCARIBE has to define a comprehensive TEMA strategy which invests in the human resources as a long-term and on-going solution to regional problems.

Capacity building should be present in and above all activities of the sub-Commission. Each programme must meet specific TEMA requirements which must be defined by a comprehensive regional TEMA strategy.

6.3 REGIONAL SECRETARIAT AND RUNNING OF THE SUB-COMMISSION

There is a reasonable infrastructure in place for the Secretariat to perform its functions and duties. Apart from

IOC/INF-1043

page 28

some constraints in communications infrastructure among a few countries in the region, most conditions are reasonable good. In the next sections some problems related to the running of the Secretariat and the Sub-Commission are pointed out and recommendations to fix them are suggested. Again, most of them are simple management solutions.

Once, and assuming, these problems are solved and the means provided, the Secretariat and the Sub-Commission as a whole must tackle the most important problems related to management, which are the flow, processing and retrieval of information.

6.3.1 Continuity and sufficient qualified staff

The post of Secretary of the Sub-commission has never been provided. A temporary transfer from Paris was made in 1987 but was relocated back to Paris early 1994. Since then, the Secretariat has been manned on an interim basis by a seconded expert and a short term consultant. This situation undermines the effectiveness of the regional office. Relative stability for the Secretary of the Sub-Commission is necessary, as well as proper authority delegation from IOC to manage and make decisions on region issues.

In addition, the drop from three to zero seconded experts has hindered the continuity and proper handling of the different programmes. Without continuity in staffing it is difficult to follow up programmes.

The IOCARIBE Secretary requires a core of a single senior UNESCO-IOC staff member as regional Secretary; and a number of seconded experts to assist in the running of IOCARIBE programmes.

6.3.2 Officers as "Board of Directors"

Officers in IOCARIBE have been charged individually with overseeing one or more regional programmes, but since there is no clear description of the role of Officers, it may create confusion between their role and the role of the Programme Leaders. In addition, differences in the level of participation for each Officer have been identified, and the degree of communication and interactions with the Secretariat varies.

Officers are expected to be senior high level officials within governmental or academic institutions. They are elected on the basis of their prestige. Without neglecting their individual capacity, the position of Officers is better suited to the collective role of overseeing the function of the Sub-Commission including the regional Secretariat. A collective role would be a more effective application of their expertise and authority.

Elected Officers should meet at least once a year in the intersessional period, especially if IOCARIBE Sessions cannot be called each biennium.

A description of the functions and responsibility of the Officers of the Sub-Commission is needed. The Officers should be organized as a "Board of Directors" for the Sub-Commission. Officers should meet at least once a year in the intersessional period.

6.3.3 Secretariat running expenses

Running expenses are the fixed necessary for normal minimum operation of the office in Cartagena, as opposed to operational costs of programmes. They are provided by the IOC Secretariat and the Colombian government.

The contribution from the host government has been received steadily through the years without delay. However, instability in timely allocation of running expenses from UNESCO/IOC causes trauma in the normal operation of the office.

A timely allocation offunds for the Secretariat running expenses is essential for keeping smooth operations at the regional office.

6.3.4 Fund raising for programmes and projects

The economic situation of IOCARIBE has changed since its creation and the level of extra-budgetary support has been dramatically reduced. This situation was also identified in the evaluation of IOC, the conclusions of which are also applicable to IOCARIBE. In the document entitled: Quo Vadis IOC? it was suggested to establish a Trust Fund, a concept which had been tried, but has not worked for the IOCARIBE region.

The lack of administrative autonomy in the regional Secretariat and of mechanisms for receiving contributions which stay and are invested in the region has prevented Member States, donors and funding agencies to contribute to IOCARIBE's programme.

To meet the needs of IOCARIBE and to foster contributions from Member States and funding agencies, IOC should consider two options:

- a) an accounting procedure in IOC Trust Fund, where fund allocation is region specific;*
- b) a completely different regional t rust fund and greater decentralization.*

6.3.5 Effective regional management decentralization

The regional Sub-Commission, as a decentralized structure, was created to increase the efficiency of the Commission by focusing on a specif region, Decentralization should enable the Commission to have a closer relationship with, and a better understanding of the regions. However, decentralization has only occurred to a limited degree. The Sub-Commission has no authority to instigate and carry though initiatives. Decisions have to go through Paris headquarters before actions are taken, thus enthusiasm to generate initiatives has been dampened. Delegation of responsibility to the regional Secretariat is not always clear and task carried out locally are often over-ridden by Paris. Lack of capacity for managing funds in the region discourages possible donors and funding agencies.

Achieving a balance between devolution and centralization is challenging. To accomplish effective decentralization, some degree of decision making and fund management must be made regionally, under clear rules and within the general frame work policies of the IOC Secretariat.

IOCARIBE regional Secretariat should have the appropriate flexibility and autonomy as regional component of the organization, to stimulate and respond to regional initiatives and better fulfil the expectations of Member States, within the general policy of IOC.

A MEDIUM-TERM STRATEGY:

Meeting the above managerial reforms and adjustments will bring the regional Secretariat to an optimal condition for implementing its functions as originally intended. But they will only be achieved by the existence of an appropriate regional system for handling available information, including scientific and management information. The result of such a system would assist in meeting a broad range of problems, such as Member States' participation, communication between elements of the Sub-Commission, identification of the needs of Member States, programmes follow-up, etc.

6.3.6 Communication and information flows between the elements of the Sub-Commission and end users: A Marine Information Management System

Communication plays a crucial role in the efficiency of organisations such as IOCARIBE. It has proven to be one of the weakest points of the Sub-Commission. There is poor communication between the different elements of the Sub-Commission and between it and the end users in the region.

Information may be the single most valuable asset in possession of IOCARIBE that maybe demanded by the Member States. IOCARIBE should make it easy and attractive for governments, organisations and individuals to come to it and look for solutions to marine related inquiries. It may become the best incentive for States to participate in IOCARIBE's activities,

The Secretariat handles administrative information and information on Member States, such as national marine sciences profiles, and information on projects, experts, institutes etc.; as well as scientific information in the form of reports, papers, and technical publications. However, IOCARIBE, at present does not keep a system to properly collect, process and retrieve that information. The result is an uninformed Secretariat and thus an uninformed organization as a whole.

The first step towards improved operation of the Sub-Commission is to establish a regional system for information collection, dissemination and management. This could be done very easily, quickly and at low cost. Improved communication would encourage programme follow-up and cooperation in the region.

An up-to-date information system consisting of databases such as those described in Annex VI, would give greater strength to the Sub-Commission as a coordinating and decision-making organization. It would also give the Sub-Commission greater presence and relevance in the region. This information system must be established and offer products according to the needs of the users.

An immediate application of such an information system would be the inventory of national and institutional projects being carried out by scientists in the region. The sole existence of that inventory will almost automatically enhance cooperation among scientists working on the same subject, exchange of experiences and the creation of *ad hoc* networks. The most promising potential for IOCARIBE lies in its networking capacity, which can be done efficiently with relatively little funding.

A good information system would further act as an on-going evaluation system, setting-off alarms and indicators of performance for programmes and projects. Its products must be constantly available to the Secretariat, Governing bodies, Officials and Member States.

IOCARIBE must improve communication and information flows between its elements by establishing a regional Marine Information Management System. IOCARIBE Secretariat should perform as a central node for the system and as an information broker in the region.

7. CONCLUSION

This evaluation is to focus on the activities implemented by IOCARIBE, and address the issuers of the relevance, the efficiency and the impact of the organization. Its purpose is to improve programmes' implementation as well as design. Evaluation is an integral part of the programme management cycle, and should not only judge the past but lead to action and seek remedies for the future.

Evaluating the impact means establishing to what extent a programme's results are having positive or negative effects on the needs it was designed to satisfy. Despite the shortcomings, the impact of IOCARIBE in the region as a whole has been clearly positive over its existence, as was shown before, but only those Member States which participated benefited from that impact.

Most of the SIDS unfortunately did not participate and therefore did not profit as much. But the good experience of those States who took advantage of the Sub-Commission and its activities can be reproduced for those which still have not received these benefits.

Active Member States have expressed overall satisfaction with programmes' implementation and development, as well as their adjustment through time to meet their needs. They recognize that IOCARIBE has influenced greatly the endogenous capacity for countries in the regions to carry out, to different degrees, their own marine scientific research. It has also contributed to the development of human resources through TEMA activities in IOCARIBE programmes. Most of the scientific knowledge available today on the Caribbean Sea and Gulf of Mexico is in some way related to CICAR and IOCARIBE activities, even if the level of involvement by Member States has been variable and some think it has decreased in recent years.

Perhaps an accurate comparison between the state of marine sciences in the region in 1975 and the situation in 1995 cannot be done. Information from the early days is scarce and difficult to get, just as today not all the data is as readily available as it should be. But there is indeed a clear and visible trend in active Member States towards progress and development. Those Member States which have participated in IOCARIBE activities have benefitted the most and have substantially increased their marine science capacity since CICAR times. This is the case for the "medium-size" countries most of which are among the twelve "active" Member States. Many regional experts and scientists who witnessed this long process believe that it would have never happened if it were not for IOC's presence in the region, that is to say: IOCARIBE.

In the past, donors' support in the form of funds and staff from countries such as Canada, Colombia, France, Sweden and USA has facilitated the Sub-Commission's activities. But now more effort is needed to mobilize support from Member States, donors, and funding agencies and an efficient administrative mechanism must be put in place to promote and encourage contributions.

There is a need to strengthen the link between scientific knowledge and related products, and end users such as industry and policy makers. Public awareness and interactions with the social and economic sector should also be developed and strengthened with a special emphasis on the problems in the coastal zone. Efforts are currently being made to increase awareness of IOCARIBE in the region. Newsletters and information documentation are being produced, and cooperation with NGOs is encouraged.

A Training, Education and Mutual Assistance strategy must be established according to the regional reality and real identified national needs. Capacity building should be present in and above all activities of the Sub-Commission. Training must be re-focussed to overcome shortcomings, concentrating scarce resources in really needed skills for the actual situation of Member States. Education must continue and go beyond the formal academic scope and penetrate the political and public arena. Mutual Assistance will have to make use of the great networking potential available to the Sub-Commission, taking into account initiatives underway or being planned by other agencies operating in the region.

IOC/INF-1043

page 32

For doing this, it is necessary to have a strong and efficient regional Secretariat. It must function as the brain for a Marine Information Management System. It should be properly authorized to be effective in management, in sourcing of funds, and in providing timely support when required by Paris Secretariat or regional programmes, experts and Member States.

The "Think Global, Act Regional" slogan cannot be interpreted as the automatic implementation for regional programmes based on global interest. A stronger attention should be given to regional and national needs of Member States. Thus IOCARIBE must focus on providing guidance to States which will have not clearly identified their needs and policies for marine development. Global interests converge with national interests at the regional level.

There are complaints that the progress made by the region as a whole is not enough and that certain regional States, namely the Small Island and Isthmus Developing States, are still out of this process. This maybe true in a way, but it is one more reason why the Sub-Commission must make itself more visible to SIDS, streamline itself through corrective actions, and assess its goals for the future under the new global and regional situation.

This evaluation provides a series of recommendations and mid-term strategies which, if applied, should bring the Sub-Commission to an optimum operational and managerial level to fulfil its original goals and fill the gap left by the lack of participation. It is important to note that all of the problems identified are related only to the way existing mechanisms and processes are implemented, and the actions recommended are all viable within the current terms of reference of IOC and IOCARIBE.

Beyond those actions, the current situation may require the Sub-Commission to review its strategies and goals, and adapt them to suit the needs of Member States, for today and for the future. The long-term regional priorities and policies, which would evolve to adapt to time and circumstances, must be established by participating Member States.

ANNEX I

OBJECTIVES, PURPOSE AND METHODOLOGY OF THE EVALUATION

The IOC Governing Bodies decided to carry out an evaluation of the IOCARIBE Programme to be presented to the IOCARIBE V in Barbados the 11 to 15 December 1995. This evaluation is co-ordinated by the Regional IOCARIBE Secretariat in Cartagena, Colombia, with support from IOC Secretariat in Paris, the Officers of the Sub-Commission and regional experts nominated by Member States.

An "Interim Report on IOCARIBE Evaluation" (Dec. IOC/INF-993, Paris, 12 June 1995) was presented to the XVIII Assembly of IOC, which provided advice, comments and instructions as to the further work.

THE EVALUATION

ANTECEDENTS

Last evaluation of IOCARIBE was made in 1982 by request of the Executive Council of IOC in its Fourteenth session (Resolution EC-XIV.6). It concentrated on the results of the IOCARIBE experimental Association created in 1975 by the Ninth Session of IOC Assembly (Resolution IX-13).

That evaluation led to the transforming in 1982 of IOCARIBE Association into a Regional Sub-Commission of IOC as it is today.

In 1993, the 27th General Conference of UNESCO approved the Evaluation Plan for 1994-1995, and one of the two programmes selected for evaluation is Subprogramme II. 2.4: The Intergovernmental Oceanographic Commission and marine-science related issues.

By request of the IOC Assembly (Paris, 25 February-11 March 1993) the evaluation will focus on the activities implemented in the Caribbean and adjacent regions (IOCARIBE). It will be carried out under the general guidance of the governing bodies of IOC. More specifically, the evaluation will address the issues of the relevance, efficiency and impact of the Organization's activities regarding the sustainable development of small island developing countries in the region. The period to be covered by the evaluation is 1990-1994. However, the achievements since the establishment of the Subcommission in 1982 may be considered.

The evaluation has taken place during 1995 and its results are expected to be decisive for the future of IOCARIBE and IOC programmes

PURPOSE AND OBJECTIVES

The purpose of the evaluation is to improve programme implementation, as well as its designs, by bringing key information to the attention of policy makers within the organization and at the national level in order to facilitate policy analysis and decision. Evaluation is an integral part of the programme management cycle, together with programming, implementation and monitoring. Evaluation should not only judge the past but lead to action and seek remedies for the future. The objectives of the current evaluation of IOCARIBE are as follows:

"(1) Examine the goals and objectives of the IOC programme in the Caribbean and adjacent regions in light of the achievements made since establishment of IOCARIBE in 1982 and taking into account the expectations of Member States and participating organisations. The study should also address application at the regional level of IOC mandate as set forth in the Statutes and in the terms of reference of the Sub-Commission. Consideration should be given to the design and management of the programme and the role in that regard of national oceanographic committees or equivalent bodies as well as that of the Sub-Commission itself and interface with IOC Governing Bodies.

Specific components to be considered include:

advancing the understanding of ocean and related coastal processes, taking into account socio-economic concerns;

improving the management of marine resources and coastal areas for sustainable development with due reference to the particular requirements of small island developing states;

developing education, training and transfer of knowledge.

- (ii) Consider the efficiency of programme implementation by the Office of the IOC and by the IOC Regional Secretariat of the Sub-Commission, in co-operation with IOC Member States, concerned agencies of UN System and non-governmental bodies.
- (iii) Evaluate the impact of UNESCO and IOC programmes in the development of marine science in Member States, with particular emphasis on activities undertaken within the IOCARIBE structure.
- (iv) Advise on any changes in programme design and implementation that may lead to improved response to Member States requirements and increased efficiency and effectiveness."

EVALUATION METHODOLOGY

The evaluation was to be carried out by a team of senior scientists and regional experts with an in-depth knowledge of the IOC and appropriate experience in the IOCARIBE region. The evaluation should concentrate on the functioning of IOCARIBE as an IOC Sub-Commission and the extent to which the goals of Member States, as expressed in the Sub-Commission's Programme (IOCARIBE Sessions and relevant scientific conferences) have been achieved and could better be achieved. Due reference should be made to the views expressed at IOCARIBE Sessions as well as to relevant scientific conferences in the region. The list of modalities by which Member States can enhance the work of the IOC should also be used as a means of evaluation.

IOC Secretary sent a circular letter in December 1994 to IOCARIBE's Member States informing them that the evaluation was underway and asking their assistance by appointing an expert from each country to participate in the evaluation team. Nine (9) States replied to this request and appointed experts. The experts appointed to the evaluation team are: Dr. Leonard Nurse (Barbados), Dr. Jairo Escobar (Colombia), Dr. Guillermo Garcia-Montero (Cuba), Mr. Christian Colin (France), Mr. Calvin Gray (Jamaica), Dr. Arturo Sa Salcido-Beltran (Mexico), Dr. Horace Walters (Saint. Lucia), Dr. Alan Duncan (Trinidad and Tobago), and Dr. Donald Bosch (USA). The Secretariat also requested the assistance of the IOCARIBE Chairman and Vice-Chairmen, as well as the Chairman of IOC, Dr. Manuel Murillo.

In view of the response and interest from Member States to participate in the evaluation team and after consultations with IOC and IOCARIBE Officers, a change was introduced in the composition of the group suggested by the IOC Executive Council, as well as to the schedule and timetable for the evaluation. One important consideration was the concern expressed by some Member States that although present IOCARIBE Officers should play an important active role in the evaluation process, they could not be simultaneously members of the evaluation team. Another important consideration was that, because of financial constraints, it was not feasible to carry out visits to all IOCARIBE Member States by the complete evaluation team

All available means for collecting information additional to that already existing in the Cartagena and Paris Secretariats have been used for this evaluation. Questionnaires have been sent as the basis for systematically gathering information via mail or facsimile to the nominated experts. Some questionnaires were also sent to Focal Points and Officers of the Sub-Commission as a complementary method for collecting initial basic information. Interviews with experts and scientist from the regions have been conducted extensively using all available opportunities such as: IOC, IOCARIBE and other regional organizations Workshops, Seminars and other diverse meetings, as well as individual missions of IOCARIBE Officers and Secretariat staff to Member States.

The "Interim Report on IOCARIBE Evaluation" presented to the IOC Assembly in June 1995 reflects an intermediate phase and was the basis for the development of the present final report. After endorsement by the Assembly, comments and advise were received to further expand and follow up the work. Consultations with

IOC/INF-1043

experts nominated in the evaluation team and National Focal Points provided new inputs and improvement for the evaluation.

Acknowledgments:

It is important to mention the special contributions provided by some persons and experts. That is the case for: Dr. Alan Duncan, Dr. Jairo Escobar, Dr. Guillermo Garcia-Montero, Dr. William Erb, Dr. Manuel Murillo and Dr. Hernan Perez-Nieto, who demonstrated extraordinary interest in contributing to the work of the team. The contributions from Dr. Fred Berry were particularly important for generating ideas during the analyses. So was the assistance from Ms. Delphine Malleret and Mr. Anthony King in the consultant team and drafting of the report,

Finally, recognition must be given to Dr. Gunnar Kullenberg, Executive Secretary of IOC for his inputs and continuous guidance and encouragement, as well as to Dr. Fernando Robles, former Senior Assistance Secretary for IOCARIBE who provided valuable information on the recent history of the Sub-commission., and to the staff of the IOC and IOCARIBE Secretariats for their timely help and understanding.

ANNEX II

LIST OF STATES AND TERRITORIES IN THE CARIBBEAN AND ADJACENT REGIONS

- 1 ANTIGUA & BARBUDA
- 2 BAHAMAS
- 3 BARBADOS
- 4 BELIZE
- 5 COLOMBIA
- 6 COSTA RICA
- 7 CUBA
- 8 DOMINICA
- 9 DOMINICAN REPUBLIC
- 10 FRANCE/
 - FRENCH GUYANA
 - GUADALOUPE
 - MARTINIQUE
 - ST. BARTHELEMY
 - ST, MARTIN (1)
- 11 GRENADA
- 12 GUATEMALA
- 13 GUYANA
- 14 HAITI
- 15 HONDURAS
- 16 JAMAICA
- 17 MEXICO
- 18 NETHERLANDS\
 - ARUBA
 - BONAIRE
 - CURACAO
 - SABA
 - ST. EUSTASIUS
 - ST. MAARTIN (1)
- 19 NICARAGUA
- 20 PANAMA
- 21 ST. KITTS & NEVIS
- 22 ST. LUCIA
- 23 ST. VINCENT & GRENADINES
- 24 SURINAME
- 25 TRINIDAD & TOBAGO
- 26 UNITED KINGDOM/
 - ANGUILLA
 - BERMUDA
 - BRITISH VIRGIN Is.
 - CAYMAN Is.
 - MONTSERRAT
 - TURKS & CAICOS
- 27 UNITED STATES/
 - PUERTO RICO
 - US VIRGIN Is.
- 28 VENEZUELA

ANNEX III

LIST OF THE STATES ACCORDING TO THEIR MEMBERSHIP
AND THEIR ACTIVITIES IN IOCARIBE

MEMBERSHIP IN IOCARIBE AS AT JANUARY 1995

(sorted by "Status")

<u>STATE</u>	<u>MEMBER STATUS</u>	<u>SESSIONS</u>			
		1ST CUR	2ND CUB	3RD VEN	4TH MEX
1. BARBADOS	ACTIVE			Y	Y
2. COLOMBIA	ACTIVE	Y	Y	Y	
3. COSTA RICA	ACTIVE	Y		Y	Y
4. CUBA	ACTIVE	Y	Y	Y	Y
5. FRANCE/*	ACTIVE	Y	Y	Y	Y
6. JAMAICA	ACTIVE	Y		Y	
7. MEXICO	ACTIVE	Y	Y	Y	Y
8. NETHERLANDS, THE/*	ACTIVE	Y	Y	Y	
9. PANAMA	ACTIVE	Y			Y
10. TRINIDAD & TOBAGO	ACTIVE				Y
11. UNITED STATES/*	ACTIVE	Y	Y	Y	Y
12. VENEZUELA	ACTIVE	Y	Y	Y	Y

PARTICIPATING STATES

10 8 11 8

1. BAHAMAS	INACTIVE
2. DOMINICAN REPUBLIC	INACTIVE
3. GUATEMALA	INACTIVE
4. GUYANA	INACTIVE
5. HAITI	INACTIVE
6. NICARAGUA	INACTIVE
7. ST. LUCIA	INACTIVE
8. SURINAME	INACTIVE
9. UNITED KINGDOM/*	INACTIVE

1. ANTIGUA & BARBUDA	NON-MEMBER
2. BELIZE	NON-MEMBER
3. DOMINICA	NON-MEMBER
4. GRENADA	NON-MEMBER
5. HONDURAS	NON-MEMBER
6. ST. KITTS & NEVIS	NON-MEMBER
7. ST. VINCENT & GRENADINES	NON-MEMBER

* States with Territories in the region

ANNEX IV

PARTICIPATION OF STATES TO IOC EVENTS BY PROGRAMME AND STATES

The Programmes:

OSLR - Ocean Science in relation to Living Resources

OSNLR - Ocean Science in relation to Non Living Resources

CZM - Coastal Zone Management

OPC - Ocean Processes and Climate

IODE - International Oceanographic Data Exchange

MPRM - Marine Pollution Research, Monitoring and Abatement

IBCCA - International Bathymetric Chart of the Caribbean Sea and Gulf of Mexico

Prog	Events	Participants by State
OSLR 1977	Report of the IOCARIBE interdisciplinary workshop on scientific programmes in support of fisheries projects.	USA, Montserrat, Martinique, Antigua, Mexico, Panama, Nicaragua, St Kitts, Jamaica, Guadeloupe, Honduras, Puerto Rico, Guatemala, Belize, Venezuela, French Guyana, France, Colombia, St Lucia, UK, Trinidad & Tobago
1982	Summary report of the IOCARIBE steering committee for developing regional contingencies for fish kills.	USA, Costa Rica, Netherlands Antilles, Jamaica, St Lucia
1987	Group of experts on recruitment in tropical demersal communities (TRODERP) First session.	Colombia, USA, Venezuela, Mexico
1989	IOC workshop to define IOCARIBE - TRODERP proposals.	Venezuela, France, USA, Cuba, Puerto Rico, Colombia, Australia, Mexico
OSNLR 1978	Report of the IOCARIBE workshop on environmental geology of the Caribbean coastal area.	USA, Guatemala, Trinidad & Tobago, Colombia, Jamaica
1986	IOCARIBE mini-symposium for regional development of IOC - UN (OETB) programme on ocean science in relation to non-living resources (OSNLR).	Mexico, Cuba, Martinique, USA, Trinidad & Tobago, France
1989	Interdisciplinary seminar on research problems in the IOCARIBE region.	Barbados, Venezuela, Guyana, Puerto Rico, Cuba, USA, Colombia, Jamaica
1990	IOCARIBE ad hoc group of experts meeting on OSNLR.	Barbados, Colombia, Mexico, Cuba, Venezuela, USA, France
1994	OSNLR ad hoc experts meeting on technical and cartographic methodology for Caribbean critical areas.	Colombia, Cuba, Venezuela, Trinidad & Tobago, France, Mexico

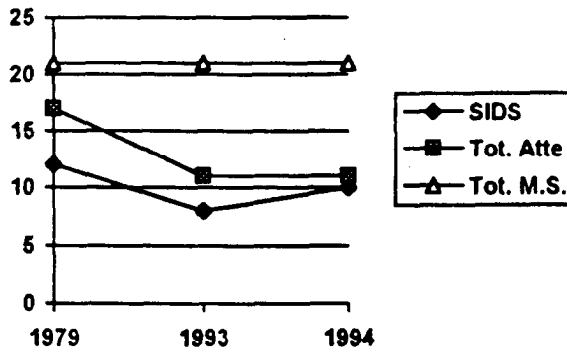
IOC/INF-1043
Annex IV- page 2

CZM 1979	Workshop on coastal area management in the Caribbean region.	Mexico, Guatemala, Nicaragua, Bahamas, Barbados, El Salvador, Honduras, Costa Rica, Colombia, Dominican Rep., Panama, Cuba, Trinidad & Tobago, Jamaica, Guyana, Indonesia, USA, Venezuela, Canada
1993	IOC workshop on small island oceanography in relation to sustainable economic development and coastal area management of SIDS	Guadeloupe, USA, Trinidad & Tobago, Bahamas, Martinique, France, Netherlands, Mexico, Cuba, Jamaica, Barbados, Seychelles, Colombia, US Virgin Is.
1994	IOC workshop on GIS applications in the coastal zone management of SIDS	US Virgin Is., USA, Barbados, Guadeloupe, Dominica, St Lucia, Trinidad & Tobago, Fiji, Netherlands, Cuba, Jamaica, Canada, Anguilla, Cook Is., Tonga
OPC 1986	IOCARIBE workshop on physical oceanography and climate	Colombia, Venezuela, Trinidad & Tobago, Costa Rica, Mexico, Jamaica, USA, Cuba
1990	Second session of the IOC group of experts on Global Sea-level Observing System (GLOSS), GLOSS development within IOCARIBE.	GLOSS stations in use: Venezuela, France, Barbados, Cuba, Colombia, Trinidad & Tobago, USA, Panama, Bahamas, Brit. W.I., Jamaica, Mexico, Honduras, Bermuda, Aruba, Turks & Caicos
1992	IOCARIBE group of experts on Ocean Processes and Climate.	Colombia, Venezuela, USA, Cuba, Mexico, Jamaica, Costa Rica, Barbados, Trinidad & Tobago
1995	Chapman conference on the circulation of the Intra-American sea.	USA, Puerto Rico, Mexico, Trinidad & Tobago, St Thomas Vis, Russia, Canada
IODE 1990	First IOC training course on the applications of satellite remote sensing to marine studies.	Venezuela, Costa Rica, Barbados, Colombia, Mexico, Trinidad & Tobago, Cuba, Puerto Rico
1991	IOC training course on microcomputers and management of marine data in oceanographic data centres of Spanish speaking countries in the Caribbean region,	Mexico, Costa Rica, Venezuela, Cuba, Colombia

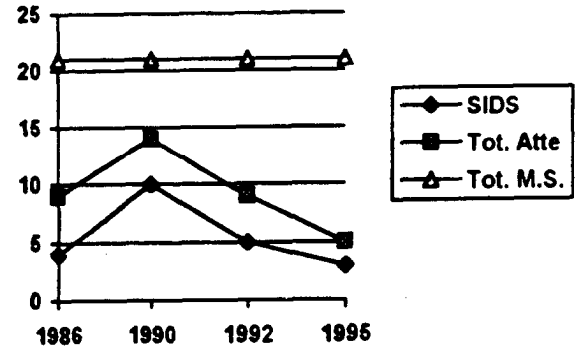
IBCCA 1986	1st Reunion del comite IBCCA.	Colombia, Costa Rica, Mexico, USA, France, Argentina, IOC-Paris, IHO
1988	2nd Reunion del comite IBCCA.	USA, Mexico, Costa Rica, Venezuela, Cuba, Colombia, IOC-Pm-is, IHO
1988	IBCCA workshop on data sources and map compilation.	Mexico, Costa Rica, USA, Venezuela, Cuba, Colombia, IOC-Paris> IHO
1989	1st meeting of the officers of the editorial board IBCCA,	Mexico, USA, Cuba, IOC-Paris
1990	3rd Reunion del comite IBCCA.	Mexico, USA, Venezuela, Cuba, Colombia, IOC-Paris, IHO
1992	4th Reunion del comite IBCCA.	Mexico, USA, Venezuela, Cuba, Costa Rica, IOC-Paris, IHO
1993	2nd meeting of the officers of the editorial board IBCCA,	Mexico, USA
1994	5th Reunion del comite IBCCA	Mexico, Cuba, Costa Rica, USA, Colombia
MPRM (CARIPOL CEPPOL) 1976	Report of the IOC/FAO/UNEP international workshop on marine pollution in the Caribbean and adjacent regions.	Barbados, USA, Mexico, Puerto Rico, Colombia, Guatemala, Trinidad & Tobago, Panama, Belize, Costa Rica, Venezuela, Netherlands Antilles, Jamaica
1989	IOC - UNEP Regional workshop to review priorities for marine pollution monitoring, research, control and abatement in the wider Caribbean.	Costa Rica, Cuba, Nicaragua, USA, Mexico, Cayman Is., Colombia, Barbados, Venezuela, Guadeloupe, Honduras, France, Netherlands Antilles, Trinidad & Tobago, Guatemala, St Lucia, Jamaica.
1991	IOC - UNEP (CEPPOL) workshop on monitoring and control of pollution by oil and marine debris in the Caribbean.	Colombia, USA, Costa Rica, Puerto Rico, Mexico, Panama, Cuba, St Lucia, Brit. W. I., Grand Cayman
1992	IOC/UNEP/NOAA/EPA/SEA GRANT/IMO Second marine debris workshop,	Colombia, USA, Puerto Rico, Cuba, Mexico, Barbados, Costa Rica, Bahamas, Trinidad & Tobago, Jamaica
1992	IOC/UNEP/ARPEC/IMO CEPPOL oil and marine debris evaluation meeting.	Mexico, Colombia, Puerto Rico, USA, Cuba, Barbados, Costa Rica, Bahamas, Trinidad & Tobago, Jamaica, St Lucia

IOC/INF-1043
Annex IV - page 4

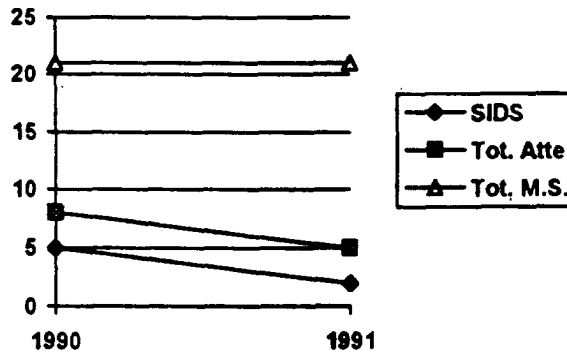
CZM related events



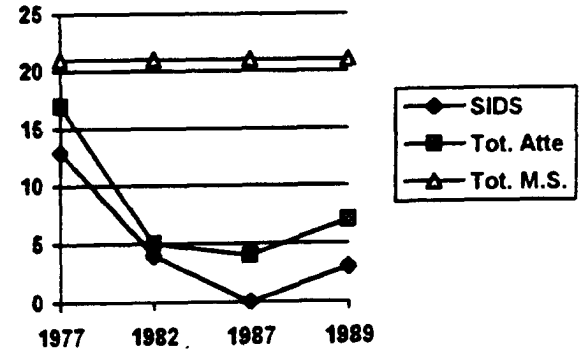
OPC related events



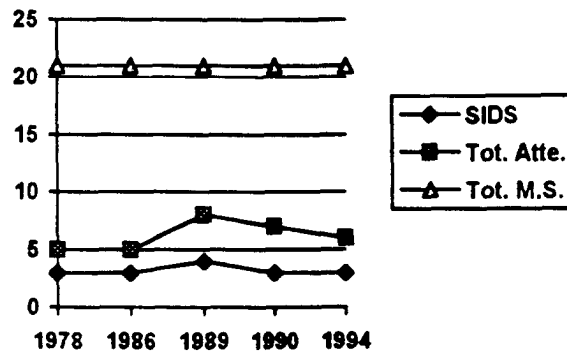
IODE related events



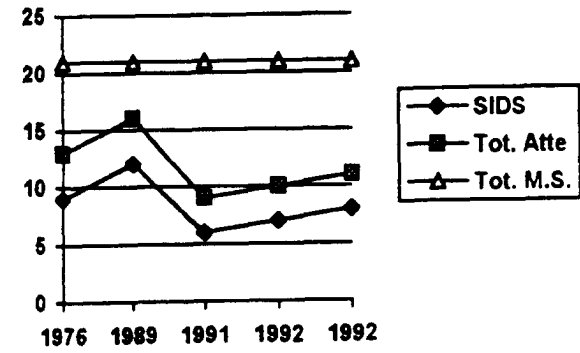
OSLR related events



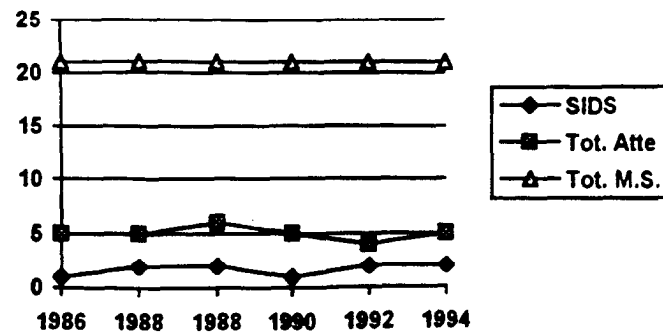
OSNLR related events



MPRM related events



IBCCA related events



ANNEX V

THE COASTAL POPULATION OF THE CARIBBEAN AND ADJACENT REGIONS

DISTRIBUTION OF THE POPULATION⁹ IN THE ACTIVE MEMBER STATES

ACTIVE SIDS MEMBER STATES	POPULATION (*1000)
BARBADOS	255
COSTA RICA	3064
CUBA	10736
FRANCE (French Guyana, Guadalupe, Martinique, Saint Martin, Saint Barthelemy)	749
JAMAICA	2366
NETHERLANDS (Aruba, Bonaire, Curacao, Saba, Saint Maartin, Saint Eustasus)	189
PANAMA	2466
TRINIDAD AND TOBAGO	1253
USA (US Virgin Islands, Puerto Rico)	3670
	TOTAL 24748

ACTIVE NON SIDS MEMBER STATES	POPULATION (*1000)
COLOMBIA (Antioquia, Atlantico, Bolivar, Cordoba, La Guajira, Magdalena, San Andres y Providencia, Sucre)	9020
MEXICO (Campeche, Quintana Roo, Tabasco, Tamaulipas, Veracruz, Yucatan)	
VENEZUELA (Anzoategui, Aragua, Carabobo, Distrito Federal, Falcon, Lara, Miranda, Nueva Esparto, Sucre, Yuracuy, Zulia)	
USA (Alabama, Florida, Louisiana, Mississippi, Texas)	41560
	TOTAL 76625

TOTAL POPULATION OF THE REGION¹⁰	121235
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⁹The statistics on which the calculations of the population have been made were taken from the Almanaque Mundial 1994, Diccionario Geografico, Editorial America, S.A.

¹⁰**POPULATION OF THE REGION:** is for our purpose the population of concern to IOCARIBE. Hence, only the population of the Caribbean and adjacent regions' States' coastal departments have been taken into consideration (e.g.: the population of USA taken into account is the population of Alabama, Florida, Luisiana, Mississippi and Texas).

IOC/INF-1043
Annex V - page 2

DISTRIBUTION OF THE POPULATION BETWEEN INACTIVE MEMBER STATES AND NON MEMBER STATES IN THE REGION

INACTIVE SIDS MEMBERS	POPULATION (*1000)
BAHAMAS	259
DOMINICAN REPUBLIC	7313
GUATEMALA (Altaverapaz, Izabal, Zacapa)	1146
HAITI	6645
NICARAGUA (Atlantic Norte, Atlantic Sur)	estimated 400
SAINT LUCIA	153
UK (Anguilla, Bermuda, British Virgin Islands, Cayman, Monserrat, Turk and Caicos)	129
	TOTAL 16045

INACTIVE NON SIDS MEMBER STATES	POPULATION (* 1000)
SURINAME	429
GUYANA	800
	TOTAL 1229

NON MEMBER STATES (only SIDS)	POPULATION ('1000)
ANTIGUA AND BARBUDA	76
BELIZE	184
DOMINICA	83
GRENADA	84
SAINT KITTS AND NEVIS	44
SAINT VINCENT AND GRENADINES	117
HONDURAS (Atlantida, Colon, Gracias a Dios, Cortes, Islas de la Bahia, Olancho)	estimated 2000
	TOTAL 2588

TOTAL POPULATION OF THE REGION	12123
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ANNEX VI

IOCARIBE SECRETARIAT PROPOSED DATABASES

DATABASE	PURPOSE	REMARKS
Member States Profile	Information and general profile on country's oceanographic structure. Governmental, managerial, academic and scientific institutions. Marine policy and economics profile.	Based on oceanographic country profile of IOC, tailored to characteristics of countries in the region. Include socio-economic relevant information
National Focal Points (NFP)	To keep the Secretariat permanently updated for good contact with NFPs formally appointed by Governments	Beside address, telephone, Fax and mail data, will include analysis of performance and interaction of NFPs with IOCARIBE Secretariat and with national institutions and experts.
Regional Organizations and Programs.	Information on existing regional organizations, UN-system, other governmental and non-governmental, regional and sub-regional agreements and groups.	For use mainly by regional and central IOC Secretariats.
Regional Experts (IOCARIBE Yellow Pages)	To keep an inventory of high level Experts in the region as scientific and advisory human resource. To provide information on available scientific manpower in the region.	Must include CV, specialization, areas of expertise, and current activities of Experts. Qualification and classification of Experts as for IOCARIBE purposes. To be published and distributed, hard copy and/or magnetic media.
Documentation (IOCARIBE Marine Information System)	To provide information on relevant documents and publications by IOC, IOCARIBE and other regional body or institution. To provide information service and guidance to customers (scientists and managers).	Documentation in this database could be physically in the IOCARIBE Secretariat or available in other agency or institution in the region.
Extra-budgetary Projects	Quarterly and annually statistics on current or proposed extra-budgetary projects in the region.	For use mainly by regional and central IOC secretariats. Must include significant and relevant national and/or regional project been carried out by other organizations and by countries in the region.
Scientific Institutions and Capabilities in the IOCARIBE Region.	Provide information on high level scientific and academic institutions in the region. General profile and capabilities of institutions, including hi-tech or expensive equipment, staff and researchers.	This database must be connected with Member States Profiles database, and share information with "Yellow pages" database above. Mainly used to have a regional inventory of research resources.

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